

# PARRAMATTA REDEVELOPMENT

## DRAFT CONSTRUCTION MANAGEMENT PLAN

### FOR PART 3A SUBMISSION



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## **TABLE OF CONTENTS**

<b>DRAFT CONSTRUCTION MANAGEMENT PLAN .....</b>	<b>1</b>
<b>DOCUMENT HISTORY: .....</b>	<b>2</b>
<b>TABLE OF CONTENTS .....</b>	<b>3</b>
<b>1. CONSTRUCTION MANAGEMENT PLAN OBJECTIVES .....</b>	<b>5</b>
1.1 CMP OBJECTIVES .....	6
1.2 DIRECTOR – GENERAL REQUIREMENTS .....	6
5.1 CONSTRUCTION MANAGEMENT .....	8
<b>2. SITE LOCATION .....</b>	<b>9</b>
<b>3. EXISTING DEVELOPMENT .....</b>	<b>11</b>
<b>4. PROPOSED DEVELOPMENT .....</b>	<b>12</b>
4.1 STAGE 1 .....	12
4.1.1 Stage 1 West .....	12
4.1.2 Stage 1 East .....	12
4.2 STAGE 2 .....	12
<b>5.0 SUMMARY OF PROPOSED WORK .....</b>	<b>13</b>
5.1 ENABLING WORKS: .....	13
5.2 ZONE A – CENTRAL MALL: .....	13
5.3 ZONE B – NORTHERN RETAIL: .....	13
5.4 ZONE C – EASTERN CARPARK EXTENSIONS .....	13
5.5 ZONE D – EASTERN RETAIL .....	13
5.6 ZONE E – WESTERN CARPARK EXTENSIONS .....	14
5.7 ZONE F – WESTERN RETAIL .....	14
<b>6.0 COMMUNITY RELATIONS .....</b>	<b>15</b>
6.1 GENERAL COMMUNITY .....	15
6.2 AUTHORITIES, COUNCILS & PRIVATE SERVICES PROVIDERS .....	15
<b>7.0 PROJECT SEQUENCING &amp; METHODOLOGY .....</b>	<b>16</b>
7.1 ENABLING WORKS .....	16
7.2 SITE ESTABLISHMENT – STAGE 1 WEST .....	16
7.2.1 Site Establishment: Methodology .....	16
7.2.2 Site Establishment: Supporting Information .....	16
7.3 DEMOLITION – STAGE 1 WEST .....	17
7.3.1 Demolition: Scope .....	17
7.3.2 Demolition: key legislation .....	17
7.3.3 Demolition: Methodology .....	17
7.3.4 Demolition: Supporting Information .....	17
7.4 PILING, SHORING & EXCAVATION METHODOLOGY – STAGE 1 WEST .....	18
7.4.1 Excavation: Scope .....	18
7.4.2 Excavation: Methodology .....	18
7.4.3 Excavation: Supporting Information .....	18
7.5 STRUCTURE METHODOLOGY – STAGE 1 WEST .....	19
7.5.1 Structure: Scope .....	19
7.5.2 Structure: Methodology .....	19
7.5.3 Structure: Supporting Information .....	19
7.6 FAÇADE, SERVICES & FITOUT METHODOLOGY – STAGE 1 WEST .....	20



7.6.1	<i>Façade, Services &amp; Fitout: Scope</i>	20
7.6.2	<i>Façade, Services &amp; Fitout: Methodology</i>	20
7.6.3	<i>Façade, Services &amp; Fitout: Supporting Information</i>	20
7.7	<b>SITE ESTABLISHMENT – STAGE 1 EAST</b>	21
7.7.1	<i>Site Establishment: Methodology</i>	21
7.7.2	<i>Site Establishment: Supporting Information</i>	21
7.8	<b>DEMOLITION – STAGE 1 WEST</b>	22
7.8.1	<i>Demolition: Scope</i>	22
7.8.2	<i>Demolition: key legislation</i>	22
7.8.3	<i>Demolition: Methodology</i>	22
7.8.4	<i>Demolition: Supporting Information</i>	23
7.9	<b>PILING, SHORING &amp; EXCAVATION METHODOLOGY – STAGE 1 WEST</b>	24
7.9.1	<i>Excavation: Scope</i>	24
7.9.2	<i>Excavation: Methodology</i>	24
7.9.3	<i>Excavation: Supporting Information</i>	24
7.10	<b>STRUCTURE METHODOLOGY – STAGE 1 WEST</b>	25
7.10.1	<i>Structure: Scope</i>	25
7.10.2	<i>Structure: Methodology</i>	25
7.10.3	<i>Structure: Supporting Information</i>	25
7.11	<b>FAÇADE, SERVICES &amp; FITOUT METHODOLOGY – STAGE 1 WEST</b>	26
7.11.1	<i>Façade, Services &amp; Fitout: Scope</i>	26
7.11.2	<i>Façade, Services &amp; Fitout: Methodology</i>	26
7.11.3	<i>Façade, Services &amp; Fitout: Supporting Information</i>	26
8.0	<b>PROJECT TIMELINE</b>	27
8.1	<b>ENABLING WORKS</b>	27
8.2	<b>STAGE 1 WEST - CONSTRUCTION TIMELINE</b>	27
5.1	<b>STAGE 1 EAST - CONSTRUCTION TIMELINE</b>	27
5.2	<b>STAGE 2 CONSTRUCTION TIMELINE</b>	27
5.0	<b>SITE MANAGEMENT</b>	28
5.1	<b>HOURS OF CONSTRUCTION</b>	28
5.2	<b>PROJECT OFFICE</b>	28
5.4	<b>COMMUNITY LIASON OFFICER</b>	28
5.5	<b>SITE AMENITIES &amp; ABLUTION FACILITIES</b>	29
5.6	<b>NOISE &amp; VIBRATION MANAGEMENT</b>	29
5.6.1	<i>Noise &amp; Vibration Objectives</i>	29
5.6.2	<i>Noise &amp; Vibration: Key Management Issues</i>	29
5.6.3	<i>Noise &amp; Vibration: Performance Measures</i>	29
5.7	<b>TRAFFIC MANAGEMENT</b>	30
5.7.1	<i>Traffic Management: Objectives</i>	30
5.7.2	<i>Traffic Management: Existing Shopping Centre Access</i>	30
5.7.3	<i>Westfield Carparking During Construction</i>	30
5.8	<b>TREE MANAGEMENT</b>	32
5.8.1	<i>Tree Management: Objectives</i>	32
5.9	<b>DILAPIDATION</b>	32
5.9.1	<i>Dilapidation: Objectives</i>	32
6.0	<b>OCCUPATIONAL HEALTH &amp; SAFETY (OH&amp;S)</b>	33
6.1	<b>OH&amp;S: DOCUMENT REVIEW, REVISION &amp; ISSUE</b>	33
6.2	<b>OH&amp;S: OBJECTIVES</b>	33
6.3	<b>OH&amp;S: KEY ISSUES</b>	33

6.4	FIRST AID.....	34
6.5	EMERGENCY SERVICES.....	34
<b>7.0</b>	<b>ENVIRONMENTAL MANAGEMENT .....</b>	<b>35</b>
7.1	ENVIRONMENTAL MANAGEMENT: OBJECTIVES .....	35
7.2	ENVIRONMENTAL MANAGEMENT: KEY ISSUES .....	35
7.3	ENVIRONMENTAL MANAGEMENT: HAZARDOUS MATERIALS.....	35
<b>8.0</b>	<b>PROCUREMENT .....</b>	<b>36</b>
<b>9.0</b>	<b>QUALITY MANAGEMENT .....</b>	<b>37</b>
9.1	QUALITY MANAGEMENT PLAN .....	37
9.2	DOCUMENT HANDLING & ACONEX.....	37
9.3	DEFECTS MANAGEMENT .....	37
<b>APPENDICES .....</b>		<b>38</b>
	APPENDIX 1: PROJECT ZONE & STAGING PLANS .....	39
	APPENDIX 2: PROJECT TIMELINE.....	40
	APPENDIX 3: BLANK .....	41
	APPENDIX 4: PRELIMINARY ACOUSTIC & VIBRATION MANAGEMENT STATEMENT .....	42
	APPENDIX 5: PRELIMINARY ENVIRONMENTAL MANAGEMENT STATEMENT .....	43
	APPENDIX 6: PROPOSED INDICATIVE WORKZONE PLANS .....	44
	APPENDIX 7: PROPOSED INDICATIVE HOARDING PLANS .....	45
	APPENDIX 8: PROPOSED INDICATIVE CRANE LOCATION PLANS .....	46
	APPENDIX 9 : INDICATIVE CARPARK STAGING IMPACTS .....	47

## **CONSTRUCTION MANAGEMENT PLAN OBJECTIVES**

This Construction Management Plan (CMP) relates to the Part 3A submission and Direction General's Requirements for the redevelopment of the Parramatta Shopping Centre submitted.

The objectives of this CMP are to establish a set of obligations in order to address any construction issues that may be caused by any part of the Parramatta Development (i.e. demolition, alteration or construction works) as well as detailing Westfield Design & Construction's overall construction planning for the proposed development.

This CMP relates to Stage 1 of the redevelopment, with a further submission required for the Stage 2 commercial office tower.

### **1.1 CMP OBJECTIVES**

Westfield Design & Construction Pty Ltd is committed to sustainable development and seeks opportunities for positive construction & environmental outcomes in their projects. The corporate objectives for this CMP are to:

- Avoid or minimise construction & environmental impacts
- Ensure good community relations throughout the development
- Ensure the highest levels of safety, maintaining a safe environment & eliminate regulatory non-compliance
- Exploring & adopting, where appropriate, innovative methods to minimise construction impacts
- Provide for an efficient construction process that is environmentally responsible.

### **1.2 DIRECTOR – GENERAL REQUIREMENTS**

This CMP aims to address the relevant items of the Director General Requirements that was issued to Westfield on 25<sup>th</sup> October 2010. These conditions include:

#### *4. Traffic & Transport Impacts (Construction & Operational)*

- *Prepare a traffic Management and Accessibility Plan to assess the implications of the development for non-car travel modes which addresses the following:*
- *Measures to promote public transport usage and pedestrian and bicycle linkages*
- *An assessment of the impact of increase patronage demand on the existing public transport system*
- *Pedestrian safety & accessibility*
- *Identification of traffic and transport infrastructure measures required to support the development*

#### *9. Ecologically Sustainable Development (ESD)*

*The EA shall detail how the development will incorporate ESD principles in the design, construction & ongoing phases of the development and demonstrate the development has been assessed against a suitably accredited rating scheme to meet industry best practice.*

### 13. Staging

*The EA must include details regarding the staging details for the proposal including the provisions & timings of all public domain works*

*General :*

3. *A thorough description of the proposed development*
5. *An assessment of the potential impacts of the project...*

*Plans and Documents:*

- *Construction Management Plan and Traffic Management Plan – addressing the management of traffic (including bus operations) during the construction stages of the development*
- *Construction Methodology with details pertaining to structural support during excavation and details of any track/ tunnel monitoring requirements during excavation & construction phases*

*NSW Transport:*

5. *Prepare a Construction Traffic Management Plan (CTMP) to mitigate any potential impacts to accessibility, amenity and safety of public transport users and people traveling on foot or bicycle during construction.*

*Parramatta City Council:*

- *A community consultation strategy should be developed. The strategy should include the display of a model of the development within a prominent location within the Westfield shopping centre.*
- *Any potential impacts on helicopter flights associated with the Westmead medical precinct*

*Parramatta City Council: Additional Documentation:*

- *Noise & vibration investigation for the construction phase.*
- *Construction management plan to include time frames for construction*

*Roads & Traffic Authority*

- *The EA report will need to address issues related to the management of adequate parking supply during the construction phase*
- *The TRA will require in due course the provision of a traffic management plan for all demolition/construction activities, detailing vehicle routes, number of trucks, hours of operation, access arrangements and traffic control measures.*



## 5.1 CONSTRUCTION MANAGEMENT

This plan sets out the construction management principles for the proposed scope of works for the project and includes information on:

- The elements comprising the site
- How the site will be redeveloped
- How Westfield plans to minimise interference to neighbours & operating tenants
- Steps to protect the public during the development
- The proposed staging & sequencing of the development.

The CMP also examines the main construction delivery processes including issues relating to:

- Community relations and communications
- Public access, safety & security
- Pedestrian and construction traffic management
- The adjacent Rail Corp corridor
- Demolition & excavation management
- Proposed staging & programme
- Noise & vibration management
- Waste management
- Stormwater management
- Traffic management
- Workforce management



## 2. SITE LOCATION

The Westfield Parramatta Development is located in the Sydney suburb of Parramatta located within the Parramatta municipality approximately 50 minutes drive West of the Sydney CBD centre.

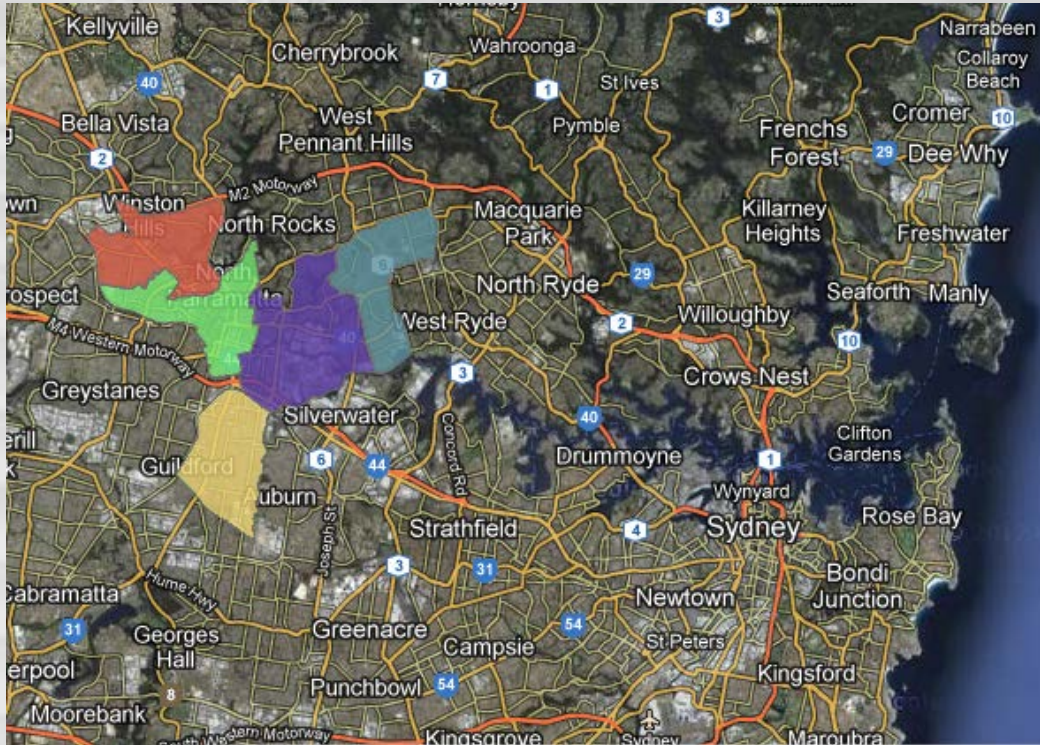


Figure 1: Parramatta Map Courtesy of Parramatta Council

The bulk of the Westfield centre is bordered by the Argyle St to the North, O'Connell St to the West, Church St to the East & the Campbell St to the South. A Section of the site is located to the East of Church St, adjacent the Rail corridor & Parramatta railway station.. The development is approximately 630m long & 200m wide and is split in an East/West direction by Marsden St and in a North / South direction by Aird St. The main entries are located on the Argyle St & Church St.





Figure 2: Parramatta Westfield Shopping Centre location. Background image courtesy of Google Earth.



### **3. EXISTING DEVELOPMENT**

Westfield Parramatta Shoppingtown is unquestionably the most significant retail centre in the Parramatta region.

Westfield Parramatta first opened in 1975, on a site which had been a Grace Bros. store since 1933. The centre has been redeveloped several times, the first in 1988, and most notably in 1994-1996 when the centre increased in size from approximately 80,000 m<sup>2</sup> to a size of approximately 132,000 m<sup>2</sup>.

The most recent extension was in 2006, when Westfield opened a multi-cinema complex across Fitzwilliam Street from the main building, connected by a glass bridge from Level 4 of the main building to the complex. Replacing the old Village Cinemas complex, the Event Cinemas complex contains 3 Gold Class Screens, 1 GMAX Theatre and 7 regular movie cinemas.

There is direct Access to the centre from Parramatta railway station.



*Figure 2: Parramatta Westfield Shopping Centre aerial image 2006.*

## **4. PROPOSED DEVELOPMENT**

### **4.1 STAGE 1**

Westfield has reviewed retail demand and growth forecasts for the Parramatta region and has identified opportunities for improved outcomes for the centre's operations and for the community as a whole. The proposed refurbishment and extension to the existing centre can be summarised as follows:

New development including and connecting with the existing, comprising approximately 188,000m<sup>2</sup> Gross Lettable Area (GFA) over 6 storeys including (approximately) an additional 573 roof top car parks.

Within the new development the principal inclusions are:

#### **4.1.1 STAGE 1 WEST**

- A supermarket of approximately 4,400m<sup>2</sup> GLA on level 6.
- A new level food mall and restaurants on level 6 of approximately 4,000m<sup>2</sup> GLA
- Additional Rooftop parking for approximately 430 cars including the Marsden St Bridge.

#### **4.1.2 STAGE 1 EAST**

- A department store of approximately 9,000m<sup>2</sup> GLA on levels 6
- A new level "galleria" style mall on level 6 of approximately 25,000m<sup>2</sup> GLA
- Associated public malls and amenities
- Additional Rooftop parking for approximately 140 cars.

### **4.2 STAGE 2**

Stage 2 of the development is a proposed office tower above the existing retail centre on the North Eastern corner of the site to the West of church St. This tower is expected to be designed to accommodate 35,000m<sup>2</sup> Gross Lettable Area.

The CMP does not include Stage 2 of the development, this will be addressed in a future submission.



## 5.0 SUMMARY OF PROPOSED WORK

Stage 1 of the Development is an upgrade to the existing Westfield Parramatta Centre. The scope of the upgrade has for simplicity be simplified into 6 work faces. The locations of these work faces can be identified by referring to the staging & zone plan in appendix 1. The works to each of these areas are:

### 5.1 ENABLING WORKS:

The general definition of enabling works is: works required prior to commencing the main centre upgrade. Although not detailed yet, these works are likely to include:

- Additional new infrastructure required where existing infrastructure is within a zone of demolition
- Relocation of plantrooms due for demolition
- Relocation of essential services within zones of demolition
- New access/egress provisions to enable the construction

### 5.2 ZONE A – CENTRAL MALL:

- Installation of hoardings above the existing retail mall voids
- Construction of a new skylight canopy over the existing canopy
- Demolition of the existing skylight canopy & minor slab areas
- Construction of a new reinforced concrete & structural steel retail floor
- Construction of new rooftop plantrooms
- Fitout of new mall & rooftop carparks

### 5.3 ZONE B – NORTHERN RETAIL:

- Reconfiguration of existing plantrooms on the rooftop carpark.
- No retail or carpark extension

### 5.4 ZONE C – EASTERN CARPARK EXTENSIONS

- Upgrade of the existing columns & footings within the existing footprint
- Installation of Street 'B' Class Hoardings & centre hoardings
- Extensions to the existing L6 & L6M carparks
- Construction of 3 new reinforced concrete & structural steel carpark levels L7, L7M & L8
- Construction of new plantrooms & extensions to the existing vertical transport
- Fitout of new mall entries & rooftop carparks

### 5.5 ZONE D – EASTERN RETAIL

- Upgrade of the existing columns & footings within the existing footprint
- Installation of Street 'B' Class Hoardings & centre hoardings
- Removal of the existing shade sails & other redundant elements
- Construction of 1 new reinforced concrete & structural steel retail level 6.
- Construction of a new lightweight structural steel roof canopy
- Construction of new plantrooms & extensions to the existing vertical transport
- Fitout of the new retail

## 5.6 ZONE E – WESTERN CARPARK EXTENSIONS

- Upgrade of the existing columns & footings within the existing footprint
- Installation of Street 'B' Class Hoardings & centre hoardings
- Removal of the existing shade sails & other redundant elements
- Construction of 3 new reinforced concrete & structural steel carpark levels L6M, L7 & L7M
- Construction of new plantrooms & extensions to the existing vertical transport
- Fitout of new mall entries & rooftop carparks

## 5.7 ZONE F – WESTERN RETAIL

- Upgrade of the existing L6 slab, columns & footings within the existing footprint
- Installation of Street 'B' Class Hoardings & centre hoardings
- Removal of the existing shade sails & other redundant elements
- Construction of 2 new reinforced concrete & structural steel rooftop carparks levels 7 & 7M.
- Construction of new plantrooms & extensions to the existing vertical transport
- Fitout of the new retail

The works to the stage 2 commercial tower will be detailed in a future submission.

## **6.0 COMMUNITY RELATIONS**

### **6.1 GENERAL COMMUNITY**

Westfield propose to establish a Construction Liaison Committee, comprising representatives of potentially affected properties including initially for the enabling works with the aim of keeping the same committee for the main works.

The committee will ensure that issues arising construction of the items mentioned above – including those relating to noise and vibration, loading, the movement of workers and vehicles, traffic and management of the site – are dealt with efficiently and cooperatively.

The committee will meet initially to discuss the enabling works to the centre. Following this the committee will meet as often as its members consider necessary throughout the construction process however Westfield envisage that the initial consultation will most likely be sufficient for the enabling works. During the main centre upgrade, it is envisioned that the committee will need to meet monthly.

It is proposed to present the members of the committee a copy of this Construction Management Plan prior to the commencement of works.

Local letter drops will be implemented & public information sessions will be held within the existing cinemas outlining the project prior to commencing onsite.

It is also noted that the centre will have a model display in a prominent location within the centre that outlines the scope & expected timings of the redevelopment.

Further to the above and closer to the development commencing, Westfield will appoint a member of staff to the role of Community Liaison Officer as the initial point of contact for external parties with project related enquiries or concerns. A 24 hour contact line will be established for this purpose once the site works commence.

### **6.2 AUTHORITIES, COUNCILS & PRIVATE SERVICES PROVIDERS**

The following Authorities & private service providers will also need to be consulted throughout the development. WDC will ensure that the appropriate consultation processes are followed.

- Parramatta Council
- Rail Corp
- Roads & Maritime Services
- Westmead Hospital
- Parramatta Police
- NSW Fire Brigade
- Ausgrid
- Telstra
- Optus
- Jemina
- Sydney Water
- Applicable Bus Providers (eg, Veolia, Hillsbus)
- NSW Taxi Union

## **7.0 PROJECT SEQUENCING & METHODOLOGY**

### **7.1 ENABLING WORKS**

Although final details are yet to be developed, the key aspect of the enabling works is to ensure that the existing centre & surrounding areas remain operational & functional at all times. The works must be sympathetic to the centre & neighbours. As such much of the enabling works will be scheduled for out of hours works, with areas that do not affect the centre & surrounding areas occurring during existing working hours.

### **7.2 SITE ESTABLISHMENT – STAGE 1 WEST**

#### **7.2.1 SITE ESTABLISHMENT: METHODOLOGY**

Post completion of the enabling works, site establishment will occur to the Western half of the site. During this period, existing services will be decommissioned, site & project amenities will be set up within the centre with the aim of minimum disruption of the existing centre & surrounding areas.

The external B Class hoardings & workzones will be installed to protect the public for the works on the Western side of the centre. It is proposed that these hoardings will be installed out of hours with appropriate council permits in a sympathetic manner. In some cases the hoardings will span public roads. Where this occurs, the installation will be coordinated with Parramatta council & the Police with appropriate road closure & partial road closure permits will be obtained.

The establishment of the Western tower cranes founded within the site will also be required at this time. To erect these cranes road closure permits will be required. These will need to be coordinated with the Police, Parramatta Council & neighbours. It is also noted that the position & final heights of these cranes will need to be confirmed with Westmead Hospital to ensure that they are not in the existing helicopter flight paths.

It is at this time that internal hoardings will be erected within the centre to separate the public areas from the construction site. All egress & centre access will be BCA compliant.

The final planning will be subject to a detailed review closer to commencement.

#### **7.2.2 SITE ESTABLISHMENT: SUPPORTING INFORMATION**

The following documents provide supporting information for the site establishment works:

- Appendix 1: Staging & Zoning Plan
- Appendix 7: Indicative Hoarding Plan – Stage 1 West
- Appendix 6: Indicative Workzone Plan – Stage 1 West
- Appendix 2: Development Timeline



## **7.3 DEMOLITION – STAGE 1 WEST**

### **7.3.1 DEMOLITION: SCOPE**

The scope of the demolition for the Stage 1 consists of:

- Partial Demolition of L6M Slab in Zones E & F
- Removal of the Roof shade structure
- Miscellaneous Demolition of minor areas to allow for new services reticulation & vertical transport.
- Stripping out of existing finishes to areas of demolition
- Removal of any contaminated material within the zone of demolition

### **7.3.2 DEMOLITION: KEY LEGISLATION**

Key legislation relating to demolition for the project:

- Australian Standard 2601 – The Demolition of Structures
- Protection of the Environment Operations Act 1997
- Occupational Health and Safety Act 2000
- Occupational Health & Safety Regulation 2001
- COP for Safe Removal of Asbestos 2<sup>nd</sup> Edition [NOHSC:2002(2005)]
- Workcover NSWs 'Working with Asbestos – Guide 2008'
- NSW Industrial Noise Policy.

### **7.3.3 DEMOLITION: METHODOLOGY**

Before demolition commences, a fully detailed Demolition Plan & Safe Work Method Statement will be prepared & submitted to Westfield Design & Construction (WDC). WDC will review this plan to ensure compliance with the Deferred Commencement Consent and relevant legislation. A copy of this plan will be provided to the Principal Certifying Authority prior to commencement of the works.

The current planned sequence of the demolition is as follows.

The works will commence by securing & isolating the site from the public through the use of “A” Class & “B” Class hoardings. Progressive termination of the live services to the areas of demolition will be undertaken.

Once the site is made safe, the internal strip out and the safe removal of the hazardous materials will commence.

Following these activities, the hard demolition will commence. The zones will be progressively demolished area by area with the spoil placed in bins and removed by the tower cranes. Trucks will be loaded via the work zones and leave site with covered safe loads.

Appropriate sediment & dust control measures will be implemented throughout the demolition.

This will subject to a review closer to commencement.

### **7.3.4 DEMOLITION: SUPPORTING INFORMATION**

The following documents provide supporting information for the site establishment works:

- Appendix 1: Staging & Zoning Plan
- Appendix 7: Indicative Hoarding Plan – Stage 1 West
- Appendix 6: Indicative Workzone Plan – Stage 1 West
- Appendix 8: Indicative Tower Crane Locations – Stage 1 West
- Appendix 2: Development Timeline

## **7.4 PILING, SHORING & EXCAVATION METHODOLOGY – STAGE 1 WEST**

### **7.4.1 EXCAVATION: SCOPE**

In stage 1 there is no excavation. The project however requires some footing upgrades. These local upgrades will be undertaken one by one using a short mast piling rig & small excavation machines. All works will occur within the footprint of the Westfield centre.

### **7.4.2 EXCAVATION: METHODOLOGY**

The general footing upgrade methodology will focus on minimizing the impact on the existing centre. The areas will be upgraded locally footing by footing. The localized construction site will be surrounded by appropriate fencing closing small areas of the carpark & tenancies temporarily to undertake the upgrades.

Any spoil will be removed from the site in bins after hours.

This will subject to a review closer to commencement.

### **7.4.3 EXCAVATION: SUPPORTING INFORMATION**

The following documents provide supporting information for the excavation works:

- Appendix 2: Development Timeline

## **7.5 STRUCTURE METHODOLOGY – STAGE 1 WEST**

### **7.5.1 STRUCTURE: SCOPE**

The reinforced concrete structure for the project consists of a maximum of 3 carpark levels and 1 retail slab that match the existing retail & carpark levels. There is a total of 4 suspended levels of post tensioned reinforced concrete and structural steel composite slabs.

### **7.5.2 STRUCTURE: METHODOLOGY**

The commencement of the structure will follow on from the erection of the tower cranes that will be founded from within the site and the completion of the demolition. All perimeters will then wither have formwork screens or scaffold installed to prevent any material exiting the site & to act as a fall prevention for the workers involved. All materials will be lifted into the project with the use of the tower cranes.

During the structure, concrete pours will be undertaken from several locations due to the size of the project. There will be tower pumps set-up within the site. Each of these pumps will have articulated arms and approximately 36m of reach. Depending on the location of the deck requiring to be poured and the demands on the operating centre, a concrete trailer pump will located in either:

- The existing centre loading docks or
- The existing ground floor carparks
- From the workzones with the use of a temporary trailer pump

The aim being to minimize any disruption to the centre.

Upon the completion of the structure, all formwork materials will be removed via the tower cranes & the Kingsway loading zones.

The footpaths & roads will remain open to the public at all times through the use of full length “B” Class hoardings.

This will subject to a review closer to commencement.

### **7.5.3 STRUCTURE: SUPPORTING INFORMATION**

The following documents provide supporting information for the site establishment works:

- Appendix 1: Staging & Zoning Plan
- Appendix 7: Indicative Hoarding Plan – Stage 1 West
- Appendix 6: Indicative Workzone Plan – Stage 1 West
- Appendix 8: Indicative Tower Crane Locations – Stage 1 West
- Appendix 1: Development Timeline

## **7.6 FAÇADE, SERVICES & FITOUT METHODOLOGY – STAGE 1 WEST**

### **7.6.1 FAÇADE, SERVICES & FITOUT: SCOPE**

Following the construction of the reinforced concrete structure, the fitout will commence. The fitout consists of:

- A supermarket of approximately 4,400m<sup>2</sup> GLA on level 6.
- A restaurant style foodcourt.
- Associated public malls and amenities
- Additional Rooftop parking for approximately 430 additional cars.
- Associated public malls and amenities
- Associated essential services and infrastructure

### **7.6.2 FAÇADE, SERVICES & FITOUT: METHODOLOGY**

Following the strip out and removal of the formwork, the services installation, façade works & fitout works will commence.

All materials will be brought to site via the Western workzones and lifted into site with the use of the tower cranes. Towards the end of the fitout, the tower cranes will need to be removed. This will once again need to be undertaken from the streets and require a road closure that will need to be coordinated with Parramatta Council & the Police

Following this all materials will be brought to the project via the loading docks, carparks & lifted to the floors with the new operational lifts. The Footpaths will remain open to the public at all times through the use of a full length “B” Class hoarding.

This will subject to a review closer to commencement.

### **7.6.3 FAÇADE, SERVICES & FITOUT: SUPPORTING INFORMATION**

The following documents provide supporting information for the site establishment works:

- Appendix 1: Staging & Zoning Plan
- Appendix 7: Indicative Hoarding Plan – Stage 1 West
- Appendix 6: Indicative Workzone Plan – Stage 1 West
- Appendix 8: Indicative Tower Crane Locations – Stage 1 West
- Appendix 1: Development Timeline



## **7.7 SITE ESTABLISHMENT – STAGE 1 EAST**

### **7.7.1 SITE ESTABLISHMENT: METHODOLOGY**

The Eastern external B Class hoardings & workzones will be installed to protect the public for the works. It is proposed that these hoardings will be installed out of hours with appropriate council permits in a sympathetic manner. In some cases the hoardings will span public roads. Where this occurs, the installation will be coordinated with Parramatta council & the Police with appropriate road closure & partial road closure permits will be obtained.

The establishment of the Eastern tower cranes founded within the site will also be required at this time. To erect these cranes road closure permits will be required. These will need to be coordinated with the Police, Parramatta Council & neighbours. It is also noted that the position & final heights of these cranes will need to be confirmed with Westmead Hospital to ensure that they are not in the existing helicopter flight paths.

It is at this time that internal hoardings will be erected within the centre to separate the public areas from the construction site. All egress & centre access will be BCA compliant.

The final planning of these construction works will be subject to a final review closer to commencement.

### **7.7.2 SITE ESTABLISHMENT: SUPPORTING INFORMATION**

The following documents provide supporting information for the site establishment works:

- Appendix 1: Staging & Zoning Plan
- Appendix 7: Indicative Hoarding Plan – Stage 1 East
- Appendix 6: Indicative Workzone Plan – Stage 1 East
- Appendix 2: Development Timeline

## **7.8 DEMOLITION – STAGE 1 WEST**

### **7.8.1 DEMOLITION: SCOPE**

The scope of the demolition for the Stage 1 consists of:

- Partial Demolition of L6M Slab in Zones A,C & D
- Demolition of the Existing Skylight
- Removal of the Roof shade structure
- Miscellaneous Demolition of minor areas to allow for new services reticulation & vertical transport.
- Strip out existing tenancies on existing level 5
- Stripping out of existing finishes to areas of demolition
- Removal of any contaminated material within the zone of demolition
- 

### **7.8.2 DEMOLITION: KEY LEGISLATION**

Key legislation relating to demolition for the project:

- Australian Standard 2601 – The Demolition of Structures
- Protection of the Environment Operations Act 1997
- Occupational Health and Safety Act 2000
- Occupational Health & Safety Regulation 2001
- COP for Safe Removal of Asbestos 2<sup>nd</sup> Edition [NOHSC:2002(2005)]
- Workcover NSWs ‘Working with Asbestos – Guide 2008’
- NSW Industrial Noise Policy.
- 

### **7.8.3 DEMOLITION: METHODOLOGY**

Before the Eastern demolition commences, a fully detailed Demolition Plan & Safe Work Method Statement will be prepared & submitted to Westfield Design & Construction (WDC). WDC will review this plan to ensure compliance with the Deferred Commencement Consent and relevant legislation. A copy of this plan will be provided to the Principal Certifying Authority prior to commencement of the works.

The current planned sequence of the demolition is as follows.

The works will commence by securing & isolating the Eastern site from the public through the use of “A” Class & “B” Class hoardings as well as installing a protection scaffold around the Southern face zone C & D. The existing retail skylight will have a protection hoarding installed. Progressive termination of the live services to the areas of demolition will be undertaken.

Once the site is made safe, the internal strip out and the safe removal of the hazardous materials will commence. Along the main retail cut line, the existing building requiring demolition will be carefully separated from the remaining centre, prior to heavy demolition commencing. The L6 skylight will also be carefully dismantled.

Following these activities, the hard demolition will commence. The main retail will be progressively demolished area by area with the spoil placed in bins and removed by the tower cranes. Trucks will be loaded via the work zones and leave site with covered safe loads.

Appropriate sediment & dust control measures will be implemented throughout the demolition.

This will subject to a review closer to commencement.

#### 7.8.4 DEMOLITION: SUPPORTING INFORMATION

The following documents provide supporting information for the site establishment works:

- Appendix 1: Staging & Zoning Plan
- Appendix 7: Indicative Hoarding Plan
- Appendix 6: Indicative Workzone Plan
- Appendix 8: Indicative Tower Crane Locations
- Appendix 2: Development Timeline

## **7.9 PILING, SHORING & EXCAVATION METHODOLOGY – STAGE 1 WEST**

### **7.9.1 EXCAVATION: SCOPE**

In stage 1 there is no excavation. The project however requires some footing upgrades. These local upgrades will be undertaken one by one using a short mast piling rig & small excavation machines. All works will occur within the footprint of the Westfield centre.

The closest footing upgrade is expected to be over 70m away from the rail corridor.

### **7.9.2 EXCAVATION: METHODOLOGY**

The general footing upgrade methodology will focus on minimizing the impact on the existing centre. The areas will be upgraded locally footing by footing. The localized construction site will be surrounded by appropriate fencing closing small areas of the carpark & tenancies temporarily to undertake the upgrades.

Any spoil will be removed from the site in bins after hours.

This will subject to a review closer to commencement.

### **7.9.3 EXCAVATION: SUPPORTING INFORMATION**

The following documents provide supporting information for the excavation works:

- Appendix 2: Development Timeline



## **7.10 STRUCTURE METHODOLOGY – STAGE 1 WEST**

### **7.10.1 STRUCTURE: SCOPE**

The reinforced concrete structure for the project consists of a maximum of 3 carpark levels and 1 retail slab that match the existing retail & carpark levels. There is a total of 4 suspended levels of post tensioned reinforced concrete and structural steel composite slabs.

### **7.10.2 STRUCTURE: METHODOLOGY**

The commencement of the Eastern structure will follow on from the erection of the tower cranes that will be founded from within the site and the completion of the demolition. All perimeters will then wither have formwork screens or scaffold installed to prevent any material exiting the site & to act as a fall prevention for the workers involved. All materials will be lifted into the project with the use of the tower cranes.

During the structure, concrete pours will be undertaken from several locations due to the size of the project. There will be tower pumps set-up within the site. Each of these pumps will have articulated arms and approximately 36m of reach. Depending on the location of the deck requiring to be poured, a concrete trailer pump will located in either:

- The existing centre loading docks or
- The existing ground floor carparks
- From the workzones with the use of a temporary trailer pump

Upon the completion of the structure, all formwork materials will be removed via the tower cranes & the Kingsway loading zones.

The footpaths will remain open to the public at all times through the use of full length “B” Class hoardings.

This will subject to a review closer to commencement.

### **7.10.3 STRUCTURE: SUPPORTING INFORMATION**

The following documents provide supporting information for the site establishment works:

- Appendix 1: Staging & Zoning Plan
- Appendix 7: Indicative Hoarding Plan
- Appendix 6: Indicative Workzone Plan
- Appendix 8: Indicative Tower Crane Locations
- Appendix 1: Development Timeline

## **7.11 FAÇADE, SERVICES & FITOUT METHODOLOGY – STAGE 1 WEST**

### **7.11.1 FAÇADE, SERVICES & FITOUT: SCOPE**

Following the construction of the reinforced concrete structure, the fitout will commence. The fitout consists of:

- A department store of approximately 9,000m<sup>2</sup> GLA on levels 6
- A new level “galleria” style mall on level 6 of approximately 10,000m<sup>2</sup> GLA
- Associated public malls and amenities
- Additional Rooftop parking for approximately 140 additional cars.
- Associated public malls and amenities
- Associated essential services and infrastructure

### **7.11.2 FAÇADE, SERVICES & FITOUT: METHODOLOGY**

Following the strip out and removal of the formwork, the services installation, façade works & fitout works will commence.

All materials will be brought to site via the workzones and lifted into site with the use of the tower cranes. Towards the end of the fitout, the tower cranes will need to be removed. This will once again need to be undertaken from the streets and require a road closure that will need to be coordinated with Parramatta Council & the Police

Following this all materials will be brought to the project via the loading docks, carparks & lifted to the floors with the new operational lifts. The Footpaths will remain open to the public at all times through the use of a full length “B” Class hoarding.

This will subject to a review closer to commencement.

### **7.11.3 FAÇADE, SERVICES & FITOUT: SUPPORTING INFORMATION**

The following documents provide supporting information for the site establishment works:

- Appendix 1: Staging & Zoning Plan
- Appendix 7: Indicative Hoarding Plan
- Appendix 6: Indicative Workzone Plan
- Appendix 8: Indicative Tower Crane Locations
- Appendix 1: Development Timeline

## **8.0 PROJECT TIMELINE**

### **8.1 ENABLING WORKS**

The enabling works must be completed prior to commencing the main project works. These works are expected to take in the order of approximately 4-6 months.

### **8.2 STAGE 1 WEST - CONSTRUCTION TIMELINE**

It is expected that the Stage 1 West construction timeline is in the order of 17-18 months. This excludes the enabling works. The expected commencement is early 2015.

A indicative programme for the development can be found in appendix 2

### **5.1 STAGE 1 EAST - CONSTRUCTION TIMELINE**

It is expected that the Stage 1 East construction timeline is in the order of 38-42 months. This excludes the enabling works. The expected commencement is the middle of 2016.

A indicative programme for the development can be found in appendix 2

### **5.2 STAGE 2 CONSTRUCTION TIMELINE**

Stage 2 construction is due to commence in 2020. It is estimated that this construction will take in the order of 4 years to complete.

A indicative programme for the development can be found in appendix 2

## 5.0 SITE MANAGEMENT

### 5.1 HOURS OF CONSTRUCTION

The proposed hours of construction for Stage 1 are:

Monday to Friday:	7am to 7pm
Saturday:	7am to 5pm
Sundays/Public Holidays:	Works subject to Out Of Hours permit request to Council.

However stating the above, in an effort to keep the centre operational & to minimize disruption, many activities away from the main construction will be undertaken out of hours. These deliveries will be scheduled for the following:

Monday to Friday:	7am – 9am & 7pm to 10pm
Saturday:	7am to 9am
Sundays/Public Holidays:	Deliveries subject to Out Of Hours permit request to Council.

### 5.2 PROJECT OFFICE

A fully operational Westfield Design & Construction Office will be established onsite for the Design & Construction team. An indicative location of this office is on the NE corner of the roof top carpark, ensuring that all centre carparking flows are maintained.

The indicative location can be found in appendix 9.

### 5.3 KEY PROJECT PERSONNEL

An organizational structure of Westfield Design & Construction for the Parramatta Project will be developed closer to the commencement of stage 1.

### 5.4 COMMUNITY LIASON OFFICER

An important aspect of the successful execution of a high profile project of interest to the community is a sound public relations programme. To this end, prior to the commencement of works, Westfield will appoint a member of staff to the role of Community Liaison Officer as the initial point of contact for external parties with project related enquiries or concerns. A 24 hour contact line will be established for this purpose.



## **5.5 SITE AMENITIES & ABLUTION FACILITIES**

Westfield Design & Construction will be ensuring that the project has appropriate site amenities & ablution facilities. All facilities will at a minimum adhere to the Workcover NSW Health & Safety Code of Practice for “Amenities for Construction Work, 1997”.

Locations of ablution facilities will be reviewed closer to construction.

## **5.6 NOISE & VIBRATION MANAGEMENT**

### **5.6.1 NOISE & VIBRATION OBJECTIVES**

The Westfield Design & Construction objectives with regards to noise & vibrations are:

- Minimise the generation of noise and vibration from construction activities on site, and the subsequent impact on surrounding residents, businesses and workers
- Comply with the NSW Industrial Noise Policy goals
- Establish and maintain good relations with the local community and occupiers and operators of neighbouring sites.

### **5.6.2 NOISE & VIBRATION: KEY MANAGEMENT ISSUES**

Noise and vibration from all works will be managed so as to minimise effects on stakeholders.

Advice given within Australian Standard AS2436-19 – Guide to noise control on construction, maintenance and demolition sites will be applied.

An acoustic consultant will be commissioned prior to construction to provide advice on noise management during construction.

If in the event of noise breach during construction, mitigation measures to be employed will potentially include:

- Stop the offending activity
- Reduce the number of machines
- Use different equipment
- Disperse the machines
- Reschedule the works to a time when the noise will not cause complaint
- Apply noise absorption measures (screens, noise control kits)
- Use alternative methods

### **5.6.3 NOISE & VIBRATION: PERFORMANCE MEASURES**

Performance relating to the Operating Hours, Noise and Vibration Management Plan will be measured by the number of complaints received from adjoining operations or Statutory Authorities.

Any breaches of “The Code” will be investigated and corrective action taken in accordance with Westfield’s EOH&S Management procedures.

All full noise & vibration management report will be prepared & submitted to the principal certifying authority & Council prior to construction commencing.

## 5.7 TRAFFIC MANAGEMENT

### 5.7.1 TRAFFIC MANAGEMENT: OBJECTIVES

The Traffic Impact Study and Traffic Management and Accessibility Plan Following ROA for Part 3A Application for Proposed Extensions to Westfield Parramatta Shopping Centre, prepared by Colston Budd Hunt & Kafes Pty Ltd, sets down the principles of construction traffic management in paragraphs 3.51 to 3.53. Access and parking during construction are set down in paragraphs 3.54 to 3.62.

### 5.7.2 TRAFFIC MANAGEMENT: EXISTING SHOPPING CENTRE ACCESS

During the redevelopment WDC aim to maintain the use of all existing vehicular service entries/exits to the centre. They are:

- Campbell St Carpark Entries & Exits
- Campbell St Loading Docks
- Fitzwilliam St Loading Docks
- Eastern Aird St Entry / Exit / Loading Dock
- Beaurepaires O'Connell St Entry & Aird St Exit
- Aird St West Carpark Entries/Exits
- Aird St West Loading Dock
- Marsden St Southbound Entry/ Exit
- Marsden St Northbound Overpass Entry / Exit
- Marsden St Northbound Nth Exit

It is envisaged that deliveries will be to & from the onsite workzones. After hours deliveries may also be undertaken away from the centres peak times via the existing loading docks and carparks. These deliveries will be scheduled so to not affect the operation of the retail centre.

Where there are upgrade works to the entries & exits, these will be undertaken with minimum disruption & after hours where possible to maintain centre operations.

It is noted that internal carparking traffic flow will be maintained at all times.

### 5.7.3 WESTFIELD CARPARKING DURING CONSTRUCTION

It is not possible to keep all of the existing carparking within the Westfield open during stage 1 construction. Construction works in Stage 1 are planned to be staged to minimize the impacts on the centre. The western side of the project will be constructed prior to the eastern side of the project.

For the Stage 1 West works, the rooftop carpark will need to be closed for the duration of this stage. Further to this there are some footing upgrades that need to occur during this stage. This will require localized temporary closures around the footings in question, however a maximum of 70 carparks will be closed at one time. Carpark traffic flow will be maintained at all times.

As as soon as the Western Section of Site is complete, the new carparks would be opened.

This will then signify the commencement of the Stage 1 East works. For the Stage 1 East works, the rooftop carpark will need to be closed for the duration of this stage as well as some carparks on L5 & L6. Further to this there are some footing upgrades that need to occur during this stage as well. This will require localized temporary closures around the footings in

question, however once again a maximum of 70 carparks will be closed at one time. Carpark traffic flow will be maintained at all times.

It is expected that the construction will reduce the overall carparking numbers to 3750 for the period of Stage 1 Construction (originally approximately 4450 carparks).

An indicative layout of the carpark closures mentioned above can be found in appendix 9.

## **5.8 TREE MANAGEMENT**

### **5.8.1 TREE MANAGEMENT: OBJECTIVES**

A full Arborist report will be undertaken by Westfield prior to commencement onsite. The key aims of this report will be:

- Safe removal of the trees that are due to be removed as a result of the development
- Protect & Prevent damage to any Trees affected by the Development
- Clearly identifying a maintenance regime for any potentially affective trees
- Identifying any branches requiring removal to facilitate works to the development & ensuring pruning is in accordance with Australian Standards 4373 (1996)

## **5.9 DILAPIDATION**

### **5.9.1 DILAPIDATION: OBJECTIVES**

A full Dilapidation report will be undertaken by Westfield prior to commencement onsite. The key aims of this report will be:

- Ensure that the existing conditions of the public domain & road infrastructure is not degraded by the development
- Ensure that the existing conditions of the neighbours property is not degraded by the development
- Ensure that a detailed snapshot of the conditions of all properties & public domain areas before commencement of the development

This report will be issued to the relevant neighbours adjacent, Parramatta Council & a copy will be kept in centre management prior to any commencement.



## 6.0 OCCUPATIONAL HEALTH & SAFETY (OH&S)

The Westfield Design & Construction project specific Occupational Health and Safety Management Plan will be developed with the aim of providing a standardised approach to safety management on the Westfield Redevelopment. This will assist in protecting persons on the Parramatta project, and others affected by the project, against risks to health or safety arising out of the development.

It will set out the project specific environmental health & safety resources, responsibilities and procedures or practices for the Parramatta project.

### 6.1 OH&S: DOCUMENT REVIEW, REVISION & ISSUE

The success of the Site Specific Environment, Health and Safety Plan will rest with its implementation. Implementation involves management and all employees at Westfield's to carry out their duties and responsibilities as specified in the Site Specific Environment, Health and Safety Plan. If this does not occur, the procedures in the Site Specific Environment, Health and Safety Plan are not a true representation of the operations of Westfield.

To ensure the effectiveness of the Site Specific Environment, Health and Safety Plan, Westfield will carry out a monthly review of the whole Site Specific Environment, Health and Safety Plan. Separate procedure reviews may be carried out on a more frequent basis.

The monthly review of the Site Specific Environment, Health and Safety Plan will be carried out by management and discussed at management meetings, subcontractor coordination meetings and toolbox meetings. Each procedure in the Site Specific Environment, Health and Safety Plan will be reviewed to measure its effectiveness within Westfield. It will also be reviewed to ensure that the procedure is being carried out in practice

### 6.2 OH&S: OBJECTIVES

The key objectives of the Site Specific Environment, Health and Safety Plan are:

- To ensure all parties involved in the construction process receive Occupational Health & Safety information regarding the project.
- To ensure that stakeholders in the project are involved in appropriate consultation and communication regarding Occupational Health & Safety matters on the project.
- To ensure that stakeholders in the project are involved in appropriate consultation and communication regarding Occupational Health & Safety matters on the project.

### 6.3 OH&S: KEY ISSUES

The following are key issues that WDC will be focussing on during the construction process. All subcontractors activities will be closely monitored with the respect to the following:

- Falling Debris
- Large construction plant & equipment
- Falls from heights
- Fire
- Hazardous chemicals
- Hazardous Materials including asbestos
- Electrical hazards
- Workplace violence & bullying
- The use of power tools
- Manual handling issues

## 6.4 FIRST AID

A qualified first aider will be present onsite at all times that the site is operational. This person will be on call at all times in the case of an emergency, via the use of a nurse call system and will have the appropriate facilities as required. It is worth noting that this qualified first aider does not replace the need for the emergency services in incidents deemed as serious.

## 6.5 EMERGENCY SERVICES

In case of an emergency the following emergency numbers are contactable. A full incident response plan will be detailed in the OH&S Plan.

<u>SERVICE</u>	<u>EMERGENCY NUMBER</u>
Emergency Services	000
Police	000
Fire Brigade	000
NSW Ambulance Services	000
Westmead Hospital	8837 9000
Parramatta Council	9806 5000
Dept. Environment & Conservation	9995 5000
Sydney Water	13 20 90
AGL Gas Services	131 245
Ausgrid	13 13 88
Roads & Maritime Services	132 701
Poisons Information Centre	13 11 26
Dial Before You Dig	11 00

A muster point will be clearly nominated in the unlikely event of an emergency.

## **7.0 ENVIRONMENTAL MANAGEMENT**

### **7.1 ENVIRONMENTAL MANAGEMENT: OBJECTIVES**

A preliminary Environmental Management Statement has been prepared in accordance with this CMP by Cundall. This is attached in appendix 5. This report is consistent with the methodologies and timings that the Parramatta project requires.. The key objectives are;

- Comply will all local, station & federal environmental legislation, codes & guidelines
- Proactively Identify & manage environmental risks
- Adoption best practice environmental management procedure

All full environmental management plan will be prepared & submitted to the principal certifying authority prior to construction commencing.

### **7.2 ENVIRONMENTAL MANAGEMENT: KEY ISSUES**

The following key issues have been addressed in the Environmental Management Plan:

- Air & Dust Management
- Spoil Removal & Sediment Control
- Contaminated Soil & Groundwater Management
- Stormwater Control
- Chemical Spillage
- Waste Management

### **7.3 ENVIRONMENTAL MANAGEMENT: HAZARDOUS MATERIALS**

A full Hazardous Materials report will be undertaken by Westfield prior to commencement onsite. The key aims of this report will be:

- Comply will all local, station & federal environmental legislation, codes & guidelines
- Proactively Identify & manage environmental risks
- Adoption best practice environmental management procedure
- Safe removal of any hazardous materials within the zone of construction prior to commencing construction



## 8.0 PROCUREMENT

WDC understands the importance that procurement has on the success of a large project and the risks associated with long lead time items.

In general, the appointment of all subcontractors will be undertaken to ensure minimal risk to the production & construction schedule. Correct management, understanding the production schedules and appropriate, regular statusing on the progress of these key schedules will ensure that the key procurement items are available prior to when required.

WDC has identified the following key procurement items on the project:

- High Voltage Infrastructure
- Telecommunications Infrastructure
- Existing Fire Protection Systems Infrastructure
- Passenger & Goods Lifts
- Escalators
- Electrical Generators & Switchboards
- Mechanical Chillers
- Mechanical Boards & Mechanical plant
- Structural Steel Elements
- Concrete Precast Elements
- Façade Elements including glazing
- Hydraulic Plant
- Fire Systems
- Stone

## **9.0 QUALITY MANAGEMENT**

### **9.1 QUALITY MANAGEMENT PLAN**

A full quality management will be prepared for the Parramatta Project closer to construction.

### **9.2 DOCUMENT HANDLING & ACONEX**

The documents handling collaboration platform Aconex will be used throughout the Parramatta Development. All Clients, Westfield, suppliers & subcontractors will use the Aconex Platforms for all forms of written communications & document handling.

The Aconex Guidelines & Documents Handling Procedure Detail how this communication & documents handling systems work for the project will be prepared prior to construction commencing.

### **9.3 DEFECTS MANAGEMENT**

A full defects management procedure will be developed for the project and managed appropriately by WDC.

## APPENDICES



## APPENDIX 1: PROJECT ZONE & STAGING PLANS

## APPENDIX 2: PROJECT TIMELINE

**APPENDIX 3: BLANK**

## **APPENDIX 4: PRELIMINARY ACOUSTIC & VIBRATION MANAGEMENT STATEMENT**

(Refer VIPAC Report)



## **APPENDIX 5: PRELIMINARY ENVIRONMENTAL MANAGEMENT STATEMENT**

(Refer Cundall Report)

## APPENDIX 6: PROPOSED INDICATIVE WORKZONE PLANS

## APPENDIX 7: PROPOSED INDICATIVE HOARDING PLANS

## APPENDIX 8: PROPOSED INDICATIVE CRANE LOCATION PLANS



## APPENDIX 9 : INDICATIVE CARPARK STAGING IMPACTS