Part 1 – Local Context

	CONTROL		EVALUATION	COMPLIANCE
Building depth				
	In general an apartment building of a maximum depth of 18 metres is appropriate.		The depth of the towers remains unchanged from the approved towers.	No change
Building Separation				
	Up to 4 storeys: • 12m between habitable rooms/balconies • 9m between habitable/balconies & non-habitable • 6m between non-habitable rooms. 5 to 8 storeys: • 18m between habitable rooms/ balconies • 13 m between habitable/balconies & non habitable • 9m between non habitable 9 storeys and above: • 24m between habitable rooms/balconies • 18m between habitable/balconies & non-habitable • 12m between non-habitable rooms.		The building footprint and separation of the towers remains unchanged from the approved development. The additional height of the towers is proposed fully within the existing footprint of the approved buildings.	No change

Part 2 – Site Design

	CONTROL		EVALUATION	COMPLIANCE
Deep Soil Zones				
	A minimum of 25% of the open space area shall be deep soil zones. Exemptions may be made in urban areas where sites are built out and there is no capacity for water infiltration.		The subject site currently provides no deep soil area, being located in the CBD or Parramatta. The approved development does not provide for deep soil areas. The proposal does not change this.	No change
Fences and Walls				
	Fences and walls should be designed to define the boundaries between the development, provide privacy and security and contribute positively to the public domain.		Not applicable. This control applies to fences or walls that are at ground floor level. No fences or walls are proposed at ground floor level.	No change
Landscape Design				
	A landscape design should: • improve the amenity of open space • contribute to the streetscape character • improve the energy efficiency and solar efficiency of the public domain • contribute to the sites characteristics • contribute to water and stormwater efficiency • provide a sufficient depth of soil for planting • minimise maintenance		The proposal is accompanied by an amended landscape design for the upper podium area. The landscaping provides for soft and hard landscaped spaces in a manner similar to the original approval.	Yes
Open Space Configuration				
	Area of open space should generally be between 25 – 30% of the site. Where developments are unable to achieve this, they must demonstrate that the residential amenity is provided in the form of increased private open space. Minimum area of private open space at ground level shall be 25m².		The proposal does not change the amount of open space on the site.	No change

	CONTROL		EVALUATION	COMPLIANCE
Orientation				
	In order to achieve better design practise: • Plan the site to optimise solar access • Select building types or layouts that respond to the streetscape by optimising solar access • Optimise solar access to living spaces • Detail building elements to modify environmental considerations		The amended solar access report confirms that 92.3% of the units will receive the required solar access.	Yes
Planting on Structures				
	In terms of soil provision there is no minimum standard that can be applied to all situations as the requirements vary with the size of plants and trees at maturity.		Planting of the landscaped podium area will have soil depths that are appropriate to the species that are to be planted.	Yes
Building Entry				
	Building entries should: • Create entries that provide a desirable residential amenity. • Orientate the visitor. • Contribute positively to the streetscape or building façade design.		Each tower has a clearly identifiable entry point. Large lobby spaces define the entry points. Entrance points provide a focal point of each building and contribute to streetscape character.	Yes
Pedestrian Access				
	Identify the access requirements from the street or car parking area to the apartment entrance. Follow the accessibility standard set out in Australian Standard AS 1428 (parts 1 and 2), as a minimum. Provide barrier free access to at least 20 percent of dwellings in the development.		External parts of the development are serviced by at-grade access for people with limited mobility. Access from the basement to all apartments is provided via lifts. The development provides compliance access for disabled people. The entire development is barrier free and accessible by ramp and/or lifts.	Yes
Vehicle Access				
	Generally limit the width of driveways to a maximum of six metres. Locate vehicle entries away from main pedestrian entries and on secondary frontages.		The proposed driveway is 6 metres wide. The vehicle entry point s are located at the rear of the development.	Yes

Part 3 – Building Design

	CONTROL		EVALUATION	COMPLIANCE
Apartment Layout				
	Single-aspect apartments should be limited in depth to 8 metres from a window. The back of a kitchen should be no more than 8 metres from a window. The width of crossover or cross-through apartments over 15 metres deep should be 4 metres or greater to avoid deep narrow apartment layouts.		As the building footprint of the residential (west) tower is not to change, the general arrangement of residential apartments remains similar to the approved development. Some modification to the layout has been necessary to accommodate vertical services, lifts and structural elements. Generally, the apartments in the west tower are 8 metres deep. All kitchens are within 8 metres from windows. The new residential apartments in the podium have been designed so that they are generally 8 metres deep – many have a depth of approximately 4 metres. All kitchens are within 8 metres from windows.	Yes
	As a guide, the following minimum apartment sizes apply: • 1 bedroom: 50sqm • 2 bedroom: 70sqm • 3 bedroom: 95sqm		The following minimum residential unit sizes are in the development: 51.1 sqm 74.3 sqm 100.7 sqm	Yes
Balconies				
	Provide primary balconies for all apartments with a minimum depth of 2 metres. Developments which seek to vary from the minimum standards must demonstrate that negative impacts from the context-noise, wind-can not be satisfactorily mitigated with design solutions. Require scale plans of balcony with furniture layout to confirm adequate, useable space when an alternate balcony depth is proposed.		Where possible, balconies have been provided with a minimum depth of 2 metres. The architectural success of the proposal depends on maintaining the shape of the buildings. To comply with the minimum 2-metre balcony depth would have adverse results on the external appearance of the residential tower. In any case, each balcony will be adequate in overall area and dimensions to accommodate outdoor furniture.	Partial
Ceiling Heights				
	The following recommended dimensions are measured from finished floor level (FFL) to finished ceiling level (FCL). These are minimums only and do not preclude higher ceilings, if desired. Developments which seek to vary the recommended ceiling heights must demonstrate that apartments will receive satisfactory daylight (eg. Shallow apartments with large amount of window area).		2.7m high ceilings provided.	Yes

	CONTROL		EVALUATION	COMPLIANCE
Ground Floor Apartments				
	Optimise the number of ground floor apartments with separate entries and consider requiring an appropriate percentage of accessible units. Provide ground floor apartments with access to private open space, preferably as a terrace or garden.		The proposal does not provide ground level apartments with access from the street.	No change
Internal Circulation				
	In general, where units are arranged off a double-loaded corridor, the number of units accessible from a single core / corridor should be limited to eight. Exceptions may be allowed: • For adaptive reuse buildings; • Where developments can demonstrate the achievement of the desired streetscape character and entry response; • Where developments can demonstrate a high level of amenity for common lobbies, corridors and units (cross over, dual aspect apartments).		The corridors on each level of the residential (west) tower provides access to no more than 8 units.	Yes
Storage				
	In addition to kitchen cupboards and bedroom wardrobes, provide accessible storage facilities at the following rates: • Studio apartments: 6m3 • One bedroom apartments: 6m3 • Two bedroom apartments: 8m3 • Three plus bedroom apartments: 10m3		A total of: 66 x 1br x 6m3 = 396 m3 292 x 2br x 8m3 = 2,336 m3 20 x 3br x 10m3 = 200 m3 Total required = 2,932 m3 Storage will be provided in each apartment and in the basement in the form of basement storage.	Yes

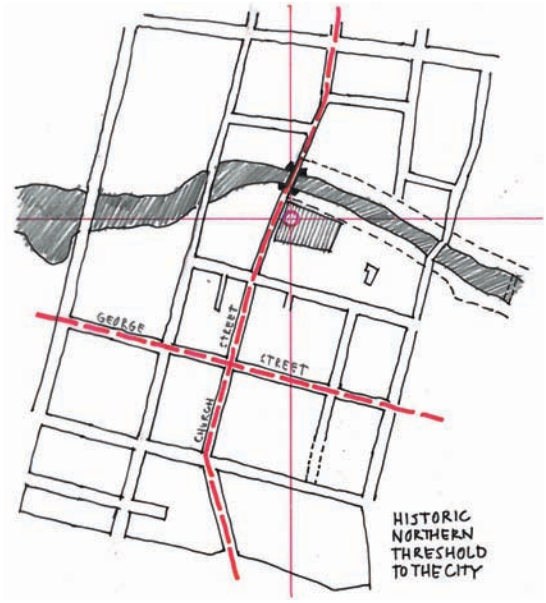
	CONTROL		EVALUATION	COMPLIANCE
Daylight Access				
	Living rooms and private open spaces for at least 70% of apartments in a development should receive a minimum of three hours direct sunlight between 9am and 3pm in mid winter. In dense urban areas a minimum of two hours may be acceptable. Limit the number of single aspect apartments with a southerly aspect (SW-SE) to a maximum of 10% of the total units proposed. Developments which seek to vary from the minimum standards must demonstrate how site constraints and orientation prohibit the achievement of these standards and how energy efficiency is addressed (see Orientation and Energy Efficiency).		The amended solar access report confirms that 92.3% of the units will receive the required solar access. The proposal contain no apartments that are single aspect and south facing.	Yes
Natural Ventilation				
	60% of residential units should be naturally cross ventilated.		54% of units in the residential (west) tower have two-aspects that allow for cross ventilation. However, due to the height of the tower, significantly more than 60% of apartments in the tower will have access to excellent natural ventilation. This is due to the wind velocities are higher floors in buildings.	Partial
	25% of kitchens within a development should have access to natural ventilation.		Al kitchens have access to natural ventilation.	Yes

RIVERSIDE RESIDENTIAL DEVELOPMENT
CHURCH STREET PARRAMATTA
for
MERITON APARTMENTS PTY LTD
prepared 23 May 2013 by
TONY CARO ARCHITECTURE PTY LTD

SEPP 65 DESIGN QUALITY PRINCIPLES VERIFICATION AND REPORT

INTRODUCTION

This proposal is for a mixed use development on the former David Jones site, located at the highly prominent northern threshold to the City Centre at the intersection of Church Street and the historic Lennox Bridge crossing of the Parramatta River.



In November 2010 TCA was invited by Meriton Apartments to participate in a Design Excellence competition to provide a Concept Design for the site. TCA's Concept Design was the preferred scheme as assessed by the Design Excellence Jury comprised of representatives from the proponent, Parramatta City Council and the Department of Planning, and forms the basis for this application for Development Consent.

The extraordinary potential of this site is belied by its current use and poor urban relationships to its key frontages of Parramatta River and Church Street. Previously a vibrant retail and entertainment precinct, the area has suffered through a shift in retail emphasis to the city centre adjacent to the Railway Station. This proposal offers a unique opportunity to re-instate this precinct as a highly activated and invigorated new urban place for a wide range of uses and activities, embraced and made coherent by the artery of the historic river.

The future context of the site will be a highly desirable, high-density mixed-use precinct with 378 new residential apartments, 266 serviced apartments and a highly activated public domain with continuous restaurants, cafes and bars animating the key frontages to the River and Church Street. The site is close to and well connected with Parramatta City, existing cultural facilities, the Parramatta Park sports precinct and existing parks and recreation areas. Parramatta Railway Station is within walking distance of the site, and a future station at North Parramatta is proposed for the Epping Parramatta rail-link.

The site has an area of 6763 sqm and includes a 720 sqm land bonus and achieves a Floor Space Ratio of 8.25:1.

DESIGN VERIFICATION

SEPP65'S key objective is to improve the design quality of residential flat development in NSW, to ensure:

- Creation of sustainable housing in social and environmental terms
- Creation of a development that is an asset to its neighbourhood
- Compliance with relevant urban planning policy.

In NSW the SEPP requires that an application for development consent is accompanied by a design Verification Statement from a suitably qualified registered architect.

As a registered architect in NSW (Reg.No 4578) and director/principal of Tony Caro Architecture Pty Ltd, I hereby confirm that I have been involved in the design and am conversant with all relevant aspects of this proposal, and that the ten design quality principles established by the SEPP have been carefully addressed and integrated into the design.

I further confirm that the development described by this Application maintains the key concepts and initiatives of design excellence exhibited in the winning submission to the Design Excellence Competition.

Signed:

Position: Director

Date: 23/05/2013

PRINCIPLE 1 – CONTEXT

"Good design responds and contributes to its context. Context can be defined as the key natural and built features of an area.

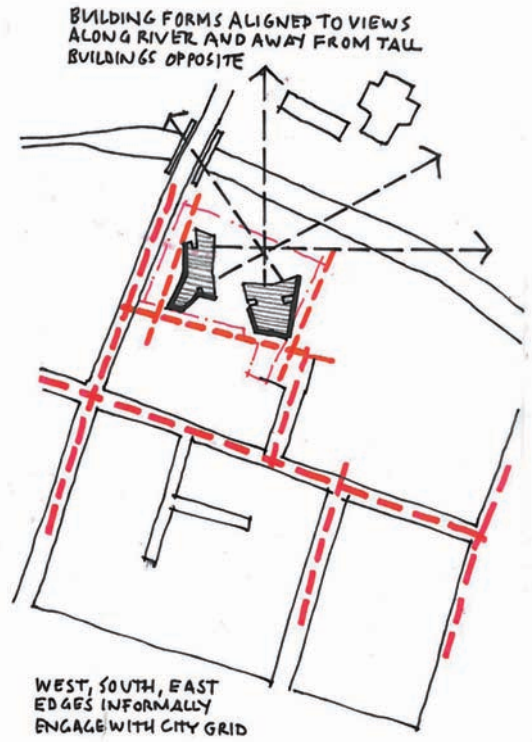
The over-riding natural feature of the site is its broad frontage to the Parramatta River. The riverfront is presently accessible to the public and presents on both north and south banks as a broad, softly undulating landscape zone with minor soft planting, large turfed areas and meandering pedestrian pathways. Access points are generally stairways associated with bridge crossings, and are poorly defined and difficult to negotiate.

Built form adjacent to the site is of variable quality. Directly to the north across the river are a series of mid-level residential developments of poor design quality. To the east is a multi-level public carpark designated for eventual redevelopment by Council as a large river-front public plaza. Small-scale mixed use development fronts Church Street to the west, with good scale and rhythm contributing to the general character of the street. To the south, the site abuts the the side boundary of existing low scale Church Street properties and the Crown Plaza Hotel. Parramatta Council's vision is for creation of a future laneway along this edge, to improve pedestrian grain and permeability within the precinct.

A key built contextual feature is the historic sandstone Lennox Bridge connecting Church Street across the river. Council's vision is to develop the presently degraded and inaccessible river foreshore to the west of the Bridge as high quality public open space. The Riverside Cultural Centre is situated on the north-western corner of the Bridge, and represents a significant cultural attribute of the location.

This proposal responds to existing context as follows:

- The site is the key northern gateway to Parramatta City Centre, articulated at street level by the Lennox Bridge. A key urban design response of this proposal is to accentuate this threshold through the purposefully slender, articulated form of the western tower to create a dramatic, highly sculptural presence at this gateway to the City.
- A broad, landscaped series of terraces are suggested, connecting a new public promenade and colonnade across the site to the river edge via a series of stairs and ramps.
- Creation of a new public threshold between Church Street and the Riverfront at the southern rampart of the Bridge, to be integrated with a future proposal of Councils for a portal link under the Bridge connecting the foreshore to the west.
- Creation of an appropriately scaled podium around all frontages. Substantial setbacks to the residential towers will ensure that the existing character of Church Street is maintained, and an appropriate new scale for the the riverfront established.
- Creation of a high quality, activated eastern facade that will eventually form an appropriate civic edge to Councils future civic square on the carpark site.
- At the broader level, the tower forms have been devised to respond to the existing pattern and grain of the city. The substantial residential component required by the Brief dictates that tower form is largely shaped by design responses to creation of living amenity – the provision of outlook, privacy, and naturally ventilated, well-lit apartments with good solar access. The proposed towers create this amenity, but also respond in a less formal, but perceptible manner to the pattern of the city at ground level.



PRINCIPLE 2 – SCALE
"Good design provides an appropriate scale in terms of the bulk and height that suits the scale of the street and the surrounding buildings."

This proposal has been designed to integrate with the existing urban context, as well as to establish a new urban scale with particular regard for the iconic 'Gateway' location of the site and current planning policy that establishes significantly higher densities within the Parramatta City Centre. This proposal is considered to be consistent with these aspirations.

Council's guide document "Riverbank Site Controls" dated 25 November 2010 establishes their current vision for the precinct. This proposal has been prepared with reference to this document and the Parramatta LEP 2007 as the primary urban design controls specific to the site and in consultation with Council.

The site's three major frontages address existing or future public domain elements, being Church Street, the Riverfront and the proposed future civic plaza to the east. This proposal has responded to the existing and future proposed scale of these elements as follows:

PODIUM HEIGHT AND ALIGNMENT
The podium consists of 3 storeys of residential and serviced apartment units balanced upon a retail ground floor and discreetly broken by setback lobby entries. This low scale built edge mediates the taller tower forms above and provides active, appropriately scaled street and public domain edges. This will provide a consistent, cohesive human scale across all of the development interfaces.

The podium re-inforces street form, with the Riverfront alignment complying with Council's requirement for a 25 metre setback from the southern bank of the river. The proposed public promenade along the northern edge of the podium required by the Controls is a further 5 metres in width, and is provided as a covered, spacious colonnade in this proposal.

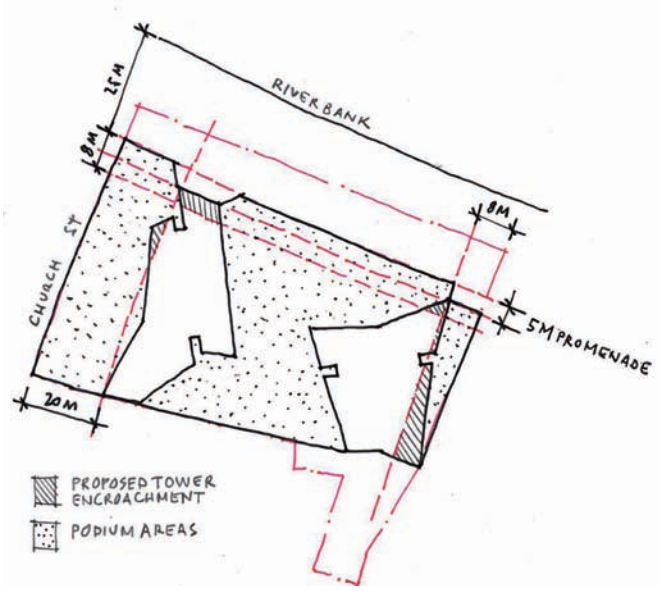
TOWER SETBACKS
Significant setbacks will ensure that the residential towers preserve an appropriate sense of scale from within the public domain.

Above the podium, the Riverbank Site Controls require a 20 metre setback to Church Street and 8 metre setbacks to the Riverfront and eastern boundary. This proposal is generally consistent with these requirements. Variations and their underlying design rationale are as follows:

- Both East and West towers encroach by 3 metres into the 8 metre northern podium setback. This is visually ameliorated by extending the upper podium to the northern edge of the required public promenade. Creation of the covered colonnade will significantly enhance public amenity of the promenade and preserve the scaled setback to the towers envisioned by the Controls.

- The East Tower encroaches upon the target 8 metre setback increasingly towards the south-eastern corner of the site, in order to optimise residential amenity between the towers. The continuous podium parapet line is maintained and will mediate an appropriate transition in scale along this edge of the site.

- An averaged compliance is proposed for the western tower setback to Church Street, with a minor encroachment at the north-west corner.



TOWER HEIGHT
Building height within the Parramatta City Centre is not presently characterised by a discernably consistent height, although the intent of Parramatta LEP 2007 is to create a general datum within the 80 to 90 metre height range. Other developments in Parramatta have however suggested higher buildings in key locations.

The LEP establishes a maximum building height of 80 metres for this site, with a possible 10% discretionary bonus (88 metres). The key density control is an allowable Floor Space Ratio of 6:1, with a 10% discretionary bonus (6.6:1). The proponent has undertaken negotiations with Council and the Dept of Planning to alter these controls as reflected in the amended application.

The inter-relationship between floor-space targets, building height and SEPP65 residential amenity targets is a key issue for this site. Compliance with the LEP height controls and the Riverbank Site Controls in relation to setbacks (refer above) will create non-compliant residential amenity outcomes as tower footprints become excessively large and close to each other.

This proposal offers an alternative design rationale by creating a smaller footprint, slender building that reconciles density, setbacks and residential amenity targets through a proposed increase in height for the western tower and eastern towers.

The 53 habitable-level Western Tower has an upper roof level of RL 185.1 AHD, giving an effective height** of 177.1 metres above ground level at Church Street (RL8.0). This equates to a 89.1 metre non-compliance with the 88 metre control.

The 30 habitable-level Eastern Tower has an upper roof level of RL 116.3 AHD, giving an effective height of 108.1 metres above the proposed Lobby level at RL7.20. This equates to a 20.1 metre non-compliance with the 88 metre control.

The proposal seeks to establish an appropriately dynamic sculptural relationship between the two towers through this strategy, resulting in an exceedence of height by the two buildings.

A step has been introduced into the Western Tower at Level 27 to create a visually cohesive, stepped silhouette towards Church Street, as the preferred design alternative to squatter forms if the entire development is restricted to the 88 metre maximum under the current LEP controls.

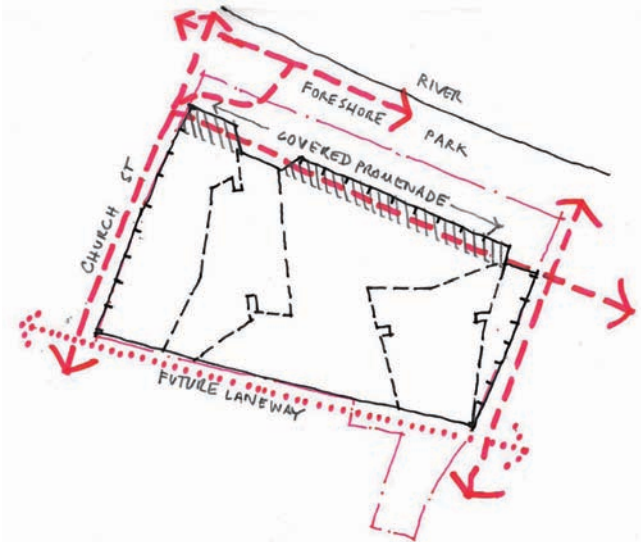
***** HEIGHT DEFINITION LEP 2007***
building height *(or* ***height of building****) means the vertical distance between ground level (existing) at any point to highest point of the building, including plant and lift overruns, but excluding communication devices, antennae, satellite dishes, masts, flagpoles, chimneys, flues and the like.*

PRINCIPLE 3 – BUILT FORM

"Good design achieves an appropriate built form for a site and the buildings purpose, in terms of building alignments, proportions, building type and the manipulation of building elements."

PODIUM

The Podium creates an appropriately scaled and fenestrated built edge to the surrounding public domain, through its reinforcement of the street alignment and address to the Riverfront. The podium is structured by a regular grid that unifies the built form through creation of a human-scaled rhythm along the lower levels of Church Street, the Riverfront colonnade and the eastern façade to the future civic square on the adjacent car-park site. The potential mass form of the podium is minimised and informalised by lowering its height and modulating its articulation at the northeast and northwest corners and lobby entires, where the tower forms are integrated with the base to create a cohesive, unified expression for the development.



The ground level of the podium has been planned to provide continuous activated frontages to Church Street, the riverfront and the eastern frontage. A centrally located loading and service area within the retail level plan has access from Phillip Lane. An internal service corridor connects the two tower core areas to provide discreet service access to retail and also for furniture removalists. The ground level has heights of 5 and 6 metres, allowing ample space for the opportunity for mezzanine levels within the Church Street and Riverfront retail frontages.

The residential Tower and serviced apartment Lobbies have distinctive, double-height spaces above their street level entries, with access for residents to a large internal courtyard level and communal facilities at the podium roof level.

Communal facilities and serviced apartment facilities including dedicated gymnasiums and indoor pools create an extensive, sunny and wind-protected garden in the centre of the site for residents and users of the development.

Vehicular access to the site is highly constrained, and only possible at the south-eastern corner via an existing right-of-way (Lane 11) from Phillip Street.

The Brief requires on-grade access from Lane 11, utilising the open pan-handle of the site over which property to the south has existing access rights. Appropriately restrained resolution of the complex service and car-park access requirements with pedestrian movement in this area is an important design strategy for this development.

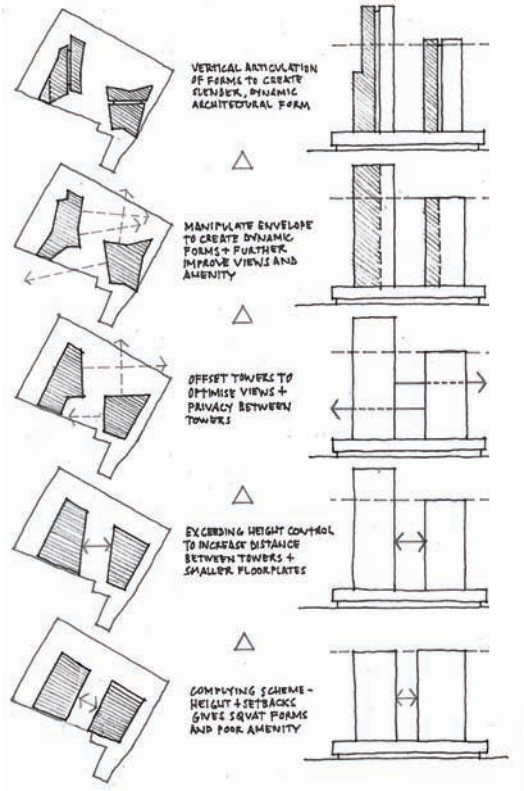
This proposal minimises these potential conflicts, as well as the visual impacts of car-park entry and loading facilities by restriction to the southern alignment of the development. This maximises opportunities for creating an activated public edge along the eastern frontage of the site. A shared loading dock is situated to provide for garbage trucks, furniture removal vehicles and delivery access to retail tenancies. Commercial and residential garbage holding facilities are located at this level, to reduce the height and visual impact of the car-park entry at street level.

EAST AND WEST RESIDENTIAL TOWERS

A key urban strategy of this proposal is to ensure that the residential tower footprints are designed to avoid creation of a broad visual barrier, and that a tangible sense of permeability is achieved from south to north across the River. Creation of a significant gap between the towers also preserves view and solar amenity for the Crown Plaza Hotel site to the immediate south.

As previously described, a key design objective is to create a very slender, articulated visual form to the western tower when viewed from City approaches to the north.

The two residential towers have been carefully designed as a pair of strongly related complementary forms, where their primary functional program is accommodated and expressed within an over-arching sculptural intention. The process and rationale for the formal architectural expression of the towers is best described by the illustrated sequence of diagrams, which reconcile the amenity requirements for the apartments with the primary aesthetic intention.



The floor-plates of each tower building have been rotated to a precise alignment to true north. This is a key principle that enables optimisation of outlook and privacy between buildings, as well as meeting SEPP65 requirements for solar access and efficient basement planning. All apartment terraces are situated within the envelopes, to preserve the simple, crystalline nature of the proposed tower forms and to ensure that these vital private spaces are useable during inclement weather.

In order to ameliorate the impact of height and bulk, each building has been articulated into two primary forms to create slender, sculptured profiles and simultaneously allow natural light into all typical floor common lobby spaces. These fractures in the form are carried though into the podium and naturally define the entry points to the main lobbies.

The building forms have also been subtly “creased” in plan, to accentuate their crystalline form and avoid an atypical residential “blockiness” in their architectural expression.

The residential towers have approximately similar floor-plate areas, and have been rigorously designed to ensure that the commercial objectives for residential mix, yield and apartment internal areas are compliant with BCA, SEPP 65, RFDC and Basix requirements and objectives. Refer to Schedules and Statement of Environmental Effects for further details.

PRINCIPLE 4 – DENSITY
"Good design has a density appropriate for a site and its context, in terms of floor space yields (or numbers of units or residents)."

The proposed density is considered to be consistent with long-term planning vision for Parramatta City and existing development controls. Proximity to services, transport and cultural/recreational facilities make this site a highly desirable location capable of sustaining high residential densities.

The proposed apartment mix, yield and schedule of non-residential uses is detailed elsewhere in this submission, with key data for the residential component summarised as follows:

Site Area	6763 sqm
Land Bonus	720 sqm
Total GFA	61711.8 sqm
Site FSR	8.25 :1

BUILDING / TYPE	Podium		East Tower		West Tower		TOTAL		NLA RANGE sqm
Studio	3	6%	0	0%	0	0%	**3**	**0%**	40
1 Bed	18	38%	161	67%	60	17%	**239**	**37%**	50-55
1 Bed + St	0	0%	7	3%	0	0%	**7**	**1%**	65
2 Bed / 2bth	27	56%	47	19%	274	77%	**348**	**54%**	75-95
3 Bed	0	0%	27	11%	20	6%	**47**	**7%**	100-125
Serviced Apartments	24		242				266		
Residential	24				354		378		
TOTAL	48		242		354		**644**		

PRINCIPLE 5 – RESOURCE, ENERGY AND WATER EFFICIENCY
"Good design makes efficient use of natural resources, energy and water throughout its full life cycle, including construction."

The entire development has been assessed under the NSW BASIX- Multi-Unit provisions by an independent consultant. Refer to documentation provided.

The overall site planning strategy for the residential apartment buildings has been devised to reconcile the proposed urban design strategy of north-south permeability with solar access and natural ventilation targets, and to provide a balance between privacy and outlook from apartments. The key SEPP65/RFDC objectives for residential amenity have been carefully considered and integrated into the proposal, and are addressed elsewhere in this submission.

A key but often over-looked strategy in ensuring efficient use of natural resources is to create efficiently planned developments that by their compact nature minimise material usage. A well-planned 75 sqm two-bedroom apartment is inherently more sustainable and useable than its poorly planned 100 sqm equivalent. Whilst compliant with RFDC minimum suggested apartment sizes, apartment planning in this proposal has been carefully devised to provide maximum flexibility and useability for occupants.

Large portions of the tower facades are constructed of high-quality factory-cast precast concrete panels, which offer a high level of efficiency in terms of energy use in production, life-cycle performance, construction and maintenance. All glazing systems, material, fittings and equipment will be specified and selected to ensure compliance with the BASIX Certificate and its energy, thermal comfort and water usage commitments.

A combination of fixed and operable external sun-shading devices in combination with high performance solar glazing ensures that the buildings will meet mandated energy use requirements.

All internal fittings and fiixtures (lighting/hydraulic/kitchen equipment) will be selected to meet Basix commitments.

The Carparking levels have been setback from the northern boundary by an average of 12 metres, to ensure that the entire landscaped transition zone to the riverfront can be extensive deep soil planting zones with appropriate landscape species selection to ensure minimised water usage.

We would expect to work collaboratively with the proponent and authorities to identify a suite of active sustainability initiatives for this development. These could include on-site rainwater harvesting and re-use, solar water heating and PV solar electricity, investigation into feasibility of accommodating a local tri-generation power plant for the building and possibly adjacent properties, use of extensive roof level planting to minimize heat-island effect, and designing the landscaping to the riverfront terraces as an integrated grey water recycling/cleaning system.

PRINCIPLE 6 – LANDSCAPE
"Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in greater aesthetic quality and amenity for both occupants and the adjoining public domain."

Car-parking levels have been constrained to provide an average 12 metre deep soil planting zone across the entire northern frontage of the site, equivalent to 1058sqm or 16% of the total site area.

The residential courtyard between the buildings has been designed to ensure that sufficient soil depth is provided to allow for the long term sustenance of large mature trees.

Landscape plans and details prepared by Sturt and Associates for this Application provide details of species selection and extent of planting.

PRINCIPLE 7 – AMENITY

"Good design provides amenity through the physical, spatial and environmental quality of a development."

PODIUM/PUBLIC DOMAIN

Key frontages of the site to Church Street, the river and the east are dedicated to provision of active retail and residential address uses.

A 5.5 metre high colonnade is proposed to the riverfront, creating outstanding opportunities for protected outdoor eateries and cafés along this edge of the development. The riverfront edge is given exceptional outdoor amenity by utilising the edge of the lofty, covered pedestrian colonnade. The colonnaded public edges are envisaged as multi-functional spaces that can accommodate a range of complementary uses, and in particular outdoor markets on weekends that hark back to this early use of the site.

The proposal accommodates an appropriate range of viable uses across the site. It is envisaged that the Church Street frontage will be highly activated with eating/leisure tenancies.

The retail spaces along Church Street and the riverfront are approximately two storeys in height, with integrated mezzanines adding scale and visual interest to the street and river frontages

The future of the dedicated foreshore zone is of key importance to the site. Improved, varied access to the foreshore park is a key urban design objective. The north-western corner is a complex intersection of the historic bridge, riverfront and Church Street corridor. A small threshold piazzetta is proposed at this location that will mediate and connect the city at RL8.80 directly with the foreshore park at RL3.5 via a series of broad stairs. The central frontage of the site is conceived as an integrated, sinuous composition of informal stairs, ramps and cascading landscaped terraces, creating a formal transition between the orthogonal grid of the city and the gentler, organic forms of the river and foreshore park.

RESIDENTIAL TOWERS

All aprtments have been planned to meet commercial and market objectives, integrated with the internal amenity targets of SEPP65 and the RFDC.

Compliance with these targets is set out in the Statement of Environmental Effects accompanying this submission.

PRINCIPLE 8 – SAFETY AND SECURITY
"Good design optimises safety and security, both internal to the development and for the public domain."

The site layout and design of the buildings will optimise safety and security, both within the site and adjacent public domain. Safety and security have been considered in accordance with CPTED principles of surveillance, access, territorial reinforcement and space management.

The safety of the public domain is enhanced by apartment layouts that optimise occupant surveillance by orienting habitable spaces and rooms with outlook over the public domain around and within the site.

Building lobbies, the colonnade and adjacent footpaths and public areas will be well-lit to meet or exceed minimum public lighting standards. Car-park entry will be secure and controlled by card-key access only.

The degree of public permeability and access to and within the site will assist in ensuring that there are no hidden or little-used areas that may encourage increased security and safety risk.

PRINCIPLE 9 – SOCIAL DIMENSIONS
"Good design responds to the social context and needs of the local community in terms of lifestyles, affordability, and access to social facilities."

This proposal responds directly to the immediate and wider social context of the community in terms of locational, lifestyle and affordability aspirations.

The location of the site offers residents a high degree of access to a wide range of services, facilities and environments. The northern sector of the Parramatta City Centre is well placed to grow as a precinct of rich social diversity through its location, mix of uses, nearby and adjacent open space networks, recreational and cultural framework, and access to existing and future transport infrastructure. Residents of this development will be ideally placed to contribute to, participate in and enjoy its evolving urban fabric and culture.

The development proposal offers a diverse range of apartment types and affordabilities, ensuring that there will be a wide demographic spread of resident profiles.

The development will also provide a ignificant new injection of activated street level and riverfront retail with a focus on eateries, cafes and bars.

Car-parking has been provided across four basement and three podium levels. Secure bicycle parking facilities are provided within all parking levels of the development.

PRINCIPLE 10 – AESTHETICS
"Quality aesthetics require the appropriate composition of building elements, textures, materials and colours and reflect the use, internal design and structure of the development."

COMPOSITIONAL STRATEGY
The two residential towers have been designed to work together with a simple, sculptural presence at the scale of the city. An interplay between height, massing and adherence to an underlying right-angle grid that orders each building are critical aesthetic tactics that give the development its specific architectural character and presence.

Each tower has been articulated into bi-furcated, opposing vertical elements with deep, narrow recesses to accentuate slenderness. The plan-form of each building has been carefully manipulated to engender a sense of crystalline lightness and crisp elegance to the buildings.

At the key northern corners, the towers have been carefully designed to interrupt the more rigid, form of the podium, so that the entire development is viewed as an integrated, unified whole rather than a simplistic podium with the towers being part of a separate aesthetic system above and behind.

PODIUM MATERIALITY

The podium will be made out of high quality materials, appropriate to its interface with the development's public domain interfaces. A regular in-situ concrete structure creates a rhythmic order and civic scale around the edges of the development, expressed as either façade or colonnade. It will be clad with sawn sandstone and dark bronze-coloured metal, in conversation with Parramatta's heritage architecture and the bridge.

The upper Church Street façade builds upon this quiet, civic character with forum-like living edges providing public surveillance and activation of the adjacent public domain. This alternative form of living is in strong keeping with the retail / dining aspirations of the Church street retail strip. Moveable lasercut screens provide dynamic possibilities across the simple precast and glazed facades.

The character of the riverfront transition elements will be reinforced by high quality stone paving, a variety of highly textural stone and concrete wall finishes and extensive landscaping including advanced fig-trees.

TOWER MATERIALITY
Three principal aesthetic façade systems are proposed, to enhance the articulated formal parti and primary sculptural forms of the towers.

TYPE ONE
A skin of high performance glazing is proposed with a variety of horizontal and vertical metal-fin sun-shading treatments that respond to varying orientation.

The horizontal fins are deployed over the northern façade and returns of the East Tower in a composition of two textures – a finer grain of four 300mm wide horizontal fins per floor and a coarser grain of a single 600mm deep fin at each floor level. The north-western corner of the East Tower utilizes obscure glass panels behind the horizontal fins, to ensure visual privacy to the southern portion of the West Tower eastern façade.

The vertical fins are applied to the east and west facades of the West Tower and are of three depths – 600/450/300mm, to create a subtle, undulating texture over the surfaces of these facades and to confer an appropriate architectural expression for a residential building of this scale. These surfaces are muted in colour, with subtle movements in coloration, texture and pattern over the surface of the facades. Importantly the glazing on the Western Tower's east and west facades will be bronze coloured to further compliment the palette of materials

TYPE TWO
The second system is comprised of horizontally deployed spandrel bands of light coloured textured precast concrete, separated by one metre high strip windows protected by external sliding metallic louvre panels where necessary for solar protection.

For both Towers, the spandrels on portions of the facades vary in height to create a lively, rhythmic composition across the elevation.

TYPE THREE
Restricted to the southern façade of the West Tower where solar load is at a minimum, the two articulated vertical forms are comprised of a gridded pattern of full height performance vision glazing interspersed with solid coloured interlayer laminated glazing panels. The floor slab is expressed at certain levels to provide scale and visual character to this façade.

Balustrades to apartment terraces are a combination of solid precast spandrel upstands and clear glazed metal framed elements.

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23 MAY 2013