CONSTRUCTION MANAGEMENT PLAN

REVISION STATUS

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1. INTRODUCTION

1.1 Purpose

The purpose of this Construction Management Plan (CMP) is to provide the Lendlease Site Management Team with the framework, procedures and controls to deliver the project works in a safe, efficient and environmentally responsible manner, in accordance with the project timeline and with minimal disruption to the surrounding community stakeholders.

Furthermore, the CMP will clearly define procedures that Lendlease will implement to manage the Contractor's activities for the Western Sydney Stadium Project in such a way as to:

- Complete the Contractor's activities in accordance with the contract;
- Clearly detail the management strategies to be implemented to address co-ordination and communication with iNSW and its stakeholders to ensure an operational facility is delivered in accordance with the contract;
- Provide an environment of "no surprises" for iNSW in the way that Lendlease will perform the Contractor's activities in compliance with the contract and relevant authorities and stakeholders; and
- Define the processes and management protocols to be adopted by all Head Contractor personnel, subcontractors, suppliers and any other personnel required to execute part of the works and in doing so are required to access the site during performance of the Contractor's activities.

The CMP has been prepared in outline form, recognising that it will be further developed to reflect the finalised scope and delivery strategy. The CMP should also be read in conjunction with the project plans further defined in Section 3.3.

1.2 Application

This outline CMP will form part of the overarching Project Management Plan (PMP) to be developed by Lendlease for the construction related activities of the Project. The scope and detail of the Project works will be as defined in the contractual requirements.

Implementation of the CMP will have regard to the requirements set out in the Contract conditions, the over-arching PMP and associated Project sub plans to be developed by Lendlease in line with preferred contractor status. The CMP will be further developed and progressively revised for re-issue where required to:

- Incorporate progressive work methodologies as developed and approved during the delivery; and
- Incorporate any amendments required by and mutually agreed with iNSW during the pre-award period.

The finalisation and issue of the CMP for endorsement will be in accordance with the contractual requirements.

1.3 Project Plans

Lendlease operates an Integrated Project Management System which includes a range of Project Controls necessary to deliver projects in compliance with Lendlease's corporate policy requirements, statutory requirements and contractual requirements. The CMP will form part of the suite of management plans prepared for the project and is to be read and implemented in conjunction with all associated Management Plans and their related procedures and method statements, as progressively developed by Lendlease to reflect the delivery requirements for the Western Sydney Stadium Project. These plans may be referred to within the CMP where specific.

Contractors Management Plans - Requested	Plan Included
Construction Management Plan	Lendlease Construction Management Plan
Environmental Management Plan	Lendlease Environmental, Health and Safety Plan
Work Health and Safety Management Plan	
Stakeholder Management Plan	Lendlease Stakeholder Management and Community Engagement Plan
Community Management Plan	
Commissioning and Handover Plan	Lendlease Commissioning and Handover Plan
Project Security Plan as specified in Tender Particulars.	Lendlease Project Security Plan (FOUO as identified in Schedule G – Tenderer's Commercial-In-Confidence Information).
Design Management Plan	Lendlease Design Management Plan
Demolition Management Plan	Lendlease Demolition Management Plan
Construction Traffic Management Plan	Lendlease Construction Traffic Management Plan
Risk Management Plan	Lendlease Risk Management Plan
Quality Management Plan	Lendlease Quality Management Plan
Industrial Relations Management Plan	Lendlease Workplace Management Plan
Remediation Action Plan	Lendlease Remediation Strategy
Completion Plan	Lendlease Completion Management Plan

2. PROJECT DETAILS

2.1 Overview of the Project

The Western Sydney Stadium Project will provide the community of Western Sydney with a first class precinct comprising of a brand new 30,000 seat stadium and an activated public realm. The venue will have the ability to service major sporting and entertainment events.

2.2 Scope

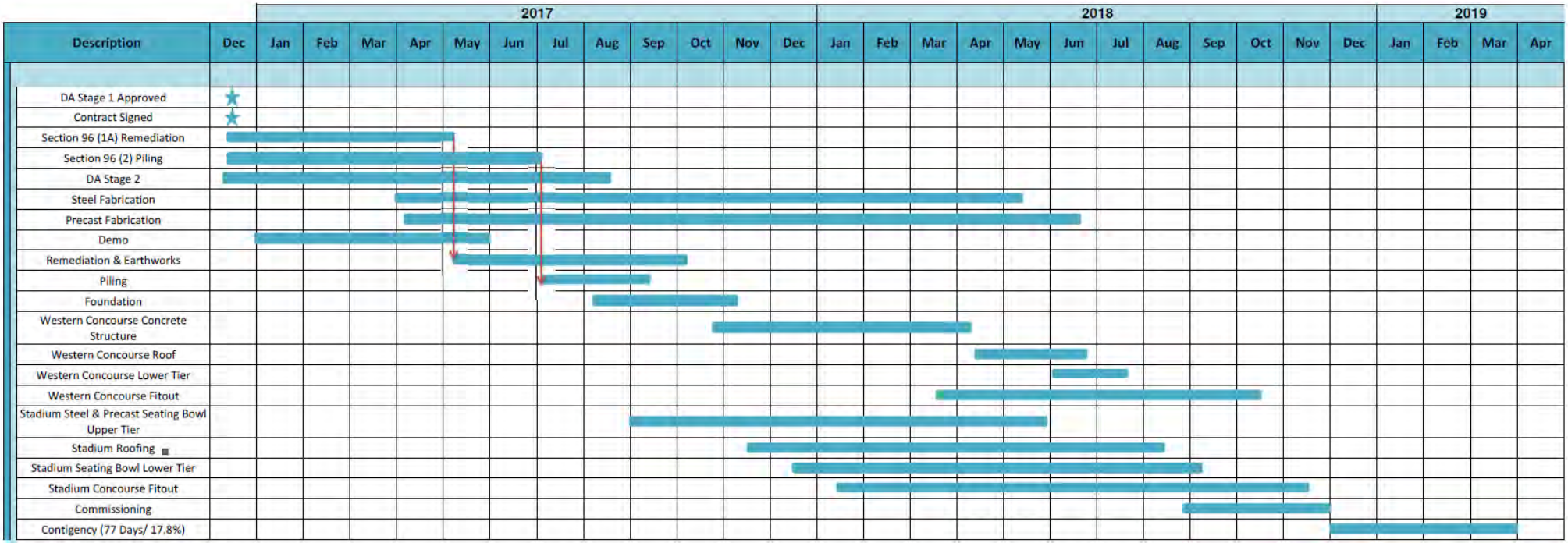
The project involves the redevelopment of the existing Parramatta Stadium, to be known as Western Sydney Stadium upon completion. This project also includes the redevelopment of public realm areas included within the site's boundaries.

The construction works generally include:

- Demolition of the existing Parramatta Stadium
- Demolition of the existing Parramatta Council Community Pool
- Excavation and remediation of the site in accordance with the RAP and remediation strategy, to achieve bulk levels aligning with the new stadium design
- Construction of a new 30,000 seat Stadium incorporating corporate suite and media facilities across a five storey western stand
- Diversion of the existing HV services
- Infrastructure works to the existing intersection of O'Connell Street and Victoria Road
- Infrastructure upgrades as required by the final design solution
- Construction of a new on-grade carpark in the North Western Corner of the Site
- Construction of public realm facilities.

2.3 High Level Programme

With reference to the information within this plan, the below provides a high level summary of key construction activities. These activities are planned based on NETT durations with the projects delay allowance shown as an activity on the back end of the programme. The project timeline commences in January 2017 and will be completed 30 March 2019.



3. ORGANISATION

3.1 Overview

Lendlease personnel including corporate and technical support personnel allocated to the Western Sydney Stadium Project are highly experienced, possessing suitable skills and competency levels necessary to manage the Project works.

The nominated personnel proposed to manage delivery of the Project and their roles are illustrated in the Project Organisation Chart included in Appendix 1. The organisational structure is dynamic and responsive to meet the demands of the project, specifically construction on multiple work fronts and engagement with the community and key stakeholders.

3.2 Site Management Team

The Site Management Team will be established progressively in a Project Office on-site to manage the delivery of the Project, namely the procurement, construction or remediation work and completion/handover phases. The objective of this team will be to promote collaboration, cohesiveness, enthusiasm, initiative and spirit of cooperation from the beginning.

The Site Management Team shall be directly supported by the NSW Senior Management Team (Refer Appendix 1 – NSW Support)

The Site Management Team will provide the following Delivery Phase requirements:

- Project Management
- Procedural and process control
- Tendering and procurement management
- Construction control
- Contract administration and cost control
- Site management and construction supervision
- Time control and programming
- Quality control, monitoring and reporting
- Environmental control, monitoring and reporting
- Safety monitoring and reporting
- Traffic and pedestrian management
- Authority and approvals coordination
- Commissioning and completion management.

4. PROCUREMENT AND SUBCONTRACTOR MANAGEMENT

Lendlease will adopt a range of approaches in the procurement and subcontractor management phases of the project. These approaches are common in the way Lendlease has delivered its most recent projects in Sydney including Darling Harbour Live and Barangaroo South. These practices include:

- Preferred trade partners who can bring expertise, value and market experience to the design and delivery of the project. Specifically, to the Western Sydney Stadium Project, Lendlease has partnered with key services and structural contractors to influence proposed solutions in a manner that provides value in the product handed to iNSW at completion. Most of the trade partners have recently worked as part of a team with Lendlease on the Darling Harbour Live Project, whilst other trade specialists have been engaged due to the nature of the project and their experience corresponding experience.
- Key contractors that have the capacity to deliver the various trade packages will be invited to tender the works in a competitive environment. These contractors will be pre-qualified; and
- Strategic procurement alliances will be used for:
  - Sanitary ware
  - Vertical transportation
  - Reinforcement supply
  - Ceiling tile supply
  - Carpet tile supply
  - FF&E.

5. NOISE MANAGEMENT

5.1 Overview

Lendlease will endeavour to minimise noise from construction activities. Lendlease's primary objective is to:

- Comply with all statutory requirements;
- Avoid or minimise adverse noise impacts from construction, through construction methodology and appropriate management measures;
- To minimise the generation of noise and vibration from construction activities which could affect the site personnel;
- To minimise the generation of noise and vibration from construction activities which could affect neighbouring residences, businesses and associated building structures and other community members; and
- Establish and maintain good relations with the community and neighbouring sites.

The following controls may be implemented to ensure that noise related issues are controlled, addressed and resolved in accordance with regulatory requirements:

- Select employees will receive training which will enable them to recognise areas where noise levels are likely to exceed 85dBA;
- A noise assessment of the site will be undertaken prior to or at the commencement of works on site and reviewed from time to time until the task has been completed;
- As the work environment changes, additional assessments may be conducted, the timing of which will be determined in consultation with the Site Management Team, Site Safety Committee and Site EHS Coordinator;

- Warning signs shall be erected in areas where noise levels are expected to exceed 85dBA; and
- Where personnel protection equipment is required, the work areas shall be identified by signage. The appropriate noise protection devices are to be issued to all exposed persons.

5.2 Training

Training will be undertaken to ensure employees are aware of:

- Correct method of fitting ear protection muffs and plugs;
- Recognition of hearing protection areas; and
- Care and maintenance of personnel protective equipment.

If required, further training will be provided by means of video film appropriate to the topic. Ongoing training will be reviewed from time to time by the Site Safety Committee. Records of training and audiometric testing shall be retained by the Site Management Team. Noise levels of operating plant and equipment shall be determined from Plant Induction Checklists prior to commencement of work on site.

5.3 Hierarchy

The hierarchy of noise control to be applied is:

- Elimination – eliminate the source of the noise.
- Substitution – substitute source of noise for quieter plant or processes.
- Design – process or equipment to be designed with appropriate control measure.
- Engineering controls – additional or modified equipment to suppress noise.
- Administrative controls - such as rotation of effected employees or out-of-hours work.
- Personnel protection – ear plugs, ear muffs, etc.
- Materials.

6. VIBRATION AND ACOUSTIC MANAGEMENT

6.1 Dilapidation Survey

Prior to commencement of works on site, Lendlease will undertake a dilapidation survey to record pre-existing condition of buildings and infrastructure that may be affected by construction activities. Such dilapidation survey could include access routes, pavements and site infrastructure.

6.2 Vibration and Acoustic Monitoring

Lendlease shall assess the requirement to engage a suitable acoustics and vibration consultant to carry out monitoring during construction activities. The dilapidation survey may confirm the necessity for such an appointment. Acceptable levels would be predetermined and monitoring would allow compliance to be assessed and recorded and changes to construction methodology adopted as may be required.

6.3 Working Hours

Lendlease will ensure strict compliance with approved working hours during the activities of demolition and piling. Any requirement for works outside of the approved hours will be sought through the relevant authorities in conjunction with communication protocols for stakeholders and the community.

7. WASTE MANAGEMENT

Demolition and construction activities required for the Project will generate significant waste. There will be a requirement to manage and control the incidence and handling of waste including its identification, collection, sorting and recycling. Management procedures for waste are addressed in detail in the Environmental Management Plan to achieve the required recycling percentage targets.

7.1 Waste Types and Classifications

The Project will generate wastes of varying categories. Certain wastes have the potential to present safety concerns to human health or harm to the environment. All wastes will be identified prior to disposal.

7.2 Guidelines for Waste Management

The person responsible for each waste type will locate bins in a convenient place. All endeavours will be made so that recycling is made as easy as possible for workers to participate in and contribute to recycling targets.

Persons responsible for ordering materials will, where practical and appropriate:

- Order materials in the appropriate quantities;
- Give a high priority to using non-hazardous products where practical;
- Give a high priority to the use of products made with recycled materials; and
- Waste should be separated at its source by the employees and subcontractors where practical and safe to do so.

All works will be planned to minimise construction waste and contamination of the site and surroundings, encourage recycling and practise resource conservation. Lendlease will not discharge or dump any deleterious material into the drainage system, or onto any roads, hard standing or unmade area on or in the vicinity of the Site. Lendlease will separate waste into appropriate bins and arrange collections to maximise recycling of waste. No burning of waste or rubbish will be allowed.

7.3 Maintenance, Cleaning and Waste Removal

All construction personnel will be responsible for maintaining clean and tidy work sites. Subcontractors will be responsible for maintaining cleanliness of each specific work face.

Removal of waste from the work faces shall be via standard proprietary ‘wheelie’ bins. Receptacles will be located conveniently and in close proximity to work faces. Subcontractors will collect and dispose of waste in bins on a daily basis. At the end of each day or other such regular frequency, bins will collected and emptied into central industrial waste bins for removal and disposal off-site by the waste management contractor.

7.4 Dust Control

Dust shall be suppressed where ever possible to ensure air quality, and to avoid health and safety issues and nuisance to occupants. All waste to be removed from Site shall be adequately covered by suitable means to minimise air-borne dust. Dust control measures are addressed in further detail in the Environmental Management Plan.

7.5 Works on Existing Services

The following shall be considered by the Site Management Team prior to carrying out works on engineering services:

- Carry out all work on services, including inactive services, in accordance with the requirements of the relevant authorities;

- Protect and maintain all existing active services on or adjacent to the site;
- Relocate services if required and provide temporary services during relocation as necessary; and
- Mitigate against disruption of continuous supply of services during construction.

7.6 Damage to Existing Services

In the event of damage or disruption to any services on or adjacent to the Site, the Site Management Team shall:

- Notify the Relevant Authorities;
- Cease works should the damage pose a threat to persons or property;
- Cease work in the vicinity and clear the area of people, including people in Adjacent Properties and public land as appropriate and notify the relevant emergency services;
- Not recommence works until approval has been obtained from the Relevant Authorities; and
- Provide assistance as required in connection with any such incident, involving repair, diversion, relocation, cutting, sealing or disconnection or make safe as required by the relevant authority and to maintain supply.

8. SITE ESTABLISHMENT

Lendlease will commence Site Establishment as soon as practicable in January 2017. Lendlease has allocated resources to manage this process, allowing the commencement of demolition works immediately following site establishment. The site establishment process will cover the following key activities:

- Compound fencing;
- Secure site access for deliveries;
- Statutory signage;
- Temporary site office and associated amenities;
- Temporary Access Roads;
- Temporary services connections to existing infrastructure;
- Environmental controls;
- Waste management;
- Appropriate drainage of the work areas; and
- Establishment of safety, environmental, traffic and emergency procedures.

8.1 Project Perimeter Fencing

The site will be established in two clear stages;

- Stage 1 being early January 2017 (post contract award), whereby Lendlease will take possession of the site (areas currently owned and occupied by iNSW). This will exclude the Community Pool, which will remain in operation until 30th March 2017; and
- Stage 2 being 1 April 2017, whereby Lendlease will take possession of the Community Pool. Figures 1 and 2 below show the two stages for Site Establishment.

Site Establishment – Stage 1

Figure 1 – Stage 1 Site Establishment 03 January 2017

The Stage 1 site boundary will be established with 3m high chainwire fencing with three layers of barb wire on the top.

The fence will be double lined with shade cloth with the opportunity for various stakeholder branding. Stage 1 establishment will exclude the pool area (currently delineated by a 2.4m fence), however 3m chainwire fencing will still be established on the Northern and Western Pool boundaries.

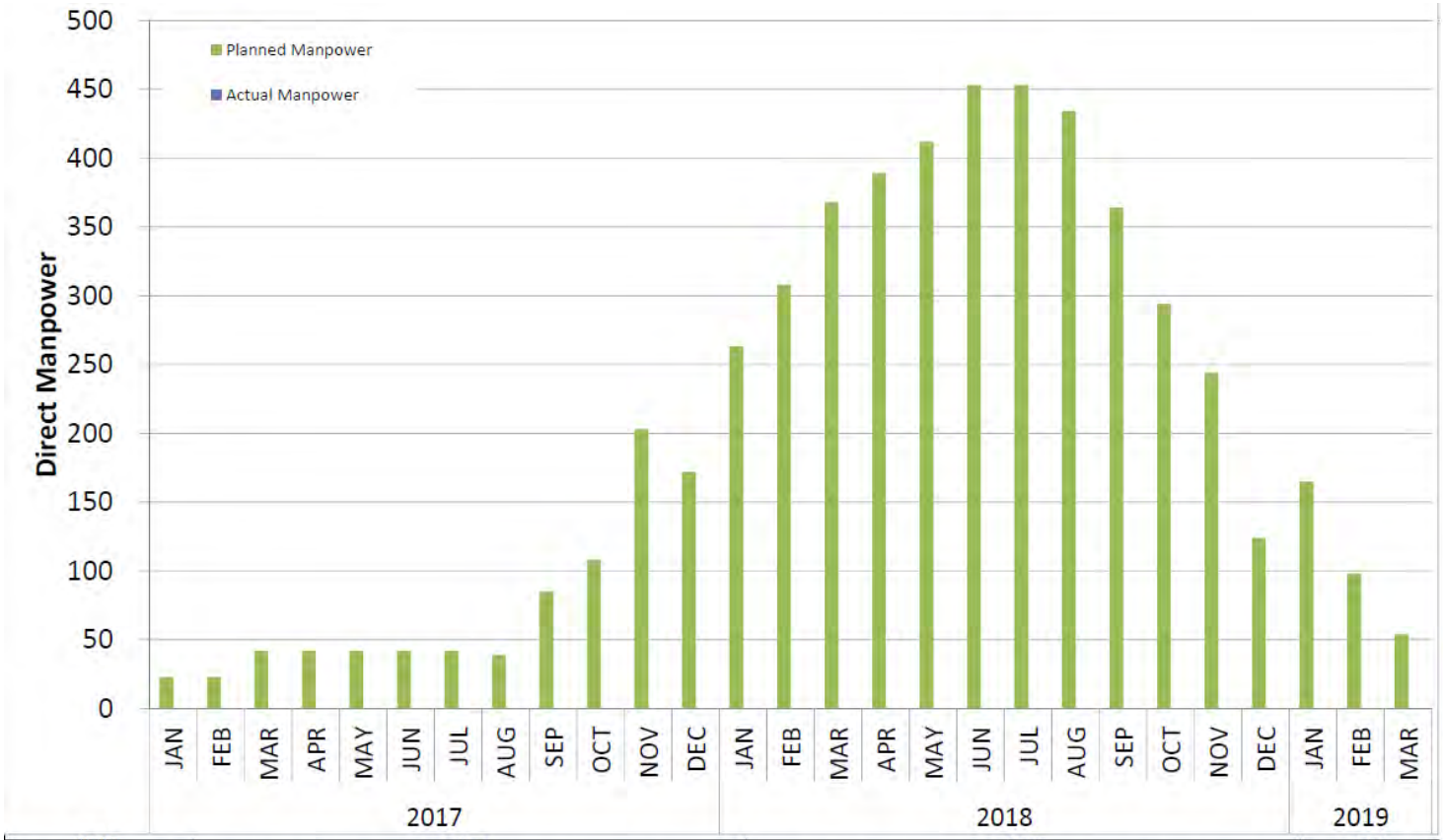
Site Establishment – Stage 2

Figure 2 – Stage 2 Site Establishment 01 April 2017

Stage 2 Site Establishment will see an extension of the 3m high chainwire fencing with three layers of barb wire at the top along O'Connell Street and the Southern Boundary of the existing pool. Again, the fencing will be lined with two layers of shade cloth.

8.2 Construction Worker Resource Projection

The construction sequencing and stadium design drives an estimated workforce requirement at peak of 330 personnel. The proposed planning approvals provide early commencement of bulk earthworks and remediation, allowing a clean handover of a remediated site to the trades undertaking 'new build' works. The proposed design lends itself to constraints around plant and equipment as opposed to industry resources in volume. This method is used for the South, Eastern and Northern elevations of the new stadium. The western stand being built concurrently has been designed more traditionally to draw on a manageable industry resource requirement (formwork, reinforcement, concrete activities). This approach minimises resource requirements to the project and reduces peak levels significantly. Figure 3 below shows the increase in resource as build works commence in September 2017. As areas are made available to services and finishes trades (March 2018), resource levels peak before being maintained just below 300 for the duration of the works.



YEAR	2017												2018												2019		
MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
Planned Manpower	23	23	42	42	42	42	42	39	85	108	203	172	263	308	368	389	412	453	453	434	364	294	244	124	165	98	54
Actual Manpower																											

Figure 3 - Estimated Site Resource Levels

8.3 Project Site Office and Construction Worker Amenities

Proposed Base Masterplan

Figure 4 – Figure 4 Proposed Masterplan

The Project Office and Construction Worker Amenities will be located within the Site Boundary, in the location ear-marked as a future development site. Lendlease will not be undertaking any build works within the ear-marked area (outline dashed in black) throughout the course of the Stadium Construction Program. The base-case and alternative masterplans proposed by Lendlease allow successful removal of Site Amenities and the Project Office pre or post Practical Completion (as access roads surround this future development site)

Site Layout During Construction

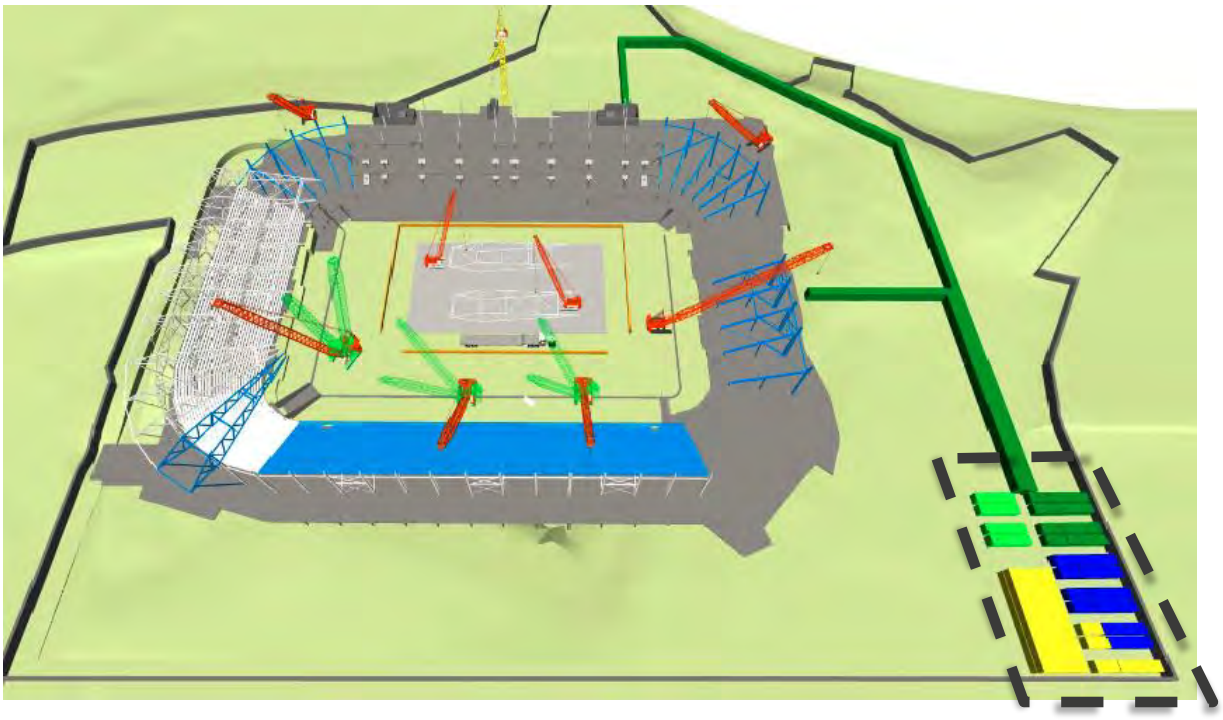


Figure 5 – Site Layout During Construction

The future development site is currently used as the Parramatta Stadium Carpark, hence exists as an asphalt hardstand, draining into the existing stormwater system. The North Eastern corner of the site also provides access to sewer for site amenities, and is relatively close to the existing site kiosk which will be utilised for temporary power.

In addition to the amenities in the north eastern corner of the site, satellite amenities will be positioned in the north west, south west and south eastern corners of the site. The satellite amenities will provide appropriate facilities for the site workforce in locations that retain productivity. Consideration will also be made to the specific locations of these amenities blocks with respect to plant and equipment movements around the site.

The Site Project Office and Construction Worker Amenities will be established in four stages with the last stage being driven by actual resource requirements based on the programme status in early 2018.

The future development site will cater for at least a 400 strong construction workforce, and have the ability to be extended (stacked) if additional resources are required at the back end of the project.

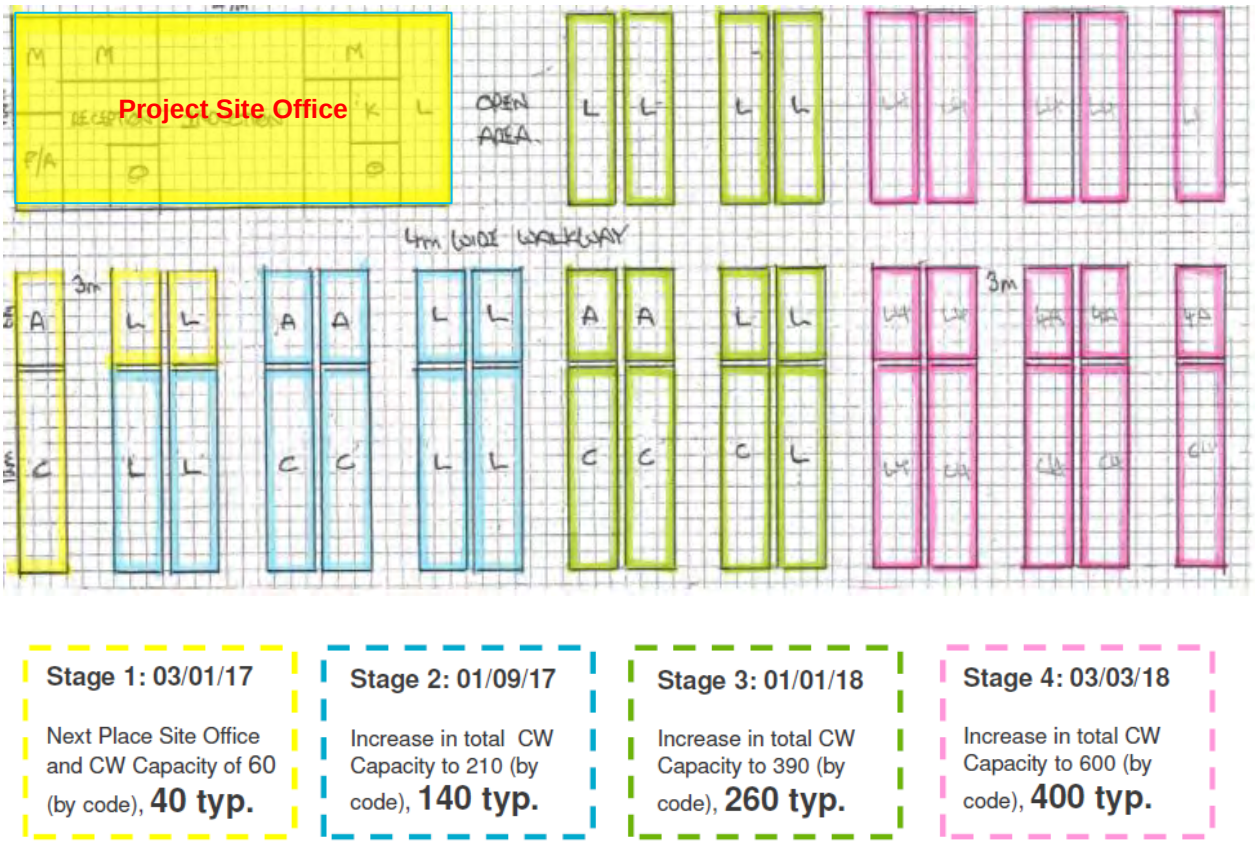


Figure 6 – Site Construction Amenities

8.4 Site Access - Vehicles

Access points for vehicles (being deliveries, plant & equipment, etc.) entering and exiting site are shown below in Figures 7, 8 and 9. These nominated locations allow continued operation of existing adjacent premises, existing road infrastructure and pedestrian movements.

Figures 7, 8 and 9 below also highlight the planned key routes for vehicles within the site boundary from entry and exit points to various construction zones

For further information on Traffic Management, please refer to the Traffic Management Plan.

Site Access – During Site Establishment Stage 1

Figure 7 – January 2017 to March 2017

During the initial stage of demolition, the existing pool complex remains operational and the main construction access point will be located at the current signalised intersection of the site at Gate A. This access will accommodate a peak load of 40 trucks (typically 30 tonne truck and trailers) per day as the main entry/exit gate with an alternate exit point at Gate C, utilising the left out southern parking access with O'Connell Street.

Site Access – During Site Establishment Stage 2

Figure 8 – April 2017 to May 2017

Following on from the initial stage of demolition, Stage 2 will see the pool complex closed and handed over to the contractor. The main entry/exit point remains at Gate A and the expected peak load of truck traffic remains as 20 per day. An alternative entry/exit point at Gates C and D will be used as necessary, when works staging restricts the use of Gate A.

Site Access – General Construction

Figure 9 – Base Case Traffic Management throughout Construction

During construction of the western stand and for structural steel / precast deliveries, peak truck movements will be 50 trucks per day. The maximum truck size will be extendable bed semi-trailers delivering structural steel. The main entry/exit point remains at Gate A and an alternative entry/exit point at Gate C and Gate D will be used as necessary when works staging restricts use of Gate A.

Gate C is used for gaining access to the high level concourse, with a ramp formed during bulk earthworks and Gate D will be used for gaining access into the low level pitch via the vomitory below the south east corner of the stadium.

It is noted that during all stages detailed, there will be some out of hours wide load deliveries made for large plant. Furthermore, pedestrian access to the site will be through a separate gate located approximately 60m north along O'Connell Street from the main access.

8.5 Site Access Paths – Construction Workforce & Project Staff

One of the key risks on the Western Sydney Stadium project is the segregation of plant / equipment and people, being construction workers and site project staff. Lendlease has strategically positioned the site office and amenities in the NE corner of the project, accessible from O'Connell Street, and immediately adjacent to an operational traffic intersection with signal management for traffic and pedestrians.

Within the site itself, key access paths will be provided to work areas, with the focus being on:

- Minimising the number of paths to the stadium structure itself to better control people movement;
- Applying key controls to enable plant and equipment to circulate the site as planned; and
- Having the ability to relocate / shift access paths as required without jeopardising the key controls established.

Figures 10 and 11 below highlight the key access paths to the project from the site amenities area and the strategy for maintaining a productive site whilst achieving delineated access paths.

Site Layout highlighting Access Paths 1 & 2

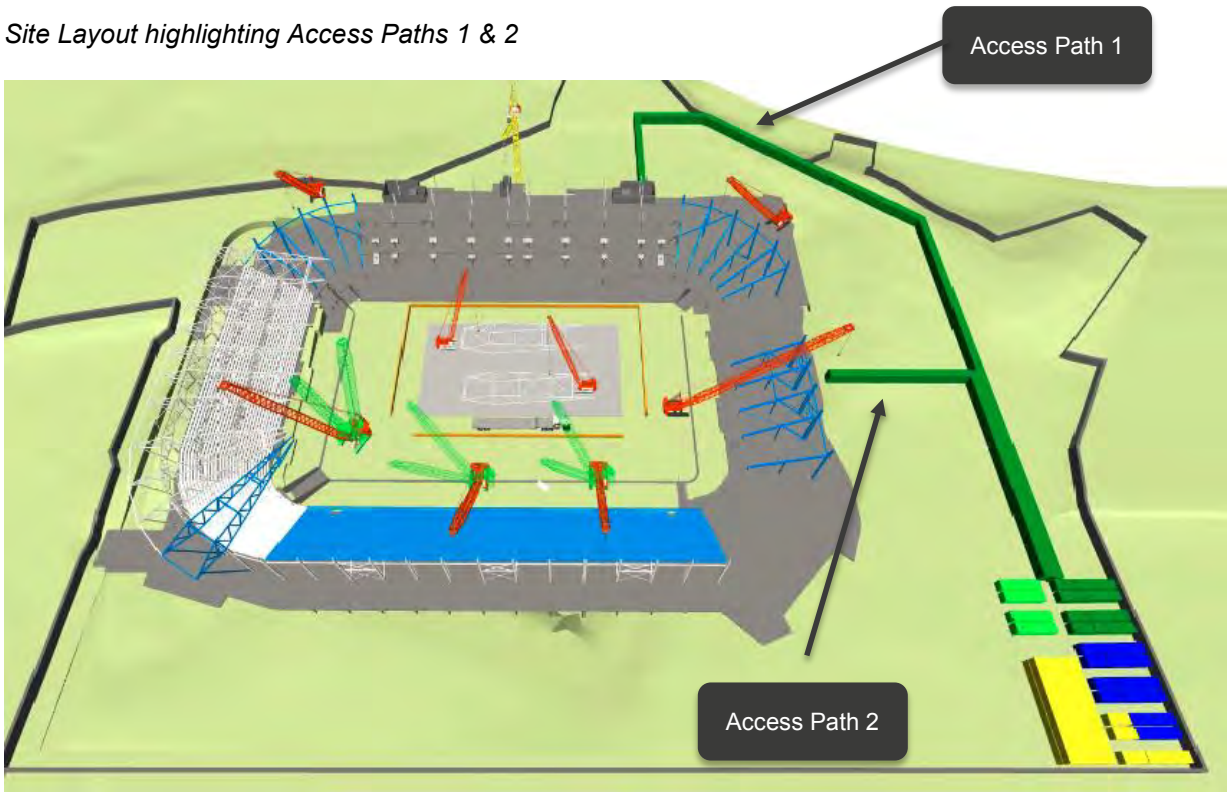


Figure 10 – Site Access Paths

Access Path 1 – Access Path 1 will be established as soon as practicable (immediately after demolition to Western, Southern and Northern Stands). This hardstand will provide a delineated access from the Site Amenities in the north eastern corner of the site to the western elevation of the site, whereby remediation, piling and structure works will commence. In the location where the workforce must cross the haul road (vehicle access path), a pedestrian bridge structure will be established, allowing the constant flow of vehicles independent to pedestrian movements to and from their work areas.

Access Path 2 – Access Path 2 will be established at the completion of the upper bowl on the Northern elevation of site. The timing of this milestone aligns with the strip-out and removal of formwork to the western stand, allowing an undercover concourse access way to be achieved. This will enable the relocation of the Access Path 1 bridge structure to a location closer to the site accommodation. Access Path 2 will be a water-tight access path enabling services and fit-out works to be undertaken during inclement weather (where practicable).

The western stand will be built as a reinforced concrete structure. During the timeframe of the formwork, reinforcement and concrete activities, the site construction workforce will adopt Access Path 1 to reach their work area from the site amenities. At the time of structure works commencement, the bulk earthworks / remediation to this area will be completed, hence the concourse levels set. Access to the L00 (Service Level at RL 9.00) will be via 2 x stretcher stairs from the Concourse level at RL14.0. As the structure rises above the concourse level, an additional two stretcher stairs will be built servicing from the concourse level to the top floor of the structure. These stairs will remain in place until the permanent fire stairs are completed. In addition to the 2 x stretcher stairs, 1 Scando 650 Hoist will be established as the structure approaches Level 2. This hoist will initially provide a secondary means of access for the site workforce, but post formwork removal, will provide materials access from the western loading zone to the specific work level. The hoist will service from concourse level to Level 4, and remain in place until builders lifts are brought online.

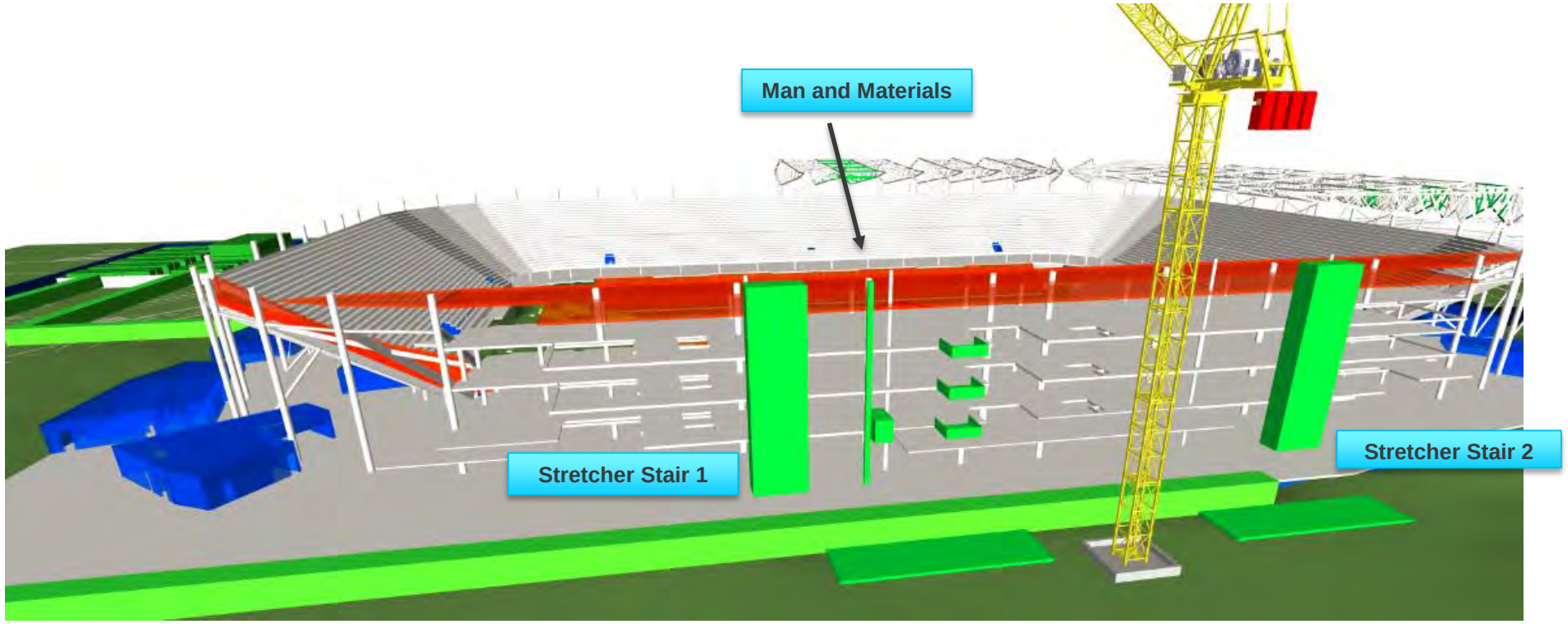


Figure 12 – Western Stand Access

8.6 Temporary Services

Temporary Power to operate the Project will be fed from one of the existing kiosks located on the Site. Analysis has been completed with regards to site power requirements, including tower cranage, hoists, site accommodation, temporary lighting to access ways and power required for build works. The required capacity to operate the site exists within the current infrastructure.

In isolated areas, generators may be used.

Water will be provided through the existing lines that currently feeds the Parramatta Stadium. These will feed the site accommodation precinct, satellite amenities and bubblers located throughout the site.

8.7 Site Security

As noted in Section 6.1, the site perimeter will be secured with a 3m chainwire fence with barb wire on top. In addition to this, CCTV cameras will be established in select locations around the perimeter of the site, monitoring activity 24hrs of the day.

Site Access will be secure, with the use of turnstiles located in the NE Corner of the Site. A secondary turnstile will be located in the SW corner of the site, but not used for access. This turnstile will operate under free-spin when site emergency procedures are implemented. The site emergency evacuation location will be adjacent to the Parramatta River to the South of the Site. Access to site will require security passes obtained post a site induction. This security system (Blue Glue) is consistently used on Lendlease Projects and;

- Allows Lendlease to understand how many and who exactly is onsite at anyone point in time. This is typically used in circumstances of emergency to ensure all those present onsite prior to an evacuation have registered as present at the muster point post evacuation.
- Allows contractor insurances to to be linked to site access (Public Liability and Workers Compensation)
- Allows labour statistics to be monitored daily, plus reported on accurately.

9. MATERIALS HANDLING

9.1 Deliveries and Loading Zone Management

Overall Site Construction Loading Zone

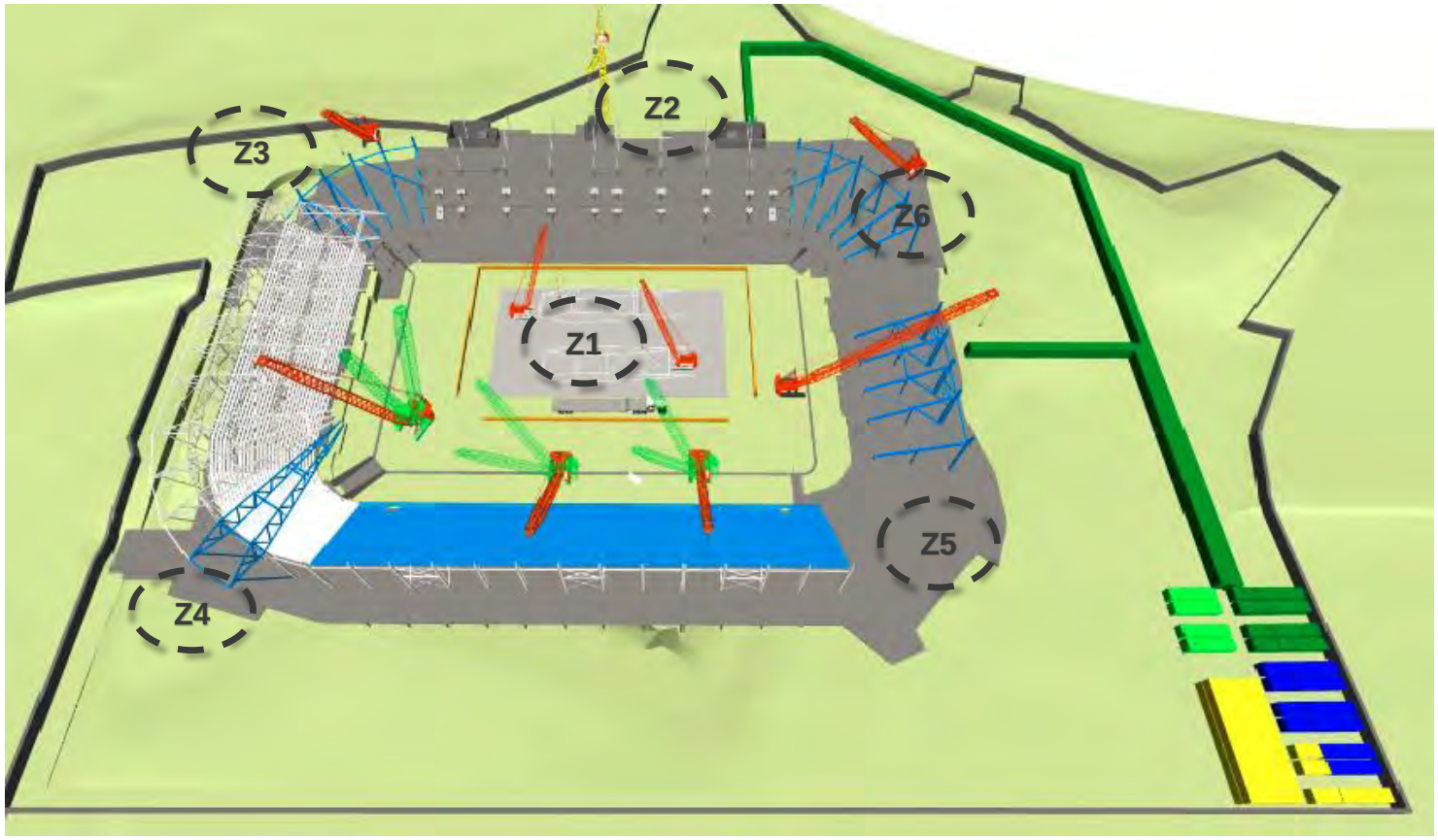


Figure 13 – High Level View of Planned Site Construction Zones

The Site will consist of a number of defined loading zones which will enable the project to operate on multiple work fronts whilst maintaining separation between plant, equipment, the site workforce and adjacent activities.

The defined construction / loading zones consist of:

- Z1 - Pitch Area – used throughout stadium structure duration. This will consist of a number of delineated zones further explained in Figure 15 below.
- Z2 – Western Stand – used throughout FRP activities and loading of façade / some finishes. This will consist of 2 loading zones, North and South of the Tower Crane
- Z3 – SE Corner External – used for Upper Tier Steel and Precast Only
- Z4 – SW Corner External - used for Upper Tier Steel and Precast Only
- Z5 – NE Corner External - - used for Upper Tier Steel and Precast Only
- Z6 – NW Corner External - - used for Upper Tier Steel and Precast Only

Construction Zone Z2 – Western Stand

The Western Stand will operate out of its own two loading zones as shown below. Throughout the structure phase, these two loading zones will accept formwork, reinforcement, PT deliveries, whilst also being used as concrete pumping zones. Exact locations of each loading zone from the edge of L01 Slab (concourse level) will be determined through input from the structural and geotechnical engineer, based on the final retaining structure design.

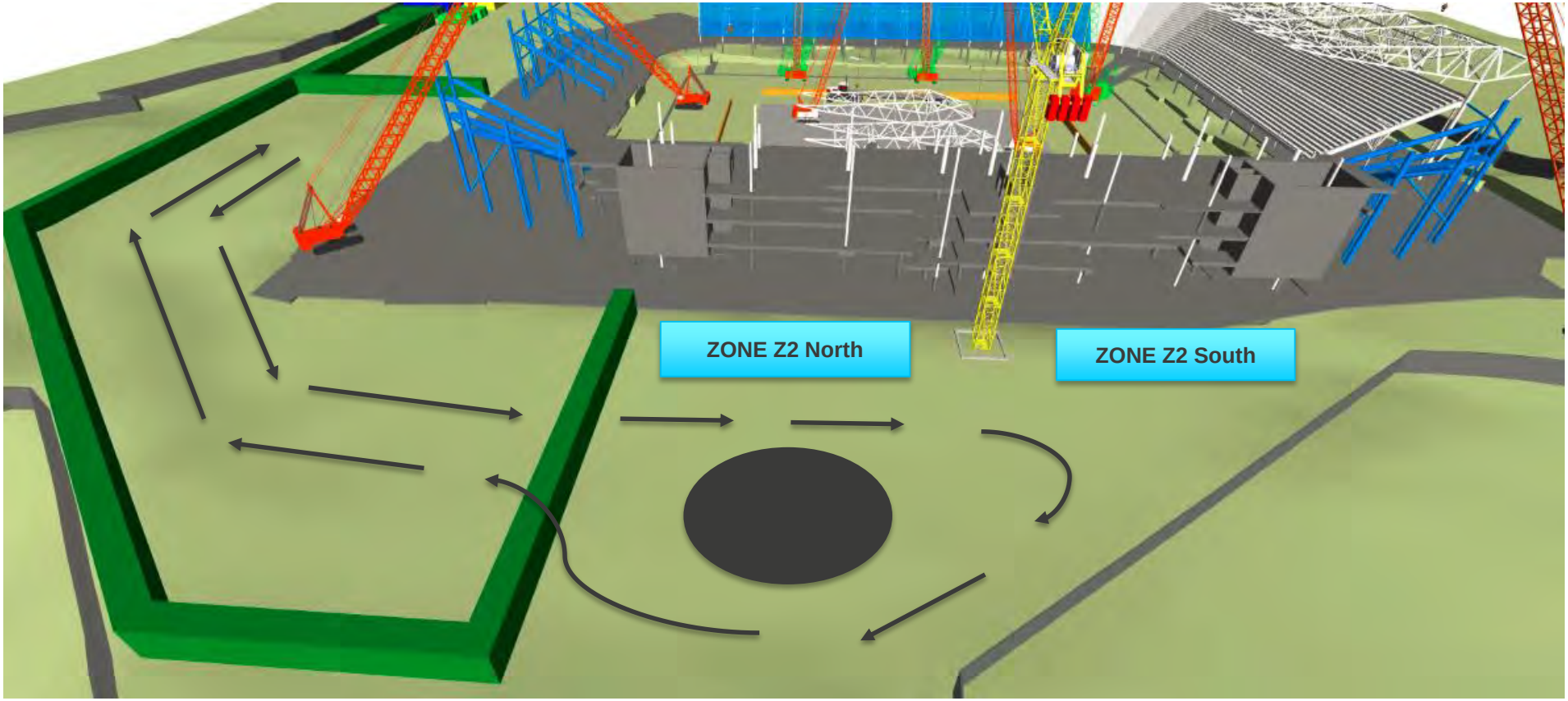


Figure 14 – Construction Zone Z2.

Construction Zone Z1 – Pitch

The Pitch Area has been defined as a single construction zone, however it will operate with a number of defined loading zones within the Z1 definition. This area will be controlled by two Lendlease Supervisors. The approach to the pitch area is a defined 8m wide, one way haul road that will allow deliveries to circulate freely prior to locating the task specific loading zone. To ensure adequate separation between crane activities on the upper tier, task specific loading zones will be set with physical barriers. These zones will house crawler cranes and specific deliveries. These zones are labelled Z1a, Z1b etc. below. The area within the one way haul road will be specifically used for Roof Truss Pre-Assembly. This zone will allow 2 roof sections to be pre-assembled at any one time.

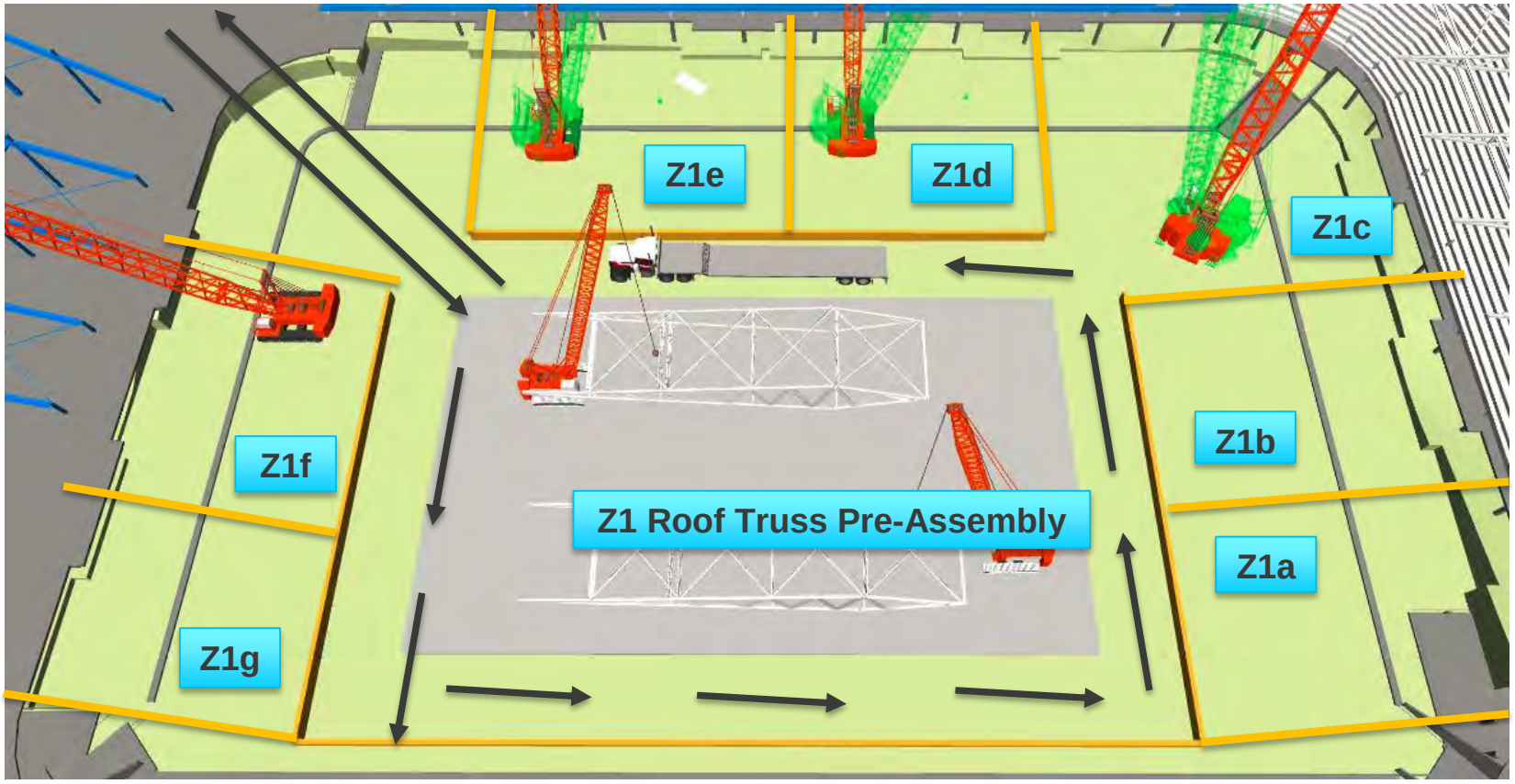


Figure 15 – Construction Zone Z1

10. CONSTRUCTION METHODOLOGY

10.1 Demolition Staging

Immediately following Stage 1 Site Establishment, strip out of the existing stadium will commence followed by the progressive demolition of the existing stadium. The sequencing for demolition will be as follows;

- Demolition of the Western Stand (commencing in the NW Corner and working South);
- Demolition of the Eastern Stand (commencing in the NE Corner and Working South); and
- Demolition of the Northern and Southern lower Tier Stands.

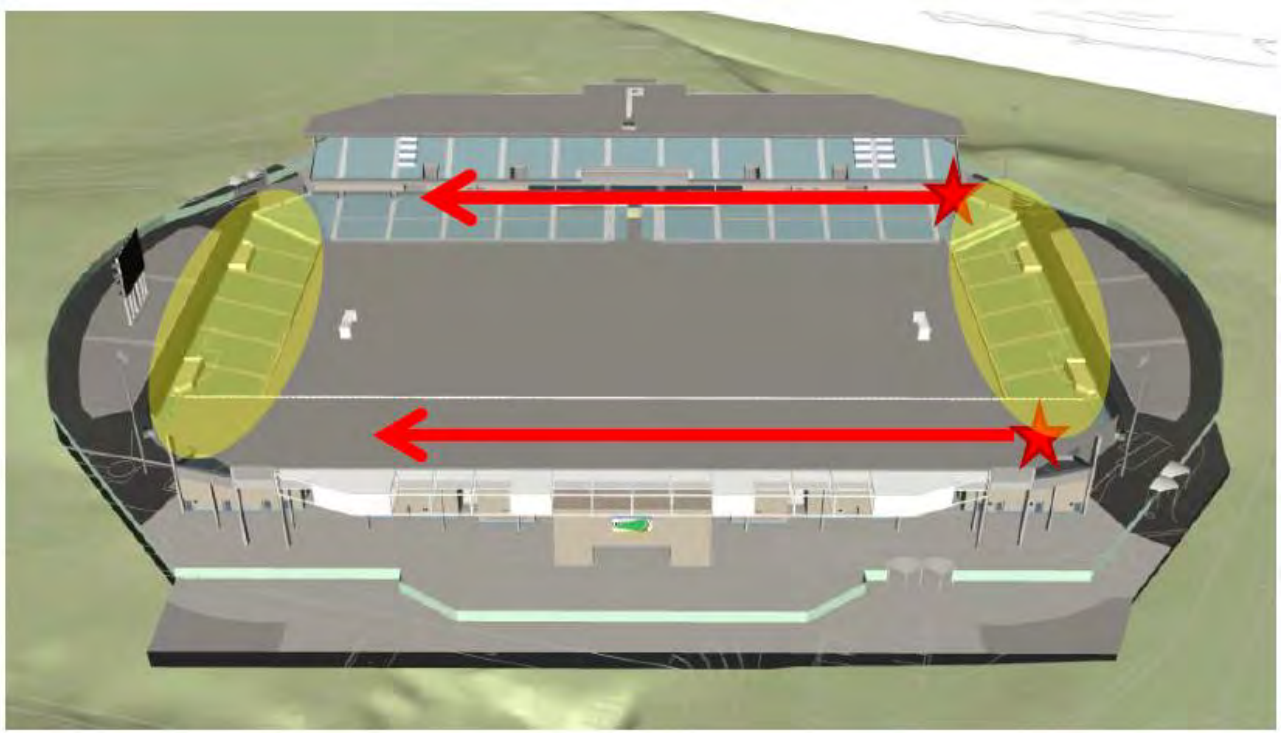


Figure 16 – Demolition Sequence

10.2 Demolition Methodology

Lendlease will undertake third party engineering reviews on the documented sequenced for demolition of the eastern and western stands of the existing Parramatta stadium. Lendlease has developed with key contractors a methodology for the safe and efficient removal of the existing structure, however this may be modified post contract award.

The East and West Grand Stand demolition methodology will be:

- Internal soft strip with bob cat and labour;
- Seats and external non-structural elements stripped with excavator;
- Bottom concrete bowl, highlighted as Stage 1 in Figure 17 below, is removed by an excavator with concrete crusher attachment;
- The roof, highlighted as Stage 2 in Figure 17 below, is removed by an excavator with steel cutting attachment cutting the roof tension columns from behind to induce the roof lowering onto the upper bowl. Figure 18 shows the position of the excavator relative to the roof lowering position;
- The upper bowel, highlighted as Stage 3 in Figure 17 below, is demolished with an excavator with concrete crusher attachment; and
- There may be opportunity to remove the southern end of the eastern stand prior to the closure of the pool area on 1 April. Safety screens and B Class hoardings above pumping equipment are examples of controls that could be adopted, along with a change in methodology for stadium roof removal in this area (removal by crane).

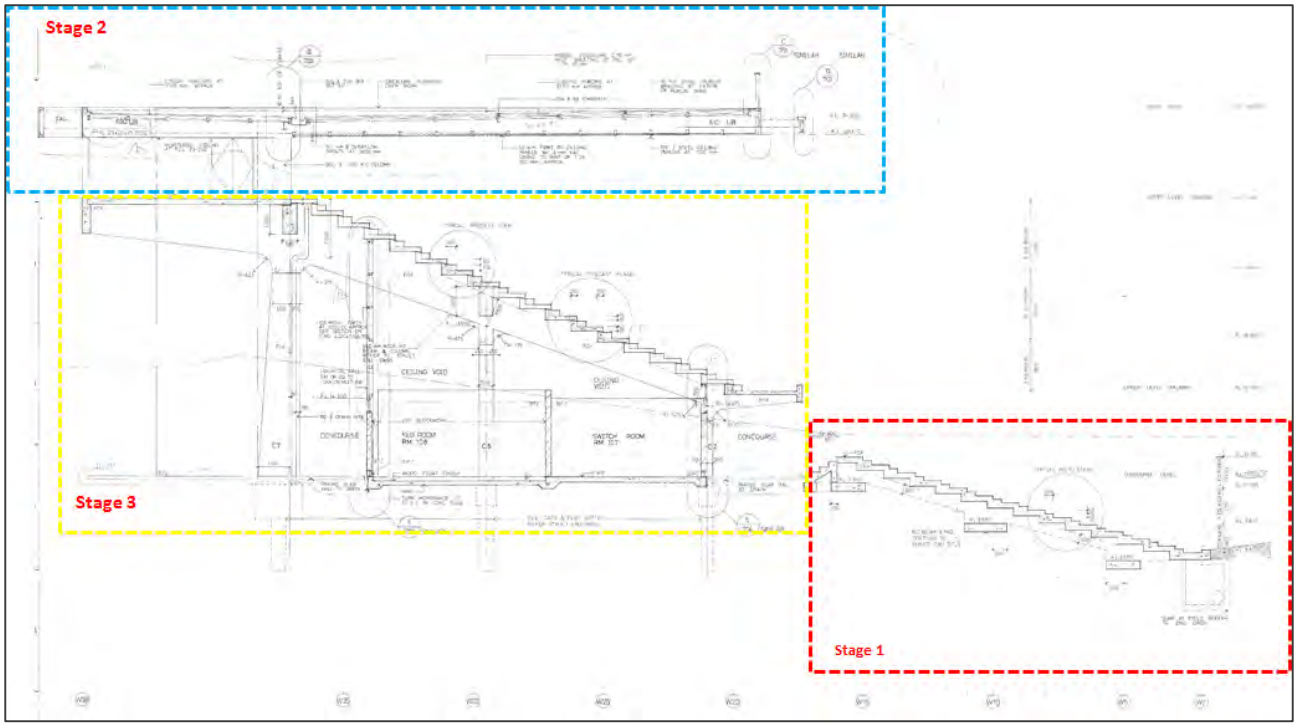


Figure 17 – Grand Stand Section

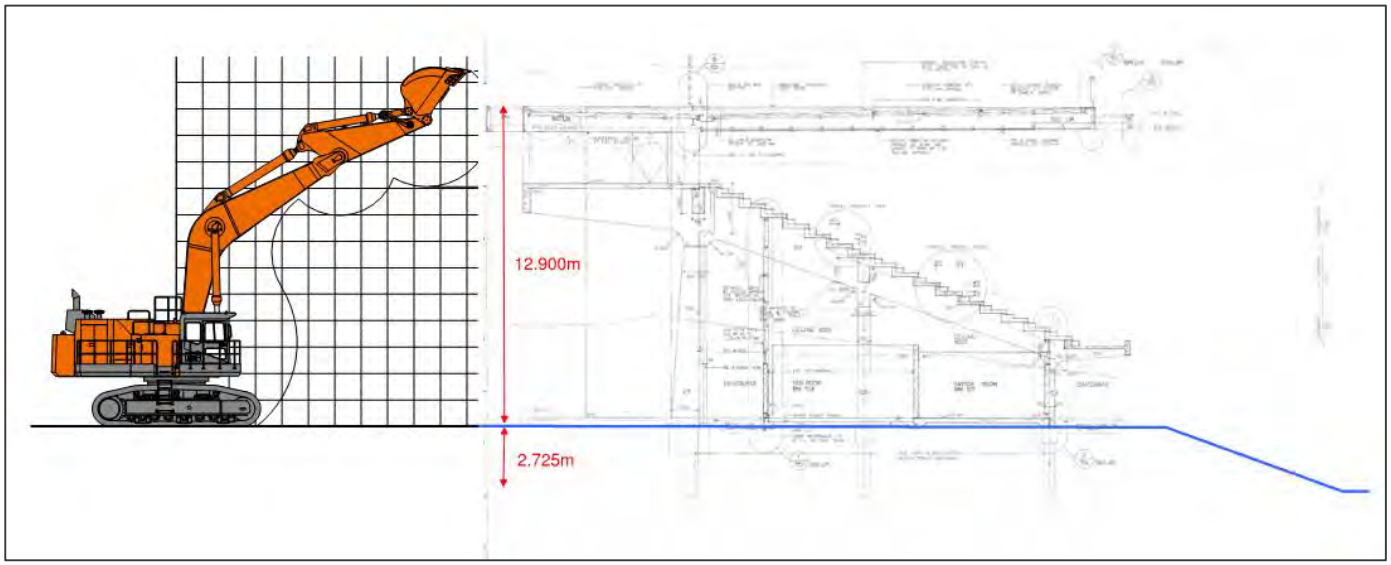


Figure 18 – Roof removal excavator location

The North and South Stand demolition methodology will be:

- Seats and non-structural elements are stripped with an excavator;
- Lower bowl slab on ground is demolished with an excavator with concrete crushing attachment; and
- The lower bowl slab, sitting directly above known areas of GSWA contamination, will be removed as late as possible allowing remediation works to immediately commence in this area.

The Swimming Pool demolition methodology will be:

- The pool is drained and surrounding buildings soft stripped and demolished with an excavator. The entry structure to the building adjacent to O'Connell Street; and
- An excavator will then batter back behind the swimming pool walls as per Figure 19 below, before breaking up the concrete slabs and walls with the excavator with concrete crushing attachments.

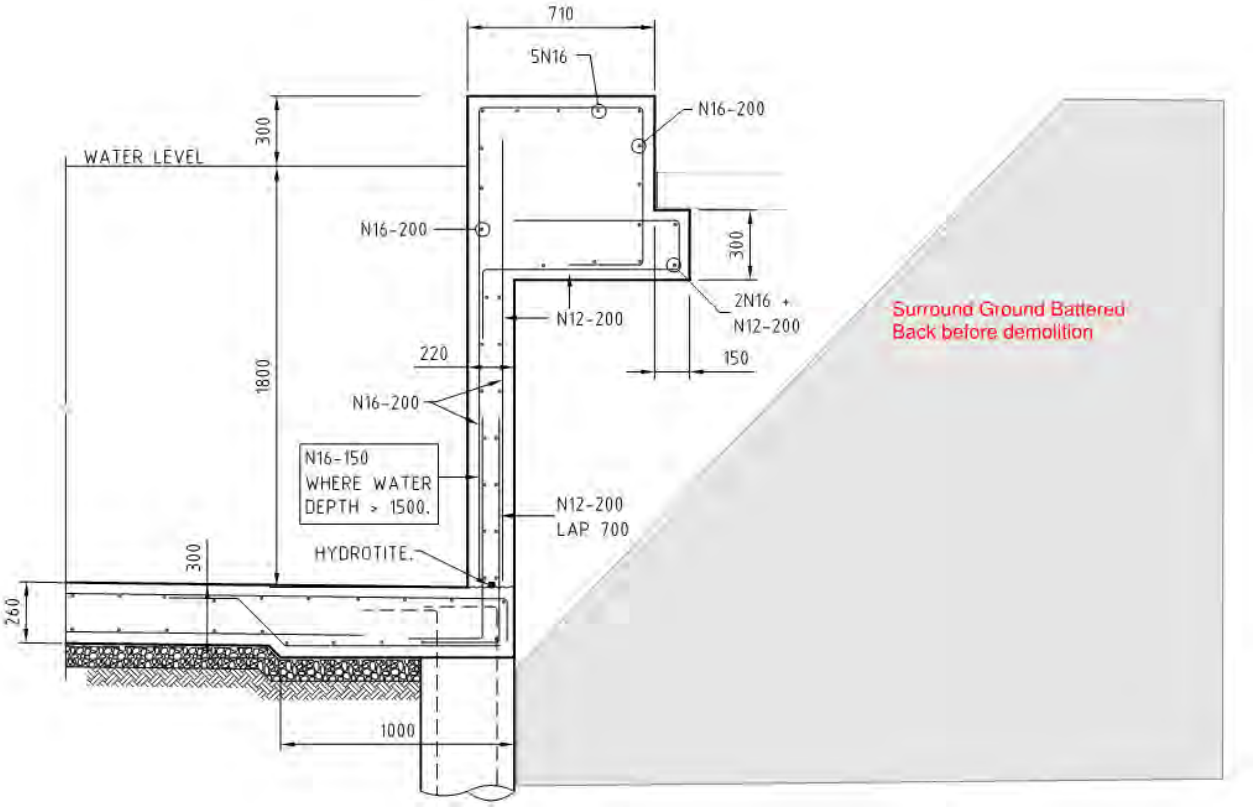


Figure 19 – Typical pool retaining wall

General

- Small external buildings will be stripped out before being demolished with an excavator; and
- Bitumen roads will be left in place for use by the bulk earthworks contractor to use as a haul road. Bitumen roads will be demolished and removed by the bulk earthworks contractor at a time convenient to bulk earthworks staging.

10.3 Bulk Excavation / Remediation Strategy

The bulk excavation / remediation strategy and thus methodology is driven by the requirements of the Site Auditor for end user sign-off prior to occupancy of the new precinct being granted. Lendlease has developed a design solution that allows the site to be remediated in accordance with the RAP, whilst eliminating the need to remove GSWA from site. The known areas of contamination exist within the areas labelled below 'Training Pitch, Service Level, Northern Carpark, Northern Mound and the Southern Area of the Existing Pitch' will be removed as required and capped within the areas marked 'main concourse' in orange below. The proposed design allows the remediation of the site to take place, with final bulk levels being set prior to major structural works commencing on the project. This is a time risk mitigation approach allowing following trades to work in a clean environment, and to avoid any industrial concerns during the build phase of the project.

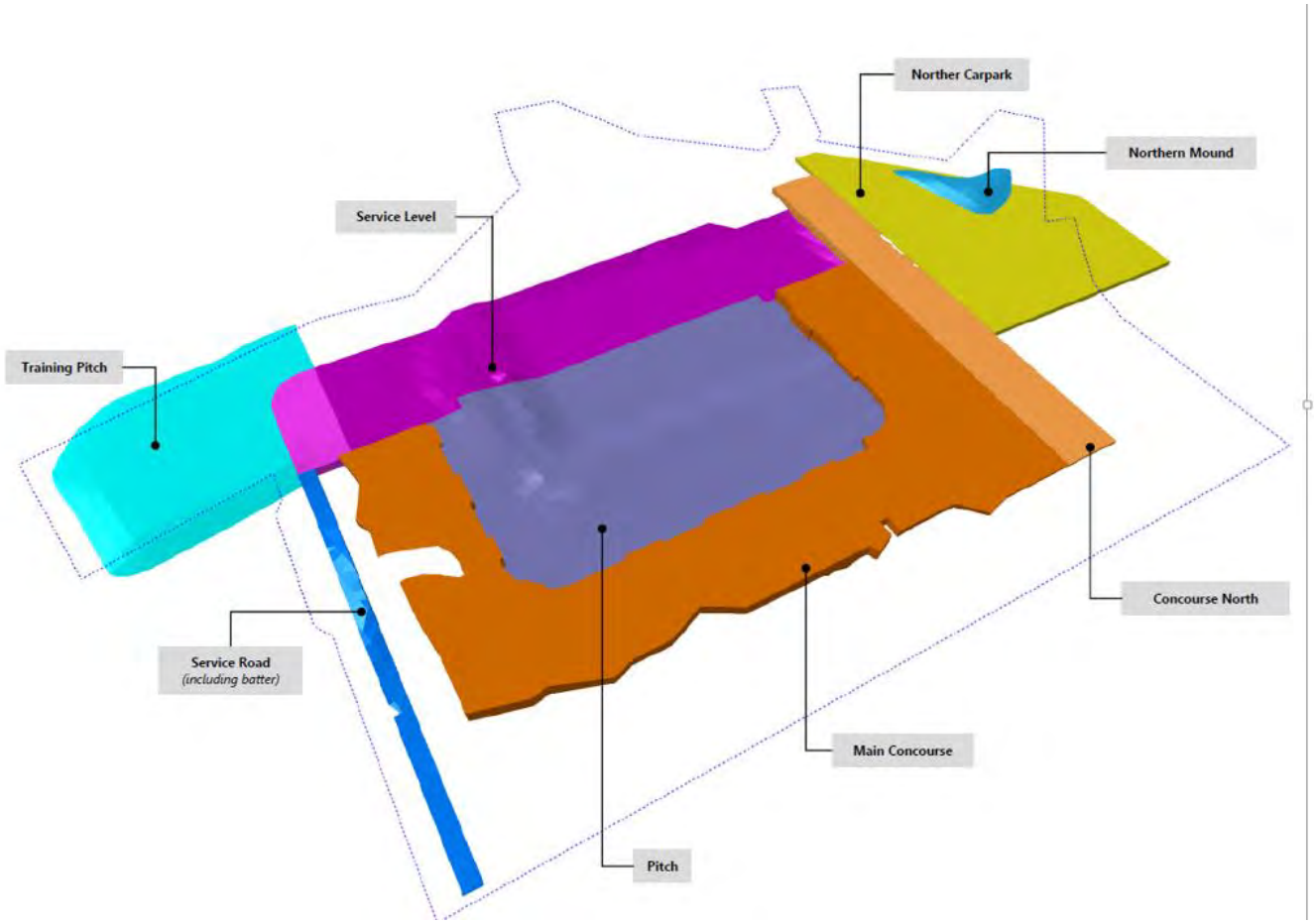


Figure 20 – Remediation Strategy

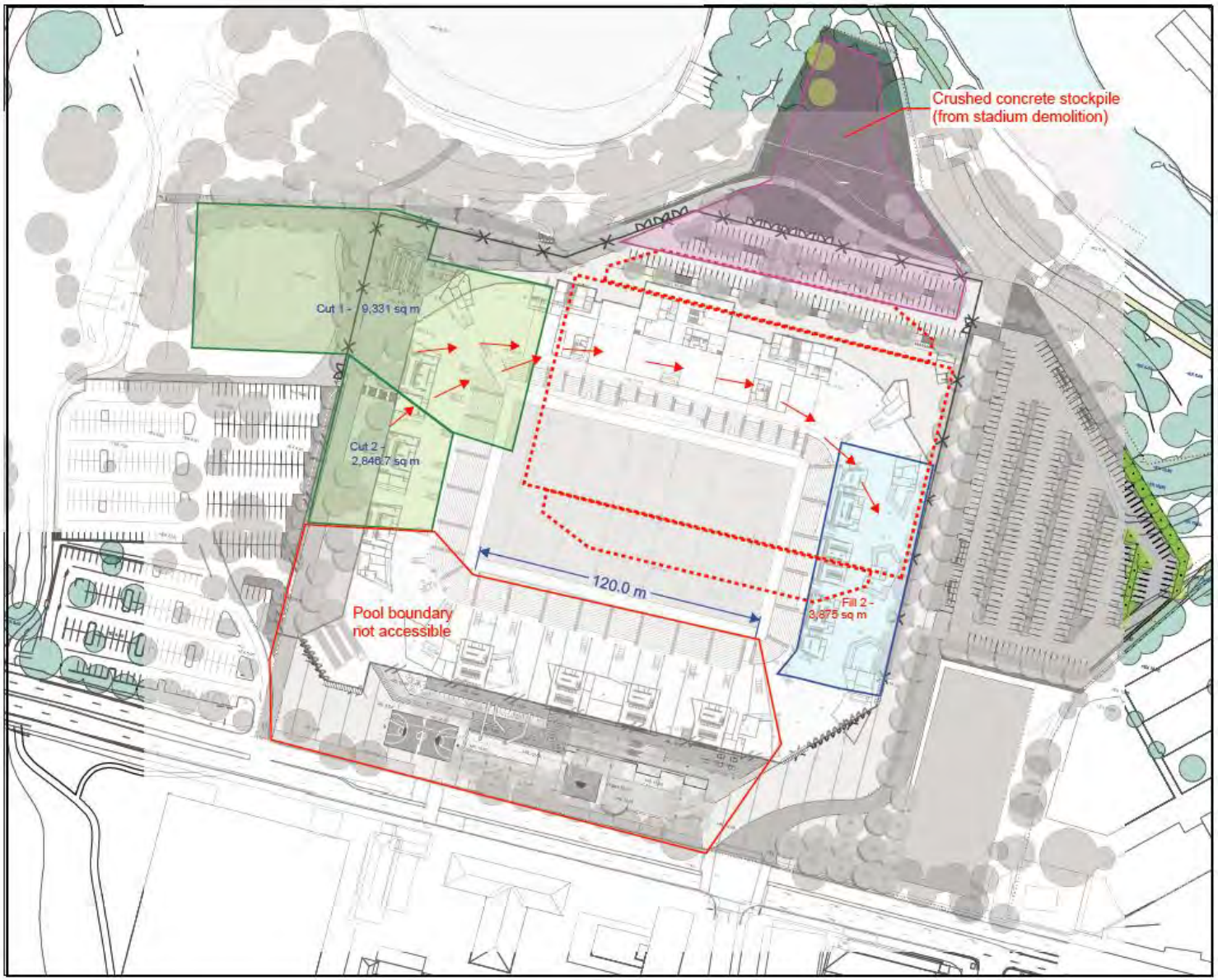
10.4 Bulk Excavation / Remediation Staging

The 12 Stages below highlight the detailed methodology Lendlease will adopt during the bulk excavation / remediation activities onsite. Lendlease recognise this activity as highly critical from an EHS perspective onsite (for the workforce), stakeholder perspective (being the community, iNSW and industry stakeholders), hence detailed planning and strategies have been developed in conjunction with design modifications to ensure a safe, efficient and productive approach is adopted.

Stage 1

- Cut 1 & 2 areas with known GSWA moved to "Fill 2" zone

- Pool area still being demolished by contractor assuming earthworks start 6 May with DA approval



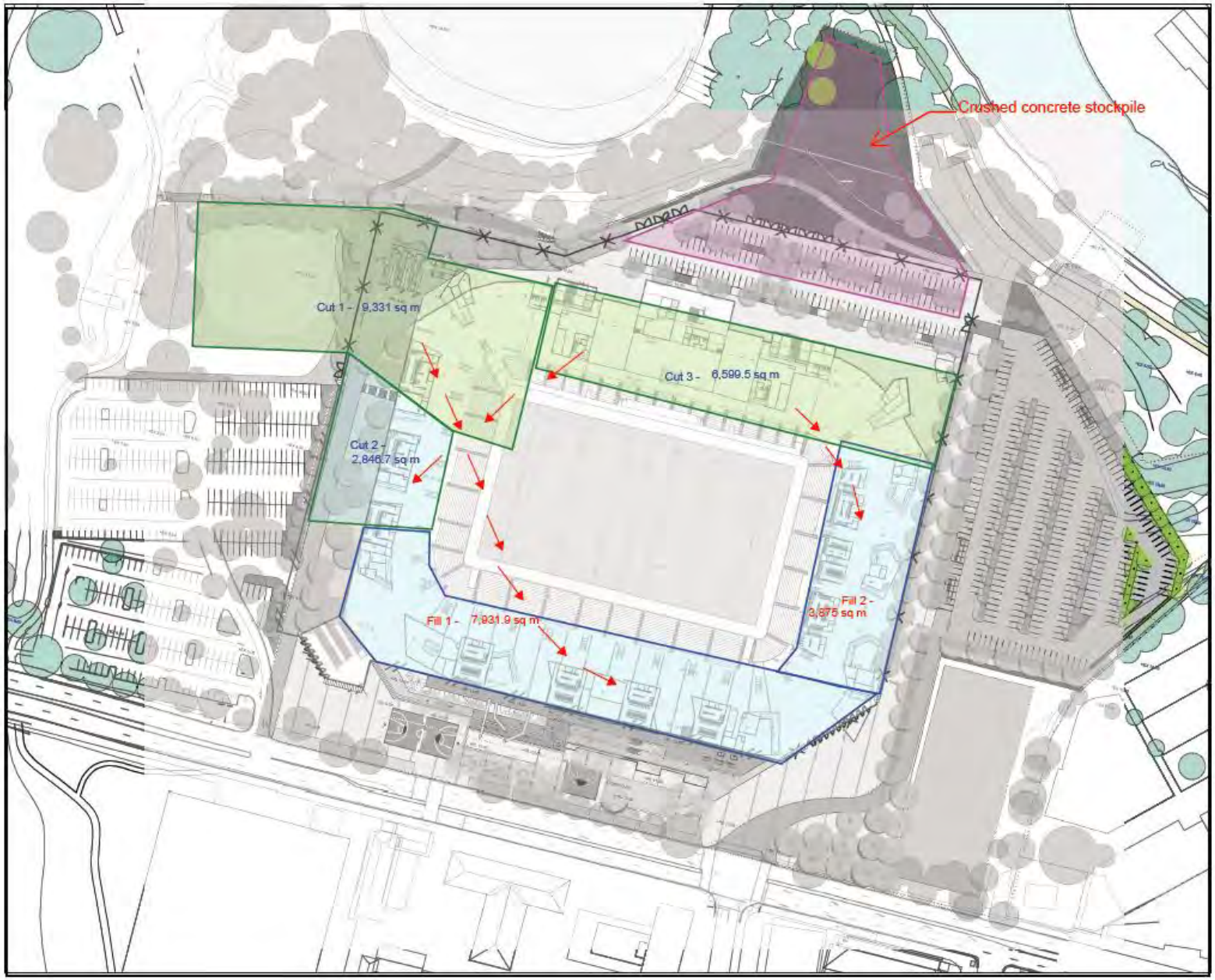
LEGEND

- Cut Zone
- Fill Zone
- Completed Fill Zone
- Pile Mat Zone
- Recycled Concrete Stockpile

Stage 2

- Cut 1 being shifted to "Fill 1" zone once Fill 2 is full and the pool area is handed over from demolition contractor

- Clean fill from Cut 3 is used to cap "Cut 2" and "Fill 2"



LEGEND

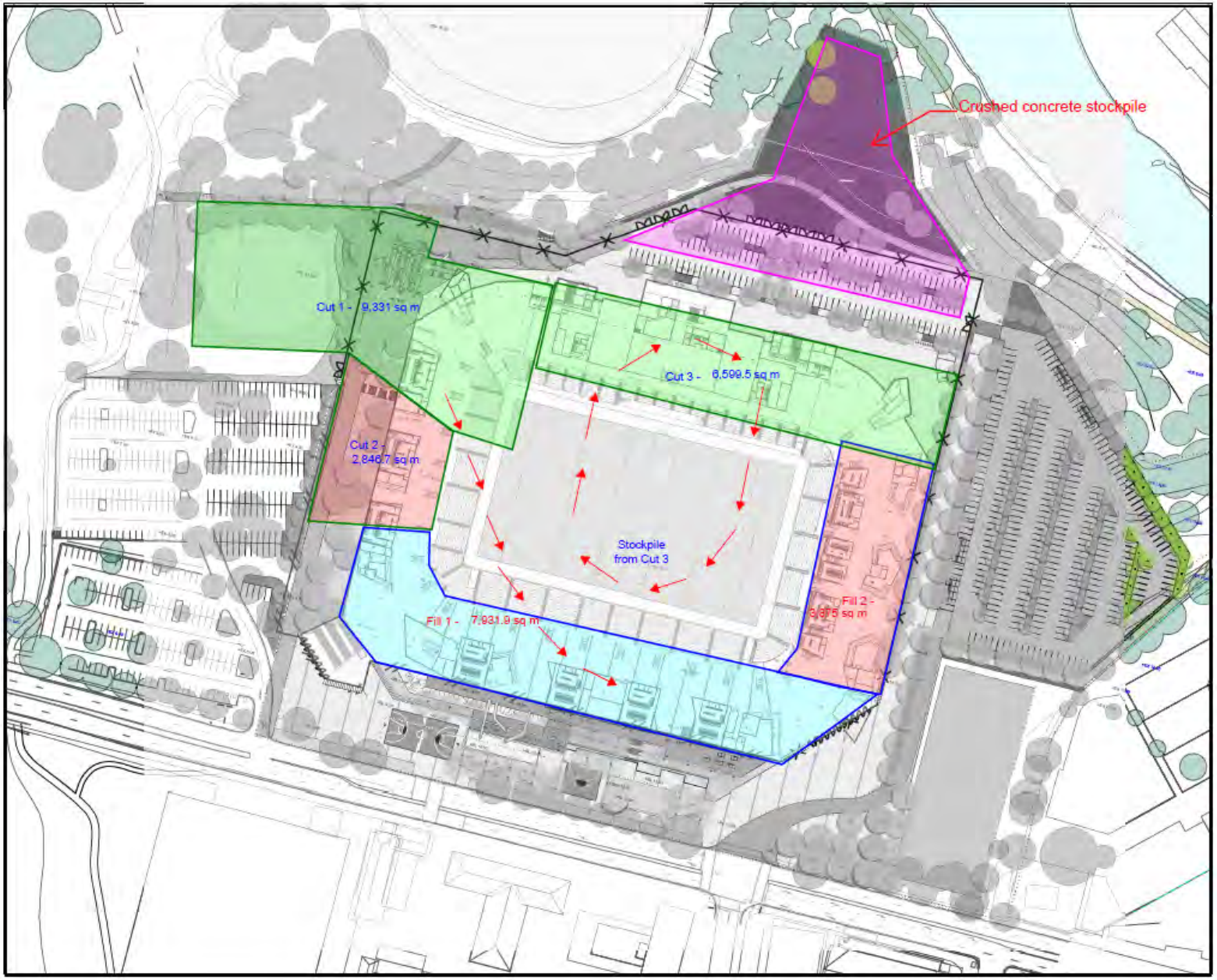
- Cut Zone
- Fill Zone
- Completed Fill Zone
- Pile Mat Zone
- Recycled Concrete Stockpile

Stage 2d

- Cut 1 continues being shifted to "Fill 1" zone

- Once "Cut 2" and "Fill 2" is capped, clean fill from "Cut 3" is pushed to the middle of the pitch and stockpiled. This stockpiled will be pushed over the "Fill 1" contamination layer once all contamination has been filled

- Critical that "Cut 3" is excavated down to pile mat levels as fast as possible to allow western stand piling to commence which has the highest density of piles



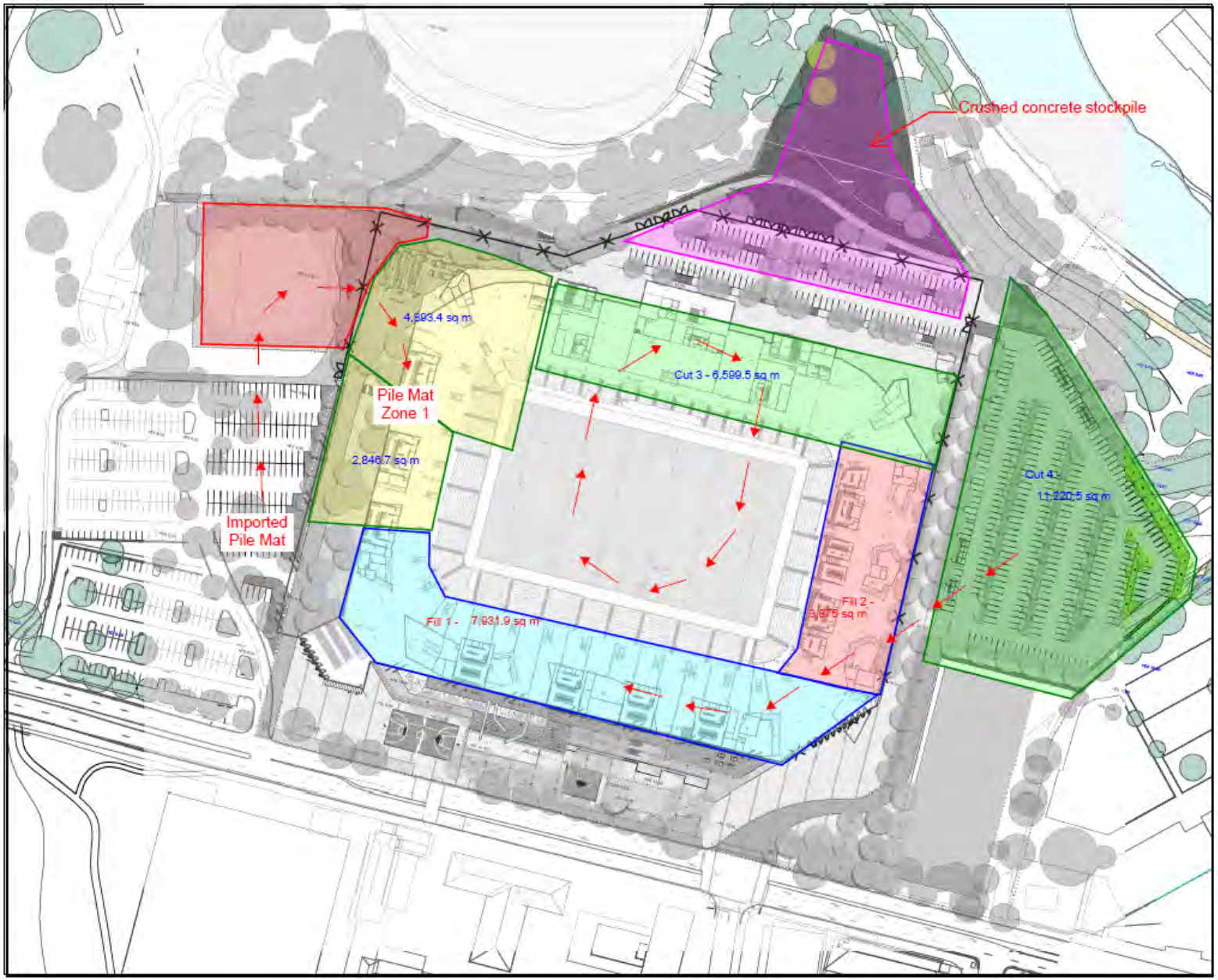
Stage 3

- Cut 1 has been cut down clean fill and piling mat material is imported to "Pile Mat Zone 1"

- Contaminated fill from "Cut 4" is shifted to "Fill 1"

- "Cut 3" clean fill continues to be pushed to the middle of the pitch and stockpiled. This stockpiled will be pushed over the "Fill 1" contamination layer once all contamination has been filled

- Critical that "Cut 3" is excavated down to pile mat levels as fast as possible to allow western stand piling to commence which has the highest density of piles

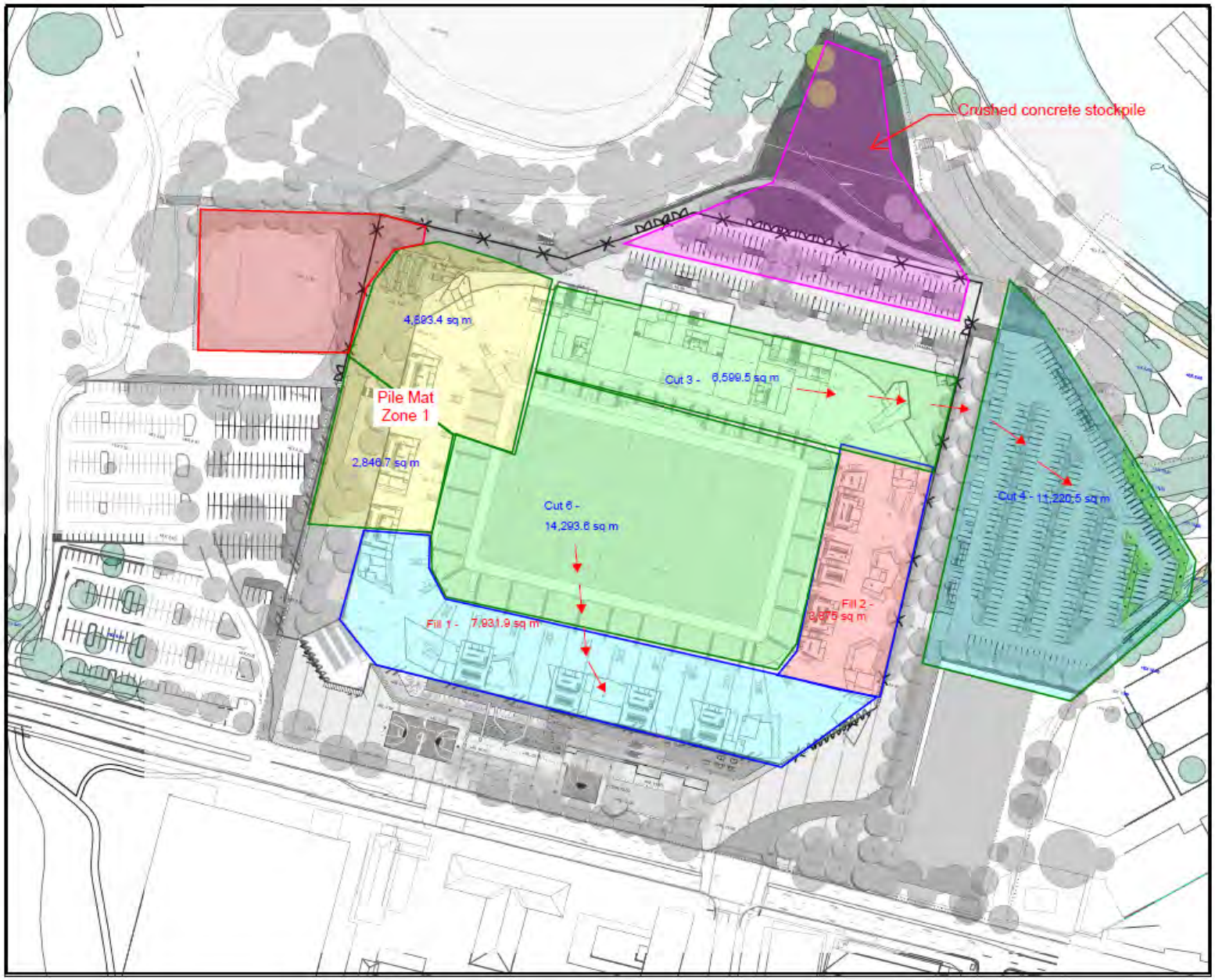


Stage 4

- Once all contamination from "Cut 4" has been shifted to "Fill 1", clean fill from "Cut 3" is used to cap the "Cut 4" area

- Once "Fill 1" has received all contamination, clean fill from "Cut 6" is used to start capping and forming western batter

- Piling can commence in "Pile Mat Zone 1", with access from the training pitch carpark and area segregated



LEGEND

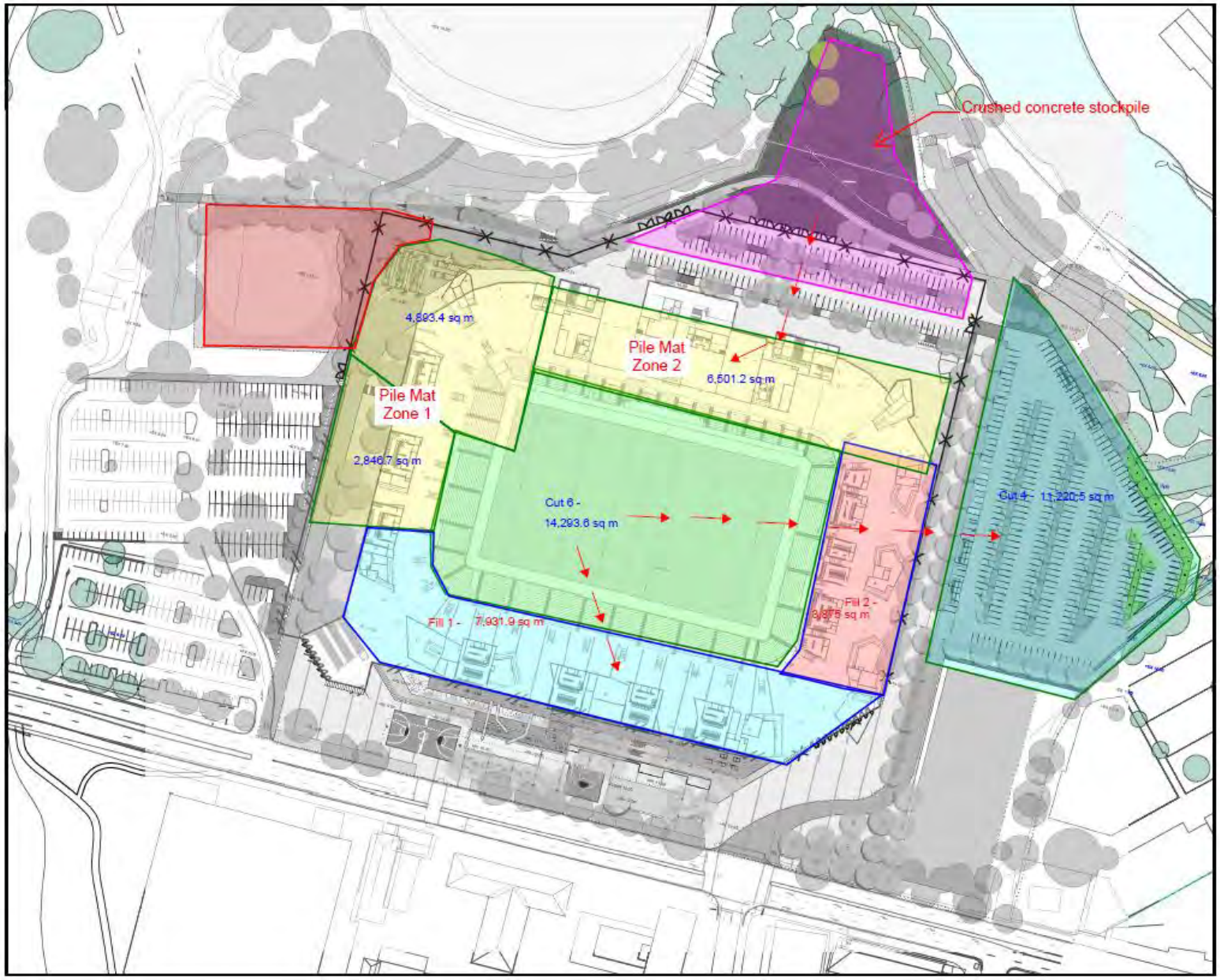
- Cut Zone
- Fill Zone
- Completed Fill Zone
- Pile Mat Zone
- Recycled Concrete Stockpile

Stage 5

- Once "Cut 3" has been excavated to the base, concrete crush from site stockpile is used to form "Pile Mat Zone 2"

- Clean fill from "Cut 6" continues to form capping and western batter to "Fill 1" as well as clean capping layer to "Cut 4"

- Piling continues in "Pile Mat Zone 1", with access from the training pitch carpark and area segregated



Stage 6

- Clean fill from "Cut 6" continues to form capping and western batter to "Fill 6" as well as clean capping layer to "Fill 5"

- Piling can start in Pile Mat Zone 2 and 1, with access from the training pitch carpark and area segregated

LEGEND

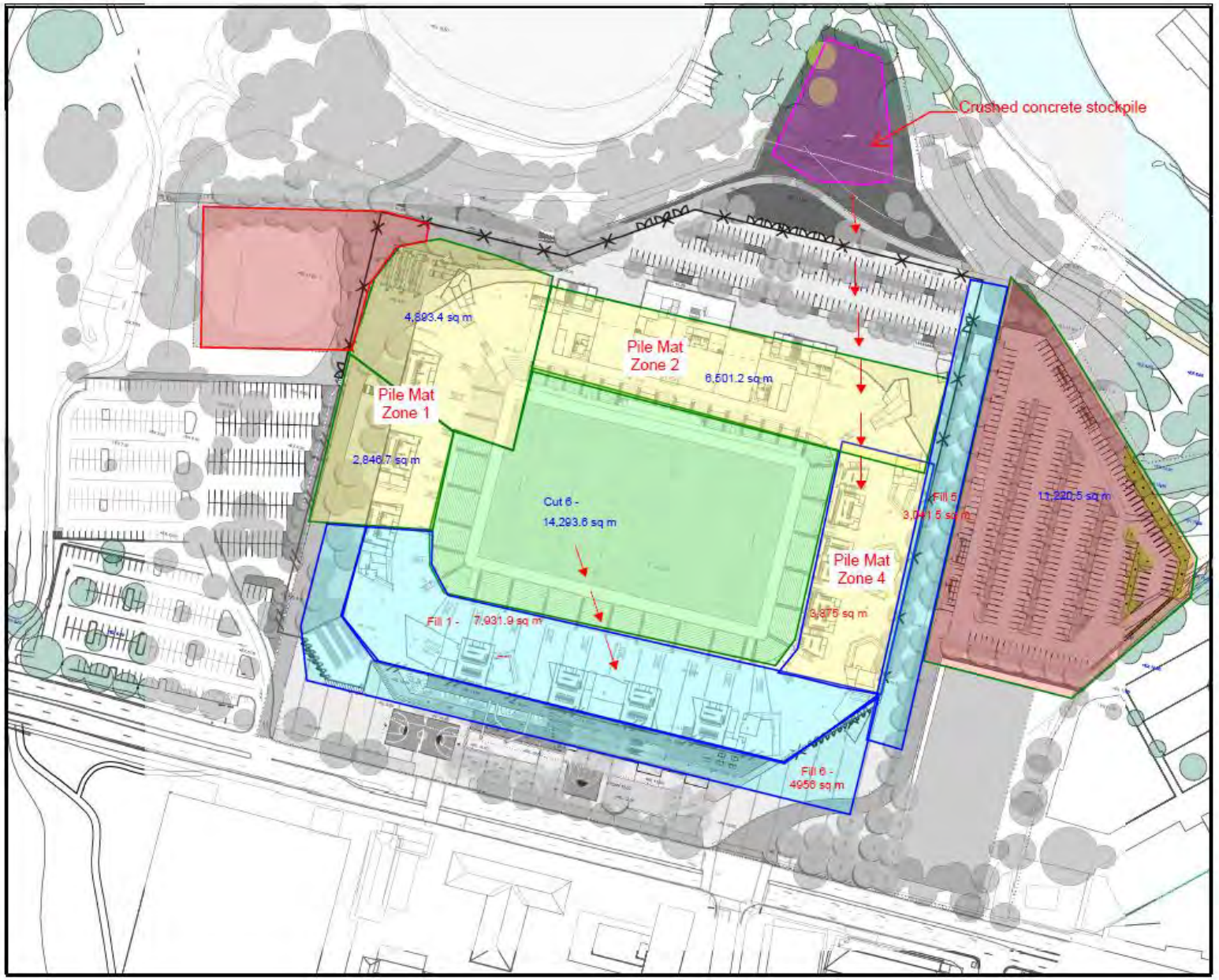
- Cut Zone
- Fill Zone
- Completed Fill Zone
- Pile Mat Zone
- Recycled Concrete Stockpile

Stage 7

- Clean fill from "Cut 6" continues to form capping and western batter to "Fill 1"

- Concrete crush from site stockpile used to form "Pile Mat Zone 4"

- Piling continues in Pile Mat Zone 1 & 2



Stage 8

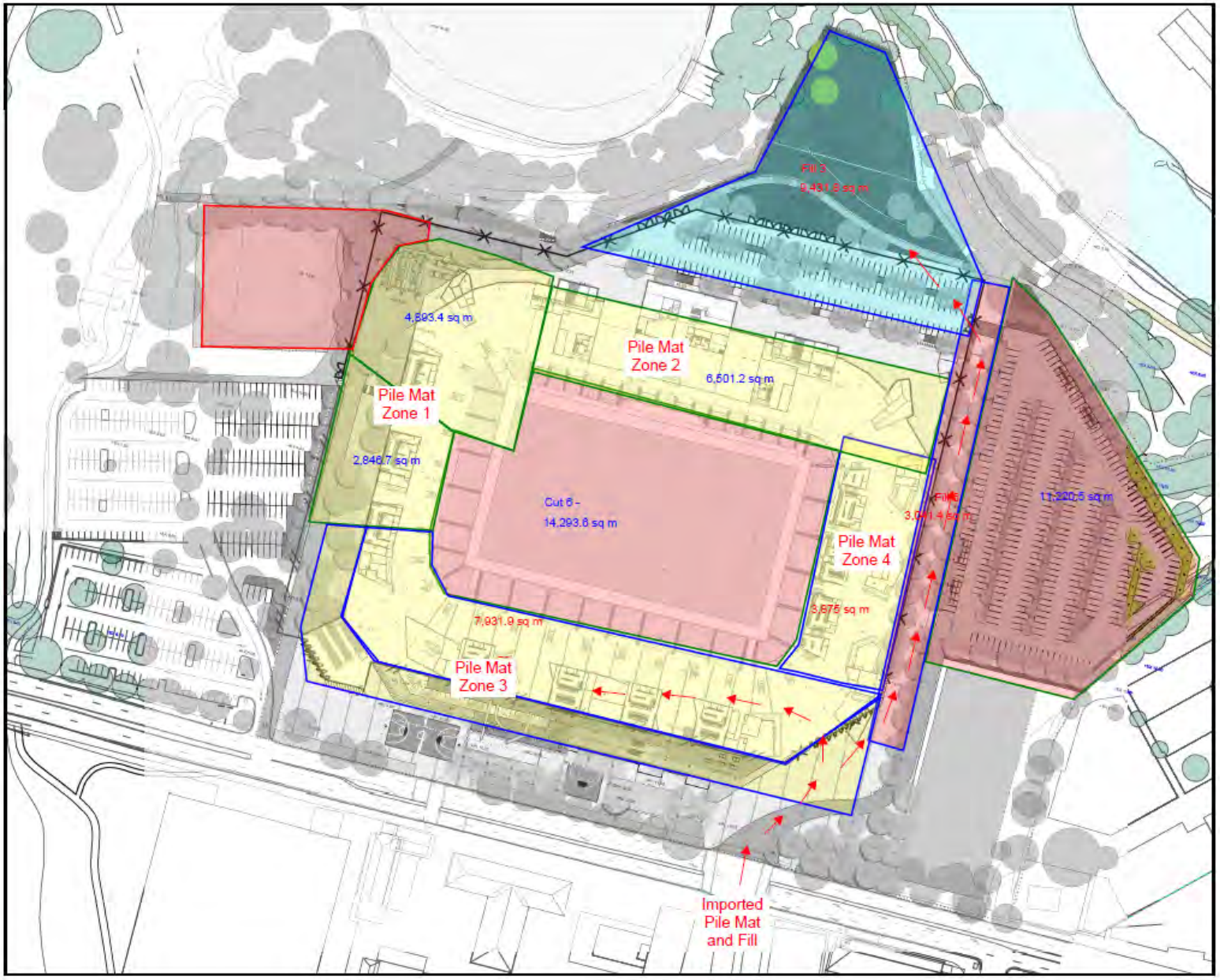
- "Cut 6" has been cut to 600mm below bottom of turf layer and ready for pile mat

- "Fill 1&6" are ready for pile mat material. Material is imported to form "Pile Mat Zone 3"

- Western car park ("Fill 3") has contaminated spot taken off site (1000m3) due to not being accessible behind the concrete stockpile and the site already capped with clean fill

- Western car park ("Fill 3") has imported fill brought in to raise levels to underside of pavement and top soil layers

- Piling continues in Pile Mat Zone 1, 2 & 4



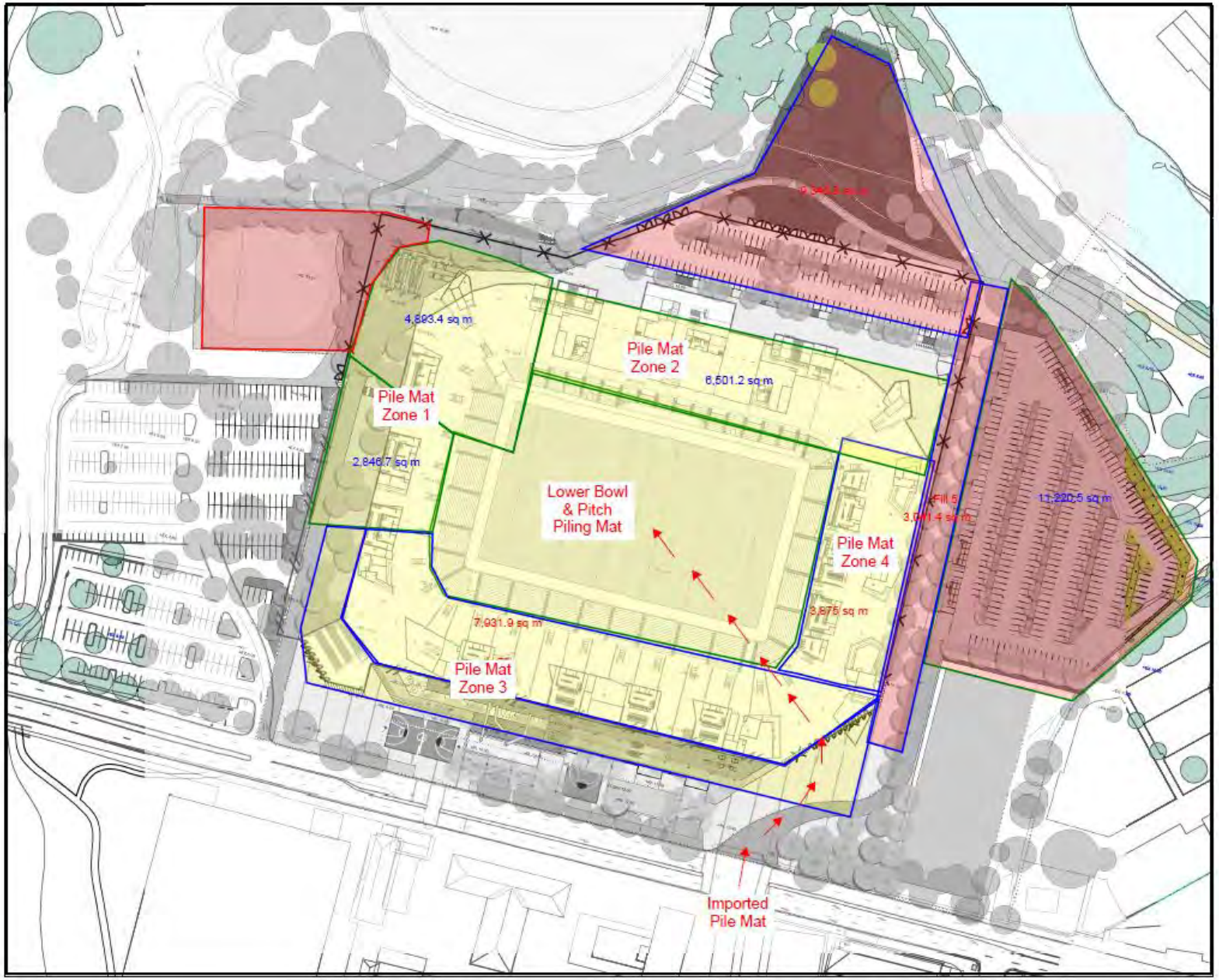
LEGEND

- Cut Zone
- Fill Zone
- Completed Fill Zone
- Pile Mat Zone
- Recycled Concrete Stockpile

Stage 9

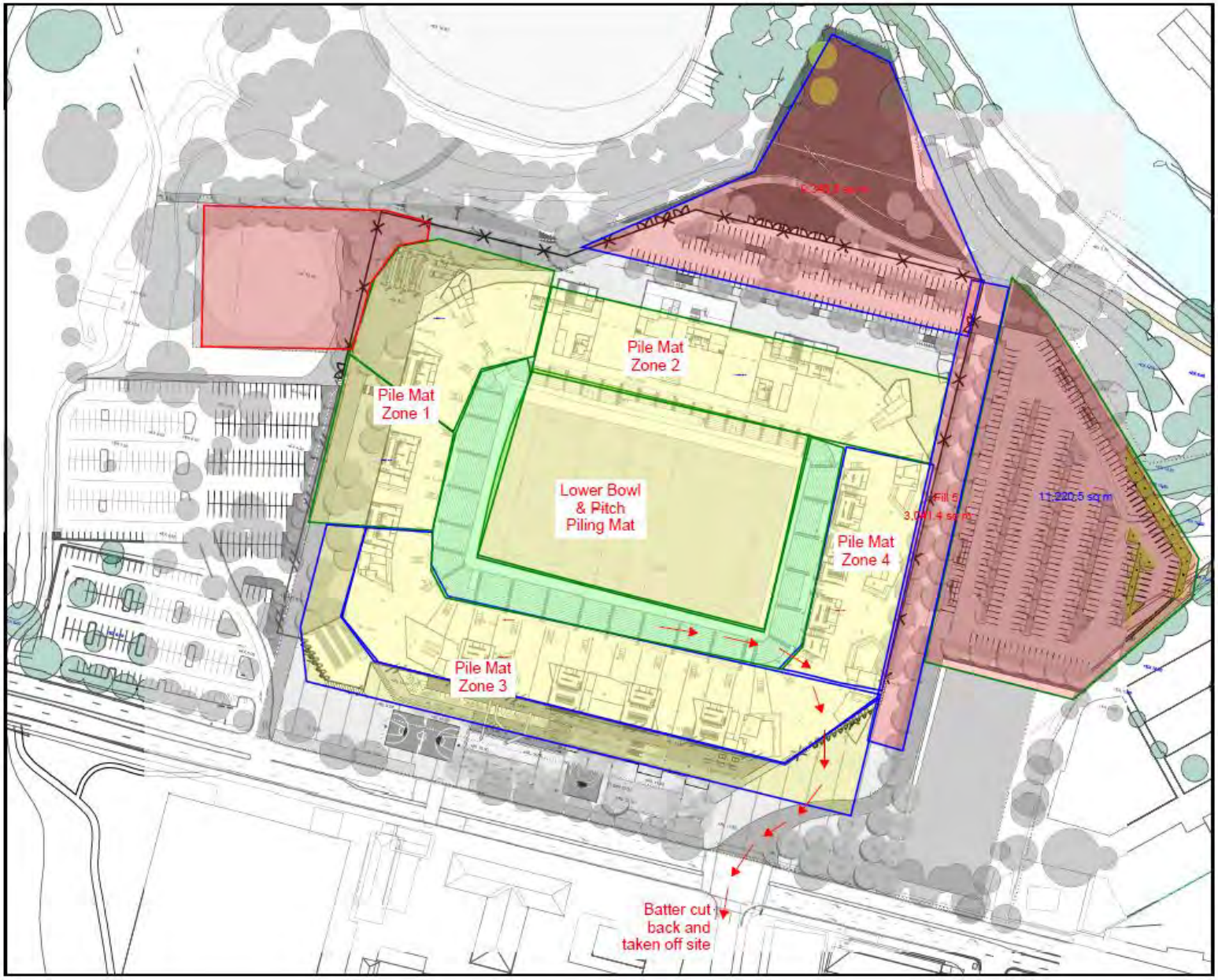
- Pile mat material is imported to form "Lower Bowl & Pitch Piling Mat"

- Piling continues in Pile Mat Zone 1, 2, 3 & 4



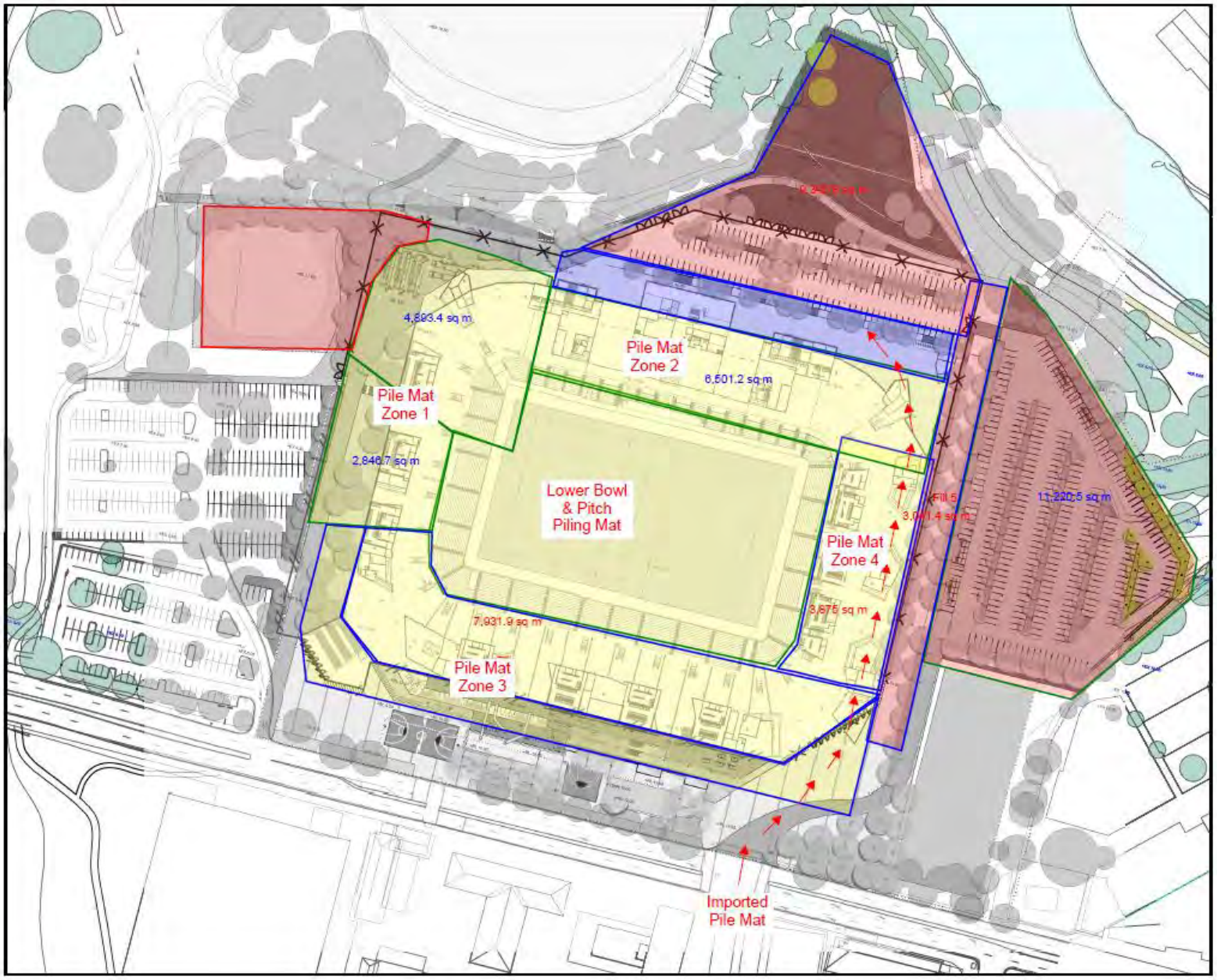
Stage 10

- Once piling of upper concourse piles near the pitch edge is complete, the contractor makes a return visit to pull back the batter and remove it off site. This is required to open access for lower level piles and future travel path for booms for roof construction



Stage 11

- Once the formwork contractor has FRP'd and stripped the western retaining wall, the earthworks contractor will make a return visit to fill behind the retaining wall with imported fill

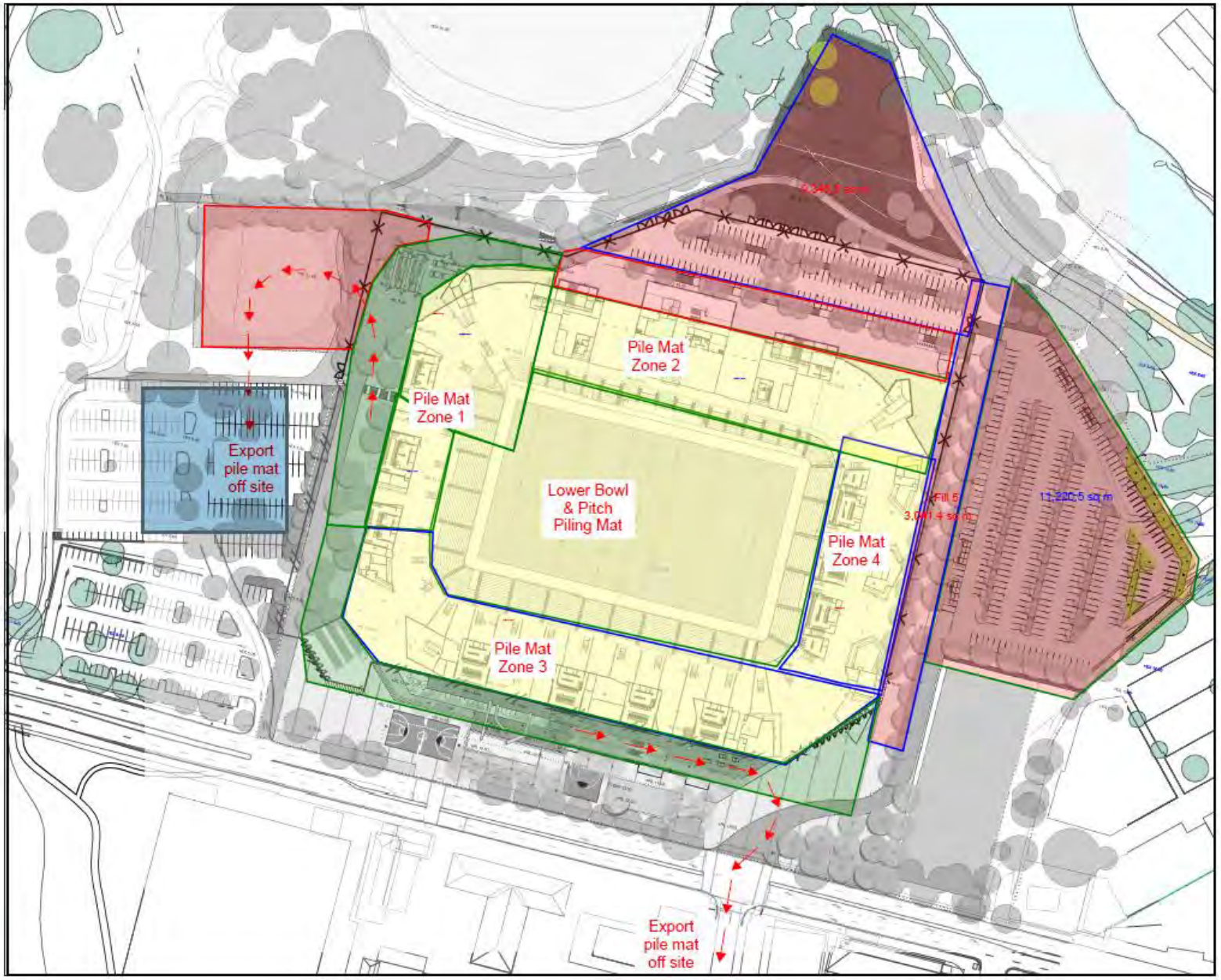


LEGEND

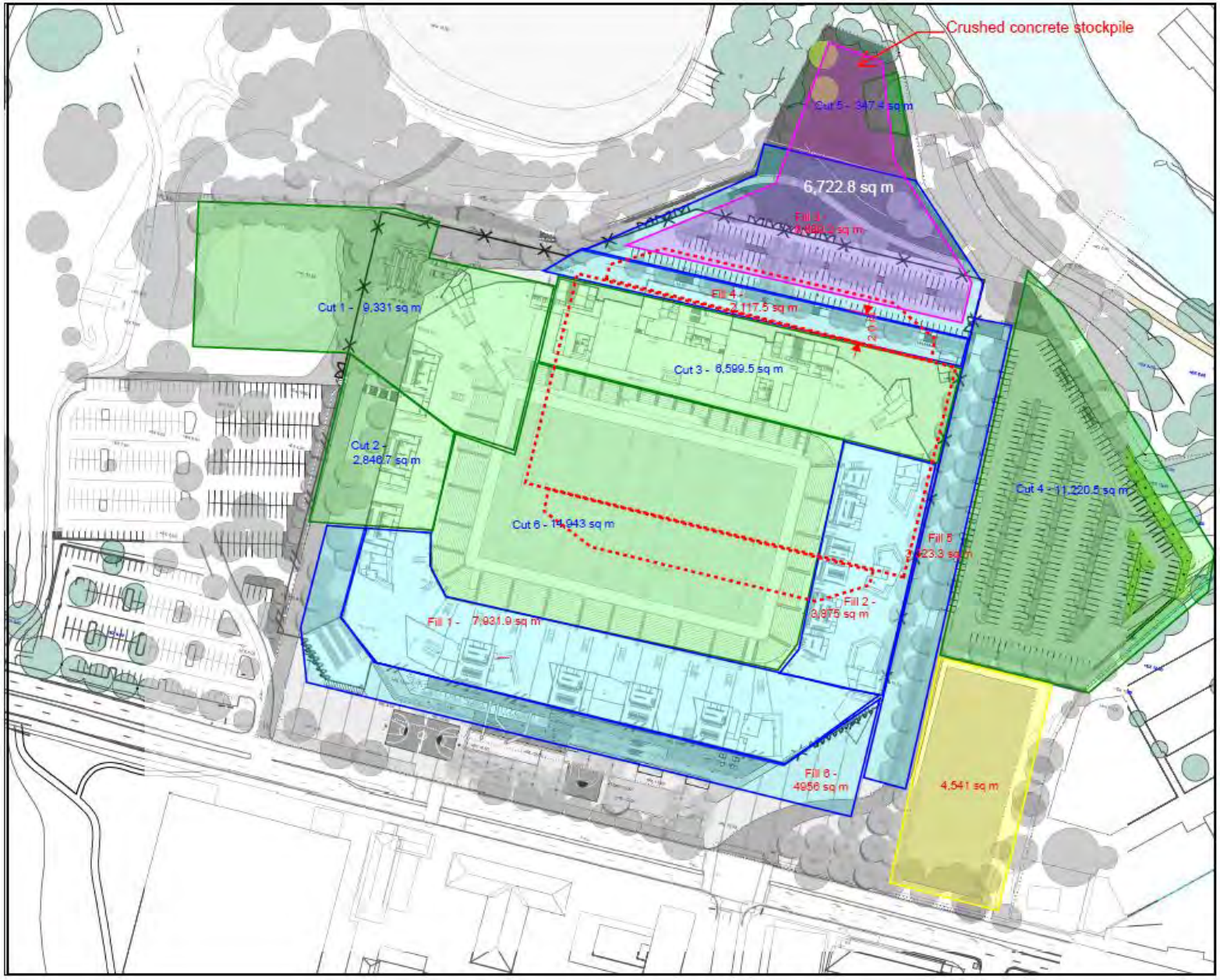
- Cut Zone
- Fill Zone
- Completed Fill Zone
- Pile Mat Zone
- Recycled Concrete Stockpile

Stage 12

- Once the external crane mat path and set up pad is no longer required, the batter can be pulled back and taken off site. The vomitory can also be excavated from beneath the concourse slab in the south east corner. This will require a re-establishment from the earthworks contractor.



Cut & Fill Zones

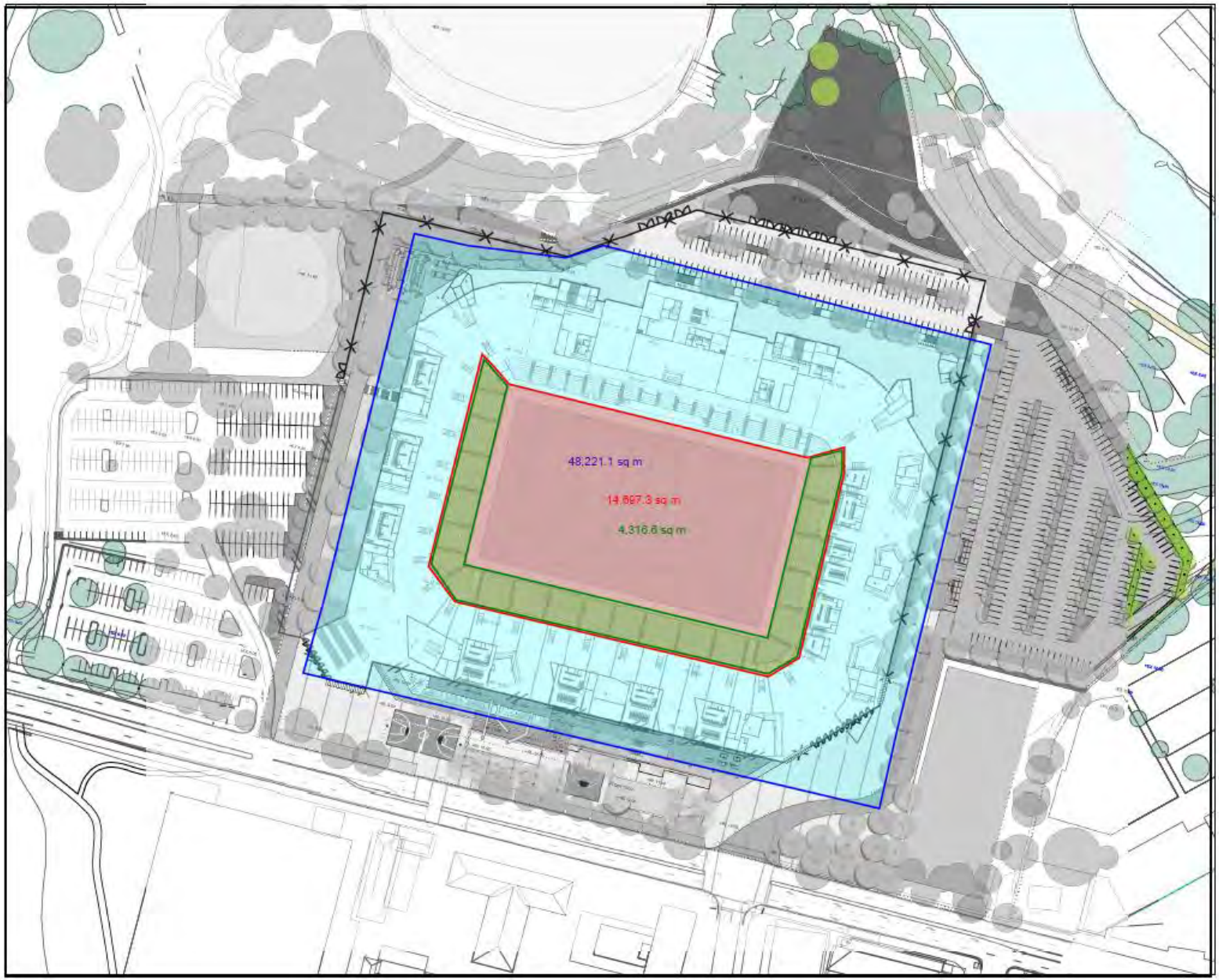


LEGEND

- Cut Zone
- Fill Zone
- Completed Fill Zone
- Pile Mat Zone
- Recycled Concrete Stockpile

Pile & Crane Mat Zones

assumed 600mm thick



10.5 Piling

The fundamental approach to the Piling activity is driven by the remediation strategy, being that the site is handed over to the following trades (the first being piling) in areas that are clean and do not require any means of asbestos related controls during the process of carrying out the activity. The management or the avoidance of spoil created through the piling activity has driven Lendlease's approach to this activity. Lendlease's approach will be a combination of Bored, Precast and CFA Piles to the Stadium

The piling activity will be undertaken at two separate levels. All piles to the western stand and all piles to Tier 1 on the Southern, Eastern and Northern Stands will be undertaken at approx. RL9.0, with the piles required for Tier 2 being undertaken from a bulk level of approx. RL15. The piles to the Southern, Eastern and Northern Stands will follow the sequence below, being the completion of Piles in order P1, P2, P3 before adjustment of the previously set batter in order to complete the piles P4 and P5.

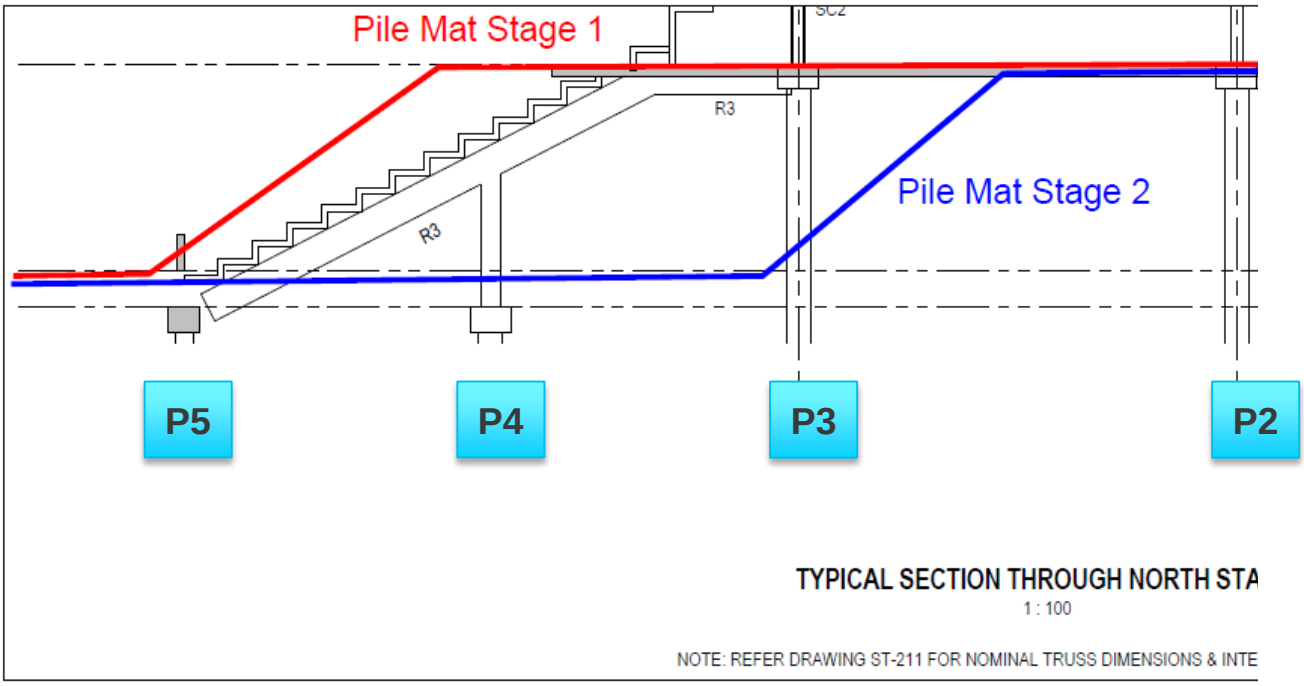


Figure 22 – Staged Approach to Piling Activity

10.6 Western Stadium Structure

The western stand will be constructed traditionally with formwork strutting heights ranging from 4.5m to 6m in height. The western stand is 4 levels in height, hence from a materials handling perspective the structure will effectively be built, then temporary supports (formwork) stripped, prior to services trades commencing. Given the cranage demand will be limited solely to structure during this phase, one Tower Crane with an approximately 70m jib length will be established on the Western Stand to facilitate this activity. Supplementary mobile cranage may be adopted across the first two floors, purely to load formwork materials.

The construction sequence will run across two fronts as the structure commences the 2nd suspended deck. Edge protection will be in the form of a perimeter scaffold, based off the concourse level, and then the formed and poured levels as the tiers set-back level by level. The concrete cores (lift shafts and stair shafts) will be constructed using prefabricated shutters craned into and out of position progressively through the build programme of this element.

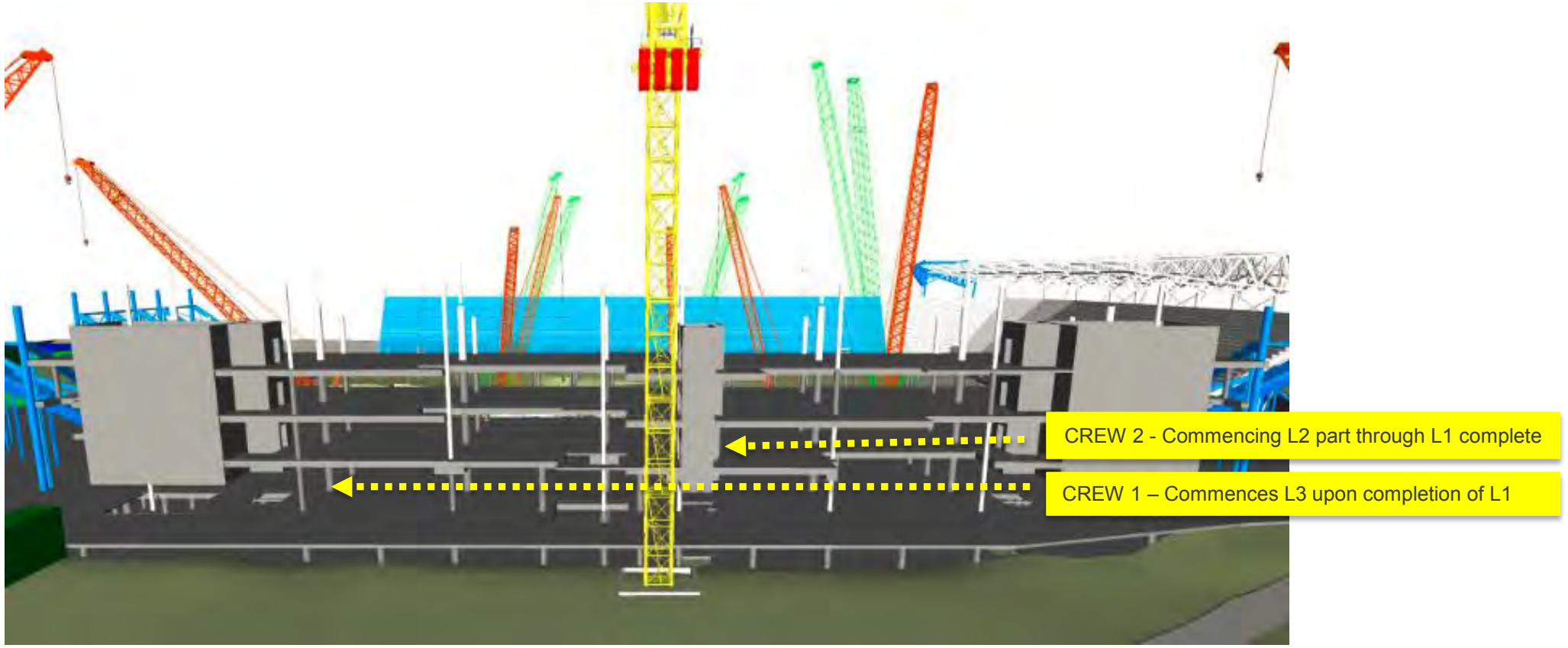
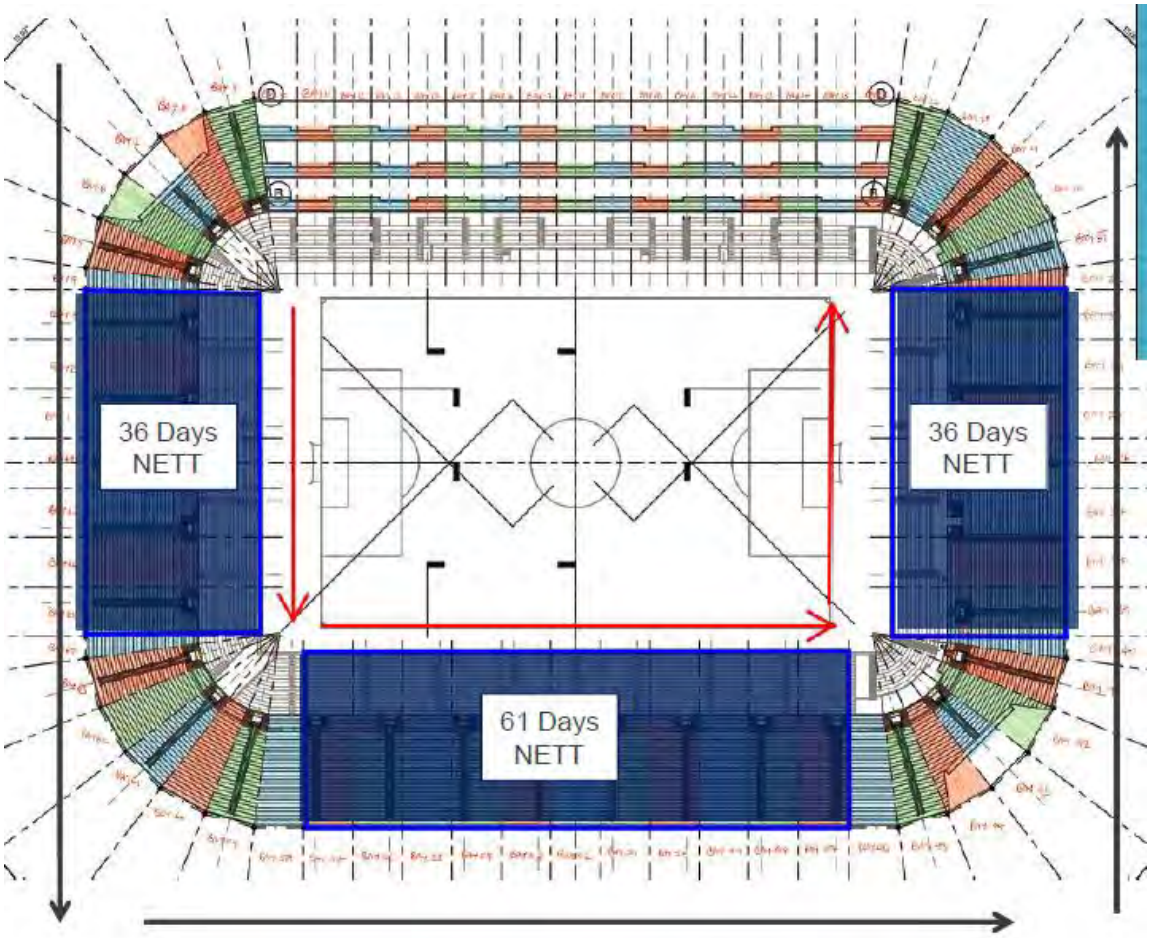


Figure 23 – Western Stand Structure

10.7 North / South / East Stadium Bowl Structure

The North, South and East Elevations of the Tier 2 Stadium will be construction on three workfronts. The ‘straight runs’ will be constructed from the pitch construction zone utilising independent teams of steel, precast and cranage crews. The four corners will be split into two workfronts with dedicated riggings crews and cranage being allocated to the Southern and Northern corners. These will be constructed from the outside of the bowl.

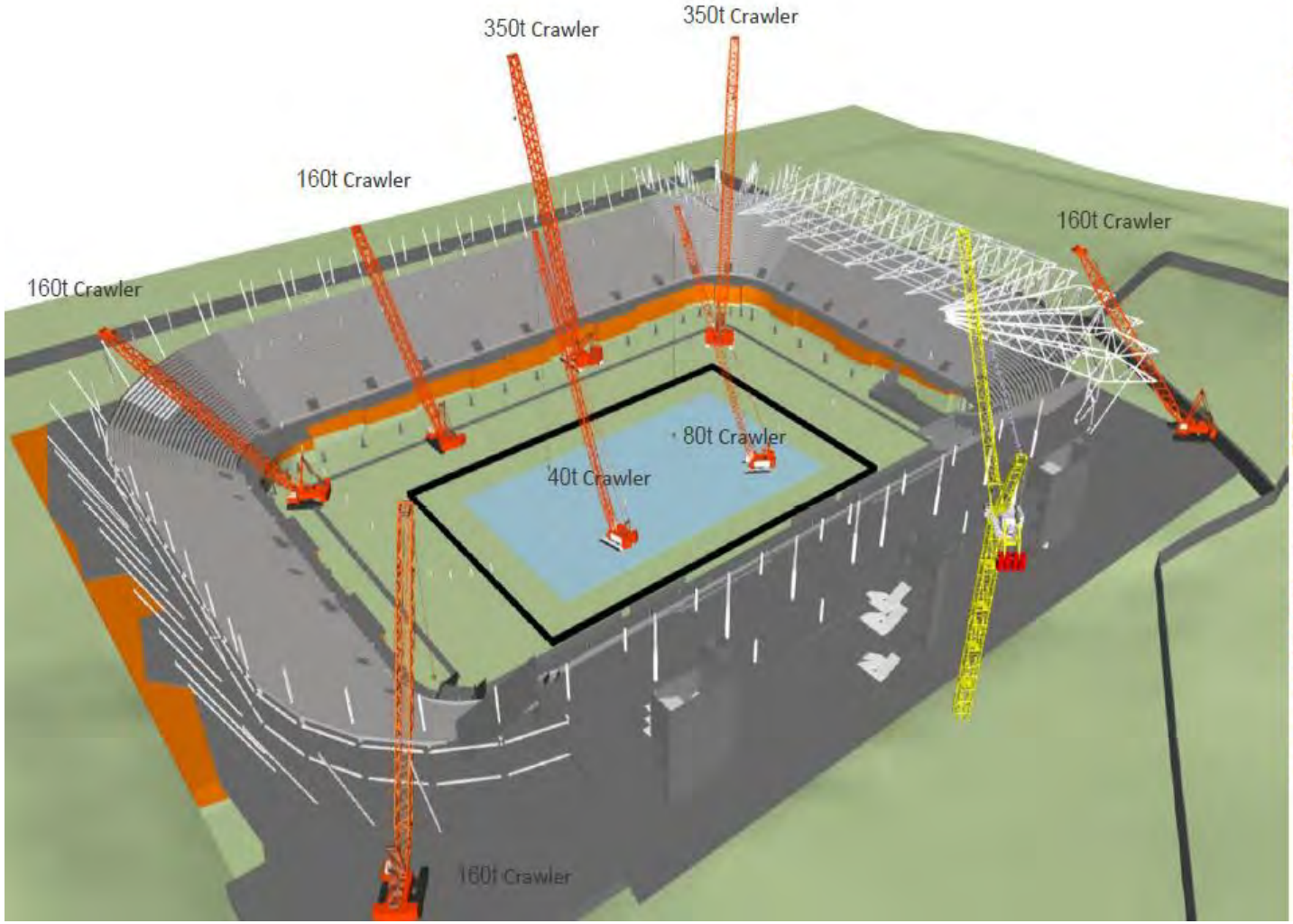
North South / East Stadium Bowl Sequence



- Working from South to East to North
- 7 Bays South; 11 Bays East; 7 Bays North: 25 Bays Total
- 1X 160T to Install Steel
- 1X 160T to Install Low Level Precast
- 1X 350T to Install High Level Precast
- Each Bay Contains:
  - 3 Columns
  - 4 Raker Beams
  - 3 Bracing Beams
  - 27 Precast Plats
  - 2 Stair Units
  - 26 precast steps

Figure 24 – North / South / East Stadium Bowl Sequence

North / South / East Stadium Bowl Sequence – Cranage Requirements



Crane	QTY	Allocated works
350t crawler crane	2	Roof heavy lift and upper precast
160t crawler crane	1	Lower precast
160t crawler crane	1	Bowl steel
160t crawler crane	2	Bowl corners
80t crawler crane	1	Preassembly
80t crawler crane	1	Lower bowl precast
40t telescopic boom crawler crane	1	General support crane

Figure 25 – North / South / East Stadium Bowl Cranage Requirements

North South / East Stadium Bowl Sequence – MEWP Requirement

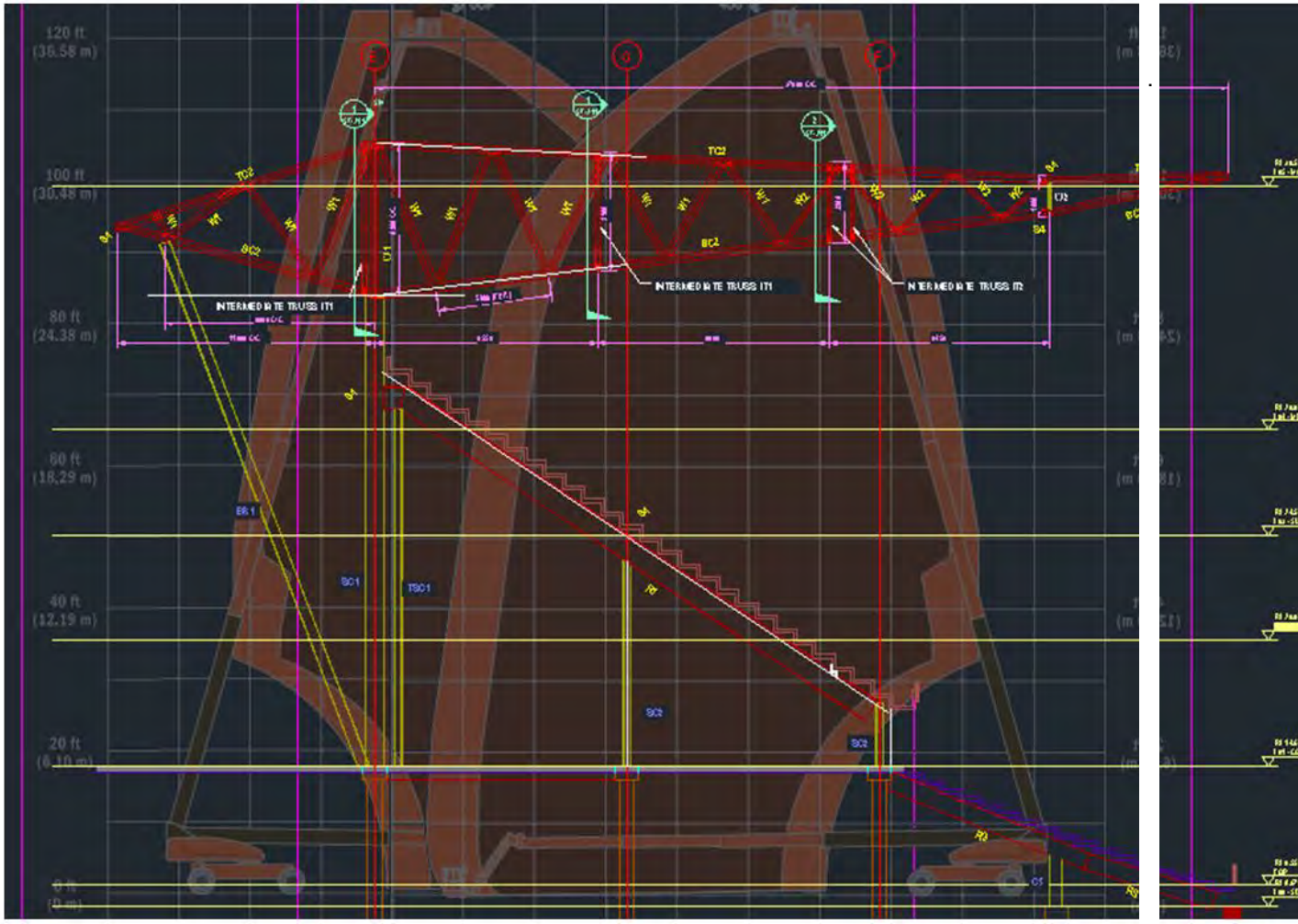


Figure 26 – North South / East Stadium Bowl – MEWP Requirement

Tier 1 of the Northern, Southern and Eastern Elevations will proceed Tier 2 on all elevations.

As demonstrated in Figure 26, access to the roof structure for steel installation (rigging) impacts the commencement of the Tier 1 structure hence as programmed, Tier 1 will follow the roof installation.

There is the opportunity to bring in a larger Mobile Elevated Work Platform (MEWP), however this will impact special requirements within the pitch construction zone.

10.8 Roof Structure

The steel roof trusses supporting the roof fabric will be pre-assembled onsite within the pitch area as explained in Section 7. The roof truss is typically formed through the use of 310UC Sections bolted together to form a 2D Truss Section. The trusses will be assembled in jigs within the pitch area into 3D preassembled bays split into thirds.

Progressive Installation of Roof Trusses

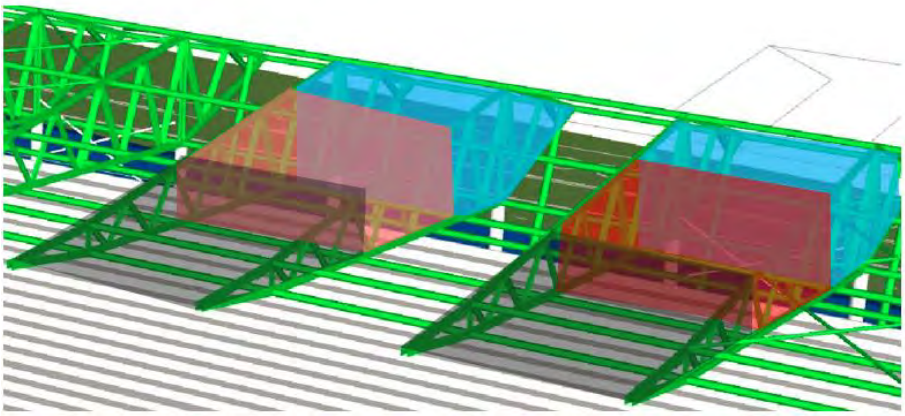


Figure 27 – North South / East Stadium Bowl – MEWP Requirement

Progressive Installation of Infill Bays

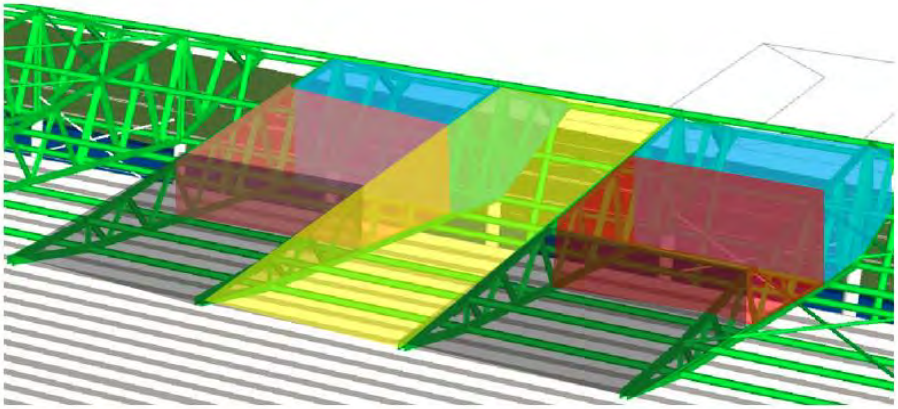


Figure 28 – North South / East Stadium Bowl – MEWP Requirement

The lifting of Pre-Assembled Roof Sections in thirds minimised the size of cranage requirements to a maximum capacity of 350t Crawler Crane. This size of crane maintains the ability to operate in other areas within the pitch area without increased safety risk.

Each section of roof will be approximately 25tonnes.

Splice connections will be bolted only, allowing installation of one piece to be completed in a single working day.

The roof structure has been designed such that zero temporary supports are required during the installation process.

Once two bays have been successfully installed, the infill steel sections (to the area in yellow) will be fixed into place. Preassembly durations have been built up through multi activity planning at 5 days, with installation being 3 days (1 day per roof section). This allows 2 days of crane redundancy to complete the section highlighted in yellow.

10.9 Infrastructure Works – Electrical / Water / Communications / Gas / Sewer

The Project's electrical infrastructure requires upgrading, hence High Voltage Mains will need to be run from the site (in the approximate location of O'Connell Street / Victoria Road Intersection) to the North Parramatta Zone Substation, in the order of 1km in distance. It is possible conduits exist already, but the worst case is that trenching will need to be carried out to install the upgrade. Based on the final outcome, road closures and footpath closures will be sought and obtained through the City of Parramatta Council.

These works will not be critical from a programming perspective, based on the indicative date for the chamber substation energisation, located in the service level (L00) of the Western Stand.

The Low Voltage feed across the Parrramatta River to will be cut over post the chamber substation energisation. Relevant stakeholder engagement activities will support this process.

Supply of water to the new precinct will come off the existing main located on the eastern side of O'Connell Street. This work will require approximately 600mm of trenching across O'Connell Street, and again will be coordinated through the City of Parramatta Council for relevant permits and approvals.

A series of communications pits are located in the NE corner of the existing site. These will be utilised as a means of feeding the new precinct and upgrading communications infrastructure.

The connection point for gas infrastructure is located on the western side of O'Connell Street. This work will require footpath closure and potentially a single lane closure of O'Connell Street. Again, this will be coordinated with the City of Parramatta Council.

The sewer connection point is located in the SE corner of the site. The connection will be in the order of 6m in depth from the existing levels in the area. The location for connection is within the landscaped area, hence there will be minimal disruption to the new build programme during the course of these works. It is also important to note that the new stadium structure will be built over the existing sewer line. This is a common situation whereby structural design solutions will inform the approval process through Sydney Water. (the authority).

10.10 Concourse Finishes

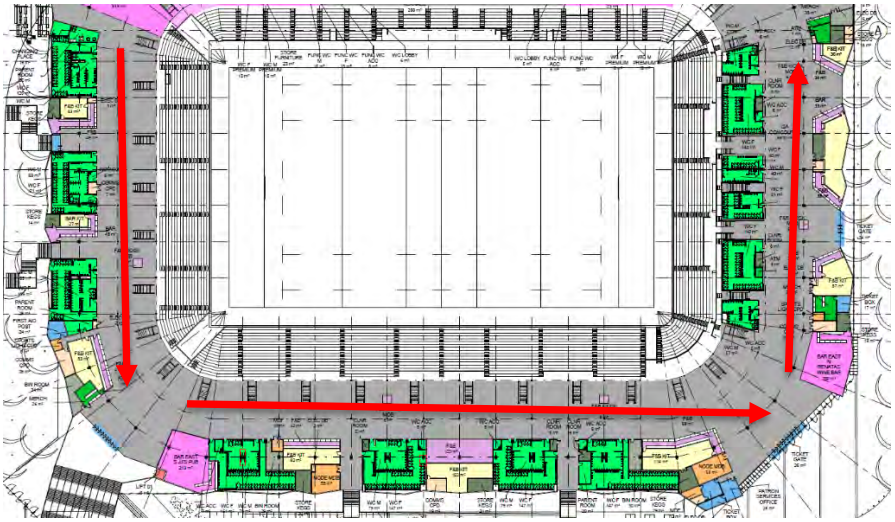


Figure 30 – Plan of South, East and Northern Concourse

The concourse food, beverage and amenities blocks will be constructed following the successful installation of the Southern, Eastern and Northern Tier 2 Structural Steel and Precast Elements.

This activity of works will naturally follow the general build sequence, hence commence within the southern concourse working east and towards the north. These works will be coordinated with the roof truss and fabric installation above to ensure adequate separation and exclusion zones are maintained.

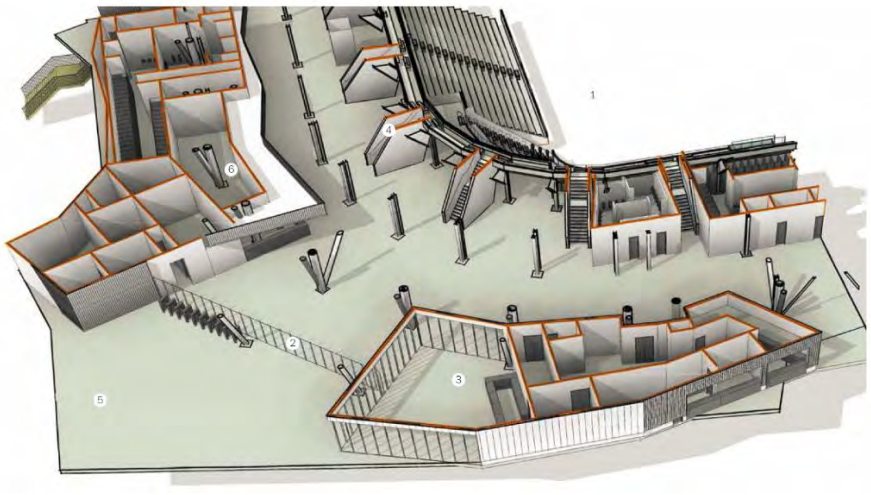


Figure 31 – Render of Concourse Amenities plus Food and Beverage

This component of work will largely feature blockwork requiring working scaffolding around the perimeter, and within for dividing blockwork walls. Areas of scaffolding will be maintained for roofing works prior to removal for wall finishes off MEWP's.

10.11 Internal Finishes

Post completion and strip out of the concrete structure to the Western Stand, services rough-in and internal finished works will commence. These works will be facilitated through materials movement by hoist (Scando 650) and as required through cranage via loading platforms to the western elevation of the western stand. Fit-out works will be prioritised based on lead time of joinery and kitchens, with the overarching concept of working from the Northern and Southern ends of each level back towards the location of materials entry points to the floors (hoist location and goods lift location).

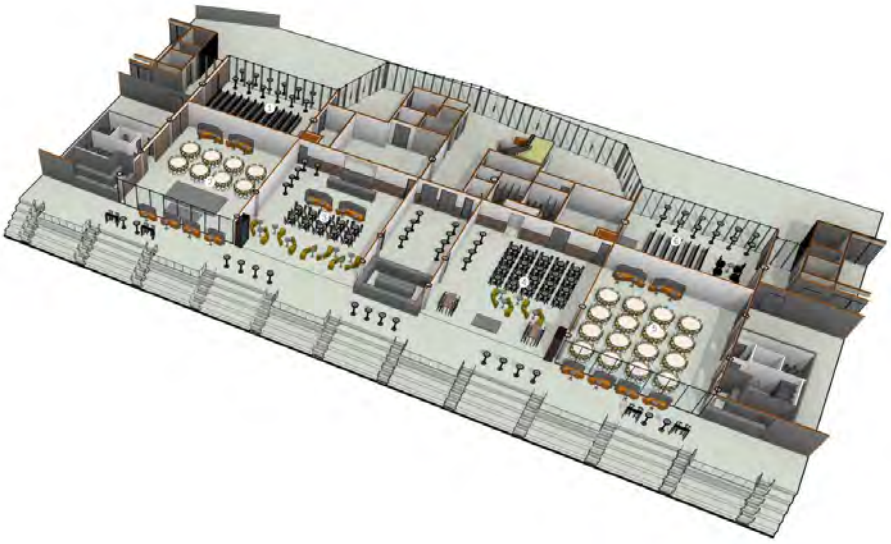


Figure 32 – Level 01 Cumberland Lounge

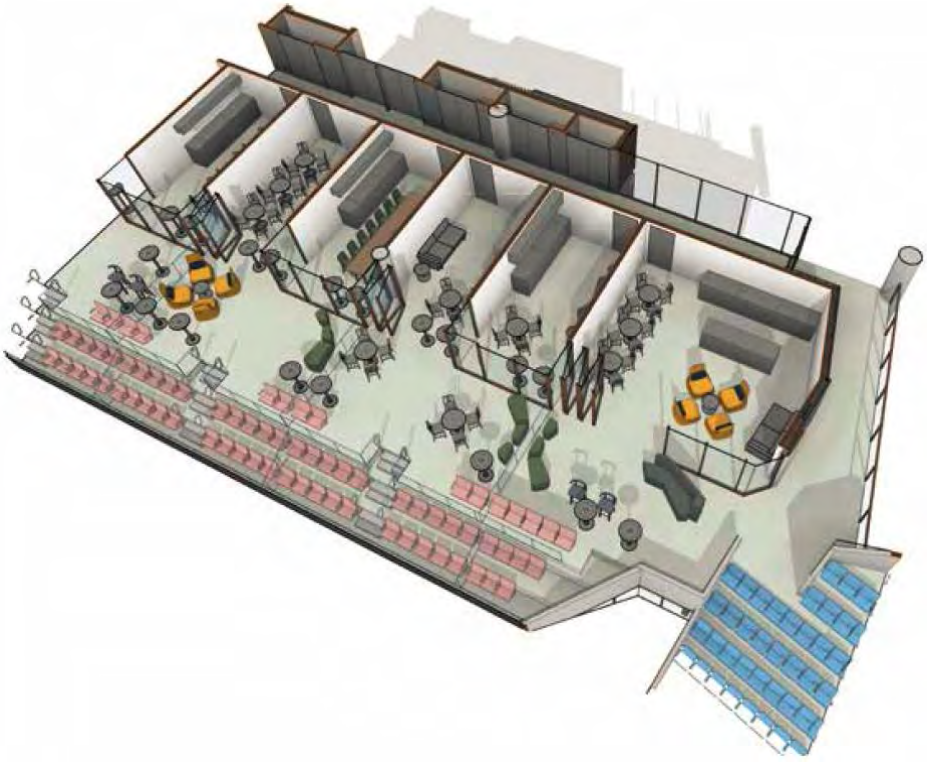


Figure 33 – Level 3 Suites, Pitchside Verandah

10.12 Service Level 00

The service level (Level 00) of the Western Stand resides at approximately RL9.0 (pitch level). This work area consists of 6m high blockwork, key precinct infrastructure plantrooms including 1 x chamber substation, chiller, boiler and generator plantrooms all located in the southern end of the service level. Construction Works in this area will work from North to South allowing materials to be delivered to the future loading dock area feeding the build works throughout. The key service plantrooms will be accelerated in order to mitigate any time risk associated with commissioning of systems throughout precinct.

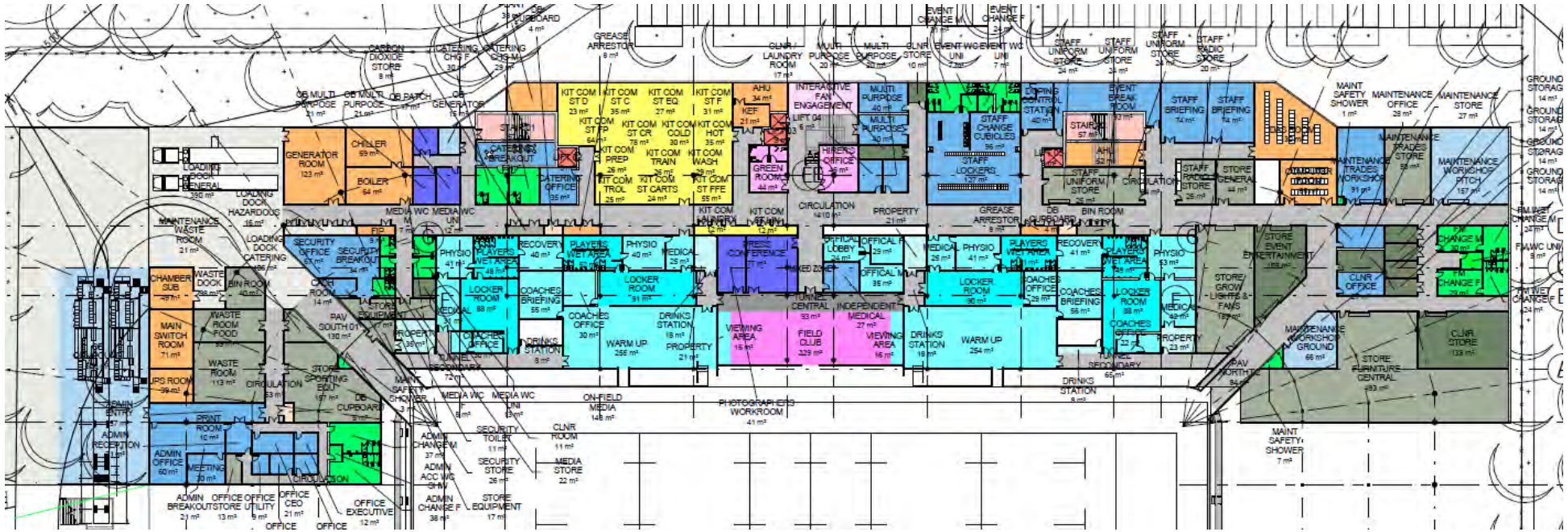


Figure 34 – Level 00 Service Level – Western Stand

10.13 Playing Field

The construction programme allows commencement of the pitch sub-grade, in-ground drainage and turf laying following the completion of Tier 1. As highlighted earlier in this CMP, Tier 1 will follow the completion of the Roof Truss Installation and works in the general direction from the south through the east to the north.

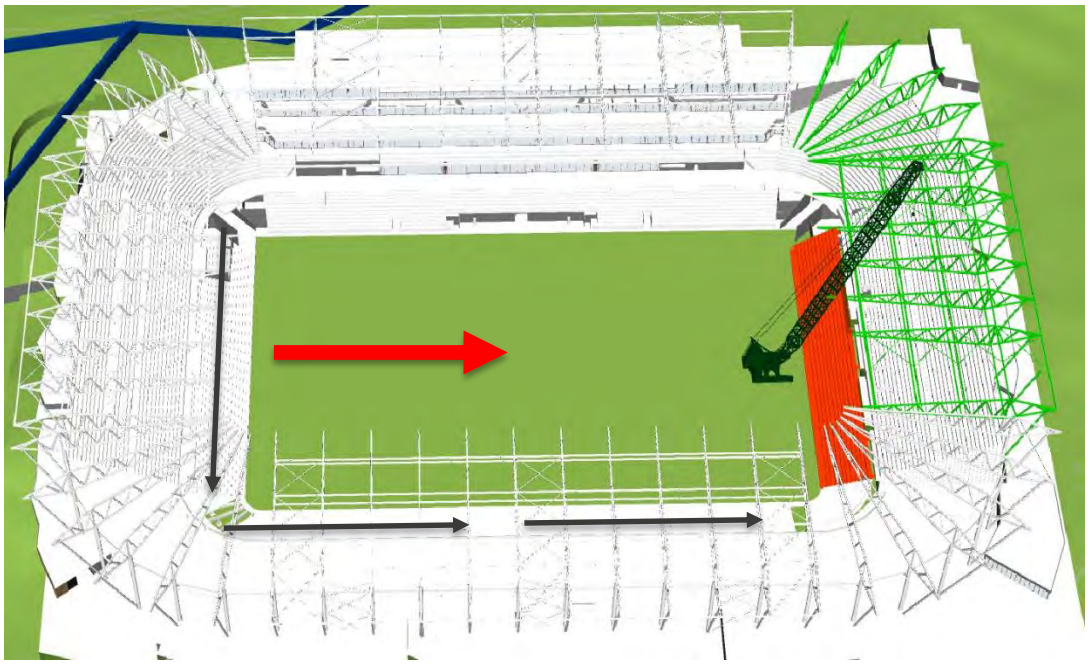


Figure 35 – Pitch Sequencing

Figure 36 – Pitch Construction

APPENDIX 1 - ORGANISATION CHART