

Privacy acknowledgement: I have read and acknowledge how Council will use and disclose my personal information.

*

Name: * Jan Lacey

Email address: * janlacey1@gmail.com

Date of meeting: * Monday 16 August 2021

Agenda item title: C278 Sunlight to Public Parks

*

Please write your submission in the space provided below and submit by no later than 10am on the day of the scheduled meeting. Submissions will not be accepted after 10am.

Councillors:

C278 Sunlight to Public Parks

I understand Council has reduced the winter solstice setting from 10 to 12 am for Flagstaff Gardens. Please give us the 10 am to 3 pm setting back.

Queen Street developers should not have priority over the many local residents, workers and visitors who enjoy the park – one of the very few available in that part of the city. Although it is a very attractive park it is also a small park, giving users few options to avoid overshadowing.

Please redesignate mandatory protection from 10 am to 3 pm for Flagstaff Gardens and make people the priority, not developers.

Please indicate whether you would like to address the Future No

Melbourne

**Committee live via
phone or Zoom in
support of your
submission: ***

Privacy acknowledgement: I have read and acknowledge how Council will use and disclose my personal information.

*

Name: * Ray Cowling

Email address: * ricowling@bigpond.com

Date of meeting: * Tuesday 17 August 2021

Agenda item title: 6.2 Melbourne Planning Scheme Amendment C278 Sunlight to Public Parks

*

Please write your submission in the space provided below and submit by no later than 10am on the day of the scheduled meeting. Submissions will not be accepted after 10am.

Thank you for working hard to protect sunlight in our parks, and especially thank you for recognising that Flagstaff Gardens is one of the few places where the winter sun sets on a public garden and so is valued by the community, such as the late afternoon dog walkers and casual bowlers. So I particularly thank you for the 3pm winter solstice setting.

However, I note an unnecessary concession to Queen St developers. To change the setting from 10am to 12 am is to discriminate against mothers, fathers and small children who use the park in the morning. Why? Queen St developers could put their next 10 or 20 storeys in a different location rather than take sunshine away from people and parks. There is no way that we can reclaim sun to the park once we have lost it. Do we say that because a coal miner has bought a mine site, that he has a god given right to keep mining in spite of the weather consequences to other people?

Nor is it appropriate to compare Flagstaff Gardens with Fawkner Park, (page 20 1.3 Part A Changes). Flagstaff is on the edge of the Hoddle Grid where park space is sparse and density of use of each square metre of park is much greater. By contrast, Fawkner Park is part of the whole Domain and Botanical Gardens complex, a total parkland about 20 times as large, serving a less dense population of workers and residents. Therefore, Flagstaff should have

the most special treatment of all parks, after only the Yarra banks.

I ask you to again designate Flagstaff Gardens to mandatory protection from 10 am to 3 pm, those developments already approved will cut into this ideal quite enough.

Thank you for your consideration.

Please indicate **No**
whether you
would like to
address the Future
Melbourne
Committee live via
phone or Zoom in
support of your
submission: *

Privacy acknowledgement: * I have read and acknowledge how Council will use and disclose my personal information.

Name: * Ewan Ogilvy

Email address: * planningcra@gmail.com

Date of meeting: * Tuesday 17 August 2021

Agenda item title: * 6.2 Melbourne Planning Scheme Amendment C278 Sunlight to Public Parks

Please write your submission in the space provided below and submit by no later than 10am on the day of the scheduled meeting. Submissions will not be accepted after 10am.

Alternatively you may attach your written submission by uploading your file here:



[cra_submission_to_fmc_17aug21_item_6.2_mps_am_c278_sunlight_to_public_parks.pdf](#)

331.49 KB · PDF

Please indicate whether you would like to address the Future Melbourne Committee live via phone or Zoom in support of your submission: *

No



The Carlton Residents Association Inc
A0034345G ABN 87 716 923 898
PO Box 1140 Carlton Vic 3053
planningcra@gmail.com
www.carltonresidents.org.au

16 August 2021

SUBMISSION TO FUTURE MELBOURNE COMMITTEE 17 August 2021

To The Lord Mayor and Councillors - City of Melbourne

Item **6.2 Melbourne Planning Scheme Amendment C278 Sunlight to Public Parks**

This submission highlights key matters addressed by the Carlton Residents Association [CRA] during the Panel Hearing. The Association believes that the resolution of these matters would assist the council in managing the future planning of Carlton.

- For the Carlton area, our historic and generous median strips have provided valuable open space for our residents for decades. **Because Am C278 only applied to those spaces zoned as Public Park and Recreation Zone [PPRZ], these valuable spaces receive no protection at all with the current Amendment.** Since there are other significant open spaces within the Carlton area [like the Royal Exhibition Building and Museum Forecourt] that also receive NO protection, this serious omission must be addressed.
- The decision of the Council to designate Argyle Square as a Type 2 Park [with less onerous sunlight protection] was justified by the Council's representatives at the Panel Hearing by limiting the application of the Type 1 typology to parks in "low-scale areas of 3 storeys or less". **To treat Argyle Square, which is covered with a preferred [but discretionary] maximum height of 4 storeys, as a GROWTH area is contentious. It has resulted in this Square being treated in the same way as University and Lincoln Squares, where 6 to 15 storey buildings may be permitted [DDO61].** We don't believe that this is the intention, given the cultural and economic importance to Carlton of respecting the low-rise mixed use buildings in that iconic part of Lygon Street bordering Argyle Square. Designating Argyle Square a Type 1 Park would be more respectful of this cultural and economic context.
- The other major problem highlighted by the Association during the Panel Hearing concerned the imposition of the new sunlight protection control [DDO8] over areas of Carlton where NO Park Types were identified. **At no stage during the Panel Hearings could ANYONE clarify the purpose of some of these controls.** For example, there are currently NO parks of any type to the immediate south of Elgin Street. Unless an affected Park can be identified, the DDO8 controls have no purpose.
- **Finally, the lack of any height controls over non-residential uses [in some residential zones] and other areas of Carlton, while identified as a problem during the Panel Hearings, has not been addressed.** While the proposed World Heritage Environs Area Planning Scheme Amendment may address this problem in those areas to the immediate North and West of the World Heritage site, the lack of height controls in other areas of Carlton remains a serious problem.

In the Association's view, the resolution of these issues would help to reduce inconsistencies and strengthen the Council's planning efforts for Carlton over the medium to longer term.

Ewan Ogilvy and Peter Sanders

[For the Carlton Residents Association Planning Group]

Jordan McKay

From: Wufoo <no-reply@wufoo.com>
Sent: Monday, 16 August 2021 11:06 PM
To: CoM Meetings
Subject: FMC meeting submission form (virtual meetings) [#1884]

Privacy acknowledgement: * I have read and acknowledge how Council will use and disclose my personal information.

Name: * Mary-Lou Howie

Email address: * howie.marylou@gmail.com

Date of meeting: * Tuesday 17 August 2021

Agenda item title: * 6.2 Melbourne Planning Scheme Amendment C278 Sunlight to Public Parks

Alternatively you may attach your written submission by uploading your file here:



[6.2_melbourne_planning_scheme_amendment__sunlight_to_public_parks.docx](#)

47.05 KB · DOCX

Please indicate whether you would like to address the Future Melbourne Committee live via phone or Zoom in support of your submission: *

No



17 August

6.2 Melbourne Planning Scheme Amendment C278 Sunlight to Public Parks

RE *Market Square at QVM* and the Sunlight Amendment

Additional sunlight to public parks is supported, as is making it mandatory and the shift to the winter solstice, as well as applying it to all parks. This must include the Queen Victoria Market car park to maximise sunlight to this space which is co-opted by the CoM for the repurposing of this part of the heritage site known as Queen Victoria Market car park as Queen Victoria Market's Market Square.

Why is Market Square not in the amendment? As it is proposed by CoM to be a park surely it should be included in the C278 Sunlight to Public Parks.

We are dubious that

- the 'strict' heritage listing of the market will protect it from overshadowing especially when looking at the proposed height of the building proposed on the corner of Queen and Franklin Street by the developer, the of Melbourne, as part of the southern site. This conflict of interest hardly offers protection.
- Overshadowing controls such as Development Plan Overlay Schedule 11 seem meaningless when a real estate transaction takes precedence – *“New development should not cast a shadow across the Flagstaff Gardens or the proposed public open space in Figure 1 between 11.00am and 2.00 pm on 22 June unless the responsible authority considers the overshadowing will not significantly prejudice the amenity of the open space”* Already this is open to negotiation, embedding a clause diminishing overshadowing controls.

Although we oppose the conversion of this site, the QVM car park, into open space, opposite a large public park, Flagstaff Gardens, there is a very significant increase in the value of and need for natural sunlight and protection from overshadowing since the work on this amendment began.

We believe that this parcel of land that is a part of Queen Victoria Market, whether a greened car park or a repurposed open space, along with existing heritage controls, be included in this amendment.

RECOMMENDATION: In future it is suggested that all documents be available on the website a minimum of two weeks before the FMC meeting. This is a huge document to analyse, understand and respond to in such a short period of time. We say this for the sake of community and stakeholder health and well-being and for proper, effective inclusion of community and stakeholders.

Mary-Lou Howie

17 August 2021

Dear Lord Mayor Sally Capp and Councillors, City of Melbourne,

<https://www.melbourne.vic.gov.au/about-council/committees-meetings/meeting-archive/Pages/Future-Melbourne-Committee-17-August-2021.aspx>

Re: Report to the Future Melbourne Committee Agenda item 6.2:

**Melbourne Planning Scheme Amendment C278 Sunlight to Public Parks
17 August 2021**

Presenter: Richard Smithers, Acting Co-Director City Strategy

Protecting public parks and greenspaces from overshadowing, that is protecting sunlight to public parks, is a significant matter and one that is increasingly important now, several years after City of Melbourne commenced the Protection of Sunlight in Public Parks initiative, one we were and remain keen to support.

Additional sunlight to public parks is strongly supported, as is making it mandatory and the shift to the winter solstice, as well as applying it to all parks. City of Melbourne is to be applauded for these key principles.

There are, however, a number of issues, a few edits, some omissions and changes/amendments that should be made now in view of the undisputed climate change catastrophe, the on-going post-Covid world we live in which has changed urban centres fundamentally, and with new research on circadian rhythms, sunlight and health and well-being.

The *'balance'* referred to in the report/documentation has shifted and should be reviewed and re-weighted for **more sunlight protection and less overshadowing of parks** now and lower building heights and less hi-rise development. What is considered an *'unreasonable impact on development'* has now changed, significantly. This is a major shift in the balance and it is recommended that Council makes amendments accordingly.

Page one of the Council Report states: "Recommendation from management is "That the Future Melbourne Committee recommends Council: 7.1. **Adopts Melbourne Planning Scheme Amendment C278 as shown in Attachment 5 to this report**".

Page 2 states, 5. Management's assessment of Panel's recommendations is on pages 132 of 183.

Edit/correct:

Page 133 states: "*It should be noted that the choice of the winter solstice does result in protecting sun only in June.*" Please edit this and add 'not' ("...does not result ...") or other alteration to correct the sentence.

New Research on health and well-being and critical natural sunlight

Assoc. Prof. Sean Cain is an expert in circadian rhythms at Monash University, focusing on the sensitivity of the circadian system to light and how these differences lead to poor health outcomes, including sleep disorders, metabolic disease, and depression. He has

recently presented research about the vital importance of sunlight and its effects on the circadian system for health and well-being. (Walk in St Kilda Rd & Environs Planet Ark National Tree Day Nature Care event, the Prahran Mechanics Institute, 27 June 2021. Papers can be provided on request.).

<https://lens.monash.edu/@sean-cain>

Prof. Cain is doing work showing the effects of sunlight exposure on mood and sleep. A 2021 paper/article “*Time spent in outdoor light is associated with mood-, sleep, and circadian rhythm-related outcomes: a cross-sectional and longitudinal study in over 400,000 UK Biobank participants*”, Burns, Cain et al, should be accepted any day now. Its conclusions are that the findings support increased daytime light exposure is beneficial for both mood and sleep disorders.

Sunlight has a role in sterilisation, it kills pathogens and germs, helps sterilise the environment, our clothes... This is an important effect and shadow diminishes that.

We now know natural sunlight access is even more important.

The Climate Change Crisis and Environmental Sustainability

a) The Intergovernmental Panel on Climate Change (IPCC) Report 9 August 2021

was devastating re warnings temperatures are likely to rise by more than 1.5C bringing widespread extreme weather and major changes. But they stated: “*strong and sustained reductions in emissions of carbon dioxide (CO₂) and other greenhouse gases would limit climate change*”. They stressed the responsibility of human influence on the past and future climate.

<https://www.ipcc.ch/2/08/09/ar6-wg1-20210809-pr/>

<https://www.theguardian.com/science/2021/aug/09/humans-have-caused-unprecedented-and-irreversible-change-to-climate-scientists-warn>

City of Melbourne has a responsibility and duty of care (and we all do) to make significant changes, adjustments and shifts to minimise climate change and environmental impacts, and that includes revising old, outdated plans for high-rise development intensification (that is any plans pre-March/April 2020), as these are known to be energy-hungry.

Building by building towers use more energy and are less sustainable. It is known that low rise buildings are greener and more environmentally sound in terms of energy usage, HVACs etc ..., operation and living, while high-rise buildings have a very high energy usage. In the post-Covid world, city centres are not the office hubs and retail and cultural centres they may have been in the past, and thus past economies of scale with centralised city mass public transport are also lost.

This is a time for a significant pause and a re-think.

Moving away from tall buildings

For example, Rowan Moore writes in the Guardian 11 July 2020 “*Wasteful, damaging and outmoded: is it time to stop building skyscrapers*”. “tall buildings are more structurally demanding than lower ones ... experts are drawing attention to the high environmental cost of building them”, and “engineer Tim Snelson, of the design

consultancy Arup, has just blown a hole in any claim they might have had to be environmentally sustainable. Writing in this month's issue of the architecture magazine Domus, he points out that a typical skyscraper will have at least double the carbon footprint of a 10-storey building of the same floor area."

<https://www.theguardian.com/artanddesign/2020/jul/11/skyscrapers-wasteful-damaging-outmoded-time-to-stop-tall-buildings>

*"There's another meaning to "environment", which describes personal rather than global surroundings. In this respect, it's a bit of mystery why towers are thought desirable: you typically progress from a windy and inhospitable plaza to a soulless lobby, to a long lift ride, to another lobby, to a flat that has to be fortified and sealed against strong winds, to a balcony (if you're lucky) with a similarly **embattled relationship to nature**. "*

"... In Britain, tall buildings are signs of failed planning, which finds it hard to discover the space for more sustainable and humane ways of building homes."

*Tim Snelson puts it well: "... we have come to the point where we must put the limits on ourselves and apply our forces to **the challenge of building sustainably**, above all else, or risk destroying the very future that will hold our legacy."*

The need for, the desirability and the possibility of sustainably and healthily allowing the city to grow as conceived pre-2020 has dramatically altered, has gone. The population growth for Melbourne and its projections are not the same but are significantly diminished, and this has not been acknowledged in the reports. With major shifts and changes in the years since early 2018 when the original modelling and balancing was done, the 'balance' the document refers to and bases the Amendment on, between high rise development in urban cities and shadowing in public parks - should be reassessed and re-weighted with added consideration of the need for environmentally and nature-sound considerations and for natural sunlight throughout the city and its parks for circadian rhythm health and well-being and climate change diminishment.

- **Melbourne Observatory (MO)**

a) An edit needs to be made to name and mark MO with its physical borders or landspace on the map on page 5, and to include it in the key with a number and its name: Melbourne Observatory.

Note: no other place is listed under the name of its manager. (if they were, a number of places would be marked on the map and listed in the key as 'City of Melbourne').

b) **Melbourne Observatory needs to be offered more mandatory protection against overshadowing.** We requested it be made **an urban dark sky site.**

– as a registered, operating observatory, conducting public solar observations in the day as well as night observations through the telescopes in two of the heritage buildings on its site it should have more protection from shadowing. It's not just the diurnal overshadowing from the sun that's the problem. If there's overshadowing during daylight

hours it means the same shadow producing obstacles also obscure the stars from being seen by the telescopes during the evenings. It's a day and night issue., a day and night protection that is needed.

Significant funds are being spent on restoration and maintenance of three of its heritage buildings, including restoration of the Great Melbourne Telescope House and re-construction of the Great Melbourne Telescope.

Melbourne Observatory is on the Victorian Heritage Register and the National Heritage list, making it a formally acknowledged place of outstanding national significance to all Australians. It was also determined in the Walk in St Kilda Rd and Royal Historical Society of Victoria panel presentations on “*Melbourne Observatory – Outstanding Universal Value*’ at the Royal Historical Society of Victoria in December 2020 that Melbourne Observatory is considered to fulfil the outlined requirements for UNESCO world heritage listing. There is compelling evidence, function and reason to make Melbourne Observatory an Urban Dark Sky Site and to give it additional, high protection from overshadowing there.

Note: Councillors can make changes to the amendments and present them at the FMC meeting.

Edits can be made.

The matter could be deferred and delayed pending further consultation and changes.

An edit can be made stating, for example, that Melbourne Observatory requires additional protection from overshadowing and that further work is to be done now to seek to make it an urban dark sky site.

- **Market Square in Queen Victoria Market**

This is missing from the document, its maps, including the map and key on page 5, although it states it includes places identified as a *public park within the Public Parks and Recreation Zone*, and Council advised Market Square at Queen Victoria Market is so identified.

City of Melbourne has stated for years that it is to be made a green space. If so, should it not be given mandatory protection from over-shadowing?

The principle and practice of preventative action and upfront protection needs to be the focus here. It is stated in the Report many times “Once sunlight access is lost, it is lost forever”, so this mandatory protection is imperative and timely to protect sunlight in Market Square in Queen Victoria Market, prevent overshadowing and to make it mandatory.

“The primary need for mandatory controls relates to **the risk that discretion would allow cumulative impacts of shadow to slowly build over time to an unacceptable outcome – a death by a thousand cuts**. Once sunlight access is lost, it is lost forever.”

Page 14, the Planning Panel Report.

Ref. Page 98: " *Land along the south side of Thierry Street and the west side of Queen Street (known as the Munro site) is not proposed to be included in the DDO8. Council did*

not explain why, but the Panel notes that the Munro site is currently being redeveloped for a substantial mixed use development with a mix of mid-rise buildings and two substantial towers ... (page 99) the Panel considers that on balance, it is appropriate to apply the DDO8 to the Queen Victoria Market precinct, but the inconsistencies in the overshadowing controls between the DPO11 and the DDO8 should be resolved by a further amendment as a matter of priority.”

It is requested and recommended that the DDO8 does apply to the Queen Victoria Market precinct so that maximum, timely protection for sunlight and against cumulative overshadowing can be prevented and protected.

We disagree and do not support Ms Hodyl’s/the Panel’s recommendation to shorten the hours of protection for Flagstaff Gardens to 12pm to 3pm (rather than 11am to 3pm).

We believe the Amendment should be applied to Docklands. It is important for health and well-being and environmental sustainability.

I agree with and co-endorse the following comments from Dr Greg Moore OAM*, 16 August 2021.

* **Dr Greg Moore OAM**, Doctor of Botany, is Chair of the National Trust of Australia (Vic) Register of Significant Trees Committee and a Senior Research Associate at the University of Melbourne, Burnley Campus. He was Principal of Burnley College, Melbourne University from 1988 to 2007.

In relation to access to Sunlight, note:

- I would not give the University or RMIT any exemptions for any public open space of tree related matters. They have not shown themselves to be responsible in dealing with either
- I am not sure that Flagstaff should be regarded as a west park - I advocate for whichever gives greater sunlight access
- I fully support the expanded hours (from 10am until 3 pm) and think **it should apply to every park**
- Those who have opposed the policy on the grounds that it fails to get the balance between green space and development right do not seem to appreciate the importance of greenspace for climate change or for human health under lockdowns such as covid-19. I can only assume that they are pursuing blatant self-interest.
- The amendment should apply to Docklands and the Show Grounds. Docklands will never be a successful community site until the open spaces and particularly treed greenspace is properly addressed. It was a design fault from the start which all the landscape designers and horticulturists commented on at the time of the proposed development. They were right as the ensuing problems and years have shown
- I would include significant roundabouts like that at the top of Swanston Street where the famous lemon scented gums grow. I would retain Haymarket roundabout as its function now may be traffic control but in future every available open space will be required by a city trying to cope with a warmer climate.
- Include the Royal Society Land - it is valuable green space which should be treed and vegetated
- I agree that all parks should be treated equally in terms of access to sunlight

- I am surprised that there has not been a greater emphasis on the importance of parks and greenspace on human physical and mental health. I would have thought that covid-19 had made their importance clear to all
- It is hard to believe that the University tried to oppose the use of vitamin D as part of the rationale for access to sunlight. You would have thought they would be better corporate citizens when it comes to health issues. It suggests that the develop-at-all-costs mentality pervades University management unfortunately
- I think the amendment should apply to development within Parks that have the potential to shade significant parts of a park or significant vegetation within a park

Diminishment of shadowing Protection for Type 3 Parks is strongly NOT supported.

More protection for Type 3 Parks is requested.

Disagree with **the following proposal which is not supported**, and which was rejected:

Page 64: *“Ultimately, the Panel was not persuaded that the Amendment fails to achieve an appropriate balance between protection of sunlight to the growth area parks and the policy objectives for the growth and development of these areas. Finally, Mr Barnes queried whether the controls for Type 3 parks should also include allowable shadow, as is the case for Type 2 Parks. This seems sensible, as the Type 3 parks are in (or adjacent to) growth areas where development of 4 storeys or more is allowed.”*

Page 65: *“• It seems consistent with the principles underpinning the Amendment to include allowable shadow on Type 3 parks as well as Type 2 parks, but more work is required to understand the impact this might have on Type 3 parks.*

This further work should be undertaken before the Amendment is adopted, and the DDO8 controls adjusted accordingly.

The Panel recommends: Before adopting the Amendment, undertake further modelling to understand the impacts of allowing allowable shadow on Type 3 parks, and consider adjusting the controls in Table 1 of the Design and Development Overlay Schedule 8 accordingly.”

OUTCOME: page 1, 4. *“The Panel recommended a number of tasks be undertaken or changes made prior to adoption and Management has addressed these (refer Attachment 4). It recommended that Council consider further modelling to understand the impacts of allowing some new shadow on Type 3 parks. Management considered this but – based on a review of the built form differences between the Type 2 and Type 3 contexts – determined not to introduce a new approach to Type 3 parks.”*

Less protection for Type 3 Parks is not recommended - more protection from shadowing, rather than less, is supported.

Besides limiting high rise buildings and their height in the areas around and potentially impacting on parks it is recommended that you please consider additionally:

- having a higher threshold of shadowing in public parks, including in Park Type 3
- For Park Type 3 developing a future diminishment of shadowing plan/provision to be put in place. Such as the mandatory requirement that if/ when a building that casts a shadow on a public park currently is refurbished/ demolished it must be re- built lower, to improve public amenity and health and well-being and diminish shadowing in public parks.

The shortened hours of protection for Type 3 parks are stated in the Planning Panel Report as *“a reasonable and sensible response to the existing shadow conditions in those*

parks". We disagree and would like to see future sustainability and liveability proofing provisions made so that when existing high-rise buildings that are casting shadows into Type 3 parks are refurbished or demolished, provisions are in place to make it mandatory that the building height is reduced. Hence over time shadowing in our parks can be reduced and we can plan and move towards a more sustainable, more liveable city, with the parks which are already subject to existing shadow between 10am and 3pm (Type 3 parks), which have reduced hours of protection, having that for an interim period only, then re-gaining a higher threshold of sunlight access and greater protection of overshadowing . The aim for Type 3 parks should be future-broadened in this way to improve Melbourne with high amenity parks. It is requested an Amendment be made for this.

Community Engagement

Even stakeholders and submitters were only sent this 183-page document around 1.20pm on Friday, leaving about one and a half business days to read, consider, write and lodge a comment by 10.00am Tuesday. This is inadequate time, puts a community in Lockdown under undue stress and serves to diminish community and stakeholder inclusion and contributions. It is not in the spirit or practice of the February 2021 Community Engagement Policy of the City of Melbourne.

See: <https://www.melbourne.vic.gov.au/about-council/governance-transparency/policies-protocols/Pages/community-engagement-policy.aspx>

Council states its Community Engagement Policy develops sustainable outcomes for the city through "*shared problem-solving, open dialogue and meaningful participation. ... The policy seeks to foster a deeper culture of public participation. It provides a common language that strengthens community engagement for all.*"

To attempt to achieve those aims the document should have been sent to all the listed submitters at least 2 weeks before the FMC that decides whether to resolve it and have been made available to the public at that time.

RECOMMENDATION: In future it is suggested that Future Melbourne Committee be held once a month and that all documents be available on the website a minimum of two weeks before the FMC meeting.

This is for the sake of community and stakeholder health and well-being and for proper, effective inclusion of community and stakeholders.

Best regards,

Bea

B. McNicholas

Director, Walk in St Kilda Rd & Environs
Planet Ark National Tree Day
Friends of Melbourne Observatory
Friends of Fawkner Park
Melbourne's Domain Parkland & Memorial Precinct

Privacy acknowledgement: I have read and acknowledge how Council will use and disclose my personal information.

*

Name: * Jill Quirk

Email address: * jillq@optusnet.com.au

Date of meeting: * Tuesday 17 August 2021

Agenda item title: 6.2 Sunlight to Public Parks

*

Please write your submission in the space provided below and submit by no later than 10am on the day of the scheduled meeting. Submissions will not be accepted after 10am.

City of Melbourne Planning Amendment C278

Future Melbourne Committee meeting August 17th 2021 item 6.2

I congratulate The Council on its foresight in the matter of winter sunlight in parks and it is pleasing that the panel largely agrees with the points of the amendment. i would not like the see any watering down of its intent.

Parks can be seen not just in terms of their area relative to population but in terms of the time that they are useable and enjoyable for the residents and visitors to the area and i am glad that the planning panel agrees that the proposed switch from considering development in terms of equinox sunlight to winter sunlight is a positive one.

The purpose of the amendment is in fact to limit development around parks, therefore objections on the basis that the amendment limits development opportunities are tautological.

Re Type 2 parks in growth areas

Compromising on the hours of sunshine required in parks in i.e shortening the number of hours of sunshine needed is contrary to the needs of the population these parks serve. Densification by way of increasing building

heights in an area of itself reduces winter sunshine and therefore amenity. In fact densification in residential areas reduces access to outdoor space and light and even indoor natural light. It is critically important therefore that residents of these areas are offered as many useable hours of the parks by ensuring maximum access to sunlight in parks.

The importance of protecting parks from overshadowing has increased in the past 18 months during Covid lockdowns and the restrictions in place between lockdowns. This is especially so for those who live without private open space who desperately need our parks for physical and mental recreation.

Type 3 parks which are already overshadowed should be given the protection that would improve and optimise them in the future. We suggest provision for a mechanism for parks that have existing shadow whereby those building shadows would be decreased in the future when plans to demolish, refurbish and rebuilt then take place. This would diminish undesirable shadowing in parks and provide greater amenity and sunlight in our parks in the future.

Melbourne Observatory is a particular case, requiring absence of shadow, day and night, or minimisation of shadow. It should be clearly individually named on your map on page 5 and comment added to the document that special, stricter overshadowing limitations will be made for Melbourne Observatory. We requested in addition that it be made an Urban Dark Sky Site.

I would not want to see any unnecessary compromises to the amendment especially on the basis of foregone development opportunities. Developments that dominate and overshadow public amenities do this at the expense of the the public that uses them and for the benefit of someone else who may not even have a connection with the area at all!

Winter sunshine is vital to the health of park vegetation which in turn plays an important role in tempering the urban heat island effect of our increasingly concretised cities; an effect which is mainly experienced in summer. The recent UPCC report on brings home the need to do all in our power at local level to mitigate its effects. Maximising the health of all our parks is a way of achieving this and winter sunlight is a vital factor .

Jill Quirk

Protectors of Public Lands

Please indicate No
whether you
would like to
address the Future
Melbourne

Committee live via
phone or Zoom in
support of your
submission: *

Privacy acknowledgement: I have read and acknowledge how Council will use and disclose my personal information.

*

Name: * Perry Vlahos

Email address: * perryv@optusnet.com.au

Date of meeting: * Tuesday 17 August 2021

Agenda item title: Overshadowing at Melbourne Observatory

*

Please write your submission in the space provided below and submit by no later than 10am on the day of the scheduled meeting. Submissions will not be accepted after 10am.

Solar observations from Melbourne Observatory in Birdwood Avenue, Melbourne, will be severely impacted – in fact, the telescopes inside the domes will no longer be able to make observations of the sun should overshadowing be allowed. The need to have a direct sight to the sun throughout its diurnal journey from east to west, is essential. Furthermore, the same is true during the evening hours, any overshadowing or obstructing of the sky will extremely curtail the view the telescopes have of the stars, planets and other objects of interest in the celestial sphere – in all directions.

Consequently, it's paramount that no buildings or structures of any kind are given permission to be installed or erected within the vicinity of Melbourne Observatory.

Please indicate whether you would like to address the Future Melbourne Committee live via phone or Zoom in No

support of your
submission: *

Dear FMC people,

I have just spent a fruitless half hour in trying to submit a paper about the Sunlight to Parks item being presented tonight. The direct link given with the agenda only led to the City's home page several times, which was useless.

I have attached the paper and I would wish to speak to it at the meeting if that is possible. Please contact me to acknowledge receipt of this submission and request.

Regards,

Dr Barry Clark

Future Melbourne Committee 2 Meeting of 17 August 2021, Agenda item 6.2

Comments by Dr Barry Clark on Proposed Melbourne Planning Scheme Amendment C278, Sunlight to Public Parks

Page 1 of 183

Purpose and background

The proposed Amendment is claimed to be a new and balanced approach to limiting overshadowing of public parks in Melbourne. It includes many useful improvements but the absence of reference to major relevant factors has resulted in serious flaws in its content and recommendations. These factors are presented in detail below in the writer's collective criticism following the heading 'Why Melbourne Observatory should be given special consideration in respect of overshadowing controls'.

Key issues

Re 3.4: Melbourne Observatory and the Melbourne Gardens of the Royal Botanic Gardens Victoria (RBGV) are parts of the Domain but they each have unique characteristics and requirements that the writer considers would justify special consideration such as increasing the duration in hours that these places should be free from new overshadowing on 21 June. In the rest of the writer's comments, most or all of the attention is about the Observatory.

Recommendation from Management

Page 2 of 183

Re 7.3. Authorises the General Manager, Strategy, Planning and Climate Change to make any further required changes to the Amendment documentation prior to submitting to the Minister for Planning for approval.

This appears to the writer to provide a procedure that will allow demonstrated shortcomings in the recommendations to be fixed before the proposed Amendment is presented to the Minister.

Page 3 of 183

Health and Safety

Re 5. No Occupational Health and Safety issues or opportunities were identified.

This is contradicted below by the Panel finding (page 52) that sunlight exposure can have a beneficial effect on health and wellbeing. Overshadowing of a park worker can thereby have an adverse effect on health and wellbeing and can therefore be an avoidable occupational health issue.

Stakeholder consultation

The writer made a written submission in 2019 about the special environmental requirements of Melbourne Observatory and the RBGV Melbourne Gardens in relation to overshadowing. This submission was acknowledged at the time but no subsequent advice from Council about further investigations of the matter has been received by the writer since then. The first news that this matter would be dealt with by the FMC on 17 August 2021 was sent to the writer by a friend in the afternoon of Friday 13 August 2021. Reading the 183 pages and starting research took up a whole day and writing this response has just taken most of a day and the whole night to 9.55 am on Tuesday 17 August.

The time allowed by Council in this case for generation of comments by stakeholders on the Panel's findings, less than four days including a weekend, was manifestly inadequate.

Page 4 of 183

Relation to Council policy

Re 10. The Municipal Strategic Statement provides for protection of usability, solar access, recreation, cultural heritage, environment and aesthetic aspects of public open space. Under the heading 'Why Melbourne Observatory should be given special consideration in respect of overshadowing controls' below, reasons are given about the inadequacy of the proposed Amendment as it applies to the special requirements of Melbourne Observatory. Some of these requirements might also apply to the Melbourne Gardens of the Royal Botanic Gardens Victoria (RBGV).

Environmental sustainability

Re 11. It is claimed that the proposed Amendment will have positive environmental effects. This is true to some extent by comparison with the existing situation. However, in relation to the natural environment, the Amendment is an attempt to minimise adverse effects of overshadowing on the growth of trees and other vegetation in our parks. Also as detailed below, the high buildings favoured by developers have many other adverse environmental effects that should also have been given detailed consideration.

Page 6 of 183

**Planning Scheme Amendment C278melb. Sunlight to Parks
Panel Report of 1 June 2021**

Page 46 of 183

4.4 Vitamin D as a rationale for the Amendment

Page 52 of 183

Re (v) Conclusion

The Panel concluded that public health and wellbeing benefits were an appropriate part of the rationale for the Amendment, and that ... protecting good access to sunlight in parks in winter is likely to contribute to health and wellbeing.

The writer accepts this conclusion as sound as far as it goes but it falls well short of accepted scientific knowledge about the importance to health of bright light in daytime, and even further short of scientific knowledge that is still proceeding towards full acceptance.

Under provisions of the Public Health and Wellbeing Act 2008 (Vic), the City of Melbourne has a duty of care to its residents and visitors to avoid doing anything adverse to their health and wellbeing. In Section 6 of the Act, the Precautionary Principle is cited: “If a public health risk poses a serious threat, lack of full scientific certainty should not be used as a reason for postponing measures to prevent or control the public health risk.” How does the Panel make a balanced assessment of densification using tall buildings against a public health and wellbeing risk?

Page 180 of 183

Melbourne Planning Scheme

Map 9 of the Melbourne Planning Scheme has no place number or boundary for Melbourne Observatory, which occupies about 2.7 hectares on the northeast side of Birdwood Avenue between the Melbourne Gardens of the RBGV and the Shrine of Remembrance. Although the Observatory site is Crown land and has been managed by the RBGV since 1994, it appears to be the only one of all the sites listed on all the maps that is given the name of its manager rather than its official place name. Melbourne Observatory was the name conferred by the Colonial Governor in 1862 and that is the name used in its entry in the Victorian Heritage Register and in the National Heritage List, where it is part of Melbourne’s Domain Parklands and Memorial Precinct listing. It is suggested that the Panel Report should not help to perpetuate the inaccuracies described.

WHY MELBOURNE OBSERVATORY SHOULD BE GIVEN SPECIAL CONSIDERATION IN RESPECT OF OVERSHADOWING CONTROLS

This part of the present document is where more detailed explanations are given for criticisms mentioned above. It is also where reasons are provided for other aspects of tall buildings to be subject to strict controls. At least some of these aspects have been touched on already by the Panel or mentioned by the writer in his original submission about overshadowing.

A. HERITAGE ASPECTS

Melbourne's first observatory opened in 1853 at Williamstown with the primary function of providing accurate time for ship captains to enable them to track their longitude accurately on their return journey. Accurate time was also important for social, commercial and industrial purposes including railway safety. The Observatory also carried out a geodetic survey of Victoria that expedited sales of accurately located Crown land for settlers. Its assistance to the colony was so valued that the present Melbourne Observatory was built as a reward for the staff. It went from success to success and the Government Astronomer effectively became the Colonial Government's scientific adviser. The Observatory acquired the Great Melbourne Telescope in 1869, the world's largest fully steerable telescope for about three decades in total. By the late 1880s, the Observatory was a jewel in the crown of Marvellous Melbourne. It provided accurate time for all Allied forces in the region during World War 2 but was then closed down as a government body in 1945 because accurate time had become reliably available from the US Naval Observatory by radio, and clocks accurate to better than a second per year were operating. Fortunately, most of the Observatory buildings have remained largely intact, and some of its heritage telescopes have been used since then for public astronomy by amateur astronomers (including the writer, from 1955 to the present).

A public seminar on the Observatory's heritage was hosted in December 2020 by the Royal Historical Society of Victoria. The strong consensus of the speakers was that Melbourne Observatory had so many outstanding heritage attributes that it should be nominated for UNESCO World Heritage status by the time (maybe 2026) that the restored Great Melbourne Telescope is reinstalled in its original building at the Observatory.

In the meantime, *nothing should be allowed to affect the Observatory site in a way that would lessen its World Heritage prospects.* That would favour the prevention of any further overshadowing from affecting the site at any time on 21 June between say 9 am to 4 pm. Note that the purposes of the Observatory Site Reserve since the late 1940s has been for a public park, botanic garden and herbarium, so it does appear to be eligible for inclusion in the overshadowing control scheme for public parks.

Many of the visitors to heritage observatories come during daytime. Public astronomy is possible by day in terms of seeing the moon, bright planets and stars, but modern accessories for safe viewing of detail in the sun's atmosphere have proven popular in recent practice. If there is overshadowing at any time, it means that the sun is also blocked from safe viewing then. Furthermore, many other celestial objects will also be blocked temporarily from view at night by the obstructive effect of the building, a downside of tall buildings that few of the general public would be aware of.

B. STEM ASPECTS

Encouragement of STEM (science, technology, engineering and mathematics), especially for girls, is Victorian Government policy. Ask any teacher "What topics turn kids on?" and the likely response is 'space and dinosaurs'. Astronomy thus has a head start over most other topics in terms of its useful STEM impact. Therefore, anything that hinders public astronomy

at the Observatory would appear to run counter to this policy, another reason why overshadowing controls for the Observatory site could usefully be more stringent than for the adjacent open parkland.

C. URBAN SKYGLOW

Urban sky glow or artificial skyglow, commonly but incorrectly called light pollution, is caused by upwardly travelling used and unused waste artificial light being scattered back to the terrain by small particles such as air molecules, dust, smoke and water droplets. The maximum amount of scattering occurs with light travelling at or close to the horizontal. It can have a disastrous effect on the visibility of faint celestial objects regardless of whether the observer is using a telescope or not. It is the bane of astronomers, both professional and amateur. It blots out the features recognised by Aborigines as representations of objects, people, other living things and places in the Dreamtime myths that have been passed down through fifty or more millennia. The myths have been perpetuated in the absence of writing by the use of the features as aids to memory. The myths are a key to order in tribal life and survival through the seasons. Increasing loss of visibility of these features in the sky over towns and cities is resulting in a rapid loss of the myths in the present generation. This has been described as cultural genocide.

About a third of the amount of artificial skyglow comes from room light escaping through windows. Nearly all building windows are in the vertical plane and are thus optimally placed for maximum coupling of the light into the peak scattering direction. The higher the window above the terrain, the greater the prospect of its light being completely scattered instead of being intercepted by foliage, buildings and other terrain objects. At least in cities and especially in the presence of cloud at night, artificial skyglow is becoming bright enough to add to the adverse health and wellbeing loss resulting from disrupted circadian rhythms. Tall buildings are substantial sources of unwanted waste light. Adverse effects of this waste appear to include substantial losses in insect populations, plant pollination and biodiversity in general. If strict controls on overshadowing lead to reductions in the rate of construction of tall buildings, it is hardly a bad result for living things as well as astronomers and those who enjoy the magnificent spectacle of the Milky Way crossing a moonless dark night sky.

WHY PARKS IN GENERAL SHOULD BE GIVEN MORE CONSIDERATION IN RESPECT OF OVERSHADOWING CONTROLS

A. Areas affected by overshadowing

For a building of height h the length of shadow it casts will be proportional to h . The factor of proportionality will depend on the time of day and the date. The area swept out daily by the shadow will be a sector of varying radius. This radius will always be a maximum at sunrise and sunset and a minimum at local noon. The path traced out by the shadow tip will approximate an ellipse, especially if the curve is truncated by beginning it a little after sunrise and ending it a little before sunset. The approximate area of this ellipse will be between that of a 180 degree sector with a radius of the shadow at local noon and another 180 degree sector with a radius equal to that near sunrise and sunset. The important result is that it will

be approximately a function of h^2 . So, if a building designer comes up with a choice of two heights where one height is twice the other, the surrounding ground area affected by overshadowing from the taller building will be about four times larger than that overshadowed by the shorter building. As the height of a proposed building is increased, the number of complaints about overshadowing can be expected to increase with the square of the height.

B. ANOTHER HEALTH ASPECT

The Panel Report already mentions ultraviolet solar radiation in its Section 4.4. UVC of around 320 nm is known for causing sunburn. It also tends to kill or neutralise pathogens. If it is effective against the Covid-19 virus, it would help to disinfect park furniture such as seats, tables, handrails and playground equipment without the need for costly chemical washes. The available dose of solar UVC reaches a minimum near the time of the June solstice. This would appear to be a good reason for increasing the UVC dosage into parks affected by overshadowing, simply by increasing the duration of hours in which all parks are protected from overshadowing from say 10 am to 2 pm to say 9 am to 3 or 4 pm.

C. ADVERSE ENERGY CHARACTERISTICS OF TALL BUILDINGS

All buildings can give rise to overshadowing, depending on their height. The maximum practicable enclosed volume and hence resident capacity for a given exposed surface area is given by a nearly cubic shape. At one extreme a building of similar volume would have a single-storey with a large flat roof and a square footprint. It could accommodate many solar cells to help offset the cost of heating, ventilation and air conditioning (HVAC). At the other extreme a building of similar capacity would be tall and slender, with increased exposed surface area, small footprint commensurate with high prices for city land and little or no roof area available for solar cells. This is the format used by builders to increase population densities towards that often desired by city planners.

The daily radiation and convective heat flows in and out of the building per volume or resident tend to be higher with the tallest buildings, resulting in more costly HVAC systems. In the past, the fresh air portion of the air circulated by centralised HVAC systems has been limited for economy but the Covid pandemic is forcing rethinks, with higher operating costs as a likely outcome. Likewise, the energy costs of HVAC per person in high rise buildings also appears likely to increase. While the electricity used is generated by fossil fuels, the net effect will be a rise in greenhouse gas emissions per occupant. Australia has been the world's highest or second highest per capita greenhouse emitter for many years and is on the way to becoming an international pariah for its obstinacy in refusing to take on adequate emissions reduction targets. Energy-inefficient tall buildings would appear likely to be increasingly unpopular in future as they would increase the sacrifices that non-occupants will have to make up in the national interest.

D. CIRCADIAN RHYTHMS AND TALL BUILDINGS

One fairly small advantage of tall buildings is that they are somewhat more likely to give their occupants more exposure to bright natural daylight, helping to reduce the adverse circadian rhythm effects of dimmer daytime and brighter evenings that followed the

introduction of electric lighting in the late 19th century. These effects are increasingly being accepted as risk factors for disorders such as obesity and illnesses including breast and prostate cancers.

CONCLUSION

Given the various adverse effects of tall buildings on the health and wellbeing of city residents, especially those who are not occupants, adverse effects on other life forms and the environment and exacerbation of the climate catastrophe that is happening now, it is difficult to see how any advantages of tall buildings in increasing population densities can be assessed by the Panel as balanced against the adverse environmental and health effects. The community would appear likely to benefit from substantial modification of the findings to take a much harder line against tall buildings and their adverse effects including overshadowing.

References

Lack of time has resulted in a decision not to cite references in this document. However, an extensive reference list is available to back up all claims and assertions made herein by the writer.

Statement of Interests

The writer has no material or general conflict of interest in any of the matters raised in this document.

The writer is the owner of one of the heritage telescopes at Melbourne Observatory, and a volunteer Research Associate at Museums Victoria since 2008 in the Great Melbourne Telescope Reconstruction Project that aims to reinstall the Telescope in its original building at Melbourne Observatory.

The document represents the views of the writer. It does not necessarily represent the views of any organisation that has the writer as a member.

Writer's Background

BSc in Physics (1960)

MAppSc in Applied Optics (1966)

PhD in Physiological Optics (1971)

DipMechEng (1960)

Author of hundreds of scientific journal papers and technical reports

Expert witness for the Commonwealth at two Commonwealth tribunal hearings, and expert witness at several VCAT cases, a Heritage Council hearing, public enquiries and aircraft accident investigations

Contact

Document submitted via email after the following link led only to general enquiries:

<https://www.melbourne.vic.gov.au/about-council/committees-meetings/meeting-archive/Pages/Future-Melbourne-Committee-17-August-2021.aspx>

Privacy acknowledgement: *

I have read and acknowledge how Council will use and disclose my personal information.

Name: *

Jill Quirk

Email address: *

jillq@optusnet.com.au

Date of meeting: *

Tuesday 14 September 2021

Agenda item title: *

3.1 Melbourne Planning Amendment C278 Sunlight to Public Parks

Please write your submission in the space provided below and submit by no later than 10am on the day of the scheduled meeting. Submissions will not be accepted after 10am.

I have only recently learned of the Victorian Government Planning Amendment VC148, the effect of which will be to fast-track development and to override council objections to developments by the Minister for Planning. I am not sure if these Ministerial powers will extend to development near parks and effect overshadowing of parks. What effect does the Committee think this will have on the C278 provision to protect sunlight in parks?

Please indicate whether you would like to address the Future Melbourne Committee live via phone or Zoom in support of your submission: *

No