



Public Domain DA 672/2018 - Parramatta Square

Stage 1 & Stage 2 Public Domain Works

Clause 4.6 - Variation Request - to clause 7.4 (2) Sun Access



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1.0 INTRODUCTION

Background

- 1.1 Parramatta square is a 3-hectare urban renewal precinct in the Parramatta CBD (Central Business District). It is bordered by Darcy Street, Church Street, Macquarie Street and Smith Street.
- 1.2 Parramatta Square is to be transformed into a mixed use hub with a substantial new civic space and up to 360,000 square metres of mixed use floor space, reinforcing Parramatta’s metropolitan status as the CBD of the developing “Central City” of Greater Sydney and one of the three cities of the *Greater Sydney Region Plan (A Metropolis of Three Cities)*.
- 1.3 The redevelopment of Parramatta Square is sponsored by the City of Parramatta Council. It has facilitated the redevelopment by consolidating land, project marketing, establishing rights and development sales.
- 1.4 The masterplan for the precinct comprises:
 - The development of land parcels to deliver four (4) buildings on the northern extents of Parramatta Square and four (4) buildings on the southern extents of Parramatta Square;
 - The construction of a new central civic space (40 metres wide by 230 metres in length) oriented to the axis of St John’s Anglican Church, with pedestrian links leading to Parramatta Railway station concourse at and below grade levels; and to Leigh Place which is the first stage of the Civic link that will extend across four (4) city blocks in the heart of the Parramatta CBD, from Parramatta Square to River Square;
 - Servicing of the buildings by an underground ‘super basement’ (Basement Level 1), providing integrated vehicle access to the buildings via two entry/exit points – Darcy Street and Macquarie Street.

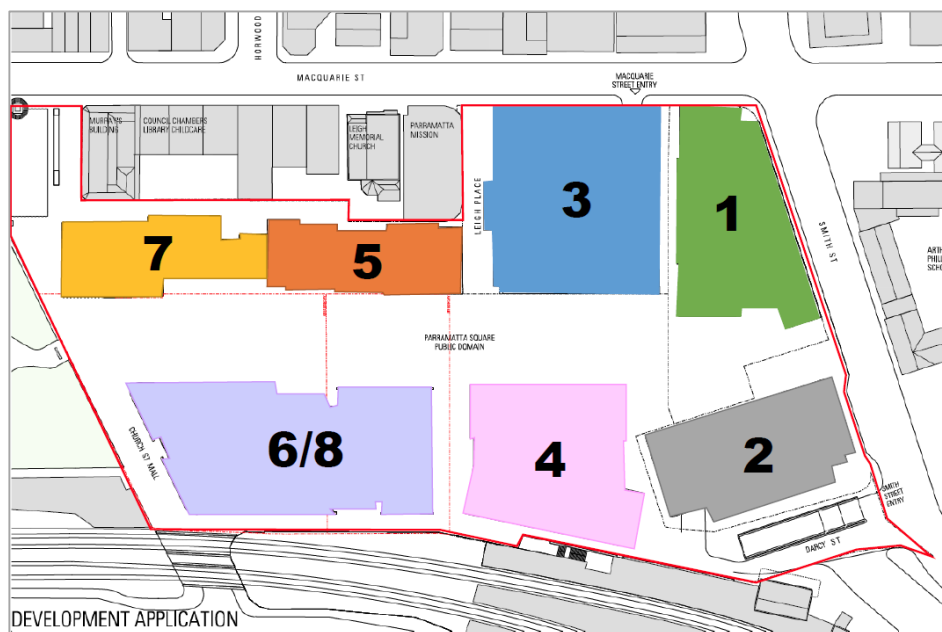


Figure 1 – Parramatta Square Masterplan

1.5 Works to deliver the new central civic space are the subject of two (2) development applications:

- DA 672/2018 covers the public domain works for Stages 1 and 2 which is for the land adjoining the 3 Parramatta Square and 4 Parramatta Square buildings;
- DA 189/2019 covers the public domain works for Stage 3 which is for the land adjoining the 6 and 8 Parramatta Square buildings.

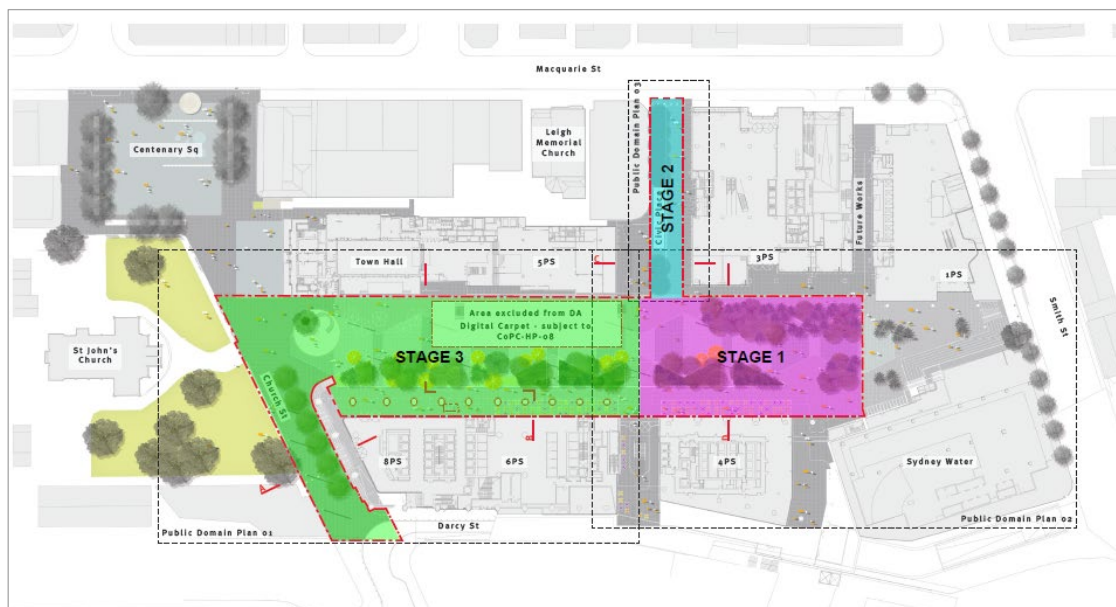


Figure 2 – Stage 1, 2 and 3 public domain DA works

1.6 Development Application (DA – 672/2018) to carry out works to deliver the Parramatta Square public domain was lodged with Parramatta City Council on 21 September 2018. The subject clause 4.6 variation applies to DA 672/2018.

1.7 Works proposed under DA 672/2018 comprise: piling, piercing and construction of a concrete slab; hard landscaping (realignment of levels and granite paving); provision of movable street furniture (tables, seats and umbrellas); provision of signage, lighting and public art; soft landscaping (tree planting, turf and mass planting of shrubs); irrigation and waterproofing; service infrastructure augmentation, diversions and re-instatement as required (electrical, communications and water); and stormwater drainage and sewer augmentation, diversions, connections and reinstatement as required.

1.8 DA 672/2018 is for works over land zoned B3 Commercial Core and B4 Mixed Use under Parramatta Local Environmental Plan 2011 (PLEP 2011).

1.9 The site area of the works totals 3,537 sq. metres and is on the land described as follows:

Land title	Address	Area
Lot 42 DP 1238612	151 Macquarie Street, Parramatta	582 sq.m
Part Lot 43 DP 1238612	5 Macquarie Street, Parramatta	2,955 sq.m
Total – 3,537 sq.m		

1.10 Archaeological field works have been completed and site contamination validation reports have been completed. The proposed development will generally sit above the Parramatta Square integrated basement car park - construction of which has been completed.

1.11 The consent authority is the Sydney Central City Planning Panel.

1.12 At the time of lodgement of DA 672 / 2018, overshadowing of Parramatta Square was referenced in clause 7.4 of PLEP 2011 via an objective and via a reference to controls in Parramatta DCP 2011. The clause read as follows:

7.4 Sun Access

- (1) The objective of this clause is to protect public open space in Parramatta Square, the Lancer Barracks site and Jubilee Park from overshadowing.*
- (2) This clause applies if the consent authority considers that development that is the subject of a development application is likely to cause excessive overshadowing of the public open space referred to in subclause (1).*
- (3) The consent authority, in determining that development application, must take into consideration the relevant sun access plane controls specified for that land in section 4.3.3 of the Parramatta Development Control Plan.*

1.13 PLEP 2011 was amended on 7 November 2018 by Parramatta Local Environmental Plan 2011 (Amendment No. 29). Ideally, a savings provision should have been inserted to protect DAs already lodged but not determined, such as DA 672/2018. However, this was not done.

1.14 The LEP amendment to clause 7.4 had the effect of causing the overshadowing of Parramatta Square to become a development standard. Clause 7.4 now reads:

7.4 Sun Access

- (1) The objective of this clause is to protect public open space in Parramatta Square, the Lancer Barracks site and Jubilee Park from overshadowing.*
- (2) The consent authority must not grant consent to development on any land if the consent authority is satisfied that the development will result in any additional overshadowing, between 12 noon and 2pm, on Parramatta Square, being the land at Parramatta Square shown with blue hatching on the Sun Access Protection Map.*
- (3) If the consent authority considers that development that is the subject of a development application is likely to cause excessive overshadowing of the Lancer Barracks site or Jubilee Park, it must take into consideration the relevant sun access plane controls specified for that land in section 4.3.3 of the Parramatta Development Control Plan in determining that development application.*
- (4) This clause applies despite clause 7.11(2) (f)*

1.15 Because the amendment took effect on 7 November 2018, the original development application material did not address clause 7.4(2) in its current form. The development results in additional overshadowing between 12pm and 2pm, on Parramatta Square, being the land shown with blue hatching on PLEP 2011 '[Sun Access Protection Map](#)' mentioned in clause 7.4(2).

1.16 The overshadowing is caused by the proposed planting of trees, particularly the planting of evergreen trees, and the movable umbrellas. There is no overshadowing from landscape structures or light poles.



Figure 3A – Sun Access Protection Area & proposed planting of trees

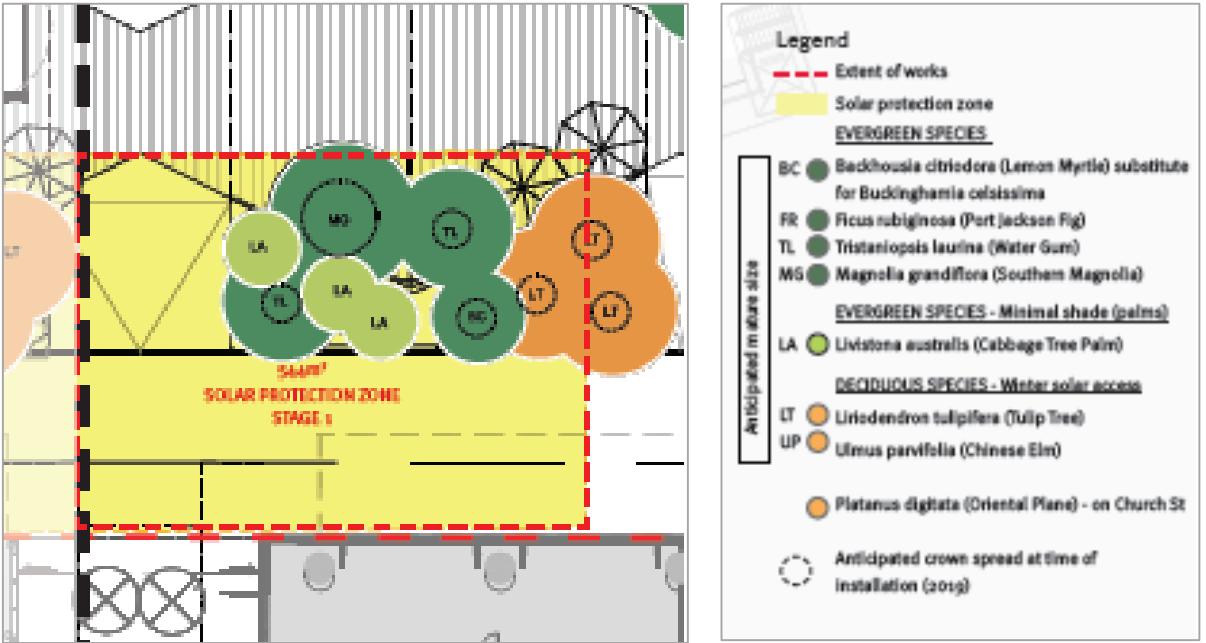


Figure 3B – Sun Access Protection Area & proposed planting of trees

Overview of request for variation

- 1.17** A proposed variation to the development standard contained in Clause 7.4(2), as permitted under Clause 4.6 of PLEP 2011, is requested in the context of DA 672/2018 and the particular characteristics of the site. The principal arguments in favour of this variation are detailed in this request.
- 1.18** This request seeks flexibility in the application of clause 7.4(2) to permit additional overshadowing, between 12 noon and 2pm, on Parramatta Square, being the land at Parramatta Square shown with blue hatching on the Sun Access Protection Map. See drawing L02 attached to this submission, which shows the extent of Sun Access Protection Area as it applies to the subject DA. The extent of overshadowing within the Sun Access Protection Area is shown on drawing Nos. L03 and L04 (attached to this submission). The departure from the standard is outlined at Section 2.
- 1.19** Principally, evergreen tree species and the movable umbrellas, and to a lesser extent deciduous tree species result in the additional overshadowing.
- 1.20** The request is considered justified in the context of the circumstances of the project, in terms of it satisfying the established tests associated with clause 4.6 variations.
- 1.21** The redevelopment of Parramatta Square is a once in a generation intervention in the urban fabric of central Parramatta. The ownership of key parcels of land by the City of Parramatta has created a large redevelopment site equivalent to a city block that would otherwise not have occurred. DA 672/2018 is a place making opportunity and arises from the desire by the City of Parramatta to create a major civic space in the heart of the Parramatta CBD.
- 1.22** The location of the trees, tree species and umbrellas have been determined by Council's project brief (*Public Domain Performance Specification dated May 2017*). The location of trees and tree species is based on the desire to create a strong canopy structure that relates well to the adjacent scale of development, the desire to create a pleasant environment and hospitable microclimate with a green backdrop all year round, the need to use evergreen species for wind mitigation and prioritising native trees over exotics.
- 1.23** The umbrellas are movable structures (managed by Council) which ostensibly are provided to provide shade in the warmer months until such time as the trees have matured to their full crown spread.
- 1.24** It is requested that DA 672/2018 should be enabled to maximise the opportunity to enhance the amenity of the public domain to the modest extent requested. The proposed variation is sought in a responsible manner and the assessment of the variation in terms of the control that affects and protects overshadowing within Parramatta Square between 12pm and 2pm, demonstrates the impact of the proposed variation is acceptable.

Clause 4.6 – Exception to Development Standards

- 1.25** Clause 4.6 of Parramatta LEP 2011 enables the consent authority to grant consent to development that departs from clause 7.4(2). The clause aims to provide an appropriate degree of flexibility in applying certain development standards, including additional overshadowing, between 12pm and 2pm on Parramatta Square, being the land shown with blue hatching on the 'Sun Access Protection Map'.

1.26 The provisions of clause 4.6 of PLEP 2011 are provided below together with a compliance summary.

	Clause Provision	Comment	
(1)	the objectives of this clause are as follows:		
(a)	to provide an appropriate degree of flexibility in applying certain development standards to particular development,	Request seeks flexibility in the application of clause 7.4(2) to permit DA 672/2018 to overshadow Parramatta Square between 12pm and 2pm in a minor manner. Justification is provided at Section 3 & 4 of this report.	✓
(b)	to achieve better outcomes for and from development by allowing flexibility in particular circumstances.	By allowing the flexibility in the application of clause 7.4(2) a better outcome for and from development is achieved. See Section 3 & 4 of subject report.	✓
(2)	Development consent may, subject to this clause, be granted for development even though the development would contravene a development standard imposed by this or any other environmental planning instrument. However, this clause does not apply to a development standard that is expressly excluded from the operation of this clause.	Clause 4.6 does not exclude the development standard imposed by PLEP 2011 for overshadowing of Parramatta Square between 12pm and 2pm from the operation of this clause.	✓
(3)	Development consent must not be granted for development that contravenes a development standard unless the consent authority has considered a written request from the applicant that seeks to justify the contravention of the development standard by demonstrating:	This clause 4.6 request is the written request that the consent authority is required to consider.	✓
(a)	that compliance with the development standard is unreasonable or unnecessary in the circumstances of the case, and	Justification is provided at Section 3 of subject report.	✓
(b)	that there are sufficient environmental planning grounds to justify contravening the development standard.	Justification is provided at Section 3 of subject report.	✓
(4)	Development consent must not be granted for development that contravenes a development standard unless:		
(a)	the consent authority is satisfied that: (i) the applicant's written request has adequately addressed the matters required to be demonstrated by subclause (3), and (ii) the proposed development will be in the public interest because it is consistent with the objectives of the particular standard and the objectives for development within the zone in which the development is proposed to be carried out, and	 This is a matter for the consent authority. However, Walker submits that this request adequately addresses the required matters. This is a matter for the consent authority. However, Walker has addressed this matter in Section 3 of subject report. Walker submits that this request shows that the required matters will be in the public interest as per this provision	 ☺ ☺

	Clause Provision	Comment	
(b)	the concurrence of the Secretary has been obtained.	<p>Circular PS 18-003 – issued 21 February 2018 by the NSW Dept. of Planning.</p> <p>The circular advises all consent authorities may assume the Secretary's concurrence under clause 4.6 of an LEP that adopts the Standard Instrument (LEPs) Order 2006 or any other provision of an EPI to the same effect.</p> <p>The assumed concurrence is subject to conditions inter alia as follows:</p> <p>"Regionally significant development</p> <p>Sydney district & regional planning panels may also assume the Secretary's concurrence where development standards will be contravened. The restriction on delegates determining applications involving numerical or non-numerical standards does not apply to all regionally significant development. This is because all regionally significant development is determined by a panel and is not delegated to council staff. However, the restriction on assuming concurrence to vary lot size standards for dwellings in rural areas will continue to apply to regionally significant development. The Secretary's concurrence will need to be obtained for these proposals in the same way as it would for local development."</p> <p>The subject DA is a type of development specified in Schedule 7 of SEPP (State & Regional Development) 2011 declared to be <i>Regionally Significant development</i>.</p> <p>As per Circular PS 18-003 the Sydney Central City Planning Panel can assume the concurrence of the Secretary.</p>	NA
(5)	In deciding whether to grant concurrence, the Secretary must consider:		NA
(a)	whether contravention of the development standard raises any matter of significance for State or regional environmental planning, and	Not applicable. In any event, no matters of significance for State or regional environmental planning are raised.	NA
(b)	the public benefit of maintaining the development standard, and	Not applicable. In any event, given the matters raised by the subject report, there is no public benefit in maintaining the standard in this case.	NA
(c)	any other matters required to be taken into consideration by the Secretary before granting concurrence	Not applicable.	NA
(6)	Development consent must not be granted under this clause for a subdivision of land in Zone RU1 Primary Production, Zone RU2 Rural Landscape, Zone RU3 Forestry, Zone RU4 Primary Production Small Lots, Zone RU6 Transition, Zone R5 Large Lot Residential, Zone E2 Environmental Conservation, Zone E3 Environmental Management or Zone E4 Environmental Living if:	Not applicable. DA is not for subdivision of land within any of the nominated zones.	NA
(a)	the subdivision will result in 2 or more lots of less than the minimum area specified for such lots by a development standard, or	Not applicable. DA is not for subdivision.	NA
(b)	the subdivision will result in at least one lot that is less than 90% of the minimum area specified for such a lot by a development standard.	Not applicable. DA is not for subdivision.	NA

	Clause Provision	Comment	
(7)	After determining a development application made pursuant to this clause, the consent authority must keep a record of its assessment of the factors required to be addressed in the applicant's written request referred to in subclause (3).	This is a matter for the consent authority.	☺
(8)	This clause does not allow development consent to be granted for development that would contravene any of the following:		
(a)	a development standard for complying development,	Not applicable.	NA
(b)	a development standard that arises, under the regulations under the Act, in connection with a commitment set out in a BASIX certificate for a building, to which State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004 applies or for land on which such a building is situated,	Not applicable.	NA
(c)	clause 5.4;	Not applicable. Clause 5.4 relates to 'Controls relating to miscellaneous permissible uses.'	NA
(ca)	a development standard that relates to the height of a building, or a floor space ratio, in Parramatta City Centre (as referred to in clause 7.1 (1)) by more than 5%.	Not applicable.	NA

2.0 DEVELOPMENT STANDARD TO BE VARIED

Parramatta LEP 2011 – Clause 7.4 (2)

- 2.1** Clause 7.4(2) of PLEP 2011 contains a development standard as per the definition of *development standards* under the *Environmental Planning and Assessment Act 1979*.

development standards means provisions of an environmental planning instrument or the regulations in relation to the carrying out of development, being provisions by or under which requirements are specified or standards are fixed in respect of any aspect of that development, including, but without limiting the generality of the foregoing, requirements or standards in respect of:

- (a) the area, shape or frontage of any land, the dimensions of any land, buildings or works, or the distance of any land, building or work from any specified point,
- (b) the proportion or percentage of the area of a site which a building or work may occupy,
- (c) the character, location, siting, bulk, scale, shape, size, height, density, design or external appearance of a building or work,
- (d) the cubic content or floor space of a building,
- (e) the intensity or density of the use of any land, building or work,
- (f) the provision of public access, open space, landscaped space, tree planting or other treatment for the conservation, protection or enhancement of the environment,
- (g) the provision of facilities for the standing, movement, parking, servicing, manoeuvring, loading or unloading of vehicles,
- (h) the volume, nature and type of traffic generated by the development,
- (i) road patterns,
- (j) drainage,
- (k) the carrying out of earthworks,
- (l) the effects of development on patterns of wind, sunlight, daylight or shadows,
- (m) the provision of services, facilities and amenities demanded by development,
- (n) the emission of pollution and means for its prevention or control or mitigation, and
- (o) such other matters as may be prescribed.

- 2.2** The standard is listed at item (l) of the definition being: “(l) the effects of development on patterns of wind, sunlight, daylight or **shadows** (my emphasis).” Clause 7.4(2) is a requirement that seeks to control shadows over a designated area within Parramatta Square.

- 2.3** For abundant caution legal advice was obtained from Lindsay Taylor Lawyers dated 21 November 2018 and by Mills Oakley dated 22 November 2018 as to whether clause 7.4(2) of PLEP 2011 is a standard or a prohibition (for the purposes of clause 4.6 of PLEP 2011).

- 2.4** Lindsay Taylor Lawyers conclude:

“Clause 7.4(2) therefore contains a development standard. It is amenable to flexible application in accordance with an appropriately formulated request under clause 4.6 of PLEP 2011.”

- 2.5** Mills Oakley conclude:

“In our opinion (a) Clause 7.4(2) of the LEP is a development standard (for the purposes of clause 4.6 of the LEP). (b) There is potential for this provision to be varied under clause 4.6 of the LEP.”

2.6 Clause 7.4(2) of PLEP 2011 reads:

“The consent authority must not grant consent to development on any land if the consent authority is satisfied that the development will result in any additional overshadowing, between 12 noon and 2pm, on Parramatta Square, being the land at Parramatta Square shown with blue hatching on the Sun Access Protection Map.”

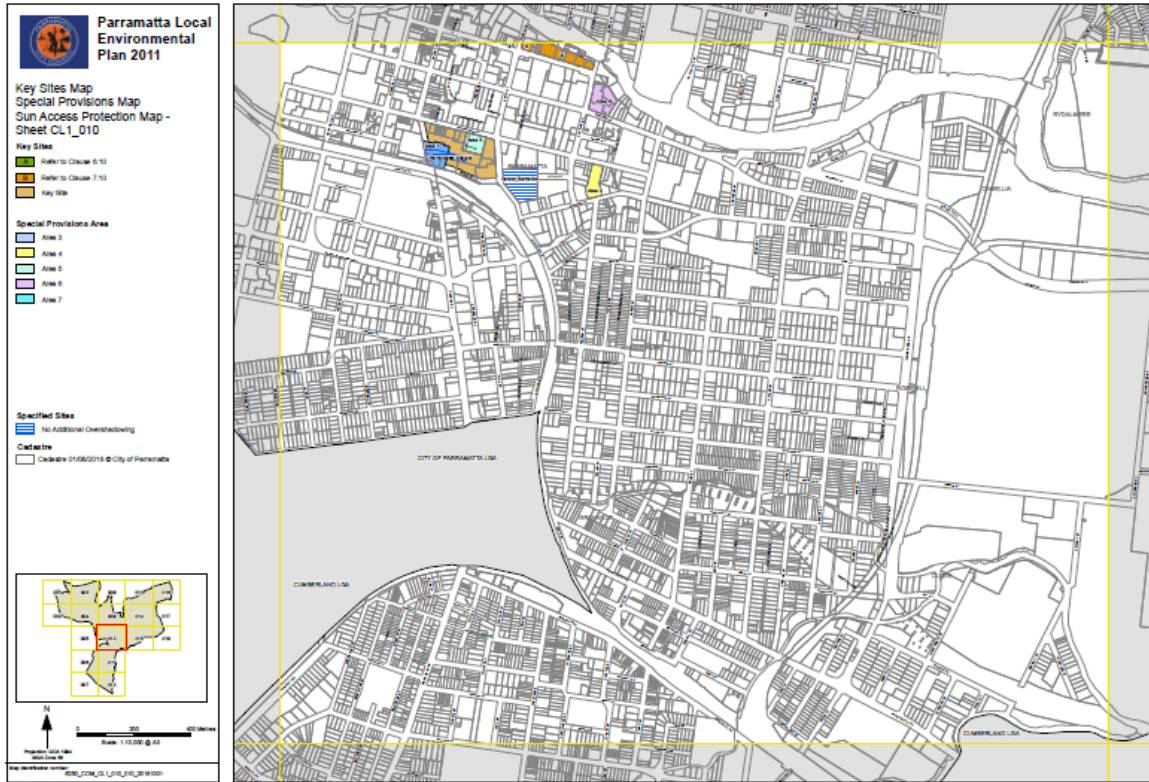


Figure 4 – Key Sites Map, Special Provisions Area Map, Sun Access Protection Map – PLEP 2011

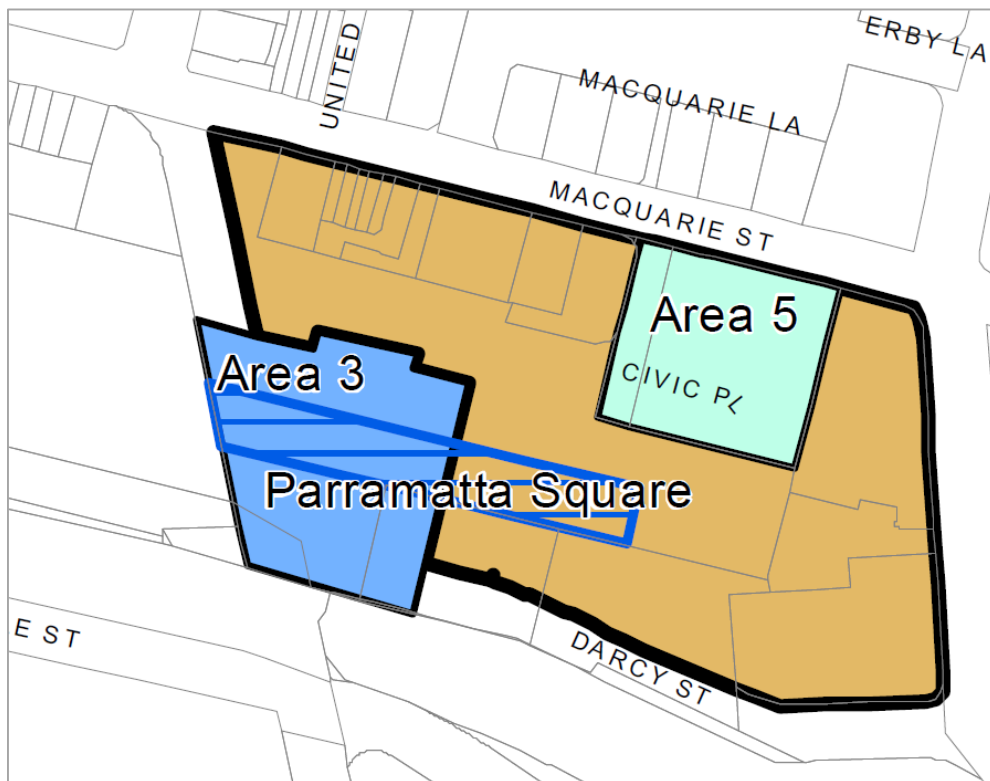


Figure 5 – Extract from Sun Access Protection Map – PLEP 2011
(Blue hatched area is subject to no additional overshadowing)



*Figure 6 – Sun Access Protection Map – PLEP 2011 overlay on DA 672/2018
(Yellow area is subject to no additional overshadowing control)*

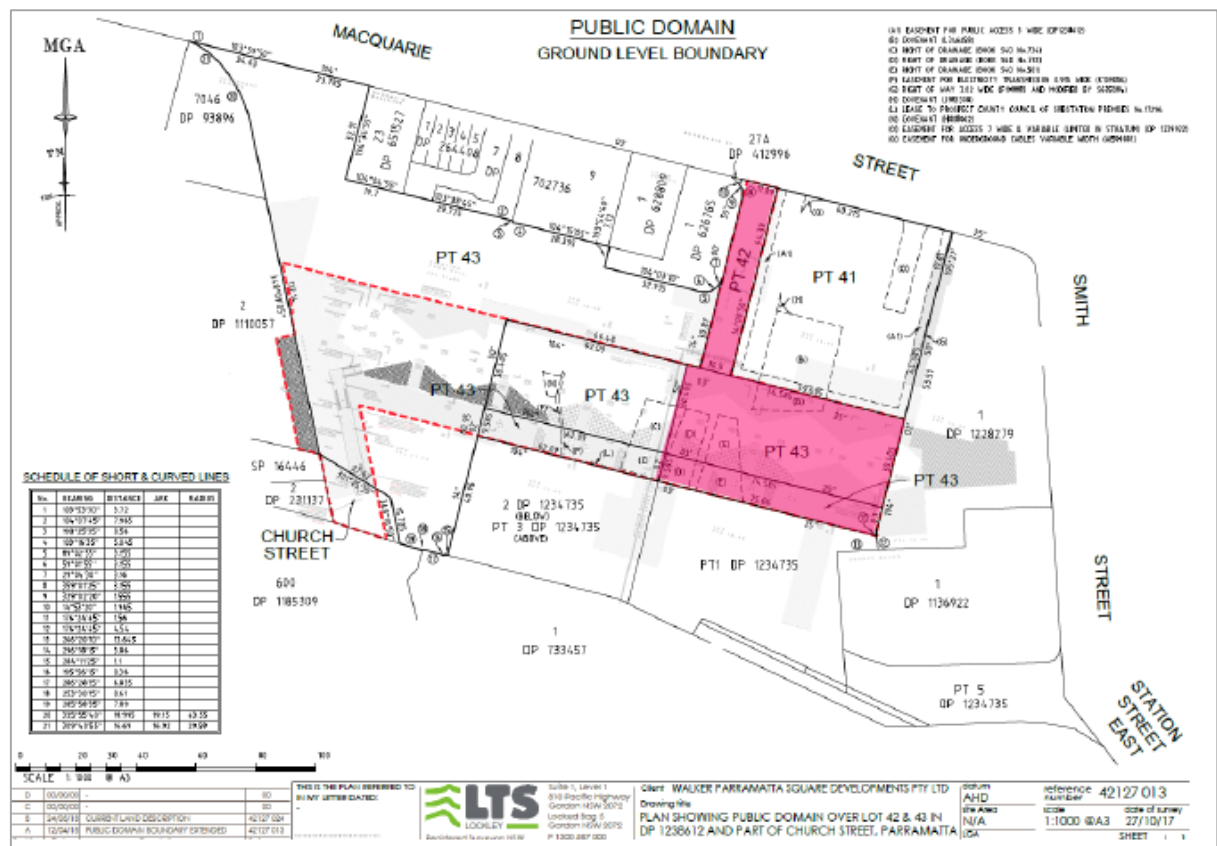
The Land Subject to this Variation

- 2.7** This Clause 4.6 request to vary a development standard relates to land referred to as Stage 1 & 2 Public Domain works (DA 672/2018) located within the Parramatta Square precinct. The land forms part of the staged development of the Parramatta Square masterplan which proposes amongst other things, a central public square.
- 2.8** DA 672/2018 seeks approval to carry out works across 3,537 sq. metres of public space within Parramatta Square. The works comprise hardscaping and soft-scaping as per the table below:

	Hardscape area		Softscape Area		Total Area
	Area	%	Area	%	
Stage 1	2,756 sq.m	93.3%	199 sq.m	6.7%	2,955 sq.m
Stage 2	582 sq.m	100%	-	-	582 sq.m
TOTAL	3,338 sq.m		199 sq.m	-	3,537 sq.m

Figure 7 – DA 672/2018 (hardscape & softscape areas)

- 2.9** The development site forms an “L” shape with a total area of some 3,537 sq. metres. More particularly, the clause 4.6 request relates to a 544 sq. metre portion of the 3,537 sq. metre site under DA 672/2018. The 544 sq. metre area is the area affected by the Sun Access Protection Area. This area is adjacent to the 4PS building.



Vision – Parramatta Square

- 2.10** The Parramatta Square precinct is designated by Parramatta Council as a mixed use urban renewal area and is strategically significant. It represents a unique opportunity in time to influence the nature of development in the Parramatta CBD and to reinforce its position as one of the three pre-eminent centres in the greater Sydney Metropolitan Region.
- 2.11** Since the adoption of the Master Plan for a Civic Place in 2003 by Parramatta Council, now superseded by the Parramatta Square Masterplan 2015, the master planning of the precinct has been designed to revitalise the civic and business centre of Parramatta. This is proposed by reconfiguring the existing built form and spatial arrangement to create a central public square, defined by new buildings including commercial, civic and retail uses.
- 2.12** The Parramatta Square precinct will accommodate the new Parramatta Council administration and Council Chambers, the University of Western Sydney Parramatta Campus building and 'A' grade office buildings that will attract significant corporate tenants. These developments will all adjoin a new central public space. It is envisaged these developments will generate a critical mass of human activity to revitalise the civic heart of Parramatta as a destination for community and ceremonial gatherings and cultural celebration.
- 2.13** The development of Parramatta Square is intended by the Parramatta City Council to demonstrate design excellence and environmental sustainability as well as achieving targets for future employment growth by encouraging development that will generate employment opportunities.

- 2.14** To support the projected 35,000 new residents by 2036 and 83,000 new workers envisaged by 2041, a large public domain transformation is planned with three differently sized squares envisaged for Parramatta City.
- 2.15** Centenary Square in the order of 3,000m² is the smallest and oldest. It was refurbished in 2015 and acts as the city's Town Square and a focus for outdoor dining.
- 2.16** River Square is approximately 4,000m² and will act as the Recreation Square, creating a meeting place alongside the river and is also in the heart of the city's night-time entertainment zone. River Square will enjoy a different character during weekdays, when it may be a quieter retreat near the river than on weekends and nights when it will be a vibrant destination for relaxation and entertainment.
- 2.17** Parramatta Square will be the centrepiece. At potentially 8,000m² Parramatta Square will be the largest and most urban of the three. It will be a dynamic and a bustling space, and will house the city's largest gatherings and will have strong focus on students and workers during the weekdays, and markets and community events on the weekends.
- 2.18** The protection of Parramatta Square from overshadowing has been a long held planning principle by Council. The purpose of the principle is to provide good amenity, with public areas free from shadows cast by buildings seen as a desirable quality. A number of planning proposals and planned developments to the north of Parramatta Square sought to challenge this protection by introducing the concept of fast moving shadows between the hours of 12 noon and 2pm in midwinter.
- 2.19** Amendment No.29 to PLEP 2011 sought to remove any ambiguity regarding overshadowing of Parramatta Square. The purpose of the new provision is protection of Parramatta Square from overshadowing from buildings to the north as they had the greatest potential to excessively overshadow the public domain. It was never intended that overshadowing by vegetation or umbrellas be taken into consideration, other than in a qualitative way.

Design Controls – Parramatta Square

- 2.20** The design of the Parramatta Square public domain is informed by:
- Parramatta DCP 2011.
 - Public Domain guidelines 2017.
 - City of Parramatta Civic Link Framework Plan.
 - Civic Improvement Plan – Amendment No.4.
 - Community consultation.
 - Parramatta Square Performance Specification by Design Team 'Four Squared' (4²) – May 2017
- 2.21** Of the above documents, two, set the design framework for Parramatta Square.
- 2.22** The first document is *Parramatta DCP 2011*. It sets out the public space principles for Parramatta Square and establishes a progression of spaces crossing the site from east to west, each with their own character. The DCP requires that the spaces are to have:
- Quality paving and urban elements;
 - Public art that is appropriate to the site;

- Maximise soft landscaping while providing;
- Sufficiently sized hard paved event spaces.

2.23 The spaces are identified as:

1. **Main square** – Main civic space, minimum 3,000m² with minimum dimension 40m with consistent edge alignment; ceremonial public area designed to be symbolic centre of Parramatta, accommodate a rich program of events, limited vehicle access.
2. **Leigh Place** – Main northern entrance to Parramatta Square from the River Link and Macquarie Street, accommodate vehicle and service access, align Leigh Place to facilitate visual connection along a new linear axis between Parramatta Square and the riverfront.
3. **Eastern Square** – Provides address to Smith Street, 169 Macquarie Street and the Sydney Water building, must integrate with raised forecourt of Sydney Water.
4. **Pedestrian Lanes** – activated lanes between the railway station, Station Square and Macquarie Street, direct connection to station concourse, no vehicles.
5. **Station Square** – The hub where the railway station meets the square; a front door to Parramatta city, an activated space that facilitates easy pedestrian access, orientation and seamless choice of desired routes and destinations, no vehicles.
6. **Church Street Mall and Centenary Square** – retain as Parramatta's most enduring public space, including landscaping and heritage buildings and monuments, ensure access for potential future light rail along the Church street

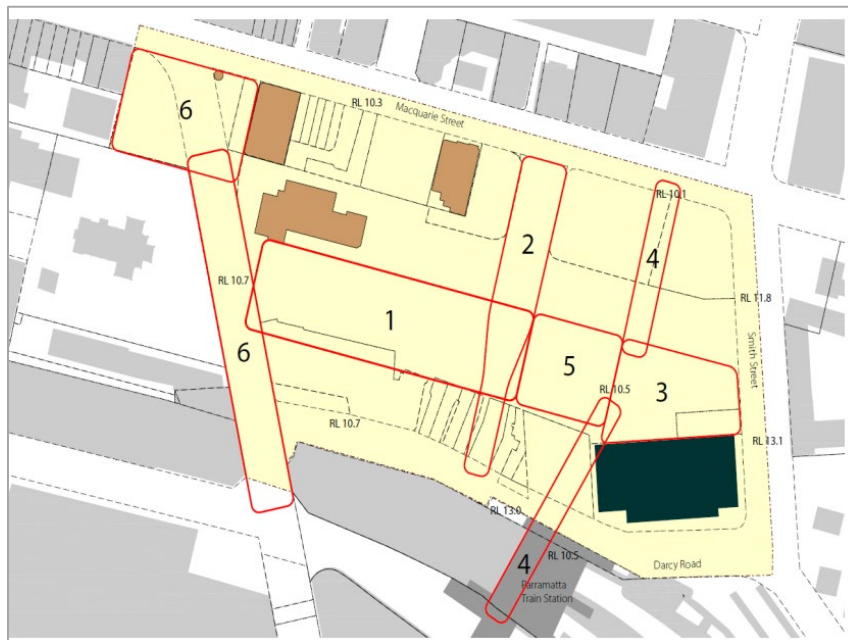


Figure 9 – Parramatta DCP – Public spaces (1 to 6) – Parramatta Square

- 2.24** The public spaces affected by overshadowing intersect at the eastern end of Main Square and the extension of Leigh Place. This area will be busy with pedestrians traversing in a north south direction connecting with transport, employment, study, etc. And, also busy with people taking advantage of the casual seating available on the edge of the landscape structures.

2.25 The second document is *Parramatta Square Performance Specification*. This document evolved over a 2-year period of consultation and defines Council's requirements for the Parramatta Square Public Domain. The purpose of the *Performance Specification* is to provide in general terms a guiding framework for the design development and documentation of Parramatta Square Public Domain. The design intent is described in specific terms and includes:

- Spatial design layout & circulation -
- Heritage interpretation
- Public art work zones
- Signage design
- Pedestrian pathway network
- Surface levels and stormwater drainage
- Structural coordination
- Provision of utility services
- Public domain furniture & materials – paving, furniture, planting and soil specification.

2.26 The solar protection area is noted on the spatial design layout (see *Figure 10 below*) with the following annotation: *Shade consideration through tree planting to allow maximum winter sun permeability and should provide shade between October – March to the public domain seating on the eastern wing of the bowtie planters. Tree planting to also provide shade to the western end of the bow tie planters.*

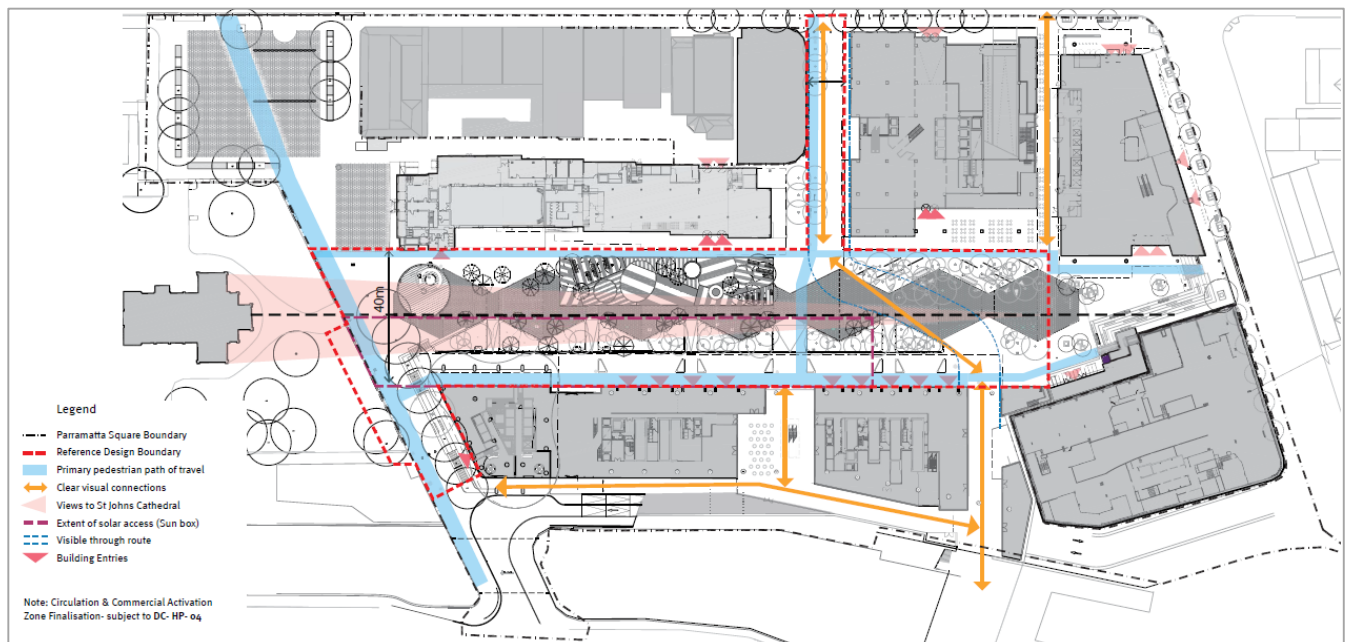


Figure 10 – Parramatta Square – Performance Specification – Spatial layout & circulation

Surrounding Development

2.27 Land use in the vicinity of the site is primarily retail and office:

- To the north west of the site is Parramatta Town Hall and 5 Parramatta Square the site of the future Parramatta library, Heritage and Visitor Centre, and Experience and Discovery Centres.
- To the north and north-east, interspersed with the existing building stock in Macquarie Street, east, on the southern side, is 1 Parramatta Square, the site of University of Western Sydney 15 storey campus and now completed, and 3 Parramatta Square, the site of a future commercial office building – under construction, and with a targeted occupancy date of March 2019.
- The site adjoins 4 Parramatta Square to the south, the site of a commercial office tower under construction, with a targeted occupation date of December 2019.
- Further to the east of the site, adjoining 4 Parramatta Square, is the Sydney Water building a multi-storey commercial office building consisting of some 14 levels;
- To the west is the 6 & 8 Parramatta Square commercial office buildings, under construction; and Church Street Mall and St John's Anglican Cathedral.

Nature of Variation Sought

2.28 Tree planting both evergreen and deciduous, and umbrellas result in additional overshadowing, between 12 noon and 2pm, on Parramatta Square, being the land at Parramatta Square shown with blue hatching on the Sun Access Protection Map (and the yellow coloured area in Figure 11 below).

2.29 The evergreen tree species planted within the protection zone are Cabbage Tree Palms, Water Gums, Southern Magnolia and Lemon Myrtle. The deciduous trees planted within the protection zone are Tulip Trees. The umbrellas are movable furniture managed by Council. The figure below shows the placement of the trees and umbrellas within the solar protection zone. The anticipated crown spread of the trees is shown at 2019 (installation), 2021 and 2029. See also Drawing L02 attached to this submission.



Figure 11 – Tree planting – Solar Protection Zone

2.30 In quantitative terms, the extent of shadow is too difficult to analyse. However, the qualitative shadow impact can be observed from the shadow diagrams prepared for June 22 at 12 pm, 1pm and 2pm for two scenarios: (i) 2 years post tree installation and (ii) 10 years post tree installation. The shadow diagrams are presented below and are attached to this submission.

2.31 There are a few things to note:

- the no overshadowing control is not limited to the months of June, but is applicable all year round. The submitted shadow diagrams, show only the June impact. It was considered unnecessary to produce shadow diagrams for March, September and December, because, it would not change the substance of the argument to vary the overshadowing standard at clause 7.4(2). That is, overshadowing by vegetation should be ignored.
- Umbrellas are shown in the sun protection zone, however, shadows are not presented for these elements because, the shade umbrellas are introduced as an interim measure prior to the trees reaching their mature size to provide sufficient shade during the hot summer months. Until there is sufficient tree canopy coverage umbrellas will be essential from late spring – early autumn (November – March).
- The long straight shadows are the trunks of the Cabbage Tree Palms. You will note there is no crown. This was considered reasonable because shadows caused by the crowns fall outside the Sun Protection Area.
- The only other element to consider are the landscape structures. DA drawing L09 shows these in section. They are of such a height (between 30cm to 40cm) that overshadowing is not a consideration.

2.32 This request seeks flexibility in the application of clause 7.4(2) to permit additional overshadowing between 12 noon and 2pm, on Parramatta Square, being the land at Parramatta Square shown with blue hatching on the Sun Access Protection Map. The Sun Protection Area is shown on the shadow diagrams below (*See yellow highlighted area*).

2.33 The flexibility would allow the planting of evergreen natives, deciduous trees, native *Livistonia* palms and moveable umbrellas within the sun access protection zone. This would have the benefit of meeting the challenging environmental and technical conditions that are anticipated at Parramatta Square that will require mitigation of the microclimate effect of reflectivity, heat and wind caused by surrounding buildings. The overshadowing caused by vegetation and the moveable umbrellas is both desirable and appropriate.

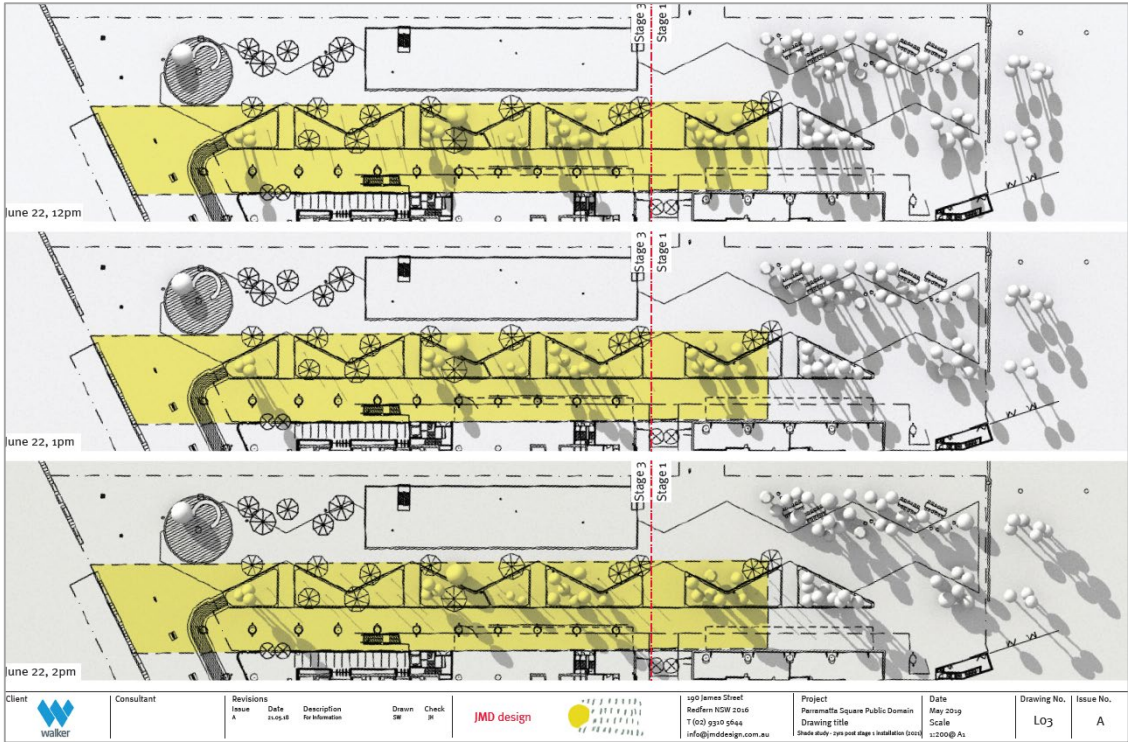


Figure 12 – Shade study 2 years post installation – June 22

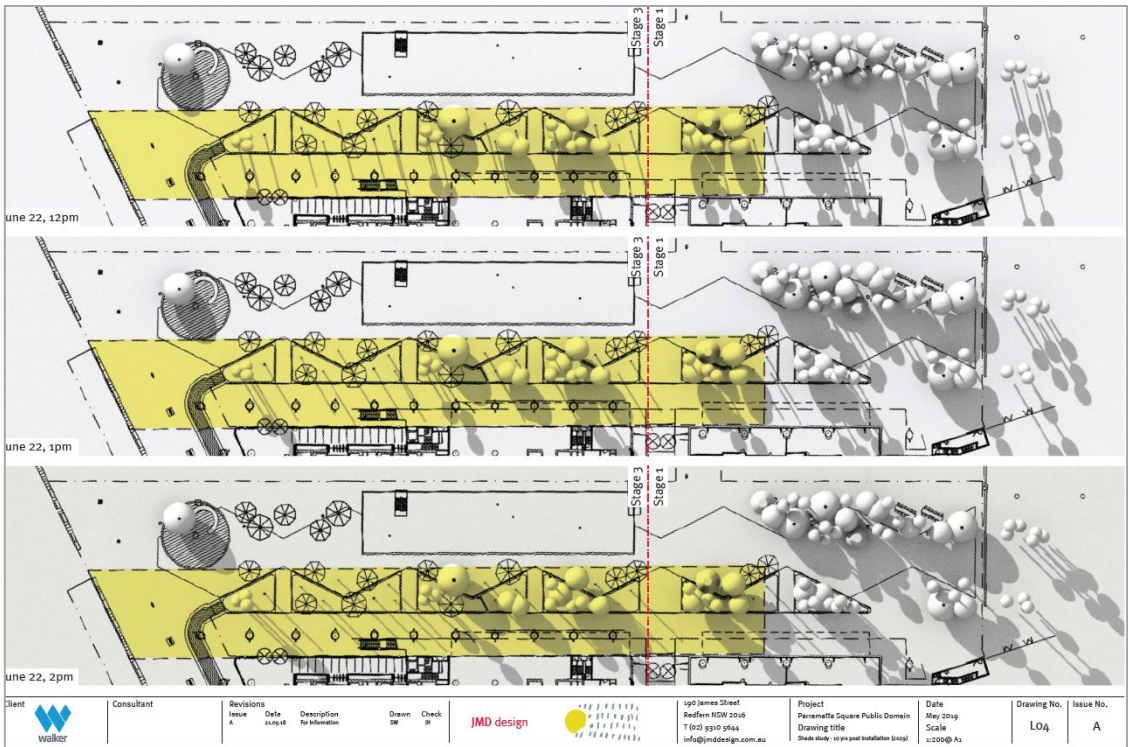


Figure 13 – Shade study 10 years post installation – June 22

3.0 JUSTIFICATION FOR PROPOSED VARIATION

Clause 4.6(3)(a): Compliance with the development standard is unreasonable or unnecessary in the circumstances of the case

3.1 The stated purpose of the standard is abundantly clear. As per clause 7.4(1), it is to protect a particular area of public open space within Parramatta Square from overshadowing as this is a desirable amenity objective. This purpose is a fundamental and long established principle enshrined in planning legislation and planning controls throughout NSW. However, protection from overshadowing is a means to the ultimate end purpose. It is submitted that the ultimate end purpose – the underlying objective – is, to create a public space of high amenity by ensuring:

- activity in Parramatta Square is encouraged by the presence of sunlight;
- the user experience of the public realm within Parramatta Square is of a high quality;
- Parramatta Square is comfortable to use;
- Parramatta Square works well as a public space;
- To promote the success of Parramatta Square as open space within the city.

3.2 Compliance with the development standard is unnecessary and unreasonable because:

- Overshadowing by vegetation is desirable. Tree planting is purposely installed in the Sun Protection Area to enhance the amenity of the public domain (the underlying objective of the standard) by mitigating the microclimate effect of reflectivity, heat and wind caused by surrounding buildings. Not planting trees would have the opposite effect.
- The microclimate report indicates that shade in summer is essential and a desirable option on some autumn and winter days.
- The mixture of evergreen and deciduous trees creates a strong canopy structure for scale, a pleasant environment and hospitable microclimate with a green backdrop all year around. An evergreen and deciduous mix of tree planting also provides options for sitting in shade or sun all year round. This in itself is a desirable objective.
- Trees with dense canopies (evergreen species) are required to be planted in the Sun Protection Area in order to positively contribute to mitigate wind discomfort issues and improve pedestrian comfort. The wind reports for 3PS, 4PS and 6 & 8PS advise a number of areas within the Parramatta Square Public Domain will be exposed to the prevailing winds being the western and NE winds, down wash wind effects off the building façades and accelerating flows around the corners of the buildings. Within the solar access protection zone, selected tree species are predominantly deciduous (tulip trees), complimented by evergreen (Fig, Magnolia, Water Gums & Lemon Myrtles) to keep the canopy structure all year round and therefore perform as a necessary wind mitigation measure.
- The umbrellas are moveable structures (managed by Council) which are ostensibly provided to shade the public domain in the warmer months until such time as the trees have matured to their full crown spread. Thus, shading from the umbrellas is both desirable and appropriate.

- The material threat to solar access in the designated area arises from the building form of development to the north. These developments because of their location and orientation have shadows that fall to the south and to the southeast, potentially overshadowing Parramatta Square in a material way. The shadows that are the subject of this application are not of the kind that the standard is intended to address. Overshadowing by vegetation and the moveable umbrellas should be ignored.
- In order to satisfy the standard all the trees and the moveable umbrellas within the solar protection area would need to be removed. From an urban design and design excellence perspective, the impact of satisfying the standard by removing the trees and umbrellas would be overwhelmingly detrimental to the quality of the public realm.

3.3 Accordingly, strict compliance with the standard would thwart or undermine the underlying objective of the standard set out in clause 7.4(1). That is, a strictly compliant development, when compared with the proposed development, would:

- encourage less activity in Parramatta Square;
- dampen the user experience of the public realm within Parramatta Square;
- mean that Parramatta Square is less comfortable to use;
- reduce the effectiveness of Parramatta Square as a public space; and
- do less to promote the success of Parramatta Square an open space within the city.

3.4 For the same reasons, strict compliance with the standard would also thwart or undermine:

- The aim of the Parramatta LEP set out in clause 1.2(2)(b) — which is *to foster environmental, economic, social and physical wellbeing so that Parramatta develops as integrated, balanced and sustainable city,*
- The aim of the Parramatta LEP set out in clause 1.2(2)(m) — which is *to protect and enhance the viability, identity and diversity of the Parramatta City Centre and recognise it as the pre-eminent centre in the Greater Metropolitan Region.*
- The fifth objective of the B3 zone set out in Parramatta LEP — which is *[t]o create opportunities to improve the public domain and pedestrian links throughout the Parramatta City Centre*
- The seventh objective of the B3 zone set out in Parramatta LEP — which is *[t]o protect and enhance the unique qualities and character of special areas and heritage values within the Parramatta City Centre.*
- The third objective of the B4 zone set out in Parramatta LEP — which is *[t]o encourage development that contributes to an active, vibrant and sustainable neighbourhood.*
- The fourth objective of the B4 zone set out in Parramatta LEP — which is *[t]o create opportunities to improve the public domain and pedestrian links.*
- The sixth objective of the B4 zone set out in Parramatta LEP — which is *[t]o protect and enhance the unique qualities and character of special areas within the Parramatta City Centre.*
- The object of the Environmental Planning and Assessment Act 1979 set out in section 1.3(g) of that Act *to promote good design and amenity of the built environment.*

Clause 4.6(3)(b): There are sufficient environmental planning grounds to justify contravening the development

- 3.5 The spatial design layout and circulation of the public domain, including tree planting and provision of umbrellas within the solar protection area has been refined through a detailed design process and has been awarded design excellence. The transformational effect of the development of Parramatta Square Precinct will enhance the locality as one of Parramatta’s preferred locations for commerce.
- 3.6 The development will transform the precinct into a destination in itself. There is therefore a great opportunity and responsibility to support the development (of which the contravening element is a critical component) commensurate with its strategic significance, while reinforcing the desired future character of the area
- 3.7 It is apparent the proposed variation to the standard is a desirable outcome and is superior to the outcome that flows from requiring strict compliance.
- 3.8 The overshadowing does not cause any adverse impacts on the amenity of the locality. The proposed development works have been assessed for their potential impacts on the desired future character of the area, overshadowing, views, heritage and wind environment, and have been found to be acceptable in each of these cases. Importantly there are positive benefits from allowing the contravention, as:
- It will create an improved pedestrian experience in the square.
 - The trees are visually attractive and provide a strong canopy structure for scale, a pleasant environment and hospitable microclimate with a green backdrop all year round.
 - The trees will mitigate the microclimate effect of reflectivity, heat and wind caused by surrounding buildings.
 - Parramatta Square’s usability and desirability will be improved by the trees and umbrellas that cause the contravention.
- 3.9 In light of the above, there are environmental planning grounds that favour the variation of the development standard in this instance.

Clause 4.6(4)(a)(ii): The development is in the public interest because it is consistent with the objectives of the development standard and objectives for development within the zone

- 3.10 The proposed development is consistent with the objective of the overshadowing standard which is to enhance the amenity of public areas. The objective is as follows: *The objective of this clause is to protect public open space in Parramatta Square, the Lancer Barracks site and Jubilee Park from overshadowing.*
- 3.11 The development is consistent with that standard for reasons explained above. In particular, it should be understood that the quality of the public space within Parramatta Square will be enhanced by the elements that cause the overshadowing. This means that preventing the overshadowing — by requiring strict compliance — will not ‘protect’ the public open space at all.
- 3.12 The site is affected by two land use zones: B4 Mixed Use and the B3 Commercial Core Zone.

3.13 The proposed development is consistent with the zone objectives for the following reasons:

- The development will contribute to the creation of an active, vibrant and sustainable precinct.
- The development creates opportunities to improve the public domain, pedestrian links and view corridors.

Overall public interest

3.14 In accordance with the requirements of Clause 4.6(4)(a)(ii), the proposed development and variation to the development standard is in the public interest because it achieves the objectives of both the development standard and the land use zone.

4.0 CONCLUSION

4.1 Compliance with the development standard contained in Clause 7.4(2) of the Parramatta LEP 2011 is unreasonable and unnecessary in the circumstances of the case, and the justification to vary that standard is well founded. There are environmental planning grounds justifying the contravention, in the unique circumstances of the proposal.

4.2 This clause 4.6 variation request demonstrates, notwithstanding the proposed variation to the development standard, that:

- the underlying and stated objectives of the overshadowing development standard will be undermined or thwarted if there is not a variation to the control;
- the proposed flexible application of controls better achieves the relevant planning objectives and aims (being amenity objectives / aims that are set out in the Parramatta LEP and the EP&A Act) than would be achievable by strict adherence to the controls across the development site;
- it is in the public interest as the proposal is consistent with the applicable land use zone objectives and the development standard objective;
- the additional overshadowing of Parramatta Square will not result in adverse amenity or environmental impacts;
- the elements that cause the additional overshadowing of Parramatta Square (trees and moveable umbrellas) will result in beneficial amenity/environmental impacts;
- the non-compliance with the development standard does not raise any matters of State and regional planning significance;
- there is no public benefit in maintaining the development standard adopted by the environmental planning instrument for this site.

4.3 The clause 4.6 request demonstrates that the proposed development will deliver a better outcome for the site, and the broader community. Overall, the proposal optimises the opportunity to establish a high quality public realm that creates a revitalised precinct in the City Centre of Parramatta and provides significant public benefits, consistent with Parramatta Council's objectives.

4.4 For the reasons set out in this written request, the proposed development should be approved with the variation as proposed in accordance with the flexibility allowed under Clause 4.6 of the Parramatta LEP 2011.

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