

Melbourne Amendment C278

Overshadowing of Parks

Planning Evidence, David Barnes February 2021

Urban Planning I Urban Design I Landscape Architecture

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Contents

1.	Intro	Introduction4		
2.	Sum	mary of opinions	5	
3.	The amendment		7	
	3.1.	What the amendment does	7	
	3.2.	Area affected by the amendment	8	
	3.3.	Minister's Authorisation	9	
	3.4.	Submissions	9	
	3.5.	Panel version of the amendment	10	
4.	Strategic justification11		11	
	4.1.	The importance of parks	11	
	4.2.	Population increase and growth	11	
	4.3.	Planning policy support	12	
	4.4.	The Sunlight Access Report	13	
5.	The approach to overshadowing		14	
	5.1.	Existing approach to overshadowing	14	
	5.2.	Proposed approach to overshadowing	15	
	5.3.	Previous panel reports	17	
		5.3.1. Amendment C245	17	
		5.3.2. Amendment C270	17	
		5.3.3. Fishermans Bend	18	
		5.3.4. Yarra Amendment C220 Johnston Street	18	
		5.3.5. Yarra Amendment C191 Swan Street	18	
6.	Clause 22.02 - Local policy		19	
	6.1.	Proposed changes to Clause 22.02	19	
	6.2.	New format Planning Policy Framework	20	
7.	DD08		21	

	7.1.	Is a DDO the most appropriate way to implement overshadowing controls?	21	
	7.2.	Design objectives	23	
	7.3.	Definitions	24	
	7.4.	Exemptions	25	
	7.5.	Permit requirements	26	
	7.6.	Subdivision	28	
	7.7.	Signs 28		
	7.8.	Application requirements	29	
	7.9.	Decision guidelines	29	
8.	Mapping considerations		30	
	8.1.	Parks shown on DDO8 maps that were not included in the Sunlight Access Report	30	
	8.2.	Parks not shown on DD08 maps that were included in the Sunlight Access Report	31	
	8.3.	Parks shown on DDO8, from which areas were excluded in the Sunlight Access Report	31	
	8.4.	DD08 is applied to protect some parks that are located within the Hoddle Grid	32	
	8.5.	DD08 is applied to land within the Hoddle Grid	33	
	8.6.	Some park types included in the DDO8 maps seem inconsistent with the low rise / growth a distinction made between Type 1 and Type 2 Parks		
	8.7.	Exemptions for infrastructure and the like	34	
9.	ls a r	nandatory control appropriate?	35	
10.	Deve	Development within parks		
11.	The need for a comprehensive review of overshadowing provisions40			
12.	Conclusion			

Figures

Figure 1 - Area affected by the amendment - as identified in the Explanatory Report	8
Figure 2 – Precincts within the City of Melbourne (Clause 21.04-1)	8
Figure 3 - Existing approach to overshadowing in the municipality (Sunlight Access Report, page 38)	14
Figure 4 - Proposed Sunlight Access Controls (Sunlight Access Report, page 15)	16
Figure 5 - Parks Excluded from consideration in Sunlight Access Report (page 18)	30
Figure 6 - DD08 is proposed to be applied around Flagstaff Gardens	30
Figure 7 - DD08 along the north side of Victoria Street	32
Figure 8 - DDO8 proposed to be applied within the Hoddle Grid	33

Appendices

Appendix 1 David Barnes CV

1. Introduction

- 1. My name is David Barnes. I am the Managing Director of Hansen Partnership Pty Ltd, Level 4, 136 Exhibition Street, Melbourne.
- 2. I hold the following qualifications:
 - Bachelor of Town and Regional Planning (Hons), University of Melbourne, 1980.
 - Master of Business Administration, Royal Melbourne Institute of Technology, 1993.
- 3. I have practiced as a town planner for around 40 years, working in the public as well as the private sectors. I have also worked overseas in Vietnam on a variety of statutory planning, strategic planning, institutional strengthening and tourism projects.
- 4. I am both a statutory and a strategic planner. My planning experience covers many aspects of the planning approvals process on a range of projects including residential, industrial, retail, mixed use, tourism and rural developments. I regularly appear before VCAT and Planning Panels Victoria. I have been involved in a broad range of strategic planning projects including the preparation of industrial land use strategies, residential development strategies, integrated municipal strategies, township strategies, town centre strategies, structure plans, urban design frameworks for activity centres and transit cities, tourism master plans and rural land use strategies.
- 5. I have been instructed by the City of Melbourne to consider the planning merits of the proposed amendment.
- 6. I understand that Council is calling other experts. From a planning perspective, my assessment focuses on the wording, interpretation and mechanisms used in the amendment to implement the policies and controls proposed to be inserted into the planning scheme. Whilst I make general comments as a strategic planner about the proposed overshadowing controls, I have not been involved in the preparation of the Sunlight Access Report or in the modelling of impacts undertaken as part of the preparation of that report. Specific issues about the overshadow standards identified in the amendment and the potential impacts on the development potential of various sites, are more a matter for Council's urban design expert to address.
- 7. Key documents I have reviewed in preparing this statement include:
 - The amendment documentation, as exhibited.
 - Council's report to the Future Melbourne (Planning Committee) 15th May 2018.
 - The Minister's letter of authorisation, dated 26 October 2018.
 - Council's report to the Future Melbourne (Planning Committee) 4th February 2020, which included a summary and a response to submissions received, plus copies of additional submissions lodged after that date.
 - Relevant planning practice notes.
 - Planning Panel reports for Amendments C245 and C270 to the Melbourne Planning Scheme, Amendment C220 to the Yarra Planning Scheme, and the Planning Review Panel's Report for Fishermans Bend.
 - The Melbourne Planning Scheme.
- 8. A summary of my findings are provided in the following section of this report.
- 9. This statement has been prepared in accordance with Planning Panels Victoria Guidelines to Expert Evidence.
- 10. I have made all the inquiries I believe are desirable and appropriate and no matters of significance which I regard as relevant have to my knowledge been withheld from the Panel.
- 11. A copy of my CV is provided in Attachment 1.

2. Summary of opinions

- 12. Amendment C278 proposes to introduce new planning policies and controls into the Melbourne Planning Scheme to protect winter sunlight access to public parks through the municipality.
- 13. The amendment will apply to all parts of the municipality other than Docklands.
- 14. The amendment is underpinned by the findings of the "Sunlight Access to Public Parks Modelling Analysis Report, February 2018" (Sunlight Access Report).
- 15. The Sunlight Access Report is a well prepared document that provides an appropriate strategic basis for the policies and controls proposed in the amendment
- 16. Melbourne City Council is a planning leader in Victoria. It frequently researches and investigates new and innovative planning initiatives aimed at improving the amenity and function of the city. The amendment is an example of this approach.
- 17. Council is aiming to establish new best practice in terms of the overshadowing of parks outside of the Central City.
- 18. Parks are a fundamental element of a city, are a fundamental community asset, and will become increasingly important as population and employment densities continue to increase overtime.
- 19. Access to sunlight is a major determinant of the amenity, the use and the enjoyment of parks, and of the ecological qualities of a park.
- 20. Access to sunlight will come under increasing risk as planning policies for urban consolidation continue to drive inner city development.
- 21. There is strong strategic justification in State and regional planning policy for planning controls to manage the overshadowing of parks.
- 22. The general approach to managing the overshadowing of parks proposed by Amendment C278 is sound and is strategically justified.
- 23. The boundaries of DD08 lack an obvious connection to the parks it is seeking protect. However, DD08 as exhibited is a technically sound way to implement the proposed overshadowing controls and would achieve the intent of the Sunlight Access Report.
- 24. The DDO maps should be simplified by including intervening roads in the DDO.
- 25. Despite the translation of the planning policy framework that will occur as a consequence of the smart planning reform process, the need remains to include a local policy in the planning scheme.
- 26. I suggest the following definition of street wall be included in DDO8:

Street wall means any part of the building constructed within 0.3 metres of a lot boundary fronting the street.

27. I suggest that the proposed policy be reworded as follows:

Development on land outside the boundaries of a park, should not cast additional shadow on a park between 10.00 am and 3.00 pm on 21 June.

Development on land within the boundaries of a park should not unreasonably reduce the amenity of the park by casting additional shadows on the park between 10.00 am and 3.00 pm on 21 June, to the satisfaction of the Responsible Authority.

- 28. Wording of Schedule 8 to the DDO is generally appropriate and implements the intent of the Sunlight Access Report. However, the Panel should further explore with Council and its urban design witness:
 - Whether the potential exists to increase the 9 metre exemption that applies to all buildings around all parks to 12 metres.
 - Whether the permit requirement for Type 3 Parks (both East and West) should include an exemption for an 'allowable shadow', as is the case for Type 2 Parks.
- 29. The wording of 'allowable shadow' should be modified by the inclusion of the following sentence:

Where a preferred and a mandatory height is specified in the planning scheme for either a street wall height or a building height, the lower of the two heights is applied.

- 30. The proposal to apply mandatory controls is generally consistent with the criteria set out in relevant planning practice notes.
- 31. Without mandatory controls there is a risk that the sunlight available to parks will incrementally decrease over time, to the detriment of the amenity and environmental qualities of parks.
- 32. I make a number of comments and raise a number of questions in relation to the mapping of parks in Schedule 8 to the DDO. These matters such be further addressed with Council urban design witness:
 - Whether key parks on the edge of the Central City that were excluded from the Sunlight Access Report should be included in the amendment i.e. Flagstaff Gardens, Treasury Gardens and Parliament Reserve.
 - It would appear to be inconsistent with the principles contained in the Sunlight Access Report to include DD08 over land within the Hoddle Grid i.e. in the vicinity of the Queen Victoria Market.
- 33. There is merit in the submissions made by major sporting bodies and associations that have facilities located within parks. The changes I have suggested to the proposed policy in Clause 22.02 responds to those submissions.
- 34. There is a need to review and to rationalise overlapping overshadowing controls that will exist in the planning scheme if Amendment C278 is approved.

3. The amendment

3.1. What the amendment does

- 35. Amendment C278 proposes to introduce new planning policies and controls into the Melbourne Planning Scheme. The controls propose to protect winter sunlight access to parks through the municipality. The amendment will apply to all parts of the municipality other than Docklands.
- 36. The amendment is underpinned by the findings of the report *"Sunlight Access to Public Parks Modelling Analysis Report, February 2018"* (referred to as the *Sunlight Access Report*).
- 37. In particular the amendment proposes to:
 - Amend Clause 21.17 Reference Documents, to include the "Sunlight Access to Public Parks Modelling Analysis Report, February 2018, Hodyl + Co".
 - Amend *Clause 22.02 (Sunlight to Public Spaces Policy)* to distinguish between policy objectives that relate to parks within and outside the Hoddle Grid and Southbank.
 - Introduce a new Schedule 8 to the Design and Development Overlay (DD08). The proposed DD08
 will introduce new planning scheme requirements to protect winter sunlight access to public parks
 outside the Hoddle Grid, Southbank and Docklands.
 - Insert a new planning scheme overlay for DD08 Maps 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 11.
 - Update Clause 72.03 to reference the new DD08 Maps 1-11.

3.2. Area affected by the amendment

- 38. The explanatory report includes a map that shows the area affected by the amendment. It identifies that the amendment relates to the whole of the municipality, other than to Docklands (Figure 1). This comment is largely due to the coverage of Clause 22.02 which is proposed to be amended to apply to all land within the municipality, other than Docklands.
- 39. The Sunlight Access Report, which provides the basis of the controls contained in DD08, did not consider those parts of the municipality referred to as the Hoddle Grid and Southbank. It also excluded consideration of a number of parks adjacent to the Hoddle Grid that had been subject to recent planning scheme amendments, including Flagstaff Gardens, Treasury Gardens and Parliament Reserve (Figure 5). It did however consider Docklands, which was later excluded from the amendment at the direction of the Minister.
- 40. Figure 2 includes a map that shows the various planning precincts referred to throughout the planning policy framework contained in the Melbourne Planning Scheme. It shows the boundaries of the Hoddle Grid, Southbank and Docklands. Combined those three areas are referred to as the Central City.
- 41. Proposed DD08 as exhibited, does affect some land included within the Hoddle Grid, in the vicinity of the Queen Victoria Market. I comment on this later in my evidence. Otherwise, the principles developed in the Sunlight Access Report and the implementation of the amendment, focus on those parts of the municipality outside the Central City (i.e. Hoddle Grid, Southbank and Docklands).



City of Melbourne boundary

Figure 1 - Area affected by the amendment - as identified in the Explanatory Report

MELBOURNE PLANNING SCHEME

Figure 1 Growth Area Framework Plan

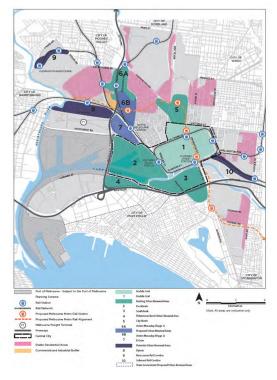


Figure 2 – Precincts within the City of Melbourne (Clause 21.04-1)

3.3. Minister's Authorisation

42. Whilst the Sunlight Access Report considered parks in Docklands, the Minister's authorisation letter¹ directed that Docklands, as well as Spring Street South, be removed from the amendment.

Under delegation from the Minister for Planning, in accordance with section 8A of the *Planning and Environment Act 1987* (the Act), I authorise your council as planning authority to prepare the amendment, subject to the following condition:

- Impact on current built form controls Remove the Docklands and Spring Street South areas from the Amendment and review the impact of the controls on other strategic priorities, such as urban renewal and regeneration, in particular, in Arden Central and the Fishermans Bend Precinct of Excellence (Employment Precinct).
- 43. The Minister also requested Council to consider a number of additional matters before finalising the amendment for exhibition. No changes appear to have been made to the amendment as a consequence of the Minister's request.

Prior to exhibition, your council should consider and finalise the following:

- Hierarchy of Parks
 Have regard to the Planning Practice Note 70 Open Space Planning and the City of
 Melbourne's Open Space Strategy 2012 in finalisation of the amendment for exhibition.
- Mixture of Mandatory & Discretionary Controls
 Consider the application of a mixture of mandatory and discretionary controls, based on the
 importance and significance of the park and open space.
- Mixture of Equinox and Winter Solstice Controls
 Consider the application of a mixture of equinox and winter solstice controls based on the
 importance and significance of the park and open space.
- Areas of Parks to be Protected Have regard for the proportion of the park that is proposed to be overshadowed.

3.4. Submissions

44. I have reviewed the report to the Future Melbourne (Planning) Committee dated 4th of February. That report provides a summary and a response to all submissions received to the amendment.

45. From that report it is apparent that:

- A total of 119 submissions were received.
- 91 submissions supported the amendment.
- 25 submissions did not support the amendment or raised concerns with the amendment.
- Concerns raised included:
 - Impact of controls on the development potential of specific sites and growth precincts.
 - Increased hours of protection.
 - Shift from the equinox to the winter solstice.
 - Mandatory controls.
 - The application of controls on development within parks.

¹ Minister's letter of authorisation, 26th October 2016

- The extend of allowable overshadowing in growth areas.
- 46. I have also been instructed that a further 55 submissions were received after the 4th of February meeting, resulting in a total of 174 submissions.
- 47. I have addressed most of the general comments made in the submissions throughout my report.

3.5. Panel version of the amendment

48. In response to the submissions received, Council recommended the following 4 changes to the amendment:

- Removal of Haymarket Roundabout as a park given its primary road function.
- The re-designation of Flagstaff Gardens as a Park Type 3 West, with protection hours of 11am to 3pm and the re-categorisation of all other Type 3 Parks as Park Type 3 East.
- Removal of the Royal Society of Victoria property.
- Allow exemption for minor rail works along transport zoned rail corridors.

49. I have also been provided with a panel version of DDO8 that incorporates those changes.

4. Strategic justification

- 50. Melbourne City Council, being responsible for the planning of the Central City and the inner suburbs of Victoria's capital city, is a planning leader in Victoria. It frequently researches and investigates new and innovative planning initiatives aimed at improving the amenity and function of the city, and better managing the complex and often competing planning issues that confront a Council responsible for planning the core of one of Australia's two premier State capitals.
- 51. Amendment C278 is example of this approach. The City of Melbourne has identified an issue, which is the way development is managed around inner city parks, and the potential long term impacts of overshadowing on those parks. It has investigated and researched the issue through the Sunlight Access Report. It is proposing to implement the findings of that document as part of this amendment.
- 52. I see this as a worthy strategic planning undertaking by the City of Melbourne, in an effort to maintain high amenity levels within a municipality that has been experiencing very significant levels of urban development and population and employment growth for decades, and is expected to continue to do so.

4.1. The importance of parks

- 53. Parks are a fundamental element of a city and are a fundamental community asset.
- 54. Parks become increasingly important in more densely developed urban areas, as people's access to private open space diminishes and they become more reliant on parks and other public and communal spaces to satisfy their passive and active recreation needs, and their needs for outdoor space.
- 55. Access to sunlight is a major determinant of the amenity, the use and the enjoyment of parks, and of the ecological qualities of a park.
- 56. There is a dilemma in relation to planning for parks, in inner city urban areas in particular. On the one hand it is good planning to concentrate people and activity around parks, to improve their access to open space. However this potentially adds to the risk of overshadowing. On the other hand there is the need to protect the amenity of parks by managing the impacts of overshadowing.

4.2. Population increase and growth

- 57. Parks are a scarce resource in an inner city municipality such as Melbourne.
- 58. It is very difficult to establish new parks in established areas, so existing parks become somewhat of a limited resource.
- 59. Much of the effort in planning for parks is devoted to protecting existing parks, enhancing their amenity and managing their increased use.
- 60. Planning policy encourages the intensification of development within the municipality. It encourages an increase in population, as well as an increase in employment and tourism, and an increase in other activities that will lead to a greater use of parks in the future.
- 61. It will become increasingly important to ensure that the amenity, function and environmental qualities of parks are maintained, as the pressures for increased use are balanced with the pressures for increased development around parks.
- 62. In understanding this balance, it is important to note that Amendment C278 does not apply to parks in those parts of the municipality in which the highest rates of development are encouraged, which are

generally the Hoddle Grid, Southbank and Docklands. It relates to areas beyond this inner core of the municipality, in areas that are planned to accommodate lesser rates of development, albeit still quite substantial in some locations.

4.3. Planning policy support

- 63. There is strong strategic justification in State and regional planning policy, and also in the existing local planning policy, for planning policies and controls that manage the overshadowing of parks.
- 64. Examples of relevant State and regional planning policies include the following:

Clause 15 Built Environment and Heritage

Planning should promote excellence in the built environment and create places that:

- Are enjoyable, engaging and comfortable to be in.
- Enhance the function, amenity and safety of the public realm.

Clause 15.01-1S Urban design

Objective

To create urban environments that are safe, healthy, functional and enjoyable and that contribute to a sense of place and cultural identity.

Strategies

Ensure development contributes to community and cultural life by improving the quality of living and working environments, facilitating accessibility and providing for inclusiveness.

Ensure development supports public realm amenity and safe access to walking and cycling environments and public transport.

Clause 15.01-1R Urban design - Metropolitan Melbourne

Objective

To create a distinctive and liveable city with quality design and amenity.

Strategies

Support the creation of well-designed places that are memorable, distinctive and liveable.

Clause 19.02-6S

Strategies

Improve the quality and distribution of open space and ensure long-term protection.

- 65. Local policies regarding solar access and overshadowing are embedded throughout the scheme. Those policies include both municipal wide policies and policies that relate to specific parks or specific precincts within the municipality. Examples include Clause 21.06-1 Urban Design, Clause 21.10-1- Infrastructure Open space, Clause 21.16-2 St Kilda Road and South Yarra, and 21.16-2 East Melbourne and Jolimont.
- 66. Clause 22.02 contains a specific local policy regarding sunlight to public spaces. This is the key local policy that presently relates to the overshadowing of public spaces in much of the area affected by proposed Amendment C278. I discuss this policy later in my report.

4.4. The Sunlight Access Report

67. The Sunlight Access Report provides the detailed strategic justification for the amendment.

- 68. The purpose of the report was to establish appropriate sunlight levels for public parks across those parts of the municipality outside the core areas of the Hoddle Grid and Southbank.
- 69. The study was initiated given a shift that was beginning to occur in the past few years in the approach to overshadowing controls in the municipality, from controls based on the equinox to winter based controls.
- 70. The study is thorough and comprehensive. It:
 - Analyses current levels of sunlight in parks.
 - Analyses sunlight that would result from existing planning controls.
 - Discusses appropriate levels of sunlight access for parks and recommends and justifies a level of sunlight protection across the municipality (times and dates).
 - Considers statutory planning controls that can best achieve the preferred level of sunlight access protection and recommends overshadowing provisions.
- 71. In my opinion, the report is a well prepared document that provides an appropriate strategic basis for the consideration of the policies and controls proposed to be inserted into the planning scheme by Amendment C278.
- 72. I note that whilst the report provides strong justification for the principles inherent in amendment, it does not identify the boundaries of DD08, which is the mechanism used to implement the principles contained in the report. The boundaries of DD08 have been determined by Council. I make further comment about the boundaries of DD08 later in my evidence.

5. The approach to overshadowing

5.1. Existing approach to overshadowing

- 73. The existing approach to overshadowing in the City of Melbourne is largely a hierarchical approach that places higher levels of controls over more significant parks.
- 74. It has a strong focus on the Central City. It identifies 'key public places' that are subject to the highest level of control, 'other public spaces' that are generally also within the Central City, and contains more of a blanket policy for other parts of the municipality.
- 75. A number of key central city parks and spaces have winter controls or controls that extend from 22nd of April to the 22 of September, some of which are mandatory. These include the Yarra River, The Shrine, Federation Square, City Square and the State Library Forecourt.
- 76. Otherwise, policies and controls since the 1990s have been largely based on the Spring equinox rather than the Winter solstice, generally between the hours of 11am and 2pm.
- 77. Other parks (and streets) in the municipality outside the central core, are covered by a general overshadowing 'policy' contained in Clause 22.02. That policy references the September equinox and the hours of 11am to 2pm.
- 78. The following map from the Sunlight Access Report summarises existing controls that apply to various parks throughout the municipality.

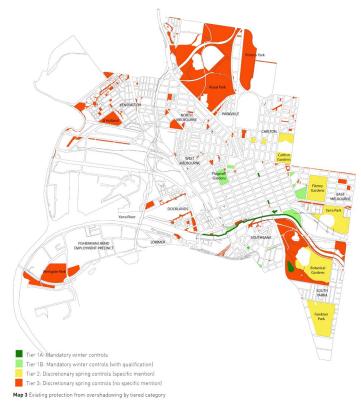
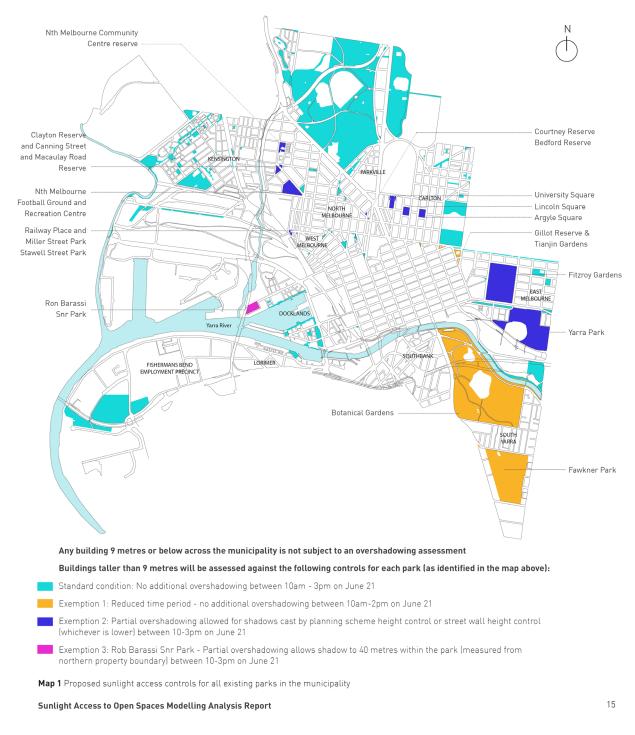


Figure 3 - Existing approach to overshadowing in the municipality (Sunlight Access Report, page 38)

5.2. Proposed approach to overshadowing

79. Amendment C278 is seeking to change both the approach and the standards applied to overshadowing of parks within those parts of the municipality outside the Hoddle Grid, Southbank and Docklands:

- The approach From a hierarchical approach based on the significance of a park, to a more standardised approach, based on the development potential of land around parks using two categories.
- The standard:
 - From the Spring equinox to the Winter solstice.
 - From around 11.00 am to 2.00 pm to 10.00 am to 3.00 pm.
 - From a discretionary to a mandatory control.
- 80. The amendment groups parks outside the Central City area, into two types. The two types are based on the level of development that the planning scheme presently allows around the parks. The groups are:
 - Type 1 Parks In 'low scale areas' 4 storeys or less.
 - Type 2 Parks In 'growth areas' 4 storeys or more.
- 81. Modelling has shown that parks in low scale areas (Type 1 Parks) are not generally at risk of significant overshadowing, given existing planning controls. The proposed control seeks to prohibit any shadow that extends beyond any 'existing shadow' cast building and works on those parks.
- 82. Type 2 Parks are located in areas with greater development potential. They are at greater risk of being overshadowed. The proposed control would prohibit any additional shadow being cast on a Type 2 Park, beyond an 'allowable shadow cast' by a building built to the street wall height allowed on land abutting the park, by the planning scheme.
- 83. The controls include two exemptions:
 - The shadow cast by buildings up to 9 metres high is exempt, around all types of parks.
 - The timeframe for key parks to the south of the Yarra River adjacent to St Kilda Road, have a reduced time of 10am to 2pm (rather than 3pm). This is due to the impact on the length of afternoon shadows given the alignment of St Kilda Road. Those parks have been identified as Type 3 Parks.
- 84. Figure 4 summarises the controls proposed in the Sunlight Access Report.



Proposed sunlight access controls for all parks

Figure 4 - Proposed Sunlight Access Controls (Sunlight Access Report, page 15)

5.3. Previous panel reports

- 85. There have been a number of panel and committee reports over recent years that have considered the issue of overshadowing controls. The recommendations have evolved overtime, with a general tendency to be more accommodating in the use of the Winter solstice for some parks, and mandatory controls in some cases. I summarise the key findings of some of these reports below.
- 86. Whilst relevant to the issue, it is important to note that Amendment C278 is not trying to replicate or apply the approach recommended by previous Panels for other parts of Melbourne. Based on the research undertaken in the Sunlight Access Report, it is seeking to introduce a new standard for the long term protection of parks from overshadowing, outside the Central City.

5.3.1. Amendment C245

(Panel Report: 12th July 2016)

- 87. Amendment C245 sought to introduce an amend the Melbourne Planning Scheme to facilitate the implementation of a master plan for the Queen Victoria Market Precinct. As part of the consideration of the amendment the Panel considered overshadowing controls for the adjacent Flagstaff Gardens, to the west.
- 88. Panel findings:²
 - Support for an overshadowing standard based on the Winter Solstice, between 11am and 2pm.
 - Support for a discretionary control rather than a mandatory control.
 - Recommended that a permit should only be granted to vary this requirement, if the responsible authority considers the overshadowing will not significantly prejudice the amenity of Flagstaff Gardens.

5.3.2. Amendment C270

(26th October 2016)

- 89. Amendment C270 sought to introduce a comprehensive suite of new planning controls for the Hoddle Grid and Southbank, including new overshadowing controls. In relation to overshadowing it:
 - Included polices and DDO controls that applied a mandatory overshadowing requirement to several key areas of open space. That control related to the Winter solstice for the Yarra River, and to a period between the 22nd of April and the 22nd of September for other key spaces.
 - Included policies and a mandatory DDO control (with some discretion regarding not unreasonably prejudicing amenity) to other key areas of open space. That control relates to periods between 22nd of April and the 22nd of September, or to the 22nd of September.

² Amendment C245 Panel Report, page 99

5.3.3. Fishermans Bend

(19th July 2018)

- 90. The Fishermans Bend Panel considered planning scheme amendments to the Melbourne and Port Phillip planning schemes to facilitate development of Fishermans Bend.
- 91. Key finding of the Panel report included the following:³
 - Support for the Winter Solstice as the appropriate standard for the overshadowing of larger parks.
 - Support for a discretionary Spring equinox standard for smaller parks, with recommendation that that standard should be reviewed once the parks had been developed, with the potential for mandatory controls to be considered.
 - Overshadowing controls, whether discretionary or mandatory, should exclude shadows cast by buildings and works within parks themselves.

5.3.4. Yarra Amendment C220 Johnston Street

(22 February 2019)

- 92. The amendment introduced built form controls along Johnston Street, Collingwood, from Smith Street to the Yarra River. In addition, it sought to introduce a mandatory overshadowing control over the south side of Johnston Street, between 10am and 2pm on September 22nd.
- 93. The Panel supported a mandatory control and the mandatory control is now included in the planning scheme.

5.3.5. Yarra Amendment C191 Swan Street

(15 October 2020)

- 94. The amendment introduced permanent built from controls along the full length of Swan Street Richmond. In addition, it sought to introduce mandatory overshadowing requirements to the south side of Swan Street and the east and west sides of Church Street and Burnley Street, between 10am and 2pm on September 22nd.
- 95. The Panel support the mandatory controls.

³ Fishermans Bend Planning Review Panel Report, page 111

6. Clause 22.02 - Local policy

6.1. Proposed changes to Clause 22.02

- 96. Clause 22.02 is the existing local policy contained in the planning scheme that relates to "Sunlight to Public Spaces".
- 97. Clause 22.02 presently applies to all <u>public parks</u> and also to all other <u>public places</u> throughout the City of Melbourne, other than for Docklands and City North, which are specifically excluded from the clause.
- 98. As a policy, it applies whenever a planning permit is required for building and works under any other provision of the planning scheme. It does not trigger the need for a planning permit in its own right and does not impose requirements, in particular mandatory requirements.
- 99. The policy is used in addition to more specifically worded overshadowing requirements set out elsewhere within the planning scheme, such as in schedules to zones, DDOs and DPOs. Those requirements impose permit triggers and include a mix of discretionary and mandatory requirements. Where overshadowing controls are contained in a DDO or in another control, they generally prevail over the policy.
- 100.Clause 22.02 presently sets out different policies for different areas of open space in different parts of the municipality:
 - Key public spaces Which are generally located within the Hoddle Grid and Southbank. Policies in relation to key public spaces are divided into two categories:
 - Open spaces that "must not" be overshadowed. These included key spaces such as the Yarra River, Federation Square, City Square etc.
 - Open spaces which "should not" be overshadowed. These includes other gardens and parks within the Hoddle Grid and Southbank.
 - Other Public Spaces within the municipality This heading applies to the whole municipality. It includes public spaces other than parks, such as streets and lanes etc. It currently applies to all of the public parks that are identified as part of Amendment C278, that are not affected by other more specific controls in the planning scheme. The policy currently refers to 11am to 2pm on 22nd September, as the key time when parks and other public spaces should not be *"unreasonably overshadowed"*. This section of the policy will be modified by Amendment C278 to exclude "public parks", and to a new third category will be added to Clause 22.02:

Public Parks Outside the Hoddle Grid and Southbank

101. The policy proposed to be expressed under the new heading is to read:

Development must not cast additional shadow on any public park at key times and dates identified in the planning scheme.

102. The effect of this policy change is that a higher standard will be applied to parks outside the central city, in line with the standards proposed to be included in DD08. This standard is generally between 10am and 3pm on the 21st of June.

6.2. New format Planning Policy Framework

103. The existing local planning policy framework contained in the Melbourne Planning Scheme will change with the translation of the planning scheme as part of the smart planning reform process.

104. An aim of the reforms to the new Planning Policy Framework, is to reduce duplication and the unnecessary statement of policy and content throughout planning schemes. Where a DDO such as proposed DDO8 is self-sufficient, the aim is to avoid the need for a local policy if possible. Where local policy remains necessary, it will be grouped under appropriate themes in the overall Planning Policy Framework.

Zones, overlays and particular and general provisions are the primary implementation mechanism of the strategic policy directions in a planning scheme. Where a zone, overlay, particular provision or general provision provides all the direction required to make a decision, a local policy is not needed. Similarly, where statewide or regional policy provides all relevant direction required for decision making, a local policy is not required.⁴

- 105.DD08 will be the primary implementation measure of the Sunlight Access Report. It will contain all of the directions required to make a decision on the overshadowing of parks identified in the DD0.
- 106.A question exists as to whether there remains a need for a local policy at all.
- 107. Given the application of DDO8 as exhibited, in my opinion the need will remain for a local policy for the following reasons:
 - The policy would apply to any parks that been omitted from DDO8 (accidentally or intentionally).
 - The policy would apply to buildings constructed on land not included in DD08, which might overshadow parks.
 - The policy would apply to any new parks to be constructed in the future, around which DD08 has not been applied.
 - The policy would apply to buildings constructed within parks themselves, which would overshadow the park.
 - The policy would be taken into account in future planning scheme amendments that might seek to change the street wall height or building height requirements of land around parks.
- 108. The last two dot points are key reasons why such a policy is required to be retained in the planning scheme. A key difference between the policy and the controls contained in proposed DD08, is that the policy will apply to all land and to all parks within the municipality (outside the Hoddle Grid and Southbank and Dockland). DD08 will only apply to land around those parks that are included on the maps within Schedule 8 to the DD0. DD08 will not apply to the parks themselves, but the policy will.
- 109. Without the policy, there would be no guidance regarding the overshadowing of parks by buildings within parks themselves. I discuss this issue later in my evidence and make a suggestion about the possible rewording of the policy.

⁴ A Practitioners Guide to Victorian Planning Schemes, page 76

7. DD08

7.1. Is a DDO the most appropriate way to implement overshadowing controls?

- 110.On the face of it, a DDO would appear to be an appropriate tool to implement overshadowing requirements. Generally, DDOs have been used to introduce overshadowing requirements to other areas of open space in the Hoddle Grid, Southbank and elsewhere throughout Melbourne.
- 111.However, the way DD08 is mapped lacks an obvious connection between the boundaries of the DD0 and the parks it is designed to protect.
- 112. The Sunlight Access Report recommended that a municipal wide DDO be applied to implement the recommendations of the report:

These controls should be incorporated (together with the recently approved Central City controls) into one municipal-wide DDO. This will ensure that all parks are protected from overshadowing regardless of the location of new development.⁵

- 113. The report did not identify the boundaries of land proposed to be included in the DDO8 as exhibited.
- 114.I have been provided with a document prepared by Council which explains how the boundaries of DD08 were determined.⁶ The boundaries were generally determined by modelling shadows that could be cast by buildings, based on potential building heights contained in the planning scheme. Where discretion exists to allow taller buildings and no mandatory building height is in place, this involved hypothetical building heights, potentially for very tall buildings, casting very long shadows a considerable distance from a development site. This has resulted in the boundaries of DD08 extending quite significant distances from some of the parks it is designed to protect.
- 115.A further aspect of the mapping of DD08 that makes it confusing, is that unlike most other DD0s in the Melbourne Planning Scheme, it only applies to land parcels and not to intervening roads. Accordingly, when viewing the DD0 map, it comprises a multitude of small individual DD0s separated by roads.
- 116. The lack of clarity is exacerbated because the DDO is applied to the whole of some very large sites. For example DDO8 is applied to the whole of the Melbourne University site in order to protect parks adjacent to some boundaries of the University (i.e. University Square to the south of Gratton Street).

⁵ Page 14, page 89

⁶ Amendment C278 How the land to which DD08 is proposed to be applied was identified

Possible alternative approaches

A particular provision

117. The overshadowing of parks is an 'issue based' planning matter rather than a 'site based' matter. The preferred way to implement issue based planning controls is via 'particular provisions' in a planning scheme.

Particular provisions are planning controls that apply only to certain uses and development or to particular aspects of certain uses and development.

Particular provisions operate differently to zones and overlays in that they are issue-based, rather than land-based controls. They apply to a use or development irrespective of the zone or overlay that applies to the land.⁷

- 118. Clause 52 provides for 'particular provisions'. However, at present it generally only provides for State based provisions.
- 119.In my opinion, a municipal based particular provision would be an appropriate way to introduce the overshadow controls proposed by Amendment C278. I believe it would be appropriate for the Department of Planning to consider revising the VPPs to contain an option for Councils to introduce municipal based particular provisions. The Panel may wish to comment on the appropriateness or otherwise of this approach in its report.

Applying DD08 to the whole municipality

- 120. This is the approach recommended in the Hoddle Report. The advantage of this approach is that there would be no need to precisely map all possible sites on which buildings could be constructed to a height that might overshadow a park.
- 121. The disadvantage is that it would affect many properties that would have no potential to overshadow a park. This is likely to cause concern about additional planning controls by landowners distant from parks; albeit the control would be of no practical effect on their properties.
- 122. If this approach was taken, consideration would need to be given to the inclusion of exemptions into the DDO to avoid it catching unintended development, such as development within parks. Areas to which different overshadowing standards apply would need to be excluded from the DDO i.e. the Hoddle Grid, Southbank, Docklands etc.

Applying a DDO to the key street blocks around the edges of the parks

- 123.DD08 could be applied to key street blocks around the edges of parks.
- 124. This would provide a more tangible visual link between the boundaries of the DDO and the parks to be protected from overshadowing.
- 125. It is likely that this approach would 'catch' the majority of buildings likely to overshadow a park. However, the potential would remain for taller buildings constructed beyond the outer edge of the DDO to overshadow parks.

⁷ A Practitioners Guide to Victoria Planning Schemes, page 17

126. The local policy contained in Clause 22.02 would provide an opportunity for Council to apply the overshadowing policy in the assessment of any such planning permit applications. However, it would not provide the opportunity to provide requirements or to 'prohibit' non-compliant levels of overshadowing.

Relying on a local policy

- 127. This is, in part, the approach currently used by Council to control overshadowing of local parks outside the Central City. However, a policy does not trigger a planning permit in its own right and cannot impose requirements, in particular mandatory requirements. Reliance on a policy provides lesser certainty than a requirement in a DDO, should the matter go to VCAT.
- 128. The basis of the strategic work undertaken by Council is that a higher level of control is required to prevent inappropriate overshadowing of parks than that provided by a local policy.

Summary

- 129.1 support the need for overshadowing controls for parks throughout the municipality as proposed by this amendment. However, I find the boundaries of DD08 lacking an obvious connection between the boundaries of the DD0 and the parks it is seeking to protect.
- 130.Regardless, DD08 as exhibited is a technically sound way to implement the proposed overshadowing controls and would achieve the intent of the Sunlight Access Report.
- 131. Whilst there may be other approaches that would simplify the application of the DDO, I do not believe that it would be appropriate to abandon or to substantially delay the amendment, due to a need to revise or to re-exhibit an alternative approach.
- 132.In relation to DD08 as exhibited, I would suggest that the mapping of the DD08 be modified to include all intervening roads between each of the individual DD0s.

7.2. Design objectives

133. The following design objectives are proposed:

To ensure the amenity of parks is protected throughout the year by maximising winter sunlight access.

To protect sunlight access to parks to support the health and wellbeing of all park users and the ecological health of the park.

To ensure new development responds with appropriate building heights and setbacks to protect sunlight access to parks.

134.I have no issue with the proposed design objectives proposed to be included in DDO8.

7.3. Definitions

135. The following definitions are proposed:

Park means the land identified as Park Type 1, 2 or 3 on Maps 1 to 10.

Land abutting a park means land with a common boundary to a park or land separated from the park by a public street or laneway.

Existing shadow means any shadow cast by existing buildings and works.

Allowable shadow means the shadow that would be cast on the park, between 10am and 3pm, June 21, by a street wall of a building on land abutting a park, built to the lower of any street wall height requirement or building height requirement specified in this planning scheme as shown in Figure 1 below.

- 136. The definitions are important as they are the basis of the degree to which overshadowing of parks is permitted, having regard to the permit requirements and exemptions expressed in the DDO.
- 137.I note that 'street wall' is a term used in Schedule 8 that is not defined within the schedule, but which is commonly defined in other schedules to DDOs contained in the planning scheme, and which should be defined in Schedule 8. Street wall is defined in other schedules as follows:

Street wall means any part of the building constructed within 0.3 metres of a lot boundary fronting the street.⁸

Park

- 138. The definition of 'Park' simply refers to the parks that are shown on the diagrams included in Schedule 8 to the DDO. Only those parks included in the diagrams are protected by DDO8. This approach is clear and unambiguous. DDO8 would not apply to a park not classified as either a Type 1, Type 2 or Type 3 Park as shown on the maps in Schedule 8 to the DDO. The overshadowing policy contained in Clause 22.02 would continue to apply to any such parks.
- 139.I note that there are some differences between the parks shown on the DDO maps and the parks shown in the Sunlight and Access Report. I comment on those differences later in my evidence.

Existing shadow

Existing shadow means any shadow cast by existing buildings and works.

140. The permit requirements refer to an 'existing shadow'. I note that the wording of the definition 'existing shadow' would apply to any shadow cast by any existing buildings and works, not just by buildings and works on the site of a planning permit application. This would include shadows cast by buildings and works on other land adjoining a park, as well as shadows cast by buildings and works located within a park itself. I believe that this interpretation is appropriate.

⁸ DD033

Allowable shadow

Allowable shadow means the shadow that would be cast on the park, between 10am and 3pm, June 21, by a street wall of a building on land abutting a park, built to the lower of any street wall height requirement or building height requirement specified in this planning scheme as shown in Figure 1 below.

141. The definition of allowable shadow is important in relation to Type 2 Parks, as it provides an exemption for a degree of overshadowing to occur.

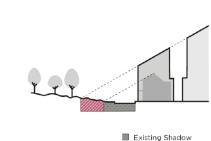


Figure 1

Existing Shadow
 Allowable Shadow

142. There are some issues with the definition of 'allowable shadow'. I considers these under my assessment of permit requirements, below.

7.4. Exemptions

9 metre height

- 143.A number of permit exemptions are set out in the schedule to the DDO. The first relates to buildings and works with an overall height of 9 metres or less. This applies to land abutting all types of parks.
- 144.In formulating the approach to overshadowing, the Sunlight Access Report makes a distinction between low scale development areas (of 4 storeys and below) and growth areas (of 4 storeys and above). Generally, it is observed in the report that due to existing height controls, little additional overshadowing is likely to occur in relation to parks in low scale areas.
- 145.1 note a reason stated in the Sunlight Access Report for the 9 metre exemption was to minimise the assessment requirements introduced by the amendment:

Minimise assessment requirements in all areas by not requiring a shadowing impact assessment for buildings 9 metres or lower in height.⁹

- 146.I support this intent.
- 147.However, I question whether the potential exists to increase the exemption from 9 metres to 12 metres. Much land in 'low scale' areas within the municipality is included in a Neighbourhood Residential or a General Residential Zone. The mandatory building heights contained in the schedules to those zones vary between 8 metres and 12 metres i.e. generally up to a three storey building. If the height exemption was increased to 12 metres, no residential development within either zone would trigger the need for a permit under DD08. This would further simplify the implementation of the amendment.

⁹ Sunlight Access Report, page 9

148.As I have not been involved in the modelling work that was undertaken as part of the Sunlight Access Report, I suggest it would be appropriate for the Panel to put this suggestion to Council's urban design expert, to ascertain their comments on its appropriateness or otherwise.

7.5. Permit requirements

149. The permit requirements are based on three different categories of park, as expressed in Table 1 to the DDD (as exhibited). They are all expressed as mandatory requirments.

Table 1	
Park type on Maps 1-10	Hours and date
1	Buildings and works must not cast additional shadow onto the park between 10am and 3pm, on June 21 beyond the existing shadow.
2	Buildings and works must not cast additional shadow onto the park between 10am and 3pm on June 21 beyond the existing shadow or allowable shadow (whichever is the greater).
3	Buildings and works must not cast additional shadow onto the park between 10am and 2pm, June 21 beyond the existing shadow.

150. The panel version of the amendment is show below. It breaks Type 3 Parks into East and West. All previous Type 3 Parks being East, except for Flagstaff Gardens which will be a Type 3 West Park.

Table 1		
Park type on Maps 1-10	Hours and date	
1	Buildings and works must not cast additional shadow onto the park between 10am and 3pm, on June 21 beyond the existing shadow.	
2	Buildings and works must not cast additional shadow onto the park between 10am and 3pm on June 21 beyond the existing shadow or allowable shadow (whichever is the greater).	
3 East	Buildings and works must not cast additional shadow onto the park between 10am and 2pm, June 21 beyond the existing shadow.	
<u>3 West</u>	Buildings and works must not cast additional shadow onto the park between 11am and 3pm, June 21 beyond the existing shadow.	

Type 1 Parks

- 151.0f the 157 parks identified in the Sunlight Access Report, some 133 are classified as Type 1 Parks.
- 152.Type 1 parks are those located in areas that have low scale development potential (i.e. 4 storeys or less). Accordingly, the risk to these parks being overshadowed by development on adjoining land is low, given existing planning controls.

- 153.On my interpretation of the Sunlight Access Report, modelling has demonstrated that development on adjoining land in accordance with existing building height controls, is unlikely to noticeably overshadow Type 1 Parks.
- 154. In my opinion, the requirement is appropriate for Type 1 Parks and is consistent with the findings and recommendations of the Sunlight Access Report. I do not believe that this requirement should be a particularly onerous requirement on development, given existing planning controls.

Type 2 Parks

155.0f the 157 parks identified in the Sunlight Access Report, some 24 are classified as Type 2 Parks.¹⁰

156.Type 2 parks are located within or immediately adjacent to 'growth areas' (4 storeys or more). Of these parks:

- 4 are naturally protected.
- 14 are already partially overshadowed.
- 6 parks are significantly overshadowed (5 of those are in Docklands, which has been excluded from the amendment).

157. The implications of the amendment on the development potential of surrounding land will be greatest around Type 2 Parks.

158. The overshadowing standard expressed in the definition of 'allowable shadow' was based on a consideration of the impacts on the development potential of adjoining land, of three options:¹¹

- Option A Building height.
- Option B Street wall height.
- Option C Plane to park boundary.
- 159. The option included in the amendment represents the middle outcome of these three options i.e. the option between the least impact (Option A) and the greatest impact on development potential (Option C).¹²

160. The use of an 'allowable shadow' provides for a degree of overshadowing to occur on Type 2 Parks. This is an appropriate planning response in 'growth areas', in which taller buildings are anticipated. It provides some allowance for additional overshadowing of parks, beyond the existing situation.

161.My reading of the definition is that:

- Where a street wall control is specified, the allowable shadow will be determined by the shadow cast by a street wall, built to that height, on a lot abutting the park. The shadow cast by the street wall will also represent the allowable shadow for other adjacent lots, that are not 'abutting the park'.
- Where no street wall height is specified, the allowable shadow will be determined by the shadow cast by a street wall built to the overall building height allowed in the planning scheme. The shadow cast by the street wall will also represent the allowable shadow for other adjacent lots, that are not 'abutting the park'.

¹⁰ Sunlight Access Report, pages 5 and 6

¹¹ Sunlight Access Report, pages 68 and 69

¹² Sunlight Access Report, page 69

- If a lot abutting a park has both a street wall height and a building height requirement in the planning scheme, the shadow cast by the lower of the two heights will apply.
- 162. This is consistent with the intent of the Sunlight Access Report. However, the definition needs to be clarified to explain what happens in situations where a planning scheme requirement includes both a preferred and a maximum street wall or building height. This is not a common occurrence, however does exist in DD063A8 for example and could well become an issue in future DD0s. DD063A8 applies to land to the north of the North Melbourne Football Ground and Recreation Centre, which is identified as a Type 2 Park. It includes both a preferred maximum and an absolute maximum height. I suggest the following sentence be added to the definition in response to this matter:

Where a preferred and a mandatory height is specified in the planning scheme for either a street wall height or a building height, the lower of the two heights is applied.

Type 3 Parks

- 163. The main reason for the different requirement for Type 3 Parks compared to Type 2 Parks, is because streets abutting Type 3 parks generally have a different orientation to north and are adjacent to places that have greater potential to overshadow parks late in the day due to existing height limits. Having regard to the height of development provided for in the planning scheme on land to the east of Type 3 Parks, it was considered appropriate to vary the time to 2pm, which is a more lenient standard during which shadows approximately align with St Kilda Road.¹³
- 164. The panel version of the amendment divided Type 3 Parks into West and East parks. The only Type 3 Park East is Flagstaff Gardens. All other Parks listed in DD08 are Type 3 Parks West. The overshadowing standard for East parks is varied to be between 11 am and 3 pm (i.e. a later time in the morning). This is to allow greater opportunity for some overshadowing early in the day from taller buildings allowed by existing planning controls to the east of the Park.
- 165. The requirement is expressed in a way that refers to 'existing shadow' and not to 'allowable shadow', as is the case for Type 2 Parks.
- 166.1 am uncertain whether this is intentional or not.
- 167.I would suggest that the Panel raise this matter with Council's urban design witness.

7.6. Subdivision

168. It is appropriate that subdivision is exempt from the requirements of this schedule.

7.7. Signs

169. In my opinion it is appropriate that signs meet the requirements of this schedule.

¹³ Sunlight Access Report, page 10

7.8. Application requirements

170.1 believe that the proposed requirement for a 3D model to be submitted with a planning permit application, that shows the shadowing implications of a development, are appropriate and are reasonable for developments within the area covered by DD08. As the requirement is "to the satisfaction of the responsible authority". Council could waive the need for such a model in situations where there would clearly be no shadow impacts on a park.

7.9. Decision guidelines

171. As no discretion is provided in DD08, there is no need for decision guidelines.

8. Mapping considerations

172.I have reviewed the 'parks' shown on the DDO maps and compared them to the parks shown on the maps included in the Sunlight Access Report. There are a number of differences. In relation to some of the differences I offer a comment. In relation to other differences I have not formed an opinion, but rather raise the issue for consideration by Council in its submission to the Panel.

8.1. Parks shown on DDO8 maps that were not included in the Sunlight Access Report

Parks

- Curzon Street Reserve (Park 44, Map 5)
- Flagstaff Gardens (Park 47, Map 5)
- Haymarket Roundabout (Park 51, Map 5)
- Parliament Reserve (Park 90, Map 8)
- Treasury Gardens (Park 93, Map 8)
- Two linear areas of parkland associated with Westgate Park (Park 111, Map 10). One west of Lorimer Street, north of the Westgate Freeway. Another linear strip to the west of the main park including the lake, to the north of the Freeway.

Comment

- 173. The Sunlight Access Report includes a specific comment that parks that were reviewed via recent amendments such as the Central City Built Form Review (Amendment C270) and the Queen Victoria Market Review (C245) were not within the scope of the study.¹⁴ The parks excluded from consideration on this basis are shown on Figure 5.
- 174.Parks excluded include Flagstaff Gardens, Treasury Gardens and Parliament Reserve. These parks abut the Hoddle Grid. They have potential to be overshadowed by buildings within the Hoddle Grid during parts of the day, and by buildings outside of the Hoddle Grid at other parts of the day. As the Sunlight Access Report did not assess these parks, I question whether they should be listed in the schedule to DD08, and whether DD08 should be applied around these parks, especially where the DD0 applies to land within the Hoddle Grid.

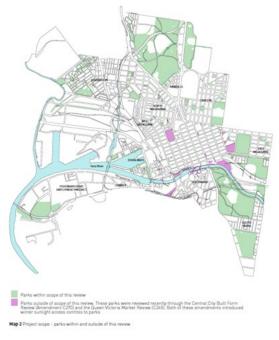


Figure 5 - Parks Excluded from consideration in Sunlight Access Report (page 18)

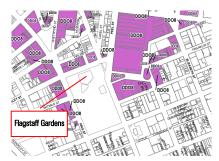


Figure 6 - DDO8 is proposed to be applied around Flagstaff Gardens

¹⁴ Sunlight Access Study, page 17

175.If such parks are to remain in the DDO, consideration could be given to applying DDO8 only to land adjacent to the parks, which is outside the Hoddle Grid. For example, in relation to Flagstaff Gardens, DD08 could apply to land to the north and west of the park. Land to the east of William Street which is within the Hoddle Grid, is in a Central City 1 Zone, and is covered by a number of DDOs and DPOs. DDO8 could be excluded from that area in recognition of the different development density envisaged.

176. I note the decision of the Council meeting of $4^{\mbox{th}}$ of February to:

- To change the classification of Flagstaff Gardens from a Type 1 Park to a modified Type 3 Park.¹⁵
- Delete the Haymarket Roundabout.

8.2. Parks not shown on DDO8 maps that were included in the Sunlight Access Report

Parks

- Park at the north-west corner of Nicholson Street and Elgin Street, Carlton.
- Victoria Parade median.
- Land to the south of Dynon Road.

Comments

177. Clarification should be sought from Council regarding these parks.

8.3. Parks shown on DDO8, from which areas were excluded in the Sunlight Access Report

Parks

- JJ Holland Park (Park 10, Map 2)
- Newmarket Reserve (Park 29, Map 3)
- North Melbourne Community Centre (Park 36, Map 4)
- Royal Park (Park 67, Map 6)
- Carlton Exhibition Gardens (North and South, Parks 74 and 75, Map 7)
- Yarra Park (Park 96, Map 8)
- Powlett Reserve (Park 91, Map 8)

¹⁵ Report to the Future Melbourne Planning Committee, 4th February 2020, page 1

Comment

178. The Sunlight and Access Report, when identifying parks, excluded land covered by buildings and developments in many of the parks:

- In some cases this related to land that was included in different zone to the PPRZ that covered the rest of the park: i.e. The Exhibition Buildings, The Museum and Government House.
- In other cases it related to land zoned PPRZ which contained buildings, in many cases quite significant buildings such as the MCG, The Zoo, State Hockey Centre, Visy Park.
- 179. In have been instructed that this approach was due to the data provided in the GIS layer for parks that was provided to the consultant who prepared the report. There was no strategic intent in the fact that land covered by buildings was omitted from the mapping.

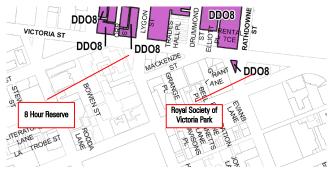
8.4. DD08 is applied to protect some parks that are located within the Hoddle Grid

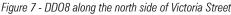
Parks

- Eight Hour Reserve (Park 76, Map 7)
- Royal Society of Victoria (Park 83, Map 7)

Comment:

180. These parks located within the Hoddle Grid, on the south side of Victoria Street (see Figure 7). Any overshadowing of these parks is likely to occur from land to the north of Victoria Street, which is outside the Hoddle Grid.





- 181.I note the decision made at a Council meeting of the 4th February to remove the Royal Society of Victoria Site from DD08. I am uncertain whether the boundary of DD08 should be changed as a consequence of this decision.
- 182.It appears to be consistent with the principles embodied in the Sunlight Access Report to protect the Eight Hour Reserve from overshadowing, even though it is located with the Hoddle Grid, as the potential for overshadowing is from buildings outside of the Central City.

8.5. DD08 is applied to land within the Hoddle Grid

Land

- Some properties within the Hoddle Grid, on the east side of Peel Street and William Street, adjacent to Flagstaff Gardens and including the Queen Victoria Market site.
- Some properties to the south of Victoria Street, between Peel Street and Spring Street.



Figure 8 - DD08 proposed to be applied within the Hoddle Grid

Comment

- 183. The Sunlight Access Report excluded the Hoddle Grid and Southbank from consideration and did not consider Flagstaff Gardens.
- 184.It would appear to be inconsistent with the principles contained in the Sunlight Access Report to include DD08 over land within the Hoddle Grid.

185. Clarification should be sought from Council as why this land was included in DDO8.

8.6. Some park types included in the DDO8 maps seem inconsistent with the low rise / growth area distinction made between Type 1 and Type 2 Parks

Parks

- Maribymong River Bike Trail (Parks 2,3,4 and 5, Map 1). This trail has been classified as a Type 1 Park. The area is designated as an urban renewal area in the planning scheme. Land between Kensington Road and the Maribymong River has been rezoned to a Mixed Use Zone and has a Development Plan Overlay applied (DPO13) to accommodate a medium rise, mixed use development. Given the criteria outlined in the Sunlight Access Report, this park could be classified as a Park Type 2. However, a Type 1 classification is likely to be warranted given the strategic significance of the Maribymong River, which should be seen as having similar status to the Yarra River. I am not aware that the Sunlight Access Report has considered the implications of development in accordance with the DPO on this site.
- Flagstaff Gardens (Park 47, Map 5). As discussed above, Flagstaff Gardens was excluded from the scope of the Sunlight Access Report. The gardens were shown as a Park Type 1 Park in DD08 as exhibited. The panel version of the amendment proposes to classify the gardens as a Park Type 3 (West). There appears to be planning merit in the gardens being classified as a Park Type 3 West, however advice should be sought from Council's urban design expert on this matter.
- Treasury Gardens (Park 93, Map 8). Treasury Gardens was not included in the Sunlight Access Report. It is shown as a Park Type 3 in DD08. It is proposed to be shown as a Park Type 3 East in the panel version of the DD0. Advice should be sought from Council's urban design expert regarding the classification of this park.

8.7. Exemptions for infrastructure and the like

186. Where a mandatory control it is proposed it is necessary to ensure that there are no unintended prohibitions, and appropriate exemptions exist for public infrastructure and the like.

187.Clause 62 of the planning scheme provides for exemptions for a wide range of buildings and works, covering things like:

- roadworks;
- fences;
- street furniture; and
- park furniture and the like.
- 188.I note that Schedule 8 as exhibited, already includes an exemption for certain works along the Yarra River, by Melbourne Water and Parks Victoria.
- 189.I also note that Council at its meeting on the 4th of February 2020, resolved to allow exemptions for minor rail works along transport zoned rail corridors.
- 190. If during the course of the Panel Hearing, unintended prohibitions are identified, my preference would be to modify the wording of Schedule 8 to the DDO, to include appropriate exemptions, rather than to use that as a reason to justify a discretionary control.

9. Is a mandatory control appropriate?

191. Amendment C278 is based on a proposed mandatory overshadowing control.

- 192.A number of submissions were made, both supporting and opposing mandatory controls.
- 193. There are a number of planning practice notes that relate to mandatory controls that are relevant to this amendment.

Planning practice notes

- 194.*Planning Practice Note* 59 *The Role of mandatory Provisions in Planning Schemes (PPN59)*, is a document that applies to all locations through a municipality. A separate practice note has been prepared specifically in relation to activity centres (*Planning Practice Note* 60).
- 195.PPN59 refers to planning schemes in Victoria being predominately performance based and to mandatory requirements being the exception. Nevertheless, it recognises that there will be circumstances where mandatory requirements will provide *"certainty and ensure preferable and efficient outcomes"*.¹⁶
- 196.Under the heading *"When are mandatory provisions appropriate?"* the practice note specifically refers to built form controls such as building heights and setbacks etc. It sets out the following criteria to assist in determining whether mandatory controls are justified:

Is the mandatory provision strategically supported?

Is the mandatory provision appropriate to the majority of proposals?

Does the mandatory provision provide for the preferred outcome?

Will the majority of proposals not in accordance with the mandatory provision be clearly unacceptable?

Will the mandatory provision reduce administrative costs?

197.On my assessment these criteria would generally be met:

- Is strategically supported. Yes. The Sunlight Access Report provides an analysis of the use of parks, the impact of overshadowing on parks, and the potential impact of overshadowing controls on the development potential of land adjoining parks. It provides a well researched strategic justification for the controls proposed.
- Would be appropriate for the majority of proposals. Yes. A stated objective of DD08 is to protect the amenity of parks by maximising winter sunlight access. A mandatory control would be appropriate for the majority of proposals, in order to meet that objective.
- Would provide for a preferred outcome. Yes. A mandatory control would provide for the preferred outcome as identified in the Sunlight Access Report and the Design Objectives of DDO8, which is to protect the amenity of parks by maximising winter sunlight access.
- The majority of proposals not in accordance will be unacceptable. Yes. The aim of the amendment is to ensure the amenity of parks, the ecological health of parks and to maximise winter sunlight access. In relation to Type 2 Parks in 'growth areas' the proposed controls provide the opportunity

¹⁶ Planning Practice Note 59, page 1 (screen reader version)

for some additional overshadowing (i.e. an 'allowable shadow'). Additional overshadowing beyond those limits will add further shadow to parks and has the potential to result in unacceptable outcomes, in terms of the standards proposed for sunlight access to the parks in the long term.

- Will reduce administrative costs. Mandatory controls will reduce administrative costs. Mandatory
 controls will avoid potential costly planning appeals to resolve development proposals that may
 overshadow a park.
- 198.*Planning Practice Note 60 Height and Setback Controls for Activity Centres*, provides guidance in relation to built form controls in activity centres. Whilst not technically relevant to those parts of the municipality that are not within an activity centre, comments and directions contained in that document add to an understanding of situations in which mandatory planning controls may be appropriate. Relevant considerations outlined in the document include:

The application of discretionary controls, combined with clear design objectives and decision guidelines is the preferred form of height and setback controls.

Built form controls can be discretionary or mandatory or a combination of both.

Mandatory height and setback controls will only be considered where they are supported by robust and comprehensive strategic work or where exceptional circumstances warrant their introduction.

Mandatory height or setback controls should only be applied where:

- Exceptional circumstances exist; or
- Council has undertaken comprehensive strategic work and is able to demonstrate that mandatory controls are appropriate in the context, and
- They are absolutely necessary to achieve the preferred built form outcomes and it can be demonstrated that exceeding these development parameters would result in unacceptable built form outcomes.

Where mandatory controls are proposed a council will be assessed against all of the following:

- Consistency with state and regional planning policy
- Currency of work no more than 5 years old
- Capacity to accommodate growth in an activity centre

Exceptional circumstances include significant heritage places where other controls are demonstrated to be inadequate to protect unique heritage values.

199. These above principles and criteria have been generally complied with in relation to the proposed amendment.

Mandatory controls generally

200. The above considerations guide opinions formed about the appropriateness or otherwise of mandatory controls in relation to the overshadowing of public parks. They go to matters such as:

- Exceptional circumstances.
- Strategic justification.
- The adequacy of non-mandatory to protect exceptional values.
- 201.In relation to the overshadowing of parks, forming a view on the appropriateness of mandatory controls centres around considerations such as:
 - The degree to which open space is valued by the community.

- The risk to the amenity and to the ecological values of parks if they are overshadowed.
- The balance between planning policies that encourage urban consolidation and intensification, and policies that seek to maintain high amenity for parks.

202. The basis of the findings of the Sunlight Access Report is that:

- Open space is a scarce and highly valued resource in the inner city.
- High levels of access to sunlight is a key determinant of the amenity of public open space.
- The amenity of parks will become increasingly important over time as the population of the municipality increases.
- 203. If there is general agreement about these considerations, then there is a strong case for the overshadowing of parks to be tightly controlled.
- 204. Overshadowing is one of the few absolutes in planning. It can be precisely determined whether a proposed building will overshadow a park at any time of the day, on any day of the year.
- 205. Generally, discretionary controls are more appropriate to apply in situations where there is a high degree of subjectivity. Mandatory controls are more appropriate to apply where there is less subjectivity.
- 206. The subjectivity in relation to overshadowing is what standard should be applied, not what land will be affected by a shadow. If the standards proposed in Amendment C278 are considered to be acceptable, the issue of whether the control should be discretionary on mandatory, turns on whether there are likely situations in which it would be appropriate to vary the standard.
- 207.1 believe that without strong controls, there is a risk that the sunlight available to parks will decrease over time, to the detriment of the amenity and environmental qualities of parks.

Need for a long term view

- 208. There is a need for a long term view in terms of protecting the amenity and the attractiveness of parks in the central municipality of a major metropolitan area, such as Melbourne.
- 209. The concept of a 'death by a thousand cuts' has been recognised in previous in planning hearings.¹⁷ The overshadowing of parks within areas where planning allows for taller built form, can incrementally lead to cumulative impacts which do not become apparent until well into the future.
- 210. How parks are used and landscaped, and the existence of buildings and structure within them, can change considerably overtime. It is important that planning decisions about the overshadowing of parks undertaken today do not prejudice the future use and development of parks and reduce the options to redesign and reconfigure those parks in years to come, for the benefit of the community.
- 211.Generally the key outcome for a park when discretion exists, is for a greater level of overshadowing than otherwise identified in planning controls. There is no benefit to the amenity or to the ecological values of a park from discretionary controls.
- 212. In my opinion, the mandatory form of the controls proposed is appropriate for the overshadowing of parks in the City of Melbourne, outside of the Central City.

¹⁷ Fishermans Bend, page 110

10. Development within parks

213.Melbourne's parks include some very significant buildings, sporting clubs and other facilities. Examples include:

- The MCG.
- The Sidney Myer Music Bowl.
- The Zoo.
- Visy Park (in Princes Park).
- The State Hockey Centre.
- 214. Submissions have been made by a number of sporting and other agencies that manage facilities located within parks, expressing concern about the impacts of the amendment on the future development, redevelopment, expansion or upgrading of their facilities.
- 215.DD08 as exhibited, does not apply to land within the boundaries of parks. It will only apply to land around the periphery of parks. Accordingly, the provisions of DD08, in particular the mandatory nature of the provisions, will not apply to buildings within parks themselves.
- 216. However, the overshadowing policy contained in Clause 22.02 will apply to all development within parks, as it does at present. The policy is presently worded as follows:

Other Public Spaces within the municipality

Development should not unreasonably reduce the amenity of public spaces by casting additional shadows on any public space, public parks and gardens, public squares, major pedestrian routes including streets and lanes, open spaces associated with a place of worship and privately owned plazas accessible to the public between 11.00 am and 2.00 pm on 22 September.

217. That wording is proposed to be replaced by the following wording:

Public Parks Outside the Hoddle Grid and Southbank

Development must not cast additional shadow on any public park at key times and dates identified in the planning scheme.

- 218. The revised policy in Clause 22.02 is more onerous than the existing policy. It includes a more stringent standard, is expressed as a mandatory policy, and does not include the qualification *"should not unreasonably reduce the amenity"*. It would not be possible to construct a building within a park and comply with that policy.
- 219.1 suggest that the policy be broken into two parts:
 - one part that relates to development within a park itself, and
 - another part that relates to development around a park.
- 220.1 also suggest that the wording of the proposed policy be modified to refer specifically to the general standards proposed by Amendment C278 i.e. between 10 am and 3 pm on the Winter solstice.
- 221.In relation to development within a park, I also suggest a qualification be included 'to the satisfaction of the responsible authority....'.

222. The modified wording for the policy to be included in Clause 22.02 that I suggest is:

Development on land outside the boundaries of a park should not cast additional shadow on a park between 10.00 am and 3.00 pm on 21 June.

Development on land within the boundaries of a park should not unreasonably reduce the amenity of the park by casting additional shadows on the park between 10.00 am and 3.00 pm on 21 June, to the satisfaction of the Responsible Authority.

- 223.1 do not think that it is necessary to include reference in this policy to the different times of the day referred to in D08 in relation to Type 3 Parks. It is sufficient to express the proposed new 'general standard' for overshadowing, which is 10.00 am to 3.00 pm on the 21st of June.
- 224. The reason for this is that the earlier and later times are exceptions expressed in relation to land abutting Stage 3 Parks, and is not relevant to apply to development within parks. In addition the exemptions only apply to Stage 3 Parks. To be a Stage 3 Park a park needs to be defined in DD08. In such a case the mandatory controls of DD08 will apply and there will be no need to refer to Clause 22.02.
- 225.Further, the requirement is expressed as a policy rather than a mandatory control and the impact of the any shadow cast on a park can be assessed by the responsible authority.

11. The need for a comprehensive review of overshadowing provisions

- 226. There is a complex array of overshadowing controls contained throughout the Melbourne Planning Scheme that relate to parks. Many of these controls are included in the zone schedules, DPO schedules and numerous DDOs that apply throughout the City of Melbourne.
- 227. Those controls contain standards that relate to different times of the day and different months of the year, compared to those proposed in Amendment C278. They generally relate to a standard of 11am to 2pm on the September equinox. They are generally discretionary rather than mandatory.
- 228. In many locations the controls will overlap controls proposed by Amendment C278.
- 229.Existing overshadowing controls should be rationalised in order to simplify the planning scheme, and to remove conflicting controls and ambiguity. Amendment C278 has not done this. Accordingly, there will be situations in which two different overshadowing controls will apply.
- 230. Where two sets of controls apply, the planning principle is that the more stringent control will take precedence. In most cases, the more stringent controls will be the DD08 control.
- 231.If the Panel supports this amendment, I believe it should consider making a recommendation that existing overshadowing controls in the planning scheme be rationalised, as a priority.

12. Conclusion

- 232.Amendment C278 is an example of the City of Melbourne seeking to raise the bar and to establish new best practice in relation to the management of overshadowing of parks outside of the Central City.
- 233. The controls proposed are based on the Winter solstice, are mandatory, and make a distinction between parks in low scale areas (4 storeys or less) and growth areas (4 storeys or more). They are not intended to and should not apply to land within the Central City, being the Hoddle Grid, Southbank and Docklands.
- 234. The controls are much needed, to protect the amenity and ecological qualities of parks throughout the municipality into the future, as planning policy appropriately encourages consolidation and intensification in well serviced and highly accessible areas like the City of Melbourne.
- 235. The amendment is supported by the detailed analysis and findings of the Sunlight Access Report.
- 236. Whilst I have raised a number of issues in relation to the wording of the proposed policy and schedule to the DDO, and a number of mapping issues, I believe that the amendment has a high level of strategic justification and will make a valuable contribution to the suite of planning policies and controls currently contained in the planning scheme.

Allama

David Barnes BTRP(Hons); MBA; FPIA

Melbourne Amendment C278 | Overshadowing of Parks

David Barnes - CV

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Summary of Experience

David has been a town planner since 1980. With an MBA to supplement his planning qualifications, David is both a strategic planning specialist and an experienced statutory planner. As a statutory planner, David has been involved in obtaining planning approvals for a wide range of projects including residential, retail, commercial, industrial, rural, tourism, entertainment, sports, recreation and community development projects. He has extensive experience representing clients at planning appeals and panel hearings as both an advocate and as an expert witness.

As a strategic planner, David's experience encompasses policy formulation and implementation; preparation of strategy plans, structure plans, urban design frameworks, development plans, planning schemes and amendments; community consultation; preparation of infrastructure funding strategies and development contributions plans; and preparation of commercial, industrial and residential market assessments.

In addition, David has experience in Asia, preparing urban management plans, strategy plans, structure plans, master plans and detailed plans, planning and development controls, and in relation to institutional strengthening programs and professional training programs.

Current Position

Hansen Partnership Managing Director January 2012 – present

Past Positions

Hansen Partnership Director (September 1997 – December 2011)

Henshall Hansen Associates

Director (July 1995 – Aug 1997) Associate Director (1992 – July 1995) Senior Planner (April 1988 – November 1989) Associate (1989-1992)

WBCM Consultants Limited

Senior Urban Planner (July 1985 – April 1988)

Melbourne and Metropolitan Board of Works

Statutory Planner (February – June 1985) Planning Officer (April 1982 – February 1984)

Estate Office, Victorian Railways

Town planner (November 1980 – April 1982)

Qualifications

- Master of Business Administration, RMIT University (1993)
- Bachelor of Town and Regional Planning (hons), University of Melbourne (1980)

Affiliations

- Property Council of Australia, Victoria Division (2012 2016; 2009-2010) - Member of planning committee
- Planning Institute of Australia (PIA) (2007 present) Fellow
- Victoria Planning and Environmental Law Association (2009 present) member

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- Planning Institute of Australia (PIA) (1996-2007) Member
- Royal Australian Planning Institute Vice President and Treasurer (1996-1997)

Specialisations

- Strategic planner
- Statutory planner
- Town planning advocate
- Town planning expert witness
- Infrastructure funding and development contributions
- International planning urban management, institutional strengthening, training



Key Project Experience

Structure Planning

- Review of Bayswater / Bayswater North Industrial Precinct, with the AEC Group, State Development Business and Innovation (2014)
- Bendigo Hospital Surrounds Structure Plan, the City of Greater Bendigo (2013)
- Birregurra Structure Plan Review, Otway Shire Council (2013)
- Chapel Vision Structure Plan Review, Stonnington City Council (2013)
- Warrnambool North Dennington Structure Plan and Development Control Plan, Warrnambool City Council (2012)
- Hamilton Structure Plan and Town Centre Urban Design Framework, for South Grampians Shire (2010)
- Traralgon Town Centre Structure Plan and Urban Design Framework, for Latrobe Valley Shire (2010)
- Ringwood Transit City Development Contributions Plan, for Maroondah City Council (2009)
- Frankston Safe Boat Harbour Planning Scheme Amendment, for Frankston City Council (2008)
- Clifton Springs Town Centre Structure Plan, for the City of Greater Geelong (2008)
- Warrnambool and Moyne Development Program, for Warrnambool City Council and Moyne Shire Council (2008)
- Spring Creek Urban Growth Framework Plan and Precinct Structure Plan, for the Surf Coast Shire (2008)
- Newhaven, Cape Woolamai and San Remo Structure Plan, for Bass Coast Shire Council (2007)
- Ocean Grove Structure Plan, for the City of Greater Geelong (2006)
- Jackass Flat Structure Plan, Greater Bendigo City Council (2006)
- Burwood Heights Activity Centre Structure Plan, Whitehorse City Council, (2004)
- Torquay / Jan Juc Population and Residential Development Review, (2004)
- West Melbourne Structure Plan, for the City of Melbourne (2003)
- Highett Structure Plan, for the Cities of Bayside and Kingston (2002-2003)

Character Studies

- Barwon Heads Residential and Landscape Character Study (2017)
- Birregurra Neighbourhood Character Study, Otway Shire Council, (2011)
- Romsey Neighbourhood Character Study, for Macedon Ranges Shire, (2010)
- Boroondara My Neighbourhood Prized Residential Character Areas, for

Boroondara City Council (2008)

- Dandenong Neighbourhood Character Study, for the City of Greater Dandenong (2007-2008)
- Queenscliffe Urban Character Study, for the Borough of Queenscliffe (2000)

Strategy Planning and Studies

- Mitchell Rural Land and Activities Review, for the Shire of Mitchell (2019)
- Eastern Region Metropolitan Land Use Framework Plan, for the Department of Land Water Environment and Planning (2017-2019)
- Garden Area Review, for the Department of Land, Water Environment and Planning, (2018)
- Avalon Corridor Framework Plan, for the Cities of Greater Geelong and Wyndeham, and the Department of Environment Land Water and Planning (2017)
- Baw Baw Rural Land Use Strategy, for the Baw Baw Shire Council (2016)
- Community Plans for Nerrim South, Labatouche, Jindivik and Trafalgar, for the Shire of Baw Baw (2016)
- Ballarat Growth Areas Review, for the Greater City of Ballarat (2016)
- Frankston Native Vegetation Control Review, for the City of Frankston (2015)
- La Trobe University Bendigo Campus Vision, for La Trobe University (2014)
- La Trobe University Boroondara Campus Vision, La Trobe University (2012)
- Mildura Settlement Strategy, Mildura Rural City Council (2013)
- New Gisborne Development Plan, Macedon Ranges Shire Council, (2011)
- Traralgon Growth Areas Review, for LaTrobe City Council (2011)
- Sweetwater Creek, Strategic Justification for Development / Environmental Overlays, for Frankston City Council (2010)
- Shepparton East Outline Development Plan, for the City of Greater Shepparton (2009)
- Fishermans Bend Industrial Land Review, with Charter Keck Cramer, for Port Phillip City Council (2009)
- Melbourne Industrial Land Supply and Demand Study, with Charter Keck Cramer, for Melbourne City Council (2009)
- LaTrobe University Strategy Planning Review, for LaTrobe University (2008/2009)
- Review of Referral Requirements under the Victoria Planning Provisions, for the Department of Planning and Community Development (2008)
- Whitehorse Student Accommodation Strategic Review and Planning Scheme Amendment, for Whitehorse City Council (2007)
- Geelong Region Strategy Plan, for the G21 Geelong Regional Alliance (2005-2006)



- Bell Street Strategy Plan and Urban Design Framework, Darebin City Council (2005)
- Kingston Retail and Commercial Development Strategy, with Charter keck
 Cramer, for the City of Kingston (2004)
- Willoughby Industrial Strategy, Willoughby City Council (2003)
- Yarra Industrial Strategy, for Yarra City Council (2003)
- Moorabool Rural Housing Study, for Moorabool Shire Council (2003)
- Ballan Township Strategy Plan, for Moorabool Shire Council (2003)
- Blackrock Shopping Centre Study, for the Cities of Bayside and Kingston, (2002-2003)
- Geelong Western Wedge Strategic Framework Plan and Railway Station Master Plan, for the Department of Infrastructure (2002)
- Bayside Industrial Areas Study, for the City of Bayside (2002)
- Moreland Industrial Areas Review, for the City of Moreland (2002)
- Geelong Industrial Land Use Study, for the City of Greater Geelong, with MacroPlan (2001)
- Anglesea Population Review and Review of Township Boundaries, for Surf Coast Shire Council (2000)
- Torquay Population and Residential Strategy Review, for Surf Coast Shire Council (2000)
- Torquay Industrial Area Review, for Surf Coast Shire Council (2000)
- Bayside Height Control Study, for the City of Bayside (1999)
- Geelong CAA Revitalisation Program, for the Greater City of Geelong (1998)
- Sydenham Activity Area Policy Review, for the City of Brimbank (1998)

Management plans

Melton North Green Wedge Management Plan, Melton Shire Council (2014)

Infrastructure reviews

- Ringwood Transit City Development Contributions Plan, for the Maroondah City Council (2007)
- Development Contributions Plan for Plenty and Yarrambat, for the Nillumbik Shire Council (1998-1999)
- Car Parking Rate Review, for the Department of Infrastructure (1999)

Sustainability

- Port Phillip Bay Coastal Climate Change Planning Project, for the Municipal Association of Victoria (2017 to 2019)
- Strengthening Victoria's Food Bowl, with PSI Delta, for Moira Campaspe, Swan Hill and Mildura councils (2011)
- Utilising Victoria's Planning Framework to Support Sustainability, Municipal Association of Victoria (2009-2010)
- Sustainability in the Planning Process, for the municipalities of Moreland, Port Phillip and Darebin (2007-2008)
- Doncaster Hill Energy Plan, for Manningham City Council and Sustainability Victoria (2008)

Urban Design Frameworks

- Torquay Town Centre Urban Design Framework and Investment Facilitation Plan, for Surf Coast Shire (2017)
- Urban Design Frameworks for Longwarry, Nerrim South and Trafalgar, for the Shire of Baw Baw (2016)
- Ringwood Town Centre Urban Design Framework, for the City of Maroondah (2002-2003)
- Knox Central Urban Design Framework, for the City of Knox (2002-2003)

Design Guidelines

- Yarra Ranges Residential Design Guidelines, for Yarra Ranges Shire (2018 / 2019)
- Knox Residential Capacity and Design Guidelines Project, Knox City Council (2010)
- Aireys Inlet Activity Centre Urban Design Guidelines, for Surf Coast Shire, (2008-2009)
- Kingston Residential Design Guidelines, for the city of Kingston (2000)
- Kingston Residential Design Guidelines, for the city of Kingston (2000)
- Miller Street and Gilbert Street Preston Design Guidelines, for Darebin City Council (2009)
- Station Street Fairfield Design Guidelines, for Darebin City Council (2008)
- Victoria Street Urban Design Framework and Streetscape Plan, for the City of Yarra (2002)
- Hastings Foreshore Urban Design Framework, for Mornington Peninsula Shire (2000)
- Carrum Urban Design Framework, for the City of Kingston (2000)

International planning

- Thai Binh Economic Zone Master Plan, with the Vietnam Institute for Urban and Rural Planning, for a private development company (2019)
- Con Dao Tourism Master Plan, for the Ba Ria Vung Tao People's Committee, Vietnam (2014 to 2016)
- Ben Dam Detailed Master Plan and Urban Management System, for the Ba Ria Vung Tao People's Committee, Vietnam (2013.
- Long Thanh International Airport Master Plan Vietnam, with the Vietnamese Institute of Architecture Urban and Rural Planning, for the Dong Nai People's Committee (2009-2012)
- Three Delta Towns Water Supply and Sanitation Project Vietnam, with Gutteridge Haskins and Davey, for AusAide, (2002-2003)
- Capacity 21 Project Environment Issues in Investment Planning in Vietnam Quang Ninh Provincial Pilot Project, Ha Long Bay Vietnam, UNDP Project VIE 97/007, prepared for Colenco~Holinger (2000)
- HCMC UNDP Public Administration Reform Project, preparation of Proposal for Consultancy Team, (1999)
- Hanoi Planning and Development Controls, Hanoi, Vietnam, as part of Hanoi Planning and Development Control Project (1995-1997)