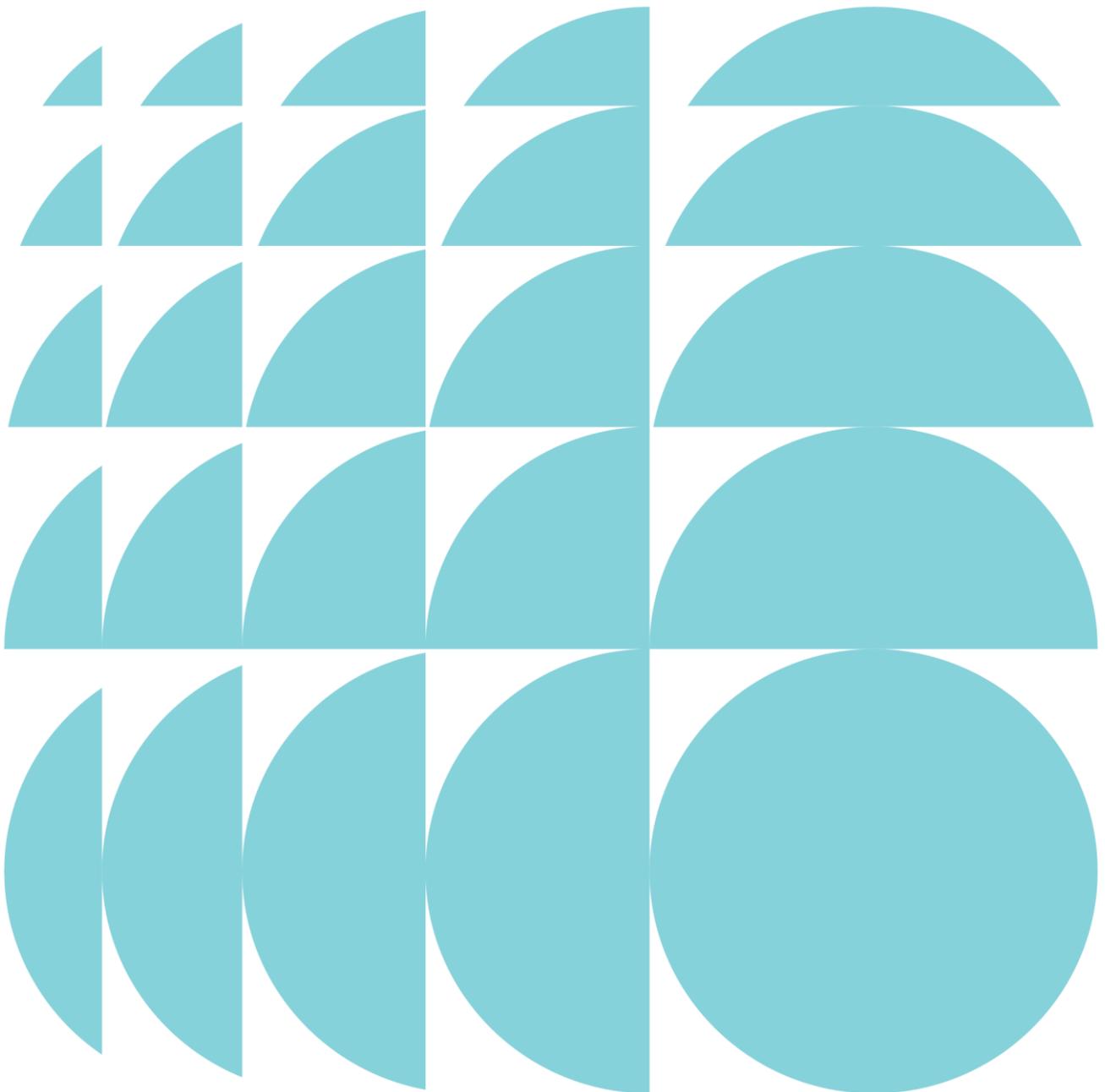


**ETHOS
URBAN**

**Amendment C106 to the Mitchell
Planning Scheme – Planning Panels
Victoria**

*Expert Witness Statement of
Chris McNeill, B.Econ*



Contact details

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1 Introduction

Professional Details

- 1.1 My name is John Christopher McNeill. I practice as Director, Economics at Ethos Urban's Melbourne office located at Level 8, 30 Collins Street, Melbourne.

Area of Expertise

- 1.2 I hold a degree in Economics from Monash University.
- 1.3 My area of professional expertise is urban economics and the economic analysis of urban policy. This includes expertise in residential land analysis and greenfield development which I have undertaken for a wide range of public and private sector clients throughout Australia.
- 1.4 My opinions expressed herein are, to the context relevant, made by me in reliance upon my above expertise.
- 1.5 I am a fellow of the Victorian Planning and Environmental Law Association.

Background

- 1.6 On 5 September 2019, the Victorian Planning Authority (VPA) publicly exhibited Planning Scheme Amendment C106 (Beveridge North West Precinct Structure Plan) to the Mitchell Planning Scheme (the Amendment). The Amendment seeks to implement the Beveridge North West Precinct Structure Plan (the BNWPSP) by introducing a new Schedule 3 to the Urban Growth Zone (UGZ) to the Mitchell Planning Scheme (the Scheme) and applying it to the Beveridge North West Precinct.

Instructions

- 1.7 I have been instructed in this matter by Norton Rose Fulbright, lawyers acting on behalf of WB & M Gilbo, owners of the land known as 55 Northern Highway, Beveridge (the subject land). My instructions are to prepare an expert report considering economic matters arising from the Amendment, in particular:
- (a) What economic impact, if any, the imposition of a 500m buffer around the approved work authority area would have on:
 - i The residential development of the client's land;
 - ii The residential development of the Beveridge North West Precinct and, more broadly, the Northern Growth Corridor; and
 - iii Insofar as it relates to my area of expertise, the delivery of infrastructure and community facilities across the Beveridge North West Precinct and Northern Growth Corridor.
 - (b) Appear at the Panel hearing, which has been scheduled for 20 July to 13 August 2020 for the purpose of presenting my expert opinion concerning the above matters.

Approach

- 1.8 In undertaking my assessment, I have approached the task of determining the economic impact of a buffer around the approved work authority area as an 'order of magnitude'

exercise. That is to say, broad assumptions in relation to costs and the possible timing of development have been made based on my experience and understanding of greenfield developments. In this regard, my findings should be regarded as an order of magnitude assessment.

Preparation

1.9 In preparing this statement:

- a) I am aware that, as a witness giving evidence (by report, or otherwise) in a proceeding as an expert, I have a duty to assist Planning Panels Victoria and that this duty overrides any obligation that I may have to any party to the proceeding or to any person who is liable for my fee or expenses in this matter;
- b) I have neither received nor accepted any instructions to adopt or reject any particular opinion in preparing this report;
- c) I have made all the enquiries which I believe are desirable and appropriate and that no matters of significance which I regard as relevant have, to my knowledge, been withheld from the tribunal; and
- d) I have considered the relevant documents disclosed by the parties to this proceeding, as well as the documents listed in this report.

Materials relied upon in preparing my evidence

- Amendment C106 to Mitchell Planning Scheme (Amendment Documentation)
- (Need to write in additional documents and submissions)
- Victorian In Future 2019 (Department of Environment, Land, Water and Planning)
- id Forecasts, prepared for Mitchell Shire Council
- Urban Development Program 2018, (Department of Environment, Land, Water and Planning)
- Planning Report relating to use and development for stone extraction and creation of access to a road in a Road Zone Category (Tract Consultants, 23 September 2019)
- Submission by the Department of Jobs Precincts and Regions (DJPR) – Resources Branch to the Victorian Planning Authority (VPA) October 2019

1.10 I have been assisted in preparing this Evidence Statement by Mr Jack O'Connor, a Senior Economist at Ethos Urban, and Mr Rajiv Mahendran, an Economist at Ethos Urban.

2 Planning Context

2.1 In this section of my Evidence Statement, I provide an overview of the relevant planning issues.

Beveridge North West Precinct Structure Plan (August 2019)

2.2 The BNWPSP provides the long-term planning framework to guide future urban development of the Beveridge North West Precinct (BNWP), a greenfield area in Melbourne's North Growth Corridor. In particular, the PSP provides a vision for how the BNWP should be developed, illustrates the future urban structure, and describes outcomes to be achieved by urban development.

2.3 The BNWP is located south of the township of Wallan and north of Beveridge and covers approximately 1,280 hectares in total land area. The BNWP is bound by the Hume Freeway (to the east), Camerons Lane (to the south), Old Sydney Road (to the west) and the western extension of Hatfield Road West reservation (to the north).

2.4 As set out in the PSP, the BNWP is planned to accommodate urban components, including:

- Some 16,260 residential dwellings, containing an estimated total population of around 50,490 persons based on a residential yield of 3.1 persons per dwelling, or 45,600 persons based on a residential yield of 2.8 persons dwelling (refer p14 of the PSP).
- Four local town centres and two local convenience centres providing total retail and commercial floorspace of 33,700m². In addition, a mixed-use precinct is identified within the BNWP and would comprise around 29 hectares in net developable area (NDA).
- Education facilities comprising three government primary schools and two non-government primary schools (five primary schools in total), and one government and one non-government secondary school (two secondary schools in total).
- Land identified for local community facilities at each local town centre comprising a total of approximately 4 hectares of NDA, as well as an indoor recreation precinct.
- Some 360 hectares of NDA identified for open space, including areas of credited open space and open space with landscape values.
- Approximately 3,020 jobs within the BNWP, including employment supported by local community facilities, local town centres and the mixed-use precinct, education facilities and home-based businesses.

Note, the above figures have been rounded.

2.5 The Vision outlined in the PSP states includes that the BNWP will be defined by its high-quality residential neighbourhoods and be home to "*resilient communities who have early access to a range of facilities, including health care, education, recreation and community infrastructure*" (p6).

2.6 Key PSP objectives include:

- Provide a framework for a high amenity and integrated urban environment that encourages a sense of place and community, as well as responds to the existing natural, cultural and built features.
- Facilitate housing affordability and choice at densities that support local services, access to jobs and sustainable transport options.

- Support investment in an innovative and vibrant local and regional economy within a network of highly accessible activity centres that support jobs and business activity.
- Identify and guide timely delivery of an essential adaptable and multi-purpose network that supports active and public transport options, movement of goods and connection to jobs.

The North Growth Corridor Plan

- 2.7 The BNWP is in the North Growth Corridor (NGC), one of Melbourne's four identified growth corridors. The NGC Plan, undertaken by the Victorian Planning Authority (VPA), provides the high-level strategic land use and transport plan to guide urban development in the NGC over the next 40 or so years. As noted in the NGC Plan, the NGC will eventually accommodate a population of some 260,000 or more persons and has capacity to provide for at least 83,000 jobs, with the Corridor's accessibility to the CBD and other employment precincts a key feature. The Community Concept Plan broadly identifies the BNWP as containing future 'local neighbourhoods' (refer p66 of the document Growth Corridor Plans – Managing Melbourne's Growth, prepared by the Growth Areas Authority in 2012).

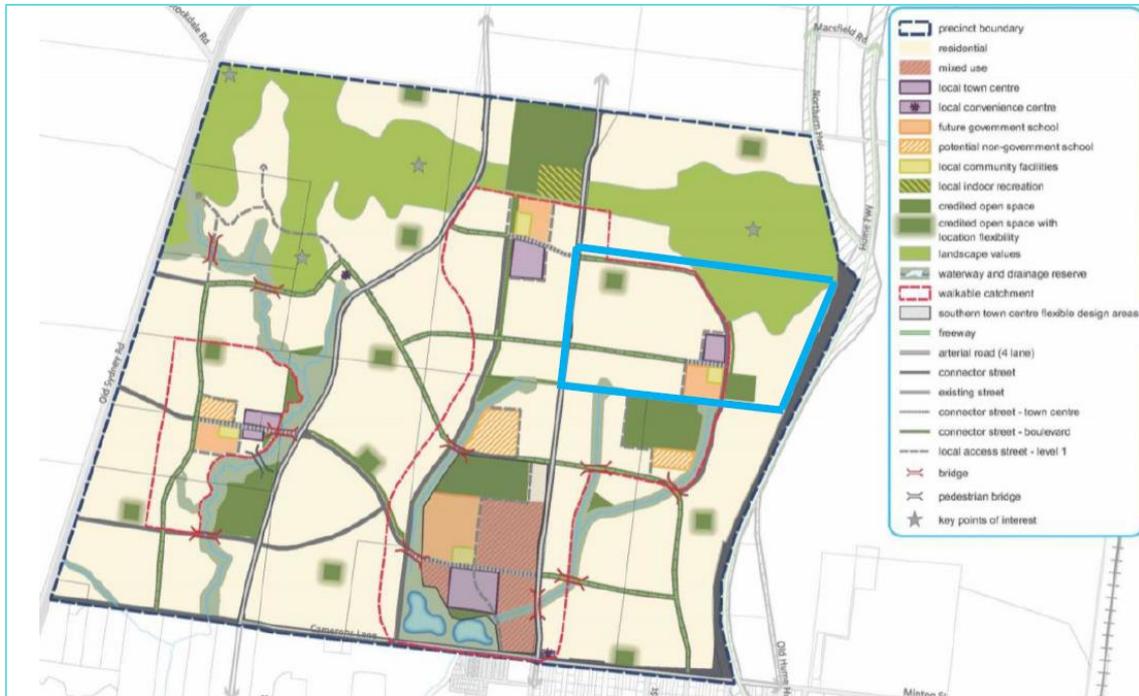
The Subject Land

- 2.8 The subject land comprises a consolidated holding of approximately 115.5 hectares situated in the BNWP and located immediately west of the Hume Freeway. The land is:
- Partly in the UGZ and partly in Rural Conservation Zone (RCZ);
 - Partially subject to the Vegetation Protection Overlay – Schedule 2 (Freeway Environs Protection); and
 - Abuts the Road Zone – Category 1 (Hume Freeway) on the eastern boundary.
- 2.9 The subject land is also located in an Extractive Industry Area. Pursuant to clause 52.09 of the Mitchell Planning Scheme, a permit is required to operate a quarry. A proposed quarry is located to the north of subject land at the property known as 175 Northern Highway, Beveridge. I understand that an application has been lodged for a planning permit for a quarry. I further understand this application has not yet been advertised as an appeal is presently before VCAT relating to Council's request for information. It is understood that an extractive industry work plan has been statutorily endorsed under section 77TD (1)(b) of the Mineral Resources (Sustainable Development) Act 1990 (WA1473).
- 2.10 The Future Urban Structure included in the BNWPSP (p5) provides that urban development of the subject land would include:
- Residential land;
 - A local town centre comprising 4,700m² in total (retail and commercial) floorspace;
 - A future government school;
 - Credited open space and open space areas with landscape values; and
 - Local and connector streets.

Refer Figure 2.1.

- 2.11 In addition, the subject land and land immediately to the north has scenic and landscape values derived from Spring Hill Cone, a hill-like topographical feature.

Figure 2.1: BNW PSP Future Urban Structure & Subject Land (outlined in blue)

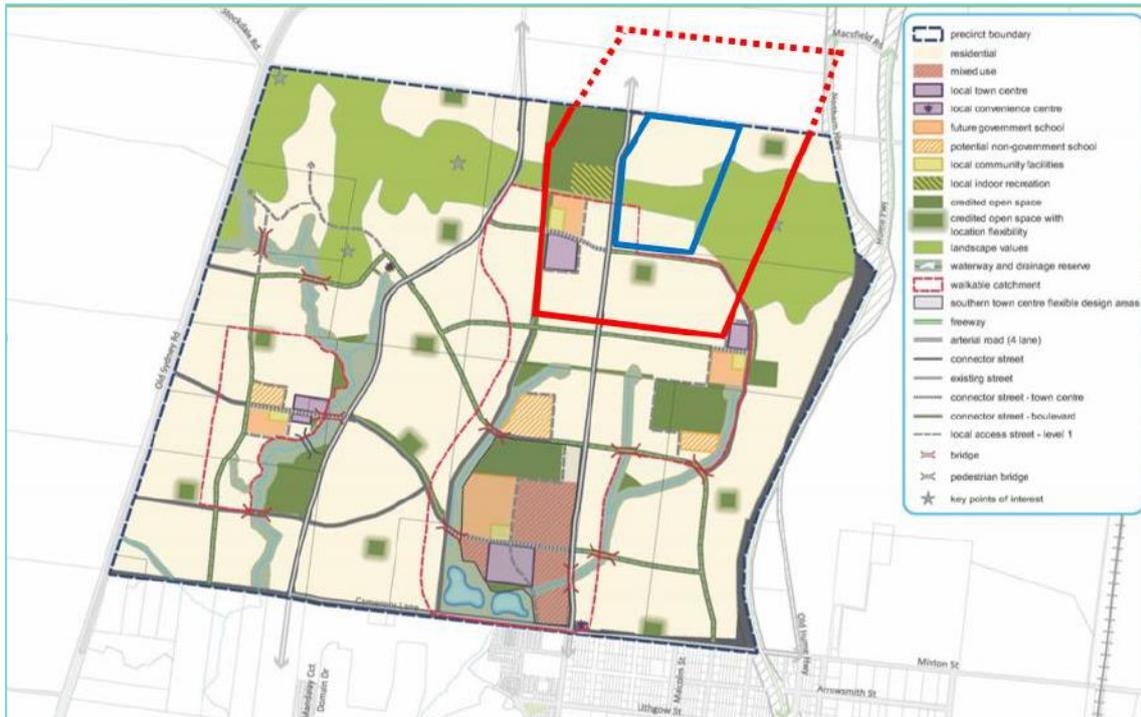


Source: Norton Rose Fullbright Brief to Expert; Beveridge North West Precinct Structure Plan (August 2019)

The Proposed Quarry

- 2.12 The proposed quarry is not identified in Plan 3 – *Future Urban Structure* of the PSP, but rather is designated as partly 'residential' and partly 'landscape values'. Refer Figure 2.2.
- 2.13 Wallan/Beveridge Extractive Resources Analysis (2017), a background study by Coffey Services Pty Ltd which informed the PSP process, identified the importance of the quarry resource to meet demand in the market for construction materials. It is noted in the Coffey Services report that the application for the proposed quarry showed a staged development and operational timeframe of approximately 40 years.
- 2.14 A site assessment prepared in 2014 by Jacobs noted that, in relation to the proposed quarry, a buffer distance of 500-metres around the approved work authority area would be required if the quarry was approved. The area covered by the potential quarry buffer is also shown in Figure 2.2.
- 2.15 The Beveridge North West Background Report (August 2019) acknowledges that the Department of Jobs, Precincts and Regions (DJPR) considered the Coffey Services report and supports the recommendation that the resource should be extracted. The Beveridge North Background Report states, however, that "*the Minister for Planning has determined that the PSP will be exhibited without the quarry shown on the Future Urban Structure and this has been communicated to land owners and affected parties*". (p29)

Figure 2.2: The Proposed Quarry (shown in blue) and 500 Metre Buffer (shown in red)



Source: Submission by the Department of Jobs Precincts and Regions (DJPARG) – Resources Branch to the Victorian Planning Authority (VPA) October 2019

3 Subject Land Development Context

- 3.1 This section of my evidence provides an estimate of the scale of urban development identified for the subject land as set out in the BNWPSP.
- 3.2 The Future Urban Structure identifies the subject land as accommodating residential land, a local town centre (LTC), a future government school, community facilities, and open space.

Estimated Scale of Residential and Commercial Components

- 3.3 The subject land is identified in the PSP as parcel 6 in the parcel specific land budget (refer p55).
- 3.4 The LTC identified on the subject land – referred to in the PSP as Eastern LTC2 – is proposed to contain some 4,700m² of floorspace (p17 of the PSP). The site area for the LTC would be approximately 2.0 hectares (p18 of the PSP).
- 3.5 It is estimated that approximately 2,060 dwellings (rounded) would be developed on the subject land comprising:
- 1,600 dwellings located in the walkable catchment identified by the PSP (Future Urban Structure, p5)
 - 410 dwellings located outside of the walkable catchment identified by the PSP Future Urban Structure; and
 - Approximately 50 dwellings located in the LTC.
- 3.6 Calculations of residential dwelling yields are based on the housing density guide provided in the PSP (refer Table 4 on p14). Specific land budgets – quantified to site specific levels and against each of the residential area types outlined above – are not provided in the PSP. Accordingly, I have estimated these areas by using geographic information systems (GIS).

Capital Investment

- 3.7 Estimates of capital investment associated with urban development in relevant parts of the BNWP have been undertaken. The assumptions that underpin these estimates are set out in Appendix A of my evidence.

Residential

- 3.8 Costs associated with the proposed residential component – based on the delivery of some 2,060 dwellings and including associated civil infrastructure and open space – is estimated to be in the order of \$740 million in investment over the development phase. This figure is inclusive of building construction and civil works but excludes land acquisition. Residential

dwellings delivered at the town centre are expected to be higher density in nature and provided as townhouse or units.

Local Town Centre

- 3.9 An estimated \$10.9 million capital investment would be associated with the retail and commercial components delivered at the LTC, based on a development cost of \$2,320 per m² of retail and commercial floorspace.

Community Facilities and Schools

- 3.10 The capital investment attributed to the community facilities is estimated at \$3.7 million. For the purpose of this assessment it is assumed that the government school to be delivered at the subject land is a primary school, noting that guidance on the type government school is not provided by the PSP. On this basis, the capital investment associated with the primary school is estimated at \$18 million.

Total Capital Investment

- 3.11 In aggregate, the total capital investment generated by urban development consistent with the PSP on the subject land is estimated at \$770 million.

Construction and Ongoing Employment

Construction Employment

- 3.12 One direct (onsite) full-time equivalent (FTE) job year in the commercial construction industry is supported by approximately \$450,000 in construction investment based on analysis of official ABS data.
- 3.13 On this basis, the \$770 million in capital investment associated with the construction phase of the subject land (excluding land acquisition costs) would support an estimated 1,230 direct full-time equivalent (FTE) job years (rounded) over the development phase. The level of on-site employment is expected to vary throughout the construction period.
- 3.14 The 1,710 FTE direct construction positions would generate a further 5,300 FTE indirect job years (rounded) in the wider economy over the construction phase, based on the application of the relevant ABS multiplier for the construction industry.
- 3.15 Many of these indirect (or flow-on) jobs associated with the subject site's construction phase would likely be sourced from within the Mitchell Shire Council, as well as nearby localities in Melbourne's northern region. Indirect jobs would be expected to accrue in a wide range of sectors associated with the industrial and consumption impacts of the project.

Ongoing Employment

- 3.16 I estimate that some 230 direct FTE jobs (rounded) would be supported onsite on an ongoing basis once the subject land has been developed, with direct onsite employment supported by the LTC, community facilities, primary school and a share of residents working from home. This estimate has been calculated with reference to the anticipated employment creation measures provided in Table 8 of the PSP (p18).
- 3.17 In addition, the estimated provision of direct ongoing jobs would support an estimated 180 flow-on FTE positions on the wider economy, based on the application of relevant ABS multipliers.

4 Impact of the Proposed Quarry on Subject Land & Surrounding Sites

4.1 This section provides an overview of the potential economic impact of a quarry buffer on the subject land and other relevant areas in the BNWP.

Impacted Areas of the BNWP

4.2 The introduction of a 500m buffer associated with the proposed quarry (Figure 2.2) would impact on the land identified in the PSP as property parcels 4, 5 and 6 (refer Figure 4.1). Note: parcel 6 represents the area identified in Figure 2.1 as the subject land.

4.3 For the purposes of my evidence, property parcels 4, 5 and 6 (the subject land) are collectively referred as the 'impacted area'.

Figure 4.1: BNWPSP Property Parcels



Source: Beveridge North West Precinct Structure Plan (August 2019)

4.4 For the balance of the impacted area (parcels 4 and 5) the capital investment and employment associated with the urban development set out in the Future Urban Structure in the PSP has been estimated using the same methodology and assumptions used for the Subject Land (parcel 6).

4.5 The estimated scale of urban development, capital investment and development timing and ongoing employment in the impacted area is shown in Table 4.1, with key findings as follows:

- **Scale of Urban Development.** The total residential yield is estimated at 4,970 dwellings, comprising 1,980 dwellings delivered in parcel 4; 930 dwellings delivered in

parcel 5; and 2,060 dwellings delivered on parcel 6 (subject land). Of the 4,970 dwellings, approximately 65% would be delivered within a walkable catchment, 32% outside the walkable catchment, and 3.0% in the LTC.

- The impacted area contains two LTCs: one in parcel 4 comprising some 9,000m² of retail and commercial floorspace; and one in parcel 6 comprising 4,700m² in retail and commercial floorspace. I note there is no hard cap in place for retail centres and retail floorspace could be varied with a permit.
- The impacted area would contain two community centres and two government schools, located in parcel 5 and parcel 6 respectively, while an indoor sports centre would be also located in parcel 4.
- The impacted area also contains areas of credited open space, as well as a large tract of open space with landscape values situated in the area of the Spring Hill Cone.
- **Capital Investment.** An estimated \$1,891 million (or \$1.9 billion) in total capital investment would be associated with delivery of the above urban development components in the impacted area (in 2020 dollars), comprising some \$786 million in investment in parcel 4, \$336 million in investment in parcel 5, and \$770 million in parcel 6. Again, these figures are inclusive of building construction and civil works but exclude land acquisition.
- **Construction Phase Employment.** It is estimated that the \$1,891 million in investment would support some 4,210 direct FTE jobs years onsite and a further 13,020 indirect or flow-on jobs in the wider economy, representing a total of 17,230 direct and indirect job years.
- **Ongoing Employment.** An estimated total of 600 jobs would be supported in the impacted area on an ongoing basis by the local town centre, community and indoor sport facilities, government schools, and home-based businesses. These jobs would support and additional 470 indirect jobs in the wider economy, representing a total of 1,070 jobs supported directly and indirectly by proposed land uses in the impacted area.

Table 4.1: Impacted Area – Urban Components Proposed by the PSP and Estimated Capital Investment and Employment

Category	Parcel 4	Parcel 5	Parcel 6 (Subject Land)	Total
<u>Urban Development</u>				
Dwellings (no.)	1,980	930	2,060	4,970
LTCs (no.)	1 LTC (comprising 9,000m ² in floorspace)	-	1 LTC (comprising 4,700m ² in floorspace)	2 LTCs (comprising 13,700m ² in floorspace)
Community Facilities & Schools (no.)	1 Community Centre; 1 Government School; 1 Indoor Sports Facility	-	1 Community Centre; 1 Government School;	2 Community Centres; 2 Government Schools; 1 Indoor Sports Facility
<u>Capital Investment</u>				
Total Capital Investment (\$)	\$786m	\$336m	\$770m	\$1,891m
<u>Construction Phase Employment</u>				
Direct Jobs (no.)	1,750	750	1,710	4,210
Indirect Jobs (no.)	<u>5,410</u>	<u>2,310</u>	<u>5,300</u>	<u>13,020</u>
Total Direct & Indirect Jobs (no.)	7,160	3,060	7,010	17,230
<u>Ongoing Employment</u>				
Direct Jobs (no.)	320	50	230	600
Indirect Jobs (no.)	<u>260</u>	<u>30</u>	<u>180</u>	<u>470</u>
Total Direct & Indirect Jobs (no.)	580	80	410	1,070

Source: Ethos Urban with reference to Beveridge North West Preinct Structure Plan

Note: Dwellings and employment figures rounded to the nearest ten

Impact of the Proposed Quarry

- 4.6 I understand that the impact of the application of a 500-metre buffer around the approved works authority area would be to effectively preclude sensitive land uses or provide for sensitive uses subject to a risk assessment. For the purposes of my economic assessment, I have proceeded on the basis that the application of a 500-metre buffer would result in no urban development within the buffer area (as identified in Figure 2.2) for the duration quarry operations.
- 4.7 For the purpose of this evidence the scale of urban development impacted by a quarry buffer has been estimated based on GIS analysis and includes:
- Approximately 2,360 dwellings, or approximately 50% of total dwellings that would be developed in the impacted area (parcels 4, 5 and 6);
 - The local town centre identified in parcel 4 which would accommodate some 9,000m² in total (commercial and retail floorspace); and

- The local community facilities, government school and indoor recreation facilities identified in parcel 4.
- 4.8 If the urban development proposed for the land that would fall within a 500-metre quarry buffer is excluded, the scale of urban development that would occur in the balance of parcels 4,5 and 6 is significantly reduced. A high-level comparison of the estimated impact on parcels 4, 5 and 6 is provided at Table 4.2.
- 4.9 The assessment set out in Table 4.2 demonstrates the impact of the quarry buffer on urban development in parcels 4, 5 and 6 and effectively assumes no development occurs in the area encumbered by the quarry buffer.
- 4.10 As highlighted in Table 4.2, compared to the base case scenario (full development of parcels 4, 5 and 6), the application of a quarry buffer would result in the following outcomes for the impacted area:
- Development of approximately 2,500 dwellings, which is approximately 50% less than would be developed under the base case.
 - Some \$930 million in capital investment (excluding land acquisition costs), representing the loss of \$960 million in capital investment or a 51% reduction compared to the base case.
 - Support for approximately 8,480 FTE jobs years on a direct and indirect basis across the development phase, a reduction of 8,740 FTE job years or 51% compared to the base case.
 - Support for 450 direct and indirect FTE jobs on an ongoing basis, which is some 630 jobs or 58% less than the ongoing employment under the base case.
- 4.11 I expect the application of a quarry buffer would also result in forgone delivery of some urban development components not encumbered by the quarry buffer but due to land use severance. This may include areas such as the residential pocket identified in the north-east corner of parcel 5. It is also likely that the scale of the local activity centre and community facilities would be reduced at the subject land (parcel 6) due to a reduction in the surrounding residential population.

Table 4.2: Scale of Urban Development and Associated Economic Benefits – Base Case verses Quarry Scenario

Category	Base Case	Quarry Scenario	Net Difference
<u>Urban Development</u>			
Dwellings (no.)	4,970	2,500	-2,470
LTCs	2 LTCs (comprising 13,700m ² in floorspace)	1 LTC (comprising 4,700m ² in floorspace)	Less 1 LTC (comprising 9,000m ² in floorspace)
Community Facilities & Schools	2 Community Centres; 2 Government Schools; 1 Indoor Sports Facility	1 Community Centre; 1 Government School	Less 1 Community Centre; 1 Government School; 1 Indoor Sports Facility
<u>Capital Investment</u>			
Total Capital Investment (\$ millions)	\$1,891m	\$930m	-\$960m
<u>Construction Phase Employment</u>			
Direct Jobs (no.)	4,200	2,070	-2,130
Indirect Jobs (no.)	<u>13,020</u>	<u>6,410</u>	-6,610
Total Direct & Indirect Jobs (no.)	17,220	8,480	-8,740
<u>Ongoing Employment</u>			
Direct Jobs (no.)	600	250	-350
Indirect Jobs (no.)	<u>480</u>	<u>200</u>	-280
Total Direct & Indirect Jobs (no.)	1,080	450	-630

Source: Ethos Urban with reference to Beveridge North West Precinct Structure Plan

Note: Dwellings and employment figures rounded to the nearest ten

Timing Considerations and Future Development of Area Impacted by A Quarry Buffer

- 4.12 Notwithstanding the analysis summarised in Table 4.2, it is reasonable to assume that development in the area directly impacted by a quarry buffer would not be permanently precluded, with the area directly impacted able to proceed to developed following the end of the operational life of the quarry. In this regard, a reasonable approach is to measure the present value of development of a) the Base Case scenario (unimpeded development) and b) The Quarry Scenario, in which development proceeds as far as possible and resumes for the balance at the completion of the operational life of the quarry.
- 4.13 To measure the present value of the Base Case and the alternative case (where a quarry proceeds and a buffer is applied) it is necessary to estimate the timing of development and the rate of development.
- 4.14 Predicting the rate of development in a precinct, and within different parts of a precinct is an imprecise science.
- 4.15 According to the 2018 report of the Victorian Government's Urban Development Program, the Hume-Mitchell corridor had a total supply of 109,877 greenfield lots (p14). The short term

average number of lots approved/released between 2015/16 and 2018 was 3,624 lots (also p14) equating to 30 years of greenfields supply in the corridor.

- 4.16 The release of the Victoria In Future 2019 (VIF2019) population and dwelling projections provides an opportunity to assess supply in the Hume-Mitchell Corridor against more recent expectations of dwelling demand. The VIF2019 projections indicate an annual dwelling requirement of 3,133 dwellings per annum will be required between 2021 and 2036 in the VIF2019 small areas which broadly equate to the greenfields area of the two municipalities (Bulla-Craigieburn District, Sunbury District and Kilmore-Wallan District). In my opinion, this acts as a reasonable indicator of future greenfield dwelling demand in the Hume-Mitchell corridor.
- 4.17 Based on the UDP supply estimate (109,877 lots), this equates to 33 years supply. It is noted however that two years have now passed since the UDP provided an update of greenfields supply. Accordingly, it is reasonable to assume there is now in the order of 31 to 32 years supply of greenfields land in the Hume-Mitchell corridor.
- 4.18 I note that id forecast has provided population and dwelling forecasts for Mitchell Shire Council at a small area level including Beveridge. According to the Mitchell id forecast website, the Beveridge North-West PSP area is expected to provide 4,427 dwellings between 2025 and 2041, at an average of 277 dwellings per annum.
- 4.19 In my opinion, this is likely to under-estimate the take up of land (expressed in terms of residential lots, or dwellings) in the Beveridge North-West Precinct. In my experience, a major precinct such as the BWNP, is likely to advance at a significantly faster rate assuming land within the precinct is well-presented, market competitive and available to the home buyer.
- 4.20 In establishing a forecast rate of development I have had regard for:
- the overall state of greenfields land supply in the Hume-Mitchell corridor (see above), and the fact that several precincts in the corridor are not yet scheduled to commence in terms of precinct structure planning (Beveridge South-West and Wallan East – Pt 2), at the Background Studies stage (Wallan East and South Pt – 1). In this regard, the BWNP is likely to advance ahead of several other northern precincts.
 - The rate of development along Donnybrook Road (west of the Hume Freeway) where a development cluster of several estates (including Merrifield) has emerged over the past 5 to 6 years. A count of dwellings (completed and under construction) indicates total dwellings in the order of 3,540 dwellings have been constructed or are under construction at an annual rate of 710 dwellings.
- 4.21 Accordingly, I have assumed a rate of development in the BNWP of around 600 dwellings per annum. It is not my expectation that Parcels 4, 5 and 6 would proceed as part of early

development of the precinct but are likely to begin from, say, 2030 and develop in a staged manner over a period of time.

- 4.22 It is important to note that the rate of development within different estates can vary greatly and is dependent on a range of factors including:
- National, state and local economic conditions
 - The real or perceived scarcity of supply in a given area
 - The reputation of developers undertaking different estates
 - The branding and perceived amenity, and therefore reputation, of different estates
 - Proximity to key attractors such as access to major road and rail infrastructure
 - Geographic features which add to the popularity of different estates
 - Price points and marketing
- 4.23 For the purposes of my evidence I have therefore assumed in the base case that development of parcels 4, 5 and 6 would commence in 2030 and be ongoing for 14 years, allowing for the current PSP process to run its course and assuming sales trends broadly consistent with comparable greenfield residential areas.
- 4.24 If the proposed quarry is approved and a quarry buffer is applied, I have assumed quarry operations would commence in 2022, and the quarry would have a lifespan of 30 years.
- 4.25 Under this scenario it is assumed that although some development would occur over a similar timeframe to the base case, the area within the quarry buffer area would not commence until 2052, after which I have assumed the area within the quarry buffer would be developed over a 9-year period.

Present Value Analysis

- 4.26 Given the time difference (17 years) between completion under the base case and completion under the quarry scenario, I have undertaken an analysis of the present value (PV) of the capital investment under each scenario.
- 4.27 A comparison of the PV of the capital investment for the base case and the quarry scenario is provided in Table 4.3. To estimate the PV, future capital investment has been discounted back to year zero (2020) by applying a 4% discount rate.
- 4.28 As highlighted in Table 4.3, the estimated PV capital investment attributed to the base case is \$981 million, while PV capital investment under the quarry scenario would be \$745 million. The difference between the two scenarios would be \$236 million in present value terms, representing a significant reduction in PV capital investment equivalent to 24% of the base case.

Table 4.3: Present Value Analysis – Base Case versus Quarry Scenario (\$ millions)

Category	Base Case	Quarry Scenario		Quarry Scenario (Total)	Net
		Outside Quarry Buffer	Within Quarry Buffer		
Completion Year:	2030-2044	2030-2041	2052-2061	2030-2061	
<u>Residential Dwellings</u>					
Western Parcel (4)	1,980	1,380	590	1,970	-
Northern Parcel (5)	930	100	830	930	-
Subject Site (6)	<u>2,060</u>	<u>1,020</u>	<u>1,040</u>	<u>2,060</u>	-
Total	4,970	2,500	2,460	4,960	-
<u>Present Value of Construction Investment</u>	\$981m	\$517m	\$228m	\$745m	-\$236m

Source: Ethos Urban with reference to Beveridge North West Precinct Structure Plan

Note: Dwelling figures rounded to the nearest ten.

Summary

- 4.29 The introduction of a 500m buffer associated with the proposed quarry would impact on property parcels 4, 5 and 6 in the BNWP.
- 4.30 Compared to the base case scenario (full development of parcels 4, 5 and 6), the application of a quarry buffer (quarry scenario) would result in approximately 50% less dwellings, a 51% reduction in capital investment and jobs (direct and indirect) supported during the construction phase, and a 58% reduction in ongoing employment.
- 4.31 Based on the assumption that the quarry scenario would result in a 17-year delay in development for areas within the quarry buffer, the impact in present value terms on capital investment associated with urban development in the BNWP is estimated to be in the order of \$236 million and equivalent to a 24% reduction on the base case.

5 Broader Impacts on Development in the Beveridge North West PSP

- 5.1 This section of my evidence provides a high-level overview of the broader impacts on development in the BNWP which are likely to occur as a result of the introduction of a quarry buffer.

Residential Population Under the Base Case and Quarry Scenarios

- 5.2 Under the base case scenario, urban development in parcels 4, 5 and 6 would result in this area accommodating a residential population of approximately 15,400 persons by 2044, or around 31% of the total population of the PSP at full development (approximately 50,490 persons). The calculation of residential population is based on an average household size of 3.1 persons (refer p14 in the PSP), which is broadly consistent with contemporary population yields being achieved in greenfield residential areas.
- 5.3 In contrast, the application of a quarry buffer and subsequent delay in development of the area impacted by the buffer is estimated to result in parcels 4, 5 and 6 accommodating a resident population of only 7,760 persons by 2044. I make the assumption that following the 30-year operational life of the quarry, urban development would proceed in this area from approximately 2052.

Potential Impacts of the Proposed Quarry on Urban Development in the Balance of the BNWP

- 5.4 A reduction in the residential population at, say, 2044 is likely to result in a number of economic impacts on the BNWP. These include:
- **Reduced LTC facilities** in the balance of the PSP due a lower residential population and associated retail spending in the BNWP overall, as well as the catchments of some centres being constrained by the quarry buffer (such as the LTC identified in parcel 6).
 - **Reduced need for community facilities** due to the lower overall residential population and potential for the buffer to constrain the residential catchment associated with community facilities.
 - **Reduced need for and provision of school facilities** due to a lower population and potential for the buffer to constrain the catchment from which the government school proposed for parcel 6.
 - **Reconfiguration of roads** resulting in constraint accessibility, particularly in the northern portion of the BNWP.

6 Summary of Findings

- 6.1 The BNWPSP provides the long-term planning framework to guide future urban development of the Beveridge North West Precinct.
- 6.2 Several parcels of land on which the PSP proposes residentially-focussed urban development, are potentially impacted by an application for a quarry in the north-east of the precinct. Should the quarry be approved, a quarry buffer would be expected to apply to land located within 500m of the approved work authority area. I have assumed in my evidence that the introduction of a quarry buffer would result in there being no urban development in the buffer area during the operational life of the quarry. I have further assumed the operational life of the quarry to be 30 years.
- 6.3 My assessment of the areas impacted indicate that at full development (referred to as the base case), the impacted parcels of land could accommodate in the order of 4,970 dwellings, along with two activity centres, community centres and schools.
- 6.4 Should a quarry be developed and a buffer applied, I estimate that, for as long as the quarry buffer applies (quarry scenario), the impacted parcels of land could accommodate 2,500 dwellings, one activity centre and a reduced number of community centres and schools.
- 6.5 The value of capital investment associated with the base case is estimated at \$1,891 million. For as long as the quarry buffer applies, capital investment associated with urban development of the impacted parcels of land would be in the order of \$930 million, representing a 51% reduction in capital investment.
- 6.6 Having regard for the fact that development of the impacted parcels of land will occur in the future, and assuming the area within the quarry buffer would be developed after a 40-year period, I have estimated the present value of the two scenarios.
- 6.7 The base case assumes that urban development of the impacted parcels of land will occur between 2030 and 2044. The present value of capital investment associated with the base case is estimated as \$981 million.
- 6.8 The quarry scenario assumes that urban development of the impacted parcels of land will occur to the extent possible between 2030 and 2041 and resume between 2052 and 2061. The present value of capital investment associated with the base case is estimated as \$745 million.
- 6.9 The difference between the base case and quarry scenario is estimated at approximately \$236 million in present day (2020) terms and reflects a significant reduction of 24% in capital investment.
- 6.10 I note that this does not necessarily mean a loss in present day economic terms to Victoria. It is possible, indeed likely, that the urban development postponed as a result of the quarry will be accommodated elsewhere in Greater Melbourne, peri-urban Melbourne or elsewhere. However, it does result in a loss, or at least inefficiencies, in regard to local investment, accommodation of population growth at the local level, and less support to local centres and other facilities.
- 6.11 Additional impacts would be likely to occur in the balance of the BNWP with the precinct's residential population remaining below that planned for the area. Implications are likely to

occur in regard to the planning and development of retail centres, community centres and schools.

Declaration

I have made all the inquiries that I believe are desirable and appropriate and no matters of significance that I regard as relevant have to my knowledge been withheld.

Chris McNeill
Director
Ethos Urban

8 July 2020

Appendix A: Capital Investment Assumptions

Item	Amount (\$2020)	Notes and Source
Conventional Density Lot Construction (eg 400m ² to 500m ² full constructed lot including Agency Charges and DCP	\$120,000	Order of magnitude estimate based on experience, and having regard for Review of Greenfields Development Costs report (December 2017) prepared for UDIA Victoria by Spade Consultants and SMEC
Smaller lot (within walkable catchment	\$100,000	Order of magnitude estimate based on experience, and having regard for Review of Greenfields Development Costs report (December 2017) prepared for UDIA Victoria by Spade Consultants and SMEC
Housing construction costs	\$240,000	Based on a house of approximately 200m ² @ \$1,200/m ² construction cost (Refer: Napier & Blakeley)
Medium Density construction costs	\$200,000	Based on townhouse of approximately 110m ² @ \$1,700/m ² construction cost (Refer: Napier & Blakeley)
Retail centre construction costs	\$2,320/m ²	Based on area nominated in PSP. Construction rate based on Suburban supermarkets with air conditioning, excluding fit-out. Includes allowance for at-grade parking. (Refer: Napier and Blakley)
Schools construction costs	\$18 million	The broad industry standard indicative cost for a government primary school based on a range of industry sources including the Grattan Institute.
Community Infrastructure construction costs	\$2,320/m ²	Based on area nominated in PSP. Retail centre construction cost (as above) rate used as a proxy for community infrastructure. (Refer: Napier and Blakley)

Appendix B: Curriculum Vitae: Chris McNeill

Chris McNeill

Director, Economics — Bachelor of Economics (Monash)



Chris is a demographer and urban economist with more than 20 years of experience. He is armed with a deep knowledge of Australia's urban landscape and is a regular conference presenter and expert witness in matters relating to urban planning and development.

Chris has a Bachelor of Economics degree and post-graduate Certificate qualifications in international business from the Siemens business school in Germany. He is a Fellow of the Victorian Planning and Environmental Law Association and a former Sessional Member of Planning Panels Victoria.

Chris has worked in the manufacturing industry as a commercial manager, and as an urban economist with an industry association and then as a consultant in private practice. Chris was appointed as a Sessional Member of Planning Panels Victoria for an eight-year period between 2005 and 2013 during which he chaired a number of significant Panels and Advisory Committees.

His urban economics experience covers a range of projects in urban and regional economic development and land use planning; industry sector analysis; residential, commercial, industrial and retail location and development; development contributions plans analysis and review; community infrastructure planning; urban policy analysis and concept feasibility testing; and appearing as expert witness at planning appeal tribunals and panels.

Chris has a passion for regional Australia and also has extensive experience in both growth area economics and urban renewal projects. Chris has extensive experience in analysing demographic trends and projections

and casting his mind forward to how current trends may shape our future. He has been a regular presenter at a range of conferences and boardroom presentations, exploring various aspects of Australia's demographic future.

ACADEMIC QUALIFICATIONS

Bachelor of Economics, Monash University, 1990

PAST POSITIONS

Director, Essential Economics Pty Ltd (now Ethos Urban), 2017 - 2018

Director, Spade Consultants Pty Ltd, 2007 - 2017

Policy Director, Urban Development Institute of Australia (Victoria), 2002-2006

Senior Manager, Ernst & Young, 2001-2002

Commercial Manager, Telstra Limited, 2000

Commercial Manager, Australian Defence Industries Limited, 1997-1999

Senior Commercial Officer, Siemens Limited, 1991-1996 *Studied and worked in Germany as part of Siemens Limited Management Program, 1992-1993

*Sessional Member, Planning Panels Victoria, 2005-2013

RELEVANT EXPERIENCE

The following represents a sample of projects undertaken by Chris McNeill.

Urban Policy Analysis

Armstrong Creek Development Contributions Analysis, for Coles

Ballarat West Development Contributions Plan community infrastructure analysis and expert evidence, for G&N Cluster

Cost Benefit Analysis of Level Crossing Removals (Mitcham, Rooks and Springvale Roads), for VicRoads

Fishermans Bend High Density Residential Concept Testing, for Urban Development Institute of Australia (Victoria)

Heidelberg Parking Strategy and expert evidence, for Banyule City Council

Northland High Density Residential Development Concept Testing, for Department of Sustainability and Environment

Viability of higher density residential development in middle Melbourne, for the Priority Development Panel

Watergardens High Density Residential Concept Testing, for QIC

Werribee Riverbend Precinct Concept Testing, for Department of Sustainability and Environment

Strategic and Urban Planning

Cape Bridgewater Structure Plan economic inputs and expert evidence, for Glenelg Shire Council

Darebin Economic Land Use Strategy and expert evidence, for City of Darebin

Mornington Aged Care Analysis and expert evidence, for AMP Capital Investments

Barwon Heads Structure Plan Residential Assessment and expert evidence, for Gull Property Group

Numurkah Economic Development Plan, for Moira Shire Council

Seymour Structure Plan, with Tract Consultants for Mitchell Shire Council

Residential and Aged Care Assessment

Armstrong Creek Residential Land Assessment and expert evidence, for Dennis Family Corporation

Ballarat Residential Land Assessment and expert evidence, for Thorney Investments

Bendigo Housing Strategy review and expert evidence, for Urban Development Institute of Australia (Victoria)

Cape Patterson Residential Land Assessment and expert evidence, for Wallis Watson

Coronet Bay Residential Land Assessment and expert evidence, for Thorney Investments

Cowes Residential Land Assessment and expert evidence, for Lechte Corporation

Drouin Residential Land Assessment and expert evidence, for Planning Central

Kyneton Residential Land Assessment and expert evidence, for ZFN Management Services

Melbourne Inner North Residential Market Assessment, for Department of Planning and Community Development

Nyora Residential Land Assessment and expert evidence, for Wallis Watson

Riddells Creek Residential Land Assessment and expert evidence, for Alan Bravo

Torquay Residential Land Assessment and expert evidence, Amex Corporation

Warragul Residential Land Assessment and expert evidence, for Planning Central

Warrnambool Housing Strategy Analysis and expert evidence, for Rodgers Properties

Woodend Residential Land Assessment and expert evidence, for Villawood Properties

Retail, Commercial, Industrial and Tourism
Analysis

Mildura Industrial Land Assessment and
expert evidence, for Turk Superannuation
Fund

Nathalia and Numurkah Industrial Land
Demand and Feasibility Study, for Nathalia
Community Bank

Proposed Theme Park Economic
Assessment, for Beveridge Williams

Regional Urban Development Program
(Industrial), for Department of Planning and
Community Development

Tocumwal Foreshore Masterplan Economic
Benefits Analysis, Berrigan Shire Council

Wangaratta CBD Master Plan Economic
Benefits Analysis, Wangaratta City Council

Other

VCAT and Planning Panels Victoria - Role as
Expert Witness on behalf of private and public
sector clients

Sessional Member, Planning Panels Victoria
(2005 - 2013)

Urban Economics for Property Developers –
UDIA Victoria, preparation and presentation
for industry property development course
(annual, between 2009 and 2013)

Appointed a Fellow of the Victorian Planning
and environmental Law Association (2019)