



The People's Project

Bramley-Moore Dock - Planning Addendum
Design & Access Statement Addendum
September 2020



THE PEOPLE'S PROJECT AT BRAMLEY-MOORE DOCK, LIVERPOOL

EVERTON STADIUM DEVELOPMENT LTD

Design & Access Statement - Addendum

September 2020



CONTENTS

| | | | | | | | |
|-------|--|-----|--------|--------------------------------------|-------|-------------------------------------|-----|
| 1.0 | Introduction..... | p5 | 3.6 | West Quay | 4.0 | Scale & Massing | p47 |
| 1.1 | Introduction | | 3.5.2 | DNO Compound | 4.1 | Building Height | |
| 1.1.1 | Purpose of Addendum | | 3.5.3 | Outside Broadcast Compound | 4.1.1 | Roof Angle | |
| 1.1.2 | Executive Summary | | 3.5.4 | Grow light Store | 4.1.2 | Maximum Building Height | |
| 1.2 | Revised Design Brief | | 3.6.1 | Parking | 4.2 | Stadium Massing: Warehouse Typology | |
| 1.3 | Project Team | | 3.7 | Bowl Configuration | 4.3 | Building Sections | |
| 1.4 | Updated Visualisations | | 3.7.1 | Seating Bowl | | | |
| | | | 3.7.2 | Bowl Geometry: Metrics | 5.0 | Appearance / Materiality | p53 |
| 2.0 | Consultations | p17 | 3.7.3 | Seating Accommodation: Bowl Sections | 5.1 | Stadium Brick Facade | |
| 2.1 | Historic England & Liverpool City Council | | 3.8 | User Facilities - Bowl | 5.1.1 | Brick Specification | |
| 2.2 | Other Stakeholder Engagement | | 3.8.1 | General Admission | 5.1.2 | Brick Pier Dimensions | |
| 2.2.1 | Places Matter Review | | 3.8.2 | Hospitality | 5.2 | Leitch Truss Pattern | |
| 2.2.2 | Inclusive Design | | 3.8.3 | Accessible Seating | 5.2.1 | Brick Piers | |
| 2.2.3 | Historic England Advisory Committee | | 3.8.4 | Media | 5.2.2 | Metal Panels | |
| 2.3 | Building Control & Sports Grounds Safety Authority | | 3.9 | Accommodation Schedule | 5.2.3 | Glazing | |
| | | | 3.10 | General Arrangement Plans | 5.3 | Metal Panels | |
| 3.0 | Layout / Bowl Consideration..... | p23 | 3.10.1 | Level 00 | 5.4 | DfMA Fabrication | |
| 3.1 | Site Layout | | 3.10.2 | Level 01 | 5.4.1 | DfMA Construction Approach | |
| 3.2 | Site Levels | | 3.10.3 | Level 02 | 5.4.2 | Bricks DfMA | |
| 3.3 | Building Massing | | 3.10.4 | Level 03 | 5.5 | Other Brick Facades | |
| 3.4 | Wind Mitigation | | 3.10.5 | Level 04 | 5.5.1 | West Terrace Walls | |
| 3.4.1 | Covering Structure Development | | | | 5.5.2 | Substation Facade | |
| 3.4.2 | Secondary Elements | | | | 5.5.3 | Security Hut Facade | |
| 3.5 | West Terrace | | | | | | |
| 3.5.1 | Covered Fan Plaza | | | | | | |

| | | | | | |
|-------|---|-------|---|-------|---|
| 5.6 | Metal Portals | 6.6 | Site Perimeter - Adverse weather Conditions | 7.3.3 | Hardworks Strategy |
| 5.6.1 | East Facade Portal | 6.6.1 | Match Day | 7.3.4 | Dock In-Fill Surfacing |
| 5.6.2 | West Facade Portal | 6.6.2 | Non-Match Day (Adverse Weather) | 7.3.5 | Quayside New Surfacing |
| 5.6.3 | Entrances and Turnstiles | 6.7 | Stadium Access | 7.3.6 | Quayside Reclaimed Surfacing |
| 5.7 | Mansard Roofs | 6.7.1 | General Admission (GA) Spectators | 7.3.7 | Quayside Coping Transition |
| 5.8 | Stadium Roof | 6.7.2 | Hospitality | 7.4 | Softworks |
| 5.8.1 | General Development | 6.7.3 | Away Fans | 7.3.8 | Trees |
| 5.8.2 | North and South Windows | 6.7.4 | Stadium Operations | 7.4.1 | Grass Planting |
| 5.8.3 | South Balcony | 6.7.5 | Event Staff | 7.5 | Heritage |
| 5.9 | Stadium Elevations | 6.7.6 | Media | 7.5.1 | Site Artefacts |
| | | 6.7.7 | Players and Match Officials | 7.5.2 | Heritage Assets Retained and Relocated |
| 6.0 | Access and Egress p69 | 6.7.8 | Medical | 7.5.3 | Site Interpretation - Club Branding and Fan Personalisation |
| 6.1 | Site Access | 6.8 | Vertical Circulation | 7.6 | Boundaries and Site Security |
| 6.2 | Regent Road Wall | 6.9 | Stadium Egress | 7.6.1 | Site Boundaries - Plan |
| 6.1.1 | New Openings | 6.9.1 | Emergency Egress | 7.6.2 | Dock Edge Balustrades |
| 6.3 | Access Strategy | 6.9.2 | Normal Egress | 7.6.3 | Boundary Fences |
| 6.2.1 | Match Day Access Strategy: Pre-Match | 7.0 | Public Realm p107 | 7.7 | Site furniture |
| 6.3.1 | Match Day Access Strategy: During Match | 7.1 | Key Developments | 7.7.1 | External Seating Plan |
| 6.3.2 | Match Day Access Strategy: Post Match | 7.2 | Landscape Masterplan Zones | 7.7.2 | Dock Edge Benches |
| 6.3.3 | Non-match Day Access Strategy | 7.2.1 | Key Character Areas | 7.7.3 | Western Terrace Benches |
| 6.4 | Vehicle Routes/ Servicing | 7.2.2 | Fan Plaza Scale Comparison | 7.7.4 | Fan Plaza Benches |
| 6.4.1 | Stadium Operations | 7.3 | Hardworks | 7.7.5 | Fan Plaza Seating Plinth |
| 6.5 | Site Perimeter | 7.3.1 | Design Intent | 7.7.6 | Tree grille, seat and wind baffles |
| 6.4.2 | Match Day | 7.3.2 | Existing Heritage Surfacing | 7.7.7 | Western Water Channel Seating Terraces |
| 6.5.1 | Non-Match Day | | | | |

| | | | |
|--------|--|--------|--------------------------------|
| 7.7.8 | Western Terrace | 9.2.4 | Level 03 |
| 7.7.9 | Cycle Storage and Litter Bins | 9.2.5 | Inclusive Access Masterplan |
| 7.7.10 | Southern Concourse | 9.2.6 | Lift Access to West Terrace |
| 7.7.11 | Western Concourse | 9.3 | Accessible Seating Layout |
| 7.7.12 | Northern Concourse | 9.3.1 | Wheelchair Tribunes |
| 7.7.13 | Fan Plaza | 9.4 | Letter of Support |
| 7.7.14 | Western Quayside | | |
| 7.8 | Site Activation | 10.0 | Sustainability p165 |
| 7.8.1 | Non-Match Day | 10.1 | Sustainability |
| 7.8.2 | Match Day | 10.2 | Sustainability Design Features |
| 7.8.3 | Fan Plaza | 10.2.1 | Resource efficiency |
| 7.8.4 | Entertainment | 10.2.2 | Access and Mobility |
| 7.9 | Regent Road Public Realm Works | 10.2.3 | Sustainable Reuse of Site |
| | | 10.3 | Photovoltaic Array |
| 8.0 | Lighting, Acoustics & Signage p145 | 10.3.1 | Design |
| 8.1 | Site Lighting | 10.3.2 | Energy Drivers and Targets |
| 8.2 | Stadium Acoustics | | |
| 8.3 | Signage Zones | 11.0 | Conclusion p171 |
| | | 11.1 | Summary |
| 9.0 | Inclusive Design p151 | 11.1.1 | Planning Policy Compliance |
| 9.1 | Inclusive Design Statement | | |
| 9.2 | Inclusive Access Plans | | |
| 9.2.1 | Level 00 | | |
| 9.2.2 | Level 01 | | |
| 9.2.3 | Level 02 | | |

1.0 INTRODUCTION

- 1.1 Introduction
 - 1.1.1 Purpose of Addendum
 - 1.1.2 Executive Summary
- 1.2 Revised Design Brief
- 1.3 Project Team
- 1.4 Updated Visualisations



1.1 INTRODUCTION

1.1.1 Purpose of Addendum

This document is an addendum to the Design and Access Statement submitted in December 2019 as part of the full planning application for the development of a stadium and associated facilities at Bramley-Moore Dock (BMD) (application reference number 20F/0001).

This document has been prepared for Everton Stadium Development Limited (ESDL), hereafter referred to as 'Everton' or 'The Club'.

This document provides detailed information and visualisations regarding the development of the scheme since the full planning application was made. This includes changes to the stadium and Public Realm design in response to consultee feedback and updates to information as the design has progressed over time. The design team has worked closely with the stakeholders and details of the ongoing consultation process are included in the relevant sections.

This document should be read in conjunction with the Design and Access Statement (Meis, December 2019) and the associated planning application documents, as well as the other documents submitted as part of this addendum.

1.1.2 Executive Summary

Since the scheme was submitted for planning permission in December 2019, there have been several significant project developments and scheme improvements.

Design Brief

The Places Matter design panel reviewed the scheme in early December 2019. In response to the panel's assessment, as well as feedback received from key stakeholders such as Liverpool City Council (LCC) and Historic England (HE), the Club revised their brief to the design team.

The club's revised brief is clear in its ambition for the scheme to create a new high-quality public realm to allow residents and visitors alike to explore and appreciate the stadium's location within the northern docks area of the World Heritage Site (and Stanley Dock Conservation Area) and on the city's famous waterfront. The northern docks area is presently not accessible to the general public and is generally not visible given the listed Regent Road wall so increasing access and visibility are crucial benefits of the scheme.

The significant changes to the brief included creation of a higher-quality public space on the west side of the stadium to serve as a fitting destination to the planned River Walk, the omission of the Multi-Storey Car Park (MSCP) which was integrated with the west stand of the stadium, moving the solar PV panels from a canopy over the west quay onto the main stadium roof to free up space, and optimising the wind mitigation design.

Further details of the revised design brief are provided in section 1.2 of this chapter.

Changes to Project Team

In February 2020, Laing O'Rourke (LOR) was appointed as the main contractor for the project under a Pre-Construction Services Agreement (PCSA). LOR appointed the design team which includes Pattern as architects, BuroHappold as multidisciplinary engineers and PlanIt-ie as landscape architects, please refer to section 1.3 for details of the full project team. The contractor's design team has updated the scheme since February 2020 in line with the Club's revised design brief.

Consultation

The design team has engaged in a positive and collaborative consultation process with a number of stakeholders and consultees, including LCC Planning and Conservation, LCC Highways, LCC Inclusive Design, Historic England, Places Matter and Merseyside Police. Further details of these consultations are provided in chapter 2 of this document.

The design team has incorporated consultation feedback from stakeholders and developed significant enhancements to the scheme as a result. The Places Matter design panel reviewed the scheme again in May 2020, warmly receiving the changes. The Historic England Advisory Committee also reviewed the scheme in July 2020, providing important feedback on the massing and materiality of the scheme.

West Terrace

The revised scheme features a new elevated fair-weather terrace on west side of the stadium, replacing the MSCP. It provides a covered fan zone below to ensure the safe arrival and departure of spectators and building users during periods of high winds.

The West Terrace is a significant new public benefit of the scheme as it offers sweeping views of the Mersey and Liverpool and is a fitting end to the planned River Walk through the Liverpool Waters scheme to the south. It is anticipated that the West Terrace will be open to the public on non-event days and is a major new public space along the Mersey waterfront. .

Inclusive design has been considered from the earliest sketches of the terrace, with visitor lift access available from the stadium.

Rationalisation of Wind Mitigation Measures

The previously submitted scheme featured many large (circa 12m high) wind baffles and screens that stood like outriggers from the main stadium building. As a result of the West Terrace redesign and option testing Computational Fluid Dynamics (CFD) wind modelling, the largest of these have been removed from the scheme, and replaced with groves of trees with seating.

Related sections in the submitted Design & Access Statement:

- 1.1
- 1.3





The removal of these structures improves the quality and useability of the Public Realm, and provides additional amenity and places of character from which visitors can appreciate the views of the Nelson Dock, central Liverpool, the World Heritage Site and Stanley Dock Conservation Area as well as the waterfront setting.

West Quay

The western-most part of the site, called the west quay, has been reconfigured with a smaller substation building relocated to the north-west corner of the site.

Following consultee feedback, the canopy over the surface car park in the previously submitted scheme has been removed and the photovoltaic solar panel array (PVs) has been moved to the top the main stadium roof, above the south stand. The removal of the canopy permits views from the West Terrace out to the Mersey and the Irish Sea.

This is a significant improvement to the previously submitted scheme as the resulting open area provides flexibility for a number of uses. It can be used as event-day parking, turned over for a match-day outdoor broadcast compound, host a public event like a festival, or allow pop-up uses like a summer market.

Massing

A key component of the Club's revised design brief was to return the massing of the building to the symmetry of the original design intent. The removal of the MSCP on the west allowed the design team to adjust the building massing and internal space planning so that it is now symmetrical when seen from the south from Nelson Dock and through the World Heritage Site.

To achieve this symmetrical massing and accommodate internal area requirements the east elevation of the stadium has stepped east by 4.5m. The foundation design has been developed to accommodate this change, ensuring that there is no impact on the existing Grade II listed dock wall below.

The changes to the stadium massing are most clearly seen on the west elevation of the stadium, where the MSCP has been replaced by the stepped west terrace. The steps link the building strongly to the water channel and directly address the river. A new glazed portal features centrally on the west facade, providing the hospitality spaces within spectacular views of the Mersey and the Wirral. Constructed from the same black metal cladding as the portal in the east facade that houses the Club retail shop, it's introduction establishes an architectural relationship between the east and west facades of the building.

Minor adjustments to the design of the roof have reduced the overall height of the building to fall below 45m above ground level, meaning the scheme is now classified as a "mid-rise building" within the LCC World Heritage Site Supplementary Planning Document (SPD). The overall proportion of the stadium is in keeping within the historic dockland setting, especially when seen across the river from the Wirral.

Simplified Façade

The LCC Urban Design case officer and the Places Matter panel both commented that the previously submitted scheme elevations appeared too busy. In response, the design team has simplified the building façade in close consultation with LCC and HE case officers. This has included:

- The distinctive Leitch Truss pattern has been adjusted for better legibility
- The Leitch Truss pattern now appears only in the brickwork, and not in the metal panels or glazing, resulting in a bolder, clearer gesture
- Removal of the thinnest brick piers to give the project a more solid presence in line with the warehouse setting
- The east facade openings have been rationalised to a single glazed portal
- A new glazed portal has been introduced in the west facade, bringing greater cohesion between the east and west elevations
- A preferred brick has been selected and a mock-up is installed on site for review of the brick panels (August 2020)

Inclusive Design

The design team has reviewed the design from the ground up to enshrine inclusive design within all aspects of the design. The revised scheme features the following improvements over the previously submitted scheme:

- A greater number of wheelchair seating positions
- Accessible amenity seating identified in the seating bowl
- Additional toilet facilities, including gender neutral toilets and more changing places toilets
- Lift access to the west terrace

The scheme has been subject to consultation with LCC Inclusive Access Officer and user groups such as the Everton Supporters Disabled Associated (ESDA), who have written a letter of support for the updated proposals.

Public Realm

The revised design brief has led to several improvements to the quality and provision of the public realm.

The new west terrace mediates between the west public realm and the stadium itself. As an elevated terrace, it is features similar surface materials to that of the ground level to establish it as an extension of the public realm. Similarly, the reconfigured west quay has enabled a selection of finishes that will support the multi-use, flexible brief for this space.

The outrigger wind baffles have been replaced by a grove of trees that feature some seating beneath them. This improves the overall provision for seating, especially along the south concourse overlooking Nelson Dock and the wider World Heritage Site and Stanley Dock Conservation Area.

Other detail developments, for example the materiality of the dock infill paving, have benefitted from the input of LOR as a contractor to ensure the public realm is constructed in durably and for a high-quality finish.

Further work has been undertaken to catalogue, assess, and identify the further works required to repair or re-purpose existing maritime heritage artefacts, such as capstans and mooring bollards, as part of the proposed public realm.

[Related sections in the submitted Design & Access Statement:](#)

- 1.1
- 1.3



The design team has worked closely with LCC planning and conservation, and HE to consider how the openings through the Regent Road wall can be achieved. Further design development has resulted in a revised proposal where the overall size of the openings required in the wall has been reduced by approximately 30%. This reduces the extent of potential harm to the wall itself. The updated proposal builds on the originally submitted intent but incorporates LOR’s feedback with regard to buildability.

Minimising Waste and Construction Safety

LOR have brought their expertise in fast-track and Design for Manufacturing and Assembly (DfMA) construction methods to improve the efficiency and constructability of the scheme. The changes in the proposed methodology have not affected the appearance of the building but bring sustainability and health and safety benefits, including:

- More efficient use of materials
- Faster construction programme
- Reduced vehicle traffic to the site
- Less on-site work that is subject to inclement weather
- Less working at height

Sustainability

The proposed development is pursuing an ambitious framework of sustainability objectives to ensure it’s ecological footprint is as light as possible. In accordance with the revised brief, the design team has sought to refine and improve sustainability aspects of the scheme, including:

- Roof mounted PV canopy with improved efficiency
- Future proofing of roof to increase PV coverage if viable
- Lighting and energy efficiency measures
- Fixtures to reduce water usage
- Electric vehicle charging points
- Battery storage rather than back-up diesel generators
- Future connectivity to the district heat network (known as ‘Mersey Heat’)
- Exploring potential for seats to be made using recycled plastic with manufacturers
- DfMA construction process engaged

The development of this Sustainability Performance Framework has been an iterative process based on the outcomes of an engagement process with the Club. The Framework, tailored to the Club’s aspirations, has been developed based upon a review of the most appropriate, robust and pioneering elements of existing certification frameworks such as BREEAM and LEED.

Conclusion

The club’s revised brief and the subsequent design development have resulted in an amended scheme which generates further benefits, including:

- Character: The scheme better reflects the character of its setting with a stronger “brick box” massing and façade design
- Continuity and Exposure: The scheme creates more human-scale places within the large-scale scheme, notably the west terrace steps that address the water
- Ease of Movement: The scheme provides a high quality and accessible termination to the planned pedestrian River Walk from the city centre through the northern docks area of the World Heritage Site and Stanley Dock Conservation Area
- Quality of the Public Realm: Enhanced with increased tree planting, redesigned west quay and new west terrace
- Diversity: Adds public realm uses and increases flexibility for non-match day events on the west side of the site
- Legibility: The scheme now addresses the waterfront with a big picture window and provides a visible landmark from the river or when viewed from the Wirral.
- Construction Waste: Utilising leading DfMA methods of construction should reduce material waste and vehicular traffic to site for a more sustainable build
- Sustainability: Meeting the Club’s ambitious targets for sustainability through design and considered specification of materials

These enhancements have, overall, produced a scheme that fits better within its urban fabric and provides greater public benefits than that of the previously submitted scheme. The generous spaces created through the west terrace and west quay promise to be significant public places within Liverpool and its dockland, while the developments to the façade and massing have refined the building’s appearance and reinforced a robust character suitable for its heritage dockland landscape.

Related sections in the submitted Design & Access Statement:

- 1.1
- 1.3

1.2 REVISED DESIGN BRIEF

When the main contractor and design team were appointed, the Club gave a revised design brief which responds to stakeholder feedback received from the scheme submitted in December 2019. One of the primary changes to the brief was the omission of the multi-storey car park (MSCP) which was part of the main stadium massing, occupying the western part of the building. By removing the MSCP from the scheme, the ambition was to:

- Develop a symmetrical stadium massing
- Create a flexible public space in the West Quayside
- Create a new civic space which will become the termination of the proposed River Walk and maximise the site location on the Mersey
- Omit some of the larger wind mitigation structures that offer no benefit to the scheme beyond their primary function

In addition, the revised club brief called for a review of the scheme to seek improvements to:

- Links between World Heritage Site and stadium/Public Realm
- Buildability including safety during construction
- Inclusive access and range of facilities available
- Sustainability, both for construction and operationally

Aside from a reduction in parking, there has been no change to the function of the proposal, and the club's Principles of Development are unchanged. In general, the strategy and rationale for each part of the design remains very similar.

While the concepts are the same, there have been a number of changes throughout the scheme as a consequence of the redesign of the western part of the building and the removal of the MSCP. This period of redesign has given the team the opportunity to incorporate much of the stakeholder feedback received to date, further develop the scheme in line with design guidance, and rationalise parts of the scheme to improve function for the Club when the building is in operation on both match days and non-match days.

Related sections in the submitted Design & Access Statement:

- 2.1
- 2.4
- 2.5



Reference image of the scheme submitted in December 2019 - South-east view



Reference image of the scheme submitted in December 2019 - South-west view



1.3 PROJECT TEAM

As of February 2020 the Project Team is:

Applicant & Client to the Project Team:
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7th Floor
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Architect:
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Landscape Architect:
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Altrincham, Cheshire, WA14 1DY [UK]

Engineering (multidisciplinary):
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Camden Mill
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Bath, BA2 3DQ [UK]

Transportation Consultant:
Mott MacDonald
Ground Floor
Royal Liver Building
Pier Head, Liverpool Waterfront
Liverpool, L3 1JH [UK]

Quantity Surveyor:
Rider Levett Bucknall
60 New Broad Street
London, EC2m 1JJ [UK]

Project Management:
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Merchant Exchange
17-19 Whitworth Street West
Manchester, M1 5WG [UK]

Planning & EIA:
CBRE
10th Floor
One St. Peters Square
Manchester, M2 3DE [UK]

Heritage Consultant:
KM Heritage
72 Pymer’s Mead
London, SE21 8NJ [UK]

Environmental Consultant:
WYG
3 Sovereign Square
Sovereign Street
Leeds, LS1 4ER [UK]

Archaeology:
Oxford Archaeology North
Mill 3, Moor Lane Mills
Lancaster, LA1 1QD [UK]

Daylight and Sunlight:
Anstey Horne
3 Temple Row West
Birmingham, B2 5NY [UK]

Wind Effects:
RWDI
Unit 1 Tilers Road
Milton Keynes
Buckinghamshire, MK11 3LH [UK]

Related sections in the submitted
Design & Access Statement:

1.2



1.4 UPDATED VISUALISATIONS



The East Fan Plaza and Hydraulic Engine House



View from the south east corner of the site



View from the south west corner of the site



The West Terrace



South aerial of the proposed stadium development and masterplan

2.0 CONSULTATIONS

- 2.1 Historic England & Liverpool City Council
- 2.2 Other Stakeholder Engagement
 - 2.2.1 Places Matter Review
 - 2.2.2 Inclusive Design
 - 2.2.3 Historic England Advisory Committee
- 2.3 Building Control & Sports Grounds Safety Authority

2.1 HISTORIC ENGLAND & LIVERPOOL CITY COUNCIL

Since the submission of the planning application, the Club and Design Team have maintained regular meetings with the Planning Case Officer at Liverpool City Council (LCC) and the Case Officer at Historic England (HE).

These meetings have been a forum for gaining timely feedback about the design development and have ensured a good understanding of the stakeholder feedback that has been received to date.

The meetings have focused on the following key areas:

- Brick selection
- Facade development
- Photo-voltaic (PV) panel array
- Building massing development
- Wind mitigation elements
- Computational Fluid Dynamic (CFD) testing
- Heritage artefact use and reuse on-site
- Public Realm development
- Barrel roof construction
- Landscape design & materiality
- Inclusive design
- Highways
- Regent Road Wall openings

Related sections in the submitted Design & Access Statement:

5.1



On-site review of brick samples - 12/03/2020



2.2 OTHER STAKEHOLDER ENGAGEMENT

2.2.1 Places Matter Review

An initial Places Matter Review was held in December 2019. The panel were presented with the scheme shortly before it was submitted for planning. The panel was “supportive of [the] overall approach” to the project and stadium design, however comments were made that “the building would benefit from simplification, and the western elevation needs further work”. The feedback from the review was an important factor in the revised design brief, and has informed many of the design developments set out in this document.

A second review with Places Matter was held in May 2020 to update the panel on the developing design and demonstrate how their comments from the first review had been incorporated into the scheme. This presentation was also an opportunity to receive further feedback, as part of the ongoing progression of the design.

The panel was pleased with the general progress made since the previous review and the developments to the project were welcomed. In summary, the report states: “the introduction of the Western Terrace is a major improvement, as is the change in form, massing and symmetry of the building itself.”

The review prompted further development of the east Fan Plaza, in particular, the seating areas and heritage artefacts that are arranged on site. The proposed materials in the landscape masterplan have been also been reviewed. Further details of the Public Realm development can be found in chapter 7 of this document.

Overall, the panel’s comments were very positive and the comments received will continue to inform the development of the stadium and Public Realm. Particular attention was drawn to the stadium’s impact on the wider local area and the potential for the project to drive further regeneration.

2.2.2 Inclusive Design

The consultation feedback praised the project for the engagement with Liverpool City Council Corporate Access Forum (CAF), a process which will continue as the scheme is developed through technical design.

A workshop was held with the Inclusive Design Officer at Liverpool City Council in May 2020 to review the comments raised during consultation. The comments were broadly categorised as relating to transport, the Public Realm and the stadium architecture. All three categories were discussed in the meeting and a full update of the scheme was presented including developments to accessible WCs, changing places, wheelchair viewing positions, amenity seating, baby change facilities, family WCs, faith rooms, sensory rooms, quiet rooms and rest points both in the stadium and in the Public Realm.

It has been possible for many of the comments to be incorporated as suggested in the consultation feedback and discussed in subsequent meetings. The redesign of parts of the building and Public Realm has presented an especially good opportunity to address the comments and provide facilities for a wide range of users and their varied needs.

Further consultation was also held with the Everton Disabled Supporters Association (EDSA) in July 2020 and August 2020. Presentations were given to summarise the scheme development and EDSA members were invited to give feedback on the design and the proposed access arrangements. Following this consultation process the EDSA committee have written a letter of support for the scheme, please refer to section 9.4.

Please refer to chapter 9 of this document for details of the improvements made to the scheme. Please also refer to the Transport Assessment (and relevant technical reports) submitted in the revised Environmental Statement submitted as part of this planning addendum for details of the updated proposals.

[Related sections in the submitted Design & Access Statement:](#)

5.3



2.2.3 Historic England Advisory Committee

The team has undertaken detailed consultation with Historic England (HE) on an 'open and transparent' basis, with over 30 meetings since the pre-application stage, i.e. from May 2017 onwards. This level of engagement was recognised in HE's statutory consultation response in May 2020, which commended the positive approach adopted on matters of design but recognised that:

"From our on-going and positive relationship with the Club and its architects, we are aware that there are certain aspects of the stadium design which continue to evolve and will be subject to additional review in the upcoming weeks. We will continue to work with the Club on these changes as the design develops. Notwithstanding the current design, or amendments, Bramley-Moore Dock would require infilling to allow the construction of the stadium with implications for both the listed dock and the Stanley Dock Conservation Area, as well as the Liverpool Maritime Mercantile City World Heritage Site."

A specially convened meeting with the Historic England Advisory Committee (HEAC) was held in July 2020. This enabled the design team to present the updated scheme rationale, introduce the significant positive changes and receive questions and feedback from the committee members. Whilst the design team is not in receipt of a formal written response from HE, the initial feedback from the meeting was as follows:

- The scheme had developed positively from the submitted drawings
- The design intent for the roof needed refinement in terms of material choice and ensuring that it is permeable to allow the structure to be evident
- The materiality of the level 03 structures above the brick façade needed further consideration.
- Landscaping was appropriate albeit further understanding required as to boundary treatments, circulation etc.

Subsequent discussions with HE, held in late July 2020, have confirmed that these main points raised by the Advisory Committee can be addressed through further design development of the revised scheme. The design team therefore understands that, notwithstanding the quoted statement on the dock infill, HE hold no major objection to the design of the stadium itself or the public realm strategy.



2.3 BUILDING CONTROL & SPORTS GROUNDS SAFETY AUTHORITY

The design team met with officers from Liverpool City Council Building Control (LCC-BC) as well as representatives from the Sports Grounds Safety Authority (SGSA) in March 2020 to review the scheme. This meeting included a presentation of the design developments and increased compliance with the guidance, as well as a summary of the parts of the scheme which are subject to derogations. As the project progresses into Technical Design, further meetings will be held with LCC-BC.

The following points provide an update on some of the key items, as outlined in the initial Design & Access Statement (Meis, 2019).

Bowl Design

There have been a number of improvements to the bowl, resulting in better compliance with SGSA guidance, Green Guide 6th Edition, as well as improved spectator flows.

As with the scheme submitted in December 2019, seating rows are generally limited to a maximum of 28 seats. In a small number of cases, the maximum number of seats in a row exceeds this, up to a maximum of 39 seats. The evacuation times have been tested and all seats in the bowl can be safely evacuated within 8 minutes as required. The rows which exceed 28 seats are predominantly in the south-east and south-west corners, where the gangways which were previously cranked are now straight. The team considers this is a safer design since there is no change of direction for egressing spectators. There also are no seats at the top of stepped gangways in the updated design, which the design team considers an improved condition

The C-value for all seats is now a minimum of 90. In some areas the C-value is as high as 120. This is a significant improvement to the design and will provide better views for spectators, particularly those in the lower tier. *Note - C-value is a measurement of pitch visibility from each seat.*

The seat spacing is maintained at approximately 460mm on centre for general admission seats. Hospitality seat spacing varies with approximately 460mm in the east stand and between 500mm and 610mm in the west stand.

The row depths have also been maintained at a minimum of 750mm for general admission seats. This results in step treads of 250mm, which is a derogation from Green Guide 6, but not

British Standards. This has been reviewed with LCC-BC and SGSA. In hospitality areas, the tread depth varies with 750mm, 800mm and 900mm rows.

The number of wheelchair positions has been recalculated following clarifications from the SGSA. The result is an increase of 38 wheelchair positions in the general admission part of the bowl, and an increase of 3 wheelchair positions in hospitality seating, bringing the total number of wheelchair positions (for general admission and hospitality) to 283.



GREEN GUIDE
6TH EDITION



BRITISH STANDARDS
BS EN13200 -1:2019



THE PEOPLES
PROJECT STADIUM

| | | | |
|------------------------------|--------|--------|----------------------------------|
| min. seat spacing - seated | 500mm | 450mm | 460mm |
| min. row depth - seated | 700mm | 700mm | 750mm |
| min. row depth standing | 350mm | 350mm | 350mm |
| min. sightline | C=90mm | C=90mm | C=90mm |
| radial gangways - min. going | 280mm | 250mm | 250mm |
| radial gangways - max. riser | 190mm | 200mm | 175mm |
| max. seats per row | 28 | 40 | typical 28 (absolute max. 39) |
| max. steepness - seated | 35° | 35° | 35° |

Comparison of SGSA guidance and British Standards to the proposed stadium metrics

Related sections in the submitted Design & Access Statement:

5.2





Toilet Provision

As per the scheme submitted in December 2019, the overall general admission provision is based on a Performance Standard rather than a set prescriptive standard. This Performance Standard requires that sufficient capacity is provided such that 95% of spectators can be served and return to their seats within the 15-minute half time interval, and that the remaining 5% can return within 5-minutes thereafter.

This means that provision is lower than the number of fixtures required by BS-6465, which is referenced in Green Guide 6. However, all toilet blocks have been re-planned to ensure that spacing between fixtures for use and circulation, as well as the ratio of cubicles, sinks, urinals and towel dispensers, are as per BS-6465. The Male:Female spectator ratios in general admission concourses have been agreed to be 70%:40%, whereby each percentage represents the expected maximum male and female percentages, respectively. These maximums cannot occur concurrently.

All other areas of the stadium (hospitality lounges, players accommodation, staff and back of house areas) are fully designed to BS-4645, for both fixture counts and arrangements. Hospitality areas are designed according to a gender ratio of 60%:40% in 'bronze level' hospitality lounges (Level 01 east stand and Level 03 west stand) and 50%:50% in all other lounges. All staff and back of house facilities are designed for 50% male and 50% female users or have been provided with unisex facilities.

The anticipated toilet demand agreed with the Club for each relevant concourse is provided in the table below.

| Minimum Demand Criteria | Relevant Concourse Levels |
|--|--|
| 50% of spectators will leave the bowl during half-time. 80% of these spectators will use the toilets. (i.e. 40% of the total bowl population will use the toilets) | Level 00 Level 01 Family Level 3 |
| 40% of spectators will leave the bowl during half-time. 60% of these spectators will use the toilets. (i.e. 24% of the total bowl population will use the toilets) | Level 01 Away Fans Level 02 |

Stair Design

All public stairs have a maximum of 12 risers with a consistent number of risers per flight. This is in accordance with Green Guide 6 and discussions with LCC-BC held 09/05/2019 and 05/06/2019.

At Level 03, two stairs provide access to the plant areas on Level 04. This is considered safer and far easier for maintenance than ladders; however 14 risers are required in this case. This is still compliant with Green Guide 6 as these stairs will not be used by the public.

Stairs and turnstiles gates have all been reviewed to optimise crowd flow and allowing spectators into the stadium with minimal queuing. Similarly, all stairs and gates have been reviewed to ensure safe egress in 8 minutes.

Structures

The key components of the structural philosophy have been described and discussed with representatives from LCC-BC through workshops held in April, May and June 2019; including stability, ground conditions, foundations, materiality, durability, robustness and long-span roof structures. As the project progresses, a formal programme will be agreed for the submission of the calculation set that will be strictly adhered to.

Fire

The evacuation times and flow rates for the bowl are based on Green Guide 6th Edition with the hospitality designed to evacuate in line with the recommendations of BS-9999. It has been agreed that a phased/managed evacuation strategy is acceptable for different fire separated zones.

Fire-fighting access principles are established such that access is afforded via four firefighting cores to the main stadium with perimeter vehicular access. The hydrant strategy allows access to within 90m of firefighting cores. A secondary access route to the site along the north has been agreed to reduce the conflict of vehicular access with crowd flows. Additional dry riser outlets have been agreed for the concourse in order to facilitate extended hose laying distances from the firefighting cores. Initial external fire spread assessments have been discussed with LCC-BC in regards to the North Stand and discussions regarding the fire resistance of this area are ongoing.

Regarding the use of the materials on the façade, LCC-BC are in agreement that materials should remain in place in the event of a fire for a reasonable period owing to occupants exiting the building who will need to pass underneath/in close proximity to the North and South façade windows. On this basis the use of polycarbonate was deemed not suitable for these areas and glass has therefore been used.

In the updated scheme, the wind mitigation proposals have been developed and the car park has been replaced by a stepped terrace — please refer to section 3 of this document for further details. It is proposed occupants escape under this podium to the north and south. There are designated zones for temporary concessions or retail kiosks under the podium on an event day. These areas have been developed such that the final exits from the west are not compromised. Routes are available through the terrace to directly access firefighting cores from fire tender parking positions in the west.

MEP

The fire alarm strategy has been developed with the view of operating in two scenarios, Match Day and Non-Match day fire alarm coverage. The proposed design will ensure adequate functionality in each scenario complying with BS-5839.

The PA/VA system will be developed to provide the appropriate audio coverage for Ad-Hoc announcements through the Public Address and pre-recorded Voice Alarm to notify the public in a safe and controlled manner, ensuring compliance with EN54, BS-EN-60849 and BS-5839.

It has been agreed with LCC-BC through workshops held 09/05/2019, that the above-mentioned systems and other life safety-critical supplies will be in line with BS-9999 recommendations.

Related sections in the submitted Design & Access Statement:

5.2

3.0 LAYOUT / BOWL CONSIDERATION

| | | | |
|-------|--------------------------------------|--------|---------------------------|
| 3.1 | Site Layout | 3.9 | Accommodation Schedule |
| 3.2 | Site Levels | 3.10 | General Arrangement Plans |
| 3.3 | Building Massing | 3.10.1 | Level 00 |
| 3.4 | Wind Mitigation | 3.10.2 | Level 01 |
| 3.4.1 | Covering Structure Development | 3.10.3 | Level 02 |
| 3.4.2 | Secondary Elements | 3.10.4 | Level 03 |
| 3.5 | West Terrace | 3.10.5 | Level 04 |
| 3.5.1 | Covered Fan Plaza | | |
| 3.6 | West Quay | | |
| 3.5.2 | DNO Compound | | |
| 3.5.3 | Outside Broadcast Compound | | |
| 3.5.4 | Grow light Store | | |
| 3.6.1 | Parking | | |
| 3.7 | Bowl Configuration | | |
| 3.7.1 | Seating Bowl | | |
| 3.7.2 | Bowl Geometry: Metrics | | |
| 3.7.3 | Seating Accommodation: Bowl Sections | | |
| 3.8 | User Facilities - Bowl | | |
| 3.8.1 | General Admission | | |
| 3.8.2 | Hospitality | | |
| 3.8.3 | Accessible Seating | | |
| 3.8.4 | Media | | |

3.1 SITE LAYOUT

The revised site layout is similar to the scheme submitted in December 2019. The stadium orientation remains north/south, with a Fan Plaza in the east, adjacent to the Grade II Listed Hydraulic Engine House. The western part of the site has been developed with the new West Terrace, and the design of the lower steps to the water's edge has been refined. The

substation in the west quay has been relocated to the north with temporary zones for the grow light storage and Outside Broadcast Compound on either side of the structure, for match-days. For further information on the design development of the Public Realm please refer to chapter 7 of this document.

- 1

Regent Road Wall Openings

2

Hydraulic Engine House

3

Vehicular Security Hut/Barrier

4

Fan Zone Plaza

5

Glazed Entrance Portal

6

Eastern Dock Wall

7

Grow Light Storage Area
- 8

DNO Compound

9

Outside Broadcast Area

10

Surface Car Park

11

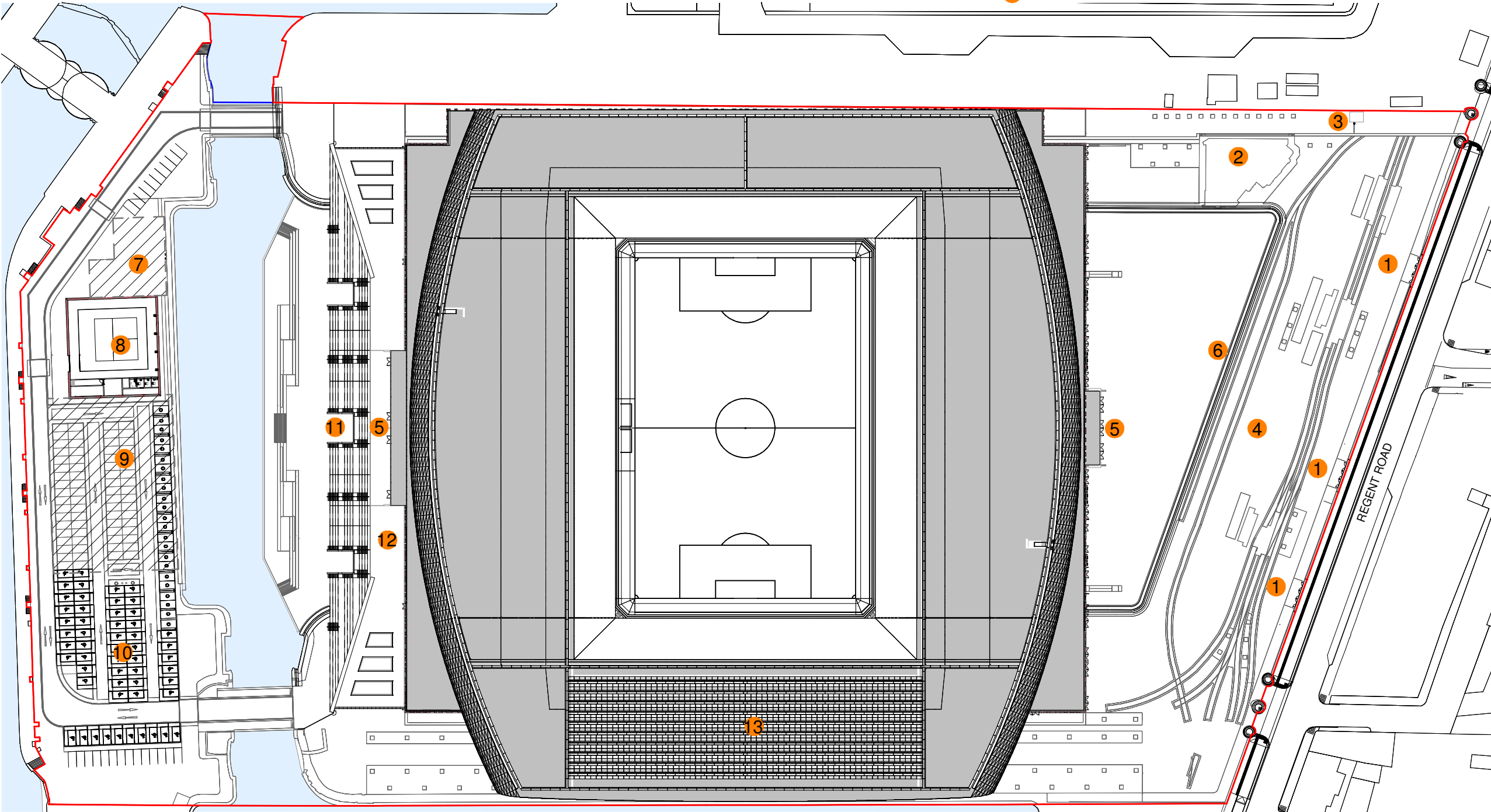
Covered Fan Plaza Entrance

12

West Terrace Plaza

13

PV Array



Related sections in the submitted Design & Access Statement:
7.4

3.2 SITE LEVELS

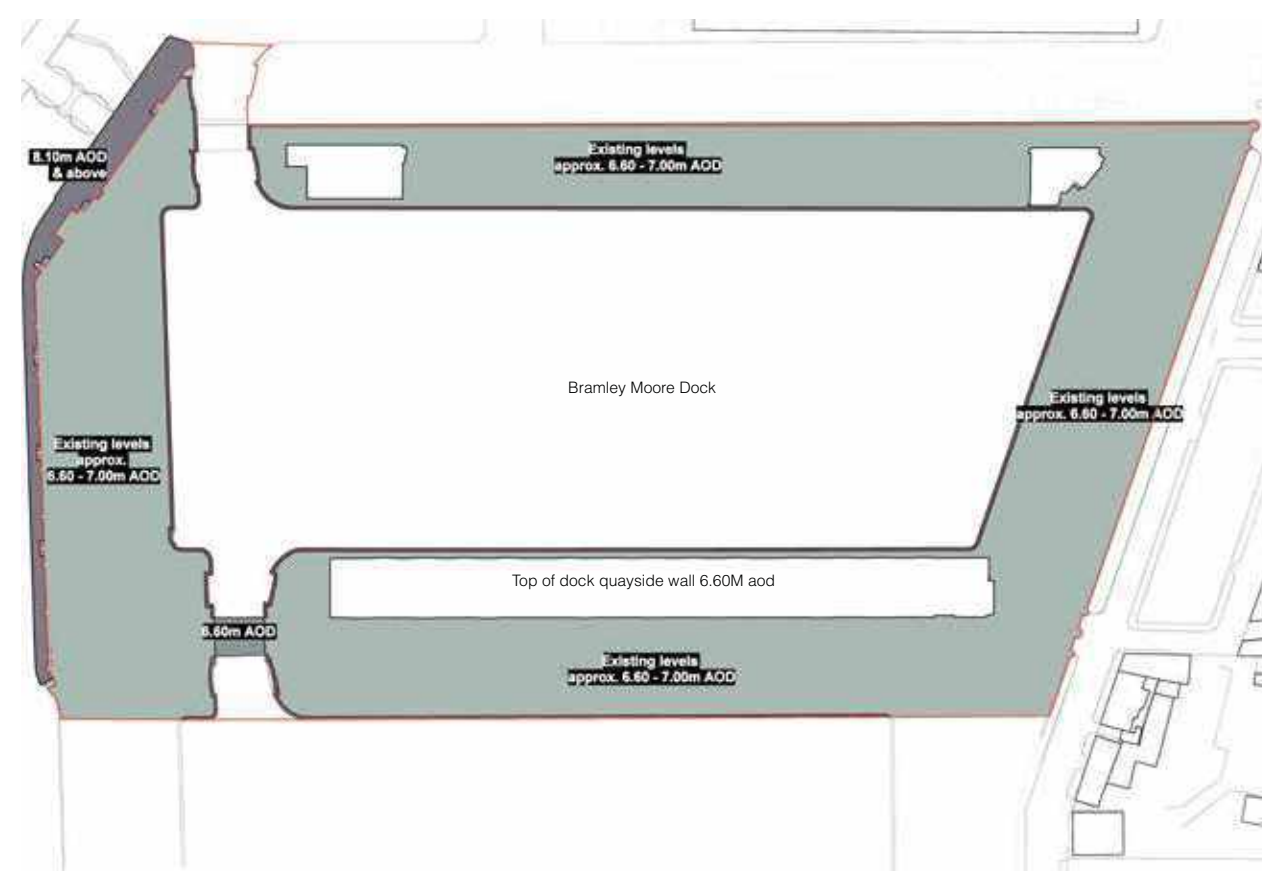
The external surface levels around the perimeter of the site remain the same as the previous application. The Finish Floor Level (FFL) for the stadium remains at 7.30m AOD with an emergency access requirement for the public realm of 7.10m AOD minimum to the northern concourse.

The key localised level changes since the original application are associated with the transition between the public realm and the stadium on the Eastern facade and the levels between the western terrace and the waters edge along the new water channel edge.

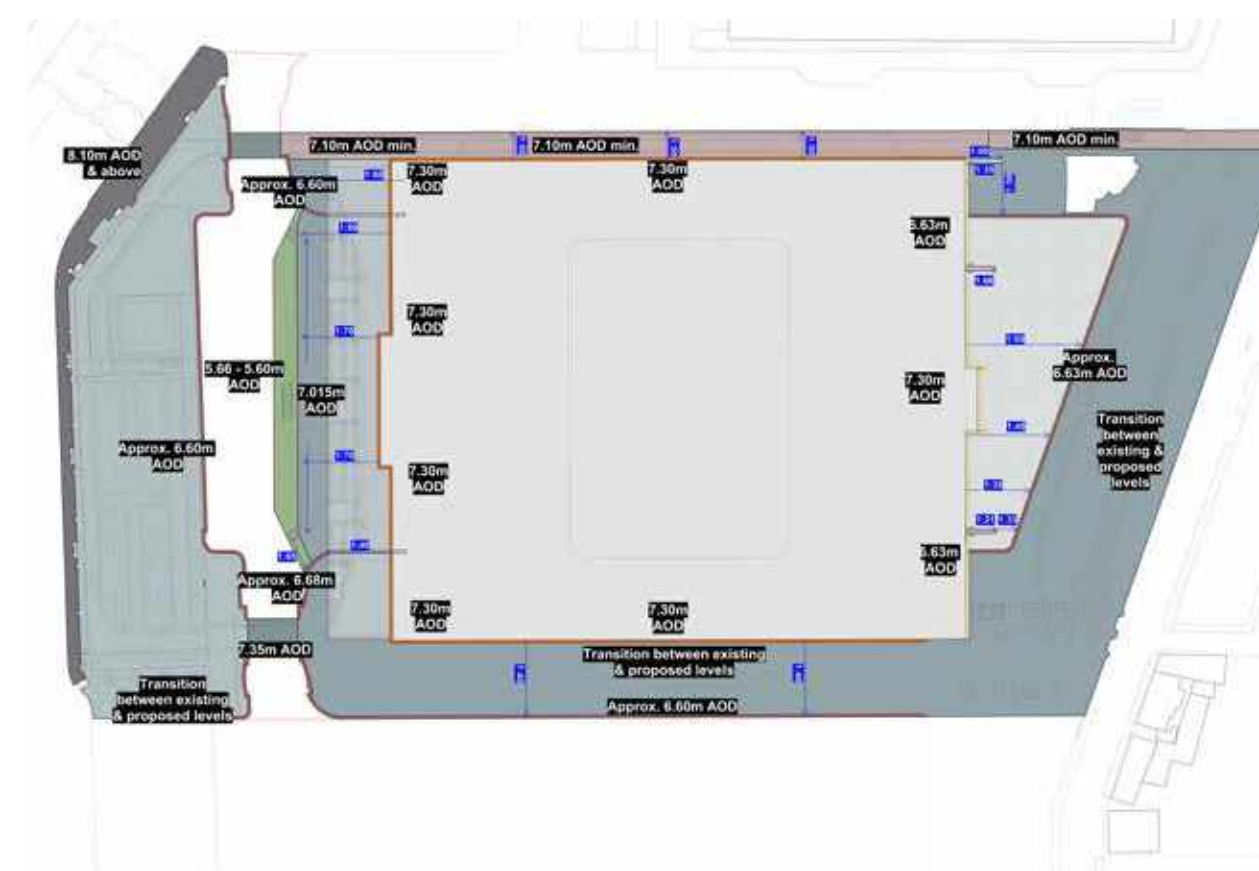
On the Eastern Fan Plaza, following further technical design review around the principle of retaining the BMD wall visible in the surface of the public realm. The impact of the structural design for the stair cores at the NE and SE corners to maintain a circa 6.65m transition level interface and the door locations

closer to the centre of the Eastern facade having a transition level of 7.30m. This change in level occurs over only a 4m distance. Therefore a need to introduce a retaining wall perpendicular to the facade that extrudes into the fan plaza with surface gradient slopes either side. The grades are no steeper than 1:21 with a level landing zone at the building threshold.

The other main change is on the Western Waters edge, the lower terrace adjacent to the water has risen slightly due to the need to get drainage outfall levels underneath this structure into the water channel.



Existing Site Levels



Proposed Site Levels

Related sections in the submitted Design & Access Statement:

12.7

3.3 BUILDING MASSING

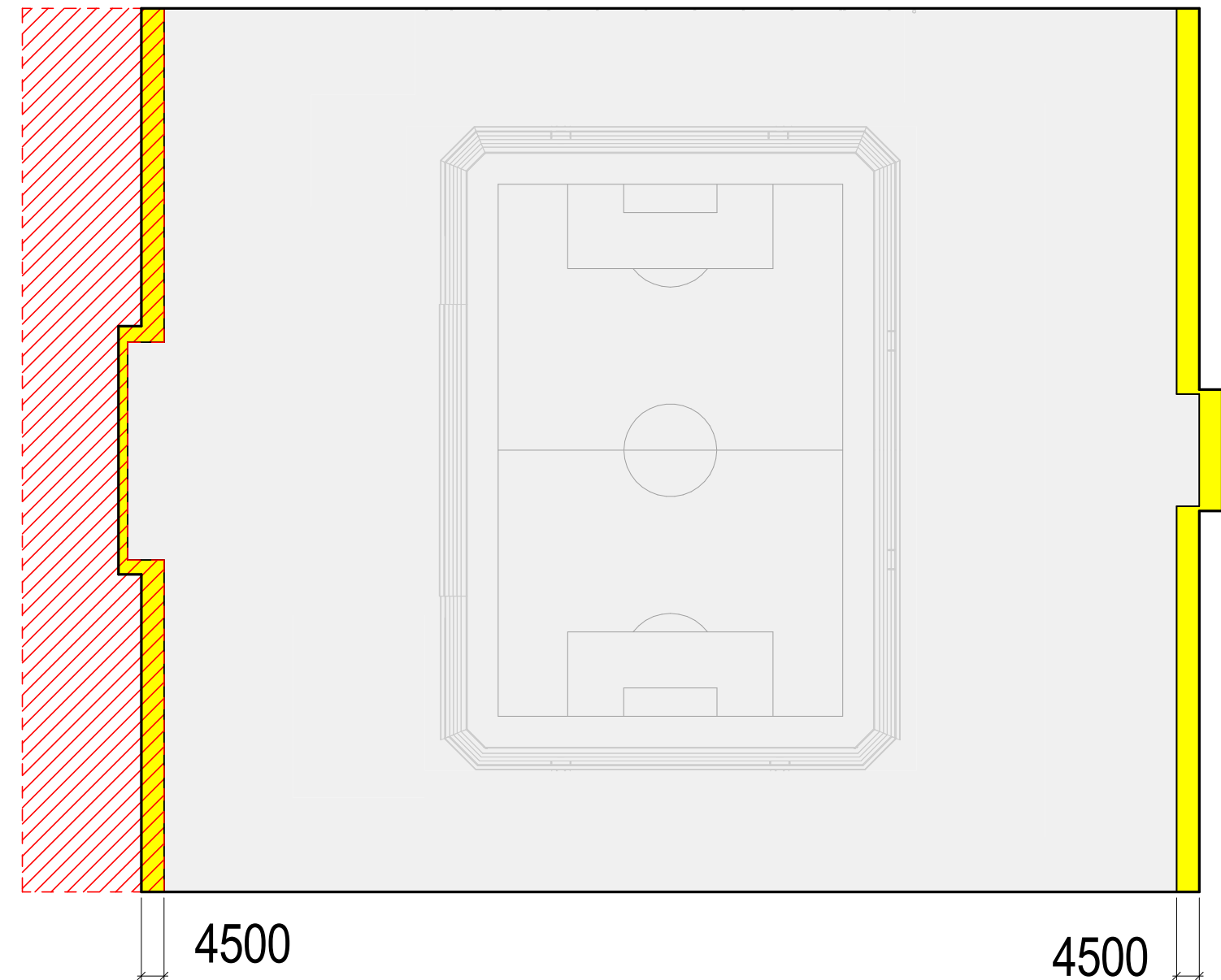
The overall massing of the stadium has been developed in line with feedback from stakeholders. The pitch is located in the same place on the site, and the north and south facade lines are unchanged from the scheme submitted in December 2019. There have been changes to the east and west extents of the stadium in response to several key factors:

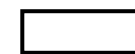


- the removal of the MSCP
- developed layout of entrance turnstiles and gates
- developed layout of exit doors
- developed configuration of stairs

There is an overall reduction in area due to the removal of the MSCP however it has been necessary to incorporate a further 4.5m extension to the east and west. This is in comparison to the previously submitted 'stadium' footprint, please refer to the adjacent diagram.

The east/west extension has been necessary since there were previously two floors of MEP and hospitality accommodation housed above the MSCP, which have had to be relocated within the limits of the main stadium footprint. In order to minimise the extension necessary in order to keep the building functional, the configuration of the entrance turnstiles and gates as well as the main spectator stairs has been developed for greater efficiency. This has allowed the design team to maximise the internal concourse space and spectator facilities on the floors above.

The change to the building footprint has had some impact on the stadium foundations, since there is an additional expanse of structure to support. However there has been no impact on the overall structural strategy and the foundations are still able to span over the existing Grade II listed dock walls without causing harm.



-  Stadium footprint of scheme submitted in December 2019
-  Additional area required for stadium functionality
-  Footprint of the MSCP, omitted from scheme

3.4 WIND MITIGATION

3.4.1 Covering Structure Development

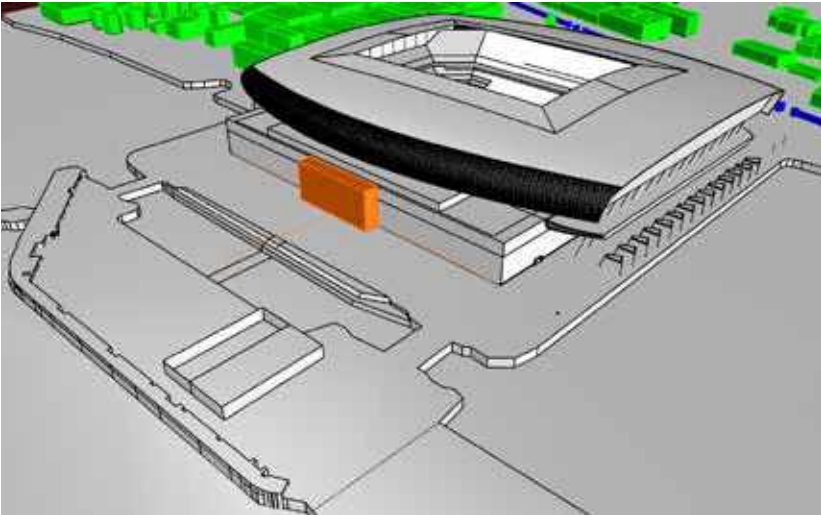
Due to its position near the mouth of the River Mersey, Bramley-Moore Dock is subject to a coastal climate. The site is exposed to prevailing winds, primarily from the north-west, west, and south-west throughout the year, but also from the south-east during the autumn and winter seasons. Given the extent of elevated wind speeds on site, any incremental increases in wind speed, including those caused by the aerodynamic performance of a building, increases the incidence rate of wind speeds that exceed thresholds for safety and comfort.

More detail regarding site performance and site compliance with standards of wind safety and comfort can be found in the Wind Assessment Report, included separately as part of the submitted Environmental Impact Assessment.

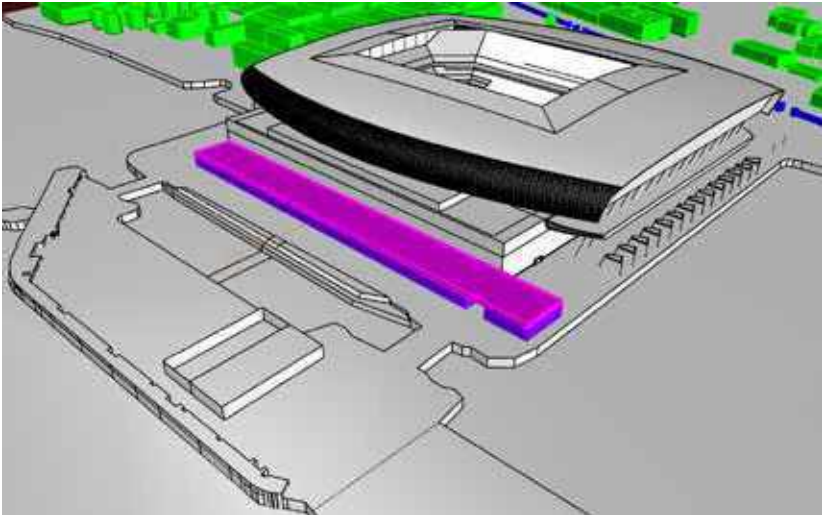
The scheme submitted in December 2019 incorporated a series of wind mitigation strategies around the stadium to create comfortable pedestrian conditions. This solution was verified through both physical wind tunnel testing and digital testing, known as computational fluid dynamic (CFD) testing.

The overall geometry of the building has now changed, primarily reducing in volume due to the removal of the MSCP in the west. It was established, through extensive CFD testing that a covering structure is the only viable way to protect the west building entrances in high winds. This concept has been developed into a stepped terrace, offering a raised vantage point for the public in fair weather, and safe entrances to the building in all conditions with via covered concourse. The result is a new civic space in the World Heritage Site with views over the Mersey.

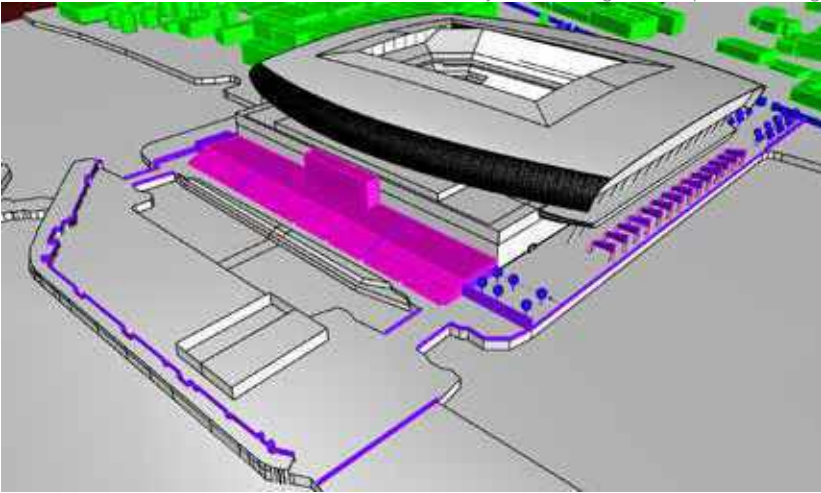
Overall, the principles for controlling the wind are unchanged. However, the size of the mitigations has been reduced due to the developments to the building massing and the new West Terrace. All revisions to the scheme have been thoroughly tested using CFD analysis, which has been calibrated to the physical wind tunnel model that was prepared for the original planning application.



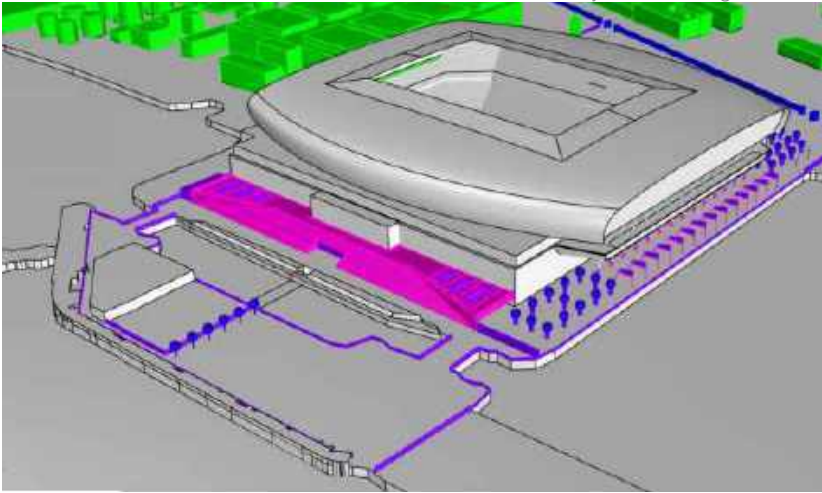
CFD study of removing the car park massing



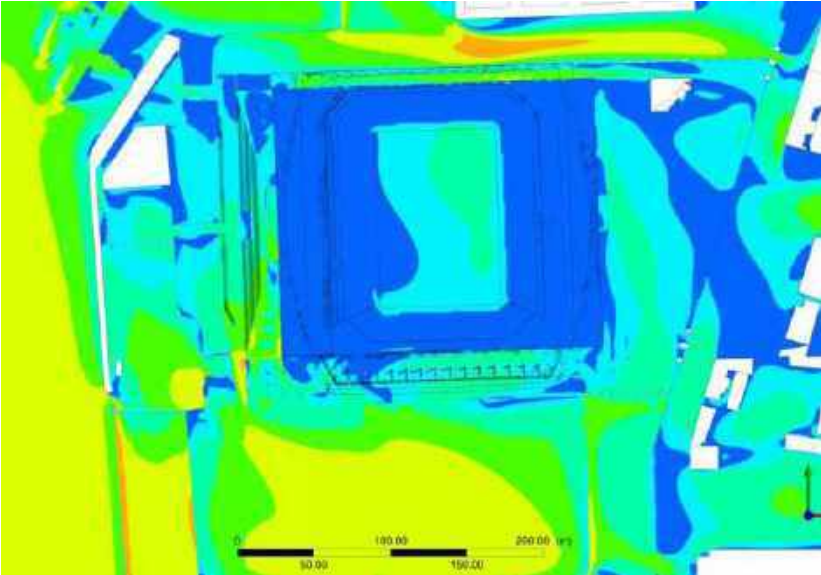
CFD study of a covering structure



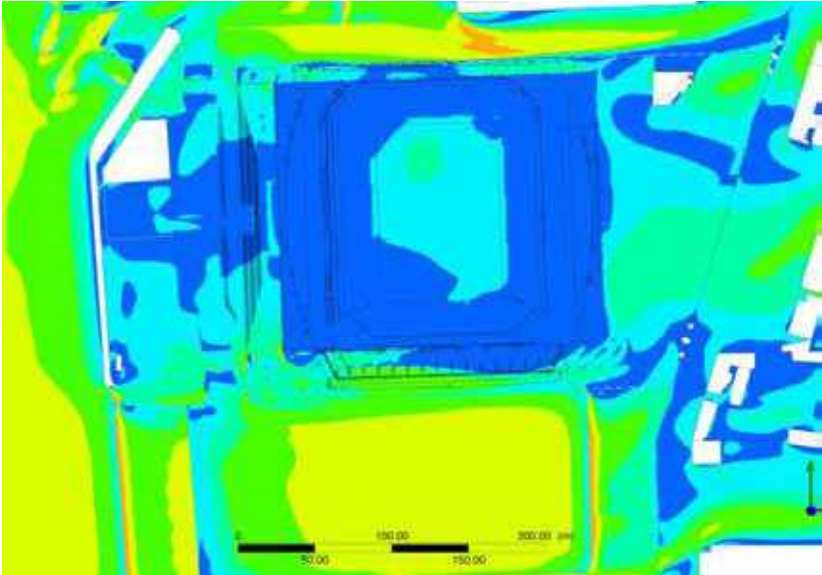
CFD study of a stepped canopy with secondary mitigating elements



CFD study of the developing West Terrace and secondary mitigating elements



CDF testing results for north-westerly wind



CDF testing results for westerly wind

Related sections in the submitted Design & Access Statement:

7.3

3.4.2 Secondary Elements

In addition to the West Terrace which forms a covered concourse to protect the western building entrances, there are a number of other mitigation structures on site.

South Corners:

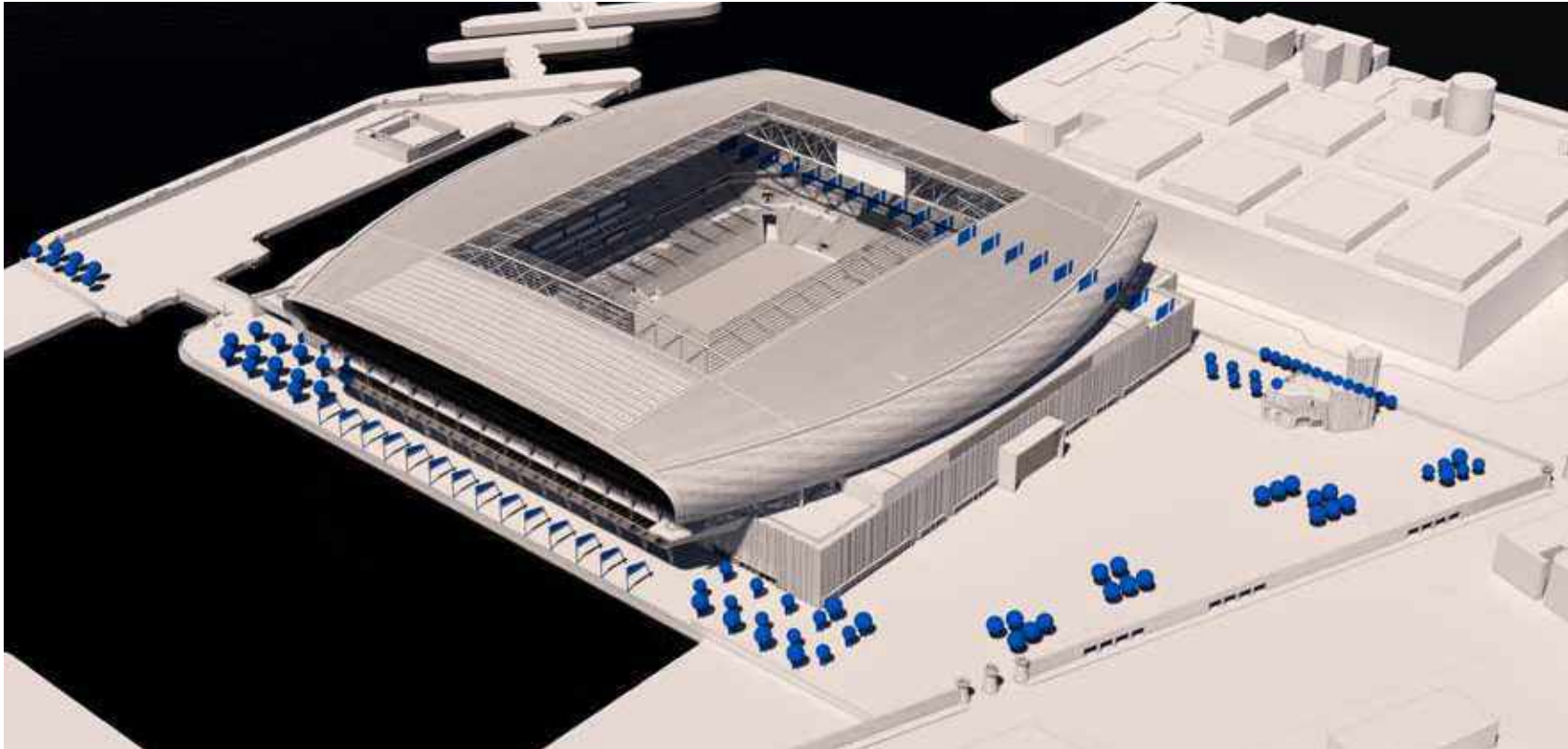
In the scheme submitted in December 2019 the south corners had large brick portal structures acting as mitigation for wind around the corner of the envelope. These structures extended out to the site boundary, requiring substantial structure and foundations adjacent to the dock walls.

Due to the West Terrace design, the behaviour of the wind has changed, lifting the wind in the corners. This has allowed for the replacement of the large brick baffles with a small grove of trees that offers the necessary protection at ground level for pedestrians to circulate safely around the stadium. This also serves to reduce both the scale and visual impact of the corner mitigation.

The removal of the outrigger brick baffles helps to restore the stadium's symmetry and clean brick base massing. The soft vegetation juxtaposes the brick mass, reinforcing its monolithic concept, and is a positive addition to the Public Realm.

North/South Baffles:

As per the scheme submitted in December 2019, there is a series of baffles fixed to the building along the north passageway. There is also a line of free standing baffles along the south facade, between the groves of trees at the corners. Both sets of baffles are highlighted in the top image opposite. The surface of the baffles may be used for branding, advertising and signage along the public concourses.



Proposed site massing with highlighted wind mitigations



Visualisation of the southwestern corner trees



Visualisation of the southeastern corner trees

Related sections in the submitted Design & Access Statement:

7.3

3.5 WEST TERRACE

As per the scheme submitted in December 2019, the entrances along the west of the stadium are permanently protected from high winds and adverse weather by a covered external concourse. However, this protective canopy is no longer covered by the MSCP; it is now utilised as a public plaza.

This new West Terrace is a key feature of the Public Realm, which celebrates the site's west facing aspect and will benefit from afternoon and evening sun. The raised vantage point gives views of the River Mersey and increases the visual and physical connections between the building and the water channel. The plaza will be open to the public year-round except during adverse weather, with access from Regent Road via the east Fan Plaza. Following the planned development of Nelson Dock and the wider Liverpool Waters scheme, pedestrian access will be available from the south and the West Terrace will be the termination of the River Walk through the World Heritage Site.

The design of the stepped terrace references the historic dry docks in the World Heritage Site such as Canning Graving Dock. It has been developed as a space that can be used in a number of ways. It is aligned with Level 01 of the building so the upper level can be used as an outdoor break-out space for the hospitality lounges on Match Days or when they are used for events such as conferences on non-match days. Step free access from the covered Fan Plaza is provided via the lifts at either end of the terrace, just inside the stadium facade, please refer to section 9.2.6 for further detail. Lift access to the top of the terrace will be available on match days and non-match days. At the north and south of the terrace, there are larger areas which could be used for pop-up concessions. The stepped terrace offers a seating area for visitors and can be utilised for watching big screens or art installations on the west quay or water channel.

There are three openings along the length of the terrace. The central opening marks the player's drop off and entrance to the changing area. The two openings either side of this allow direct access to the firefighting cores from fire tender parking positions in the west. The three openings will typically remain open except in adverse weather, when it is necessary to enclose the covered concourse and restrict access to the west quay and terrace steps. This will be achieved with porous metal gates, leaving only the large entrances at the north and south of the structure open to access the covered Fan Plaza and building entrances. This strategy has been developed to ensure it is safe in all conditions and enables the stadium to function as normal for ingress and egress in all weather conditions.



The initially submitted design of the west facade and plaza



The revised design of the west facade and plaza

3.5.1 Covered Fan Plaza

In the scheme submitted in December 2019, the west external concourse was covered by two floors of car park. The overall geometry of the building has been revised; however the external concourse at ground level remains, following the same strategy of providing a safe passage for ingress and egress for spectators in all conditions.

The external concourse is located below the West Terrace, with pedestrian access out to the water's edge and west quay at three locations along its length. These openings each have perforated metal gates which enable them to be closed, however it is intended that the gates will only be used in high winds for mitigation and they will therefore typically be open. Please refer to the site perimeter diagrams in section 6.2 for further information.

The shape of the covered Fan Plaza, including the large entrance openings at the north and south, has been developed to accommodate the large crowds passing through the area immediately after a match, maintaining the safe movement of people through the site.

Before a match, fans can gather around the central opening to see the players arriving. This is envisaged as a ceremonial moment for spectators, which will draw people into the fan zone. There are no permanent facilities for fans in the covered Fan Plaza, however there is space available for the club to set up temporary concessions for event days.

Without the car park above, voids are incorporated into the terrace to allow light and air into the concourse space below, creating a comfortable environment. The building entrances in this area serve both general admission and hospitality spectators and are crucially protected in all weather conditions, meaning the stadium can always function as normal. As such, the covered Fan Plaza will be open all year-round. The entrances to the north and south lift lobbies will be open on match days and non-match days to provide access to the upper level of the terrace.



Working visualisation of the covered Fan Plaza



Visualisation of the main spectator entrance to the covered Fan Plaza



Conceptual view of the player's arrival fan experience



Visualisation of the West Terrace and west facade over the water channel

3.6 WEST QUAY

The west quay is used for a number of purposes relating to match-day setup and match events. The design team has therefore sought to make the space more flexible so that the maximum usable space is available on non-match days.

3.5.2 DNO Compound

See area marked (1) on plan:

The District Network Operator (DNO) substation compound has been moved to the north of the site to minimise the obstruction of river views from the south concourse and West Terrace. The small brick structure has been reduced in size to occupy the smallest possible area. The layout has also been rationalised following consultation with the Premier League broadcasting team.

3.5.3 Outside Broadcast Compound

See area marked (2) on plan:

The Outside Broadcast Compound is a temporary zone which is required for Match Days. An area of the surface car park will be used for broadcast vehicles, with cabled connections into the adjacent DNO compound. New input has been received from structure, electrical and broadcast engineers to ensure this area works efficiently, as well as input from the Premier League broadcast team. Temporary fencing may be used to cordon off the OB Compound, subject to operational requirements.

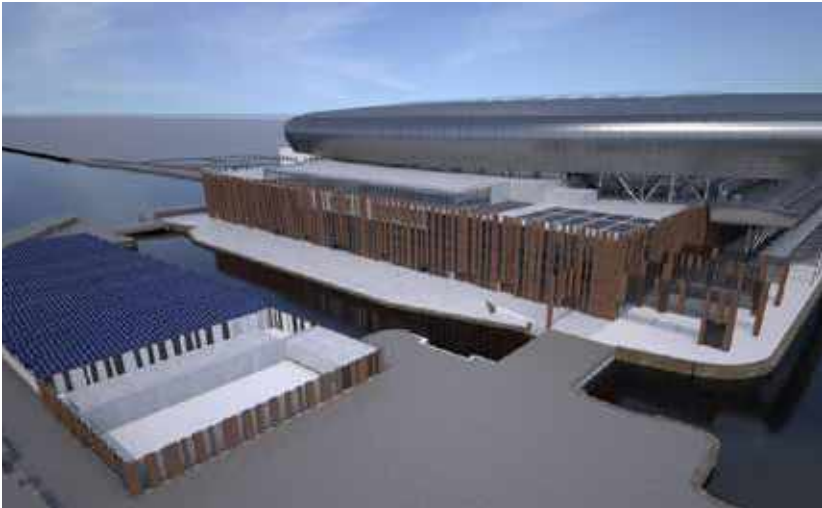
3.5.4 Grow light Store

See area marked (3) on plan:

The grow lights will typically be deployed on the pitch when there is not a match event. Therefore, the storage area is primarily required during match set-up and game time. A temporary storage area has been developed to the north of the DNO Compound so that space is not lost to a permanent structure that will be often empty. The lights will be safely contained when they are stored on the west quay, to the north of the site away from the main pedestrian flows. Temporary fencing may be used to cordon off the grow lights when stored, subject to operational requirements.



Plan of the updated west quay



The west quay as per the scheme submitted in December 2019



Working view of the DNO substation and grow light enclosure



Visualisation of the west quay with surface car park and relocated DNO compound

Related sections in the submitted Design & Access Statement:

11.2.4

3.6.1 Parking

Following the omission of the MSCP, the on-site parking has been significantly reduced. The on-site parking provision is now contained in the west quay surface car park, although there is provision for staff to park in the south east corner of the site on non-match days to allow the surface car park to be used by visitors for functions such as conferences.

Since the west quay is a flexible space, as described on the previous page, the parking provision varies between match days and non-match days. The diagrams opposite show the car park layouts for both scenarios and the parking bay counts are listed below:

Match Day Parking

Standard Bays - 25
 Accessible Bays - 52
 Electric Charging Bays - 6
 Accessible Electric Charging Bays - 2
 Motorbike Bays - 4

Total Parking = 89

Non-Match Day Parking

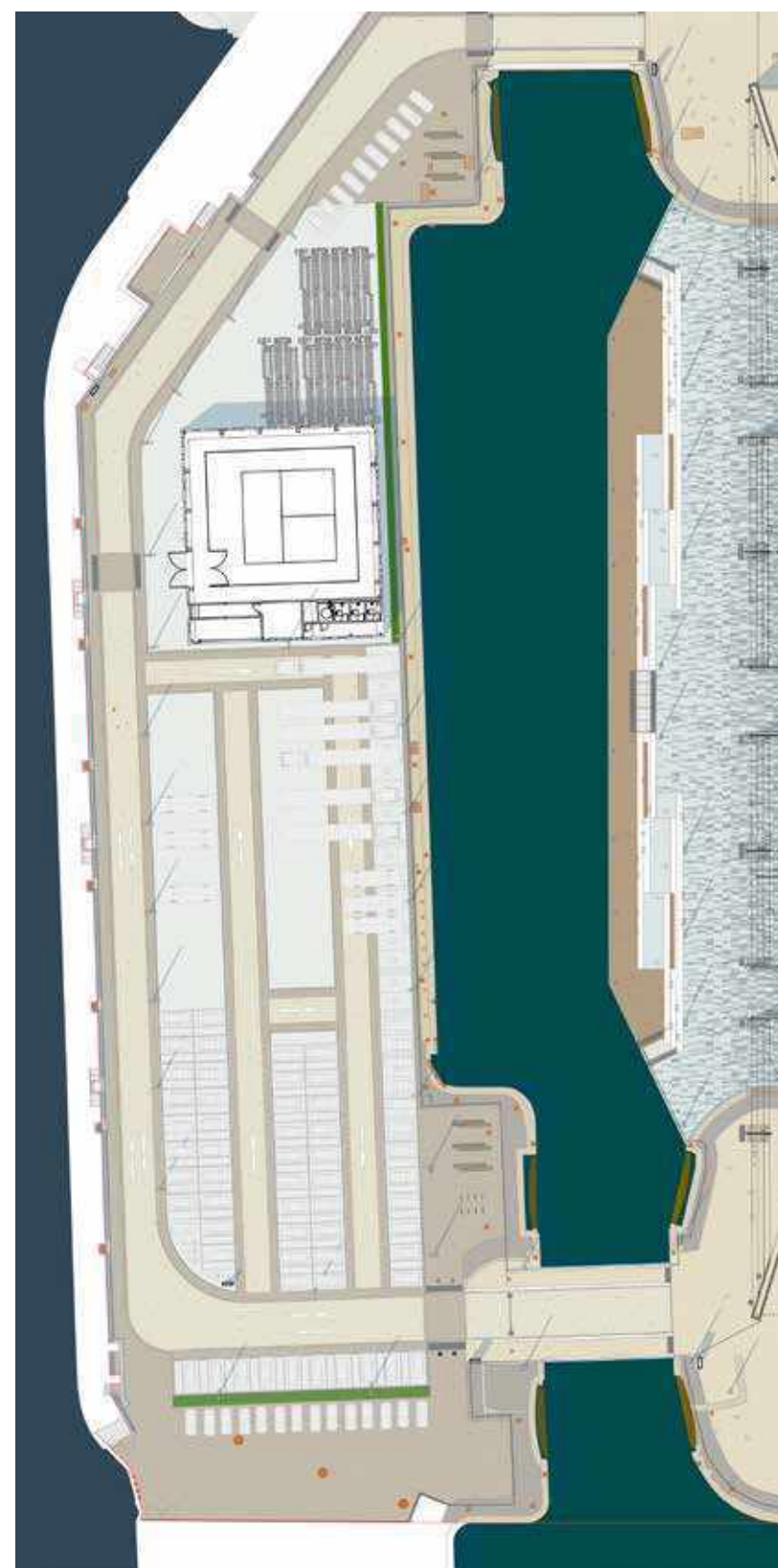
Standard Bays - 71
 Accessible Bays - 52
 Electric Charging Bays - 24
 Accessible Electric Charging Bays - 2
 Motorbike Bays - 4

Total Parking = 153

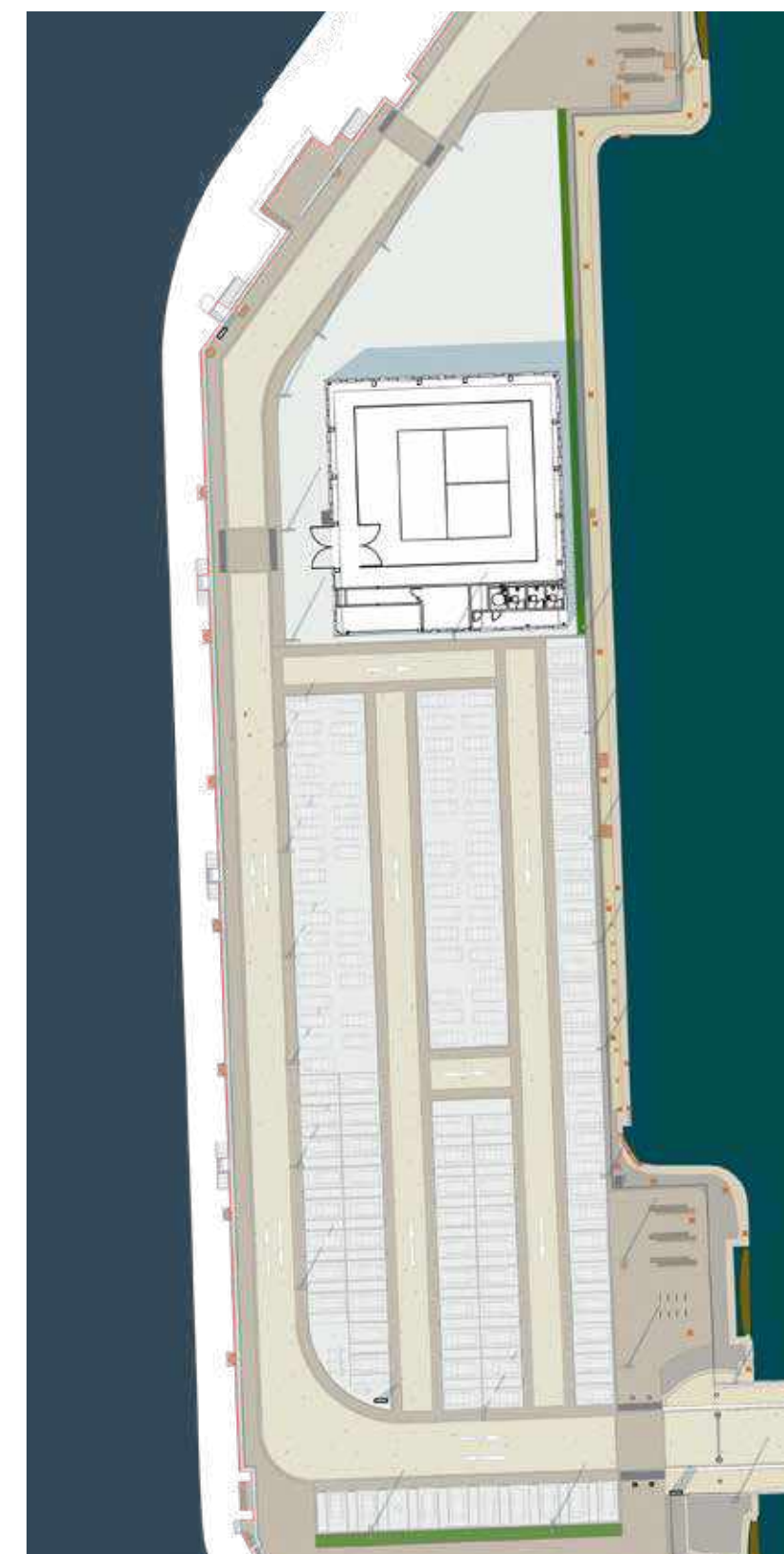
In addition to the vehicle parking there is on-site cycle parking in both the west quay and adjacent to the Regent Road Wall. There is capacity for 152 bikes initially plus scope for expansion of a further 60 spaces, depending on demand. Please refer to section 7.7.9 for further detail.

Related sections in the submitted
 Design & Access Statement:

11.2.5



Parking layout for match days



Parking layout for non-match days

3.7 BOWL CONFIGURATION

3.7.1 Seating Bowl

The overall arrangement of the 52,888 maximum capacity bowl is as per the scheme submitted in December 2019, but the developed design makes significant improvements, including:

- Improved viewing quality
- Increased number of wheelchair viewing positions
- Improved safety
- Rationalised geometry
- Simplified construction

The following section addresses each of these points in detail.



Related sections in the submitted Design & Access Statement:

7.5

Overview of the seating bowl



South (home) Stand



West Stand



North Stand



East Stand

3.7.2 Bowl Geometry: Metrics

- The Stadium Metrics have been optimised to improve the spectator experience. There is an increased number of seats with 800mm or greater row depth and 500mm or

greater seat spacing. Visibility of the pitch is calculated for each seating position by measuring a distance called a C-value, as illustrated in the diagram below. The design

development of the bowl has improved C-values, particularly for the upper tier, so that all C-values are now at least 90mm.



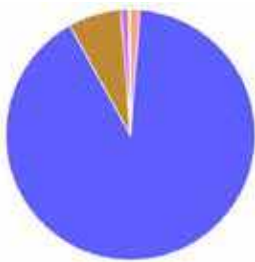
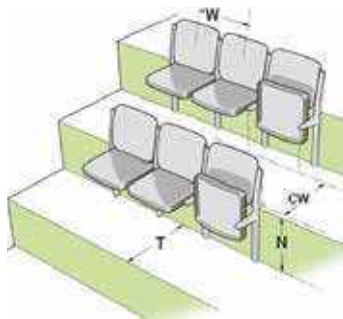
Bowl variations in row depth



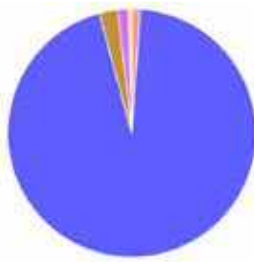
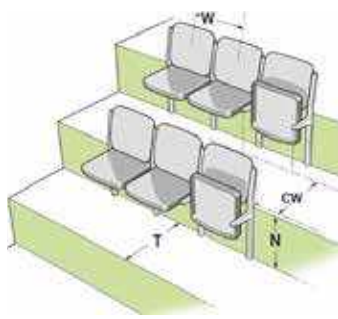
Bowl variations in seat spacing



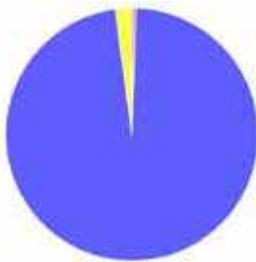
Bowl variations in C-values



| | | |
|---|---------------------|--------------|
| W CW N T | - SEAT SPACING | 750mm DEPTH |
| | - CLEAR WAY | 800mm DEPTH |
| | - TIER RISER HEIGHT | 900mm DEPTH |
| | - TIER DEPTH | 1400mm DEPTH |
| | | N/A |



| | | |
|---|---------------------|---------------|
| W CW N T | - SEAT SPACING | 460mm SPACING |
| | - CLEAR WAY | 500mm SPACING |
| | - TIER RISER HEIGHT | 550mm SPACING |
| | - TIER DEPTH | 610mm SPACING |
| | | N/A |



| | | |
|----------------------------------|---------------------|----------------|
| C N T | - C-VALUE | - C-VALUE >90 |
| | - TIER RISER HEIGHT | - C-VALUE >120 |
| | - TIER DEPTH | - C-VALUE N/A |

Related sections in the submitted Design & Access Statement:
7.5.3

N/A = Seat locations / positions where the stadium metrics do not apply, ie. wheelchair platform's and TV Gantry.



3.7.3 Seating Accommodation: Bowl Sections

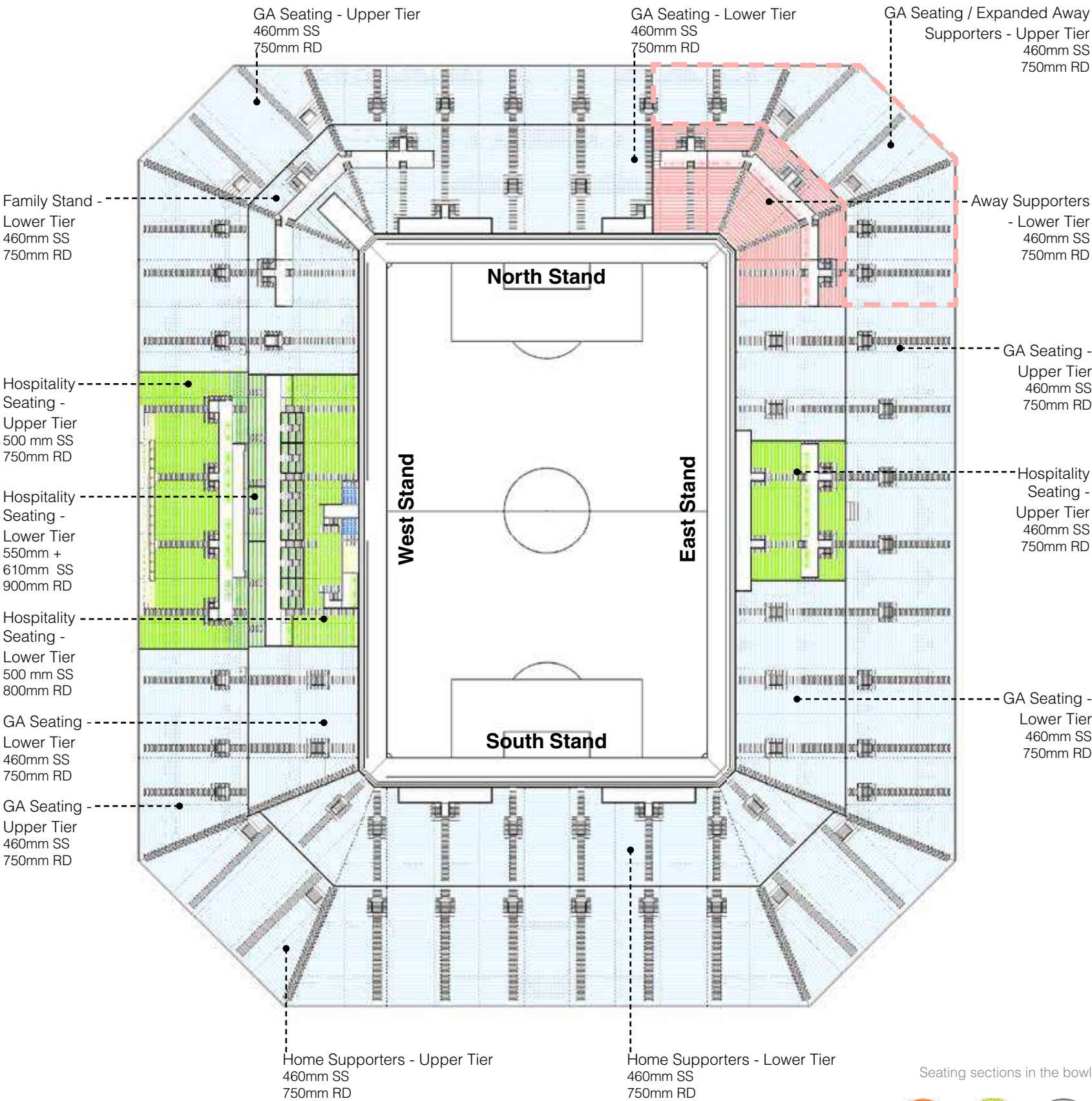
The organisation of the various seating sections in the bowl is consistent with the scheme submitted in December 2019. The metrics for each section are also indicated in the diagram opposite:

Row depths (RD)

- 750mm for all General Admission areas
- Hospitality areas vary depending on zone
- 750mm for East stand Lower Bowl
- 800mm for West Stand Lower Bowl
- 900mm for West Premium Lower Bowl
- 1400mm for Loge Boxes

Seat Spacing (SS)

- 460mm for General Admission areas
- Hospitality areas vary depending on zone
- 460mm for East Stand Lower Bowl
- 500mm for West Stand Lower and Upper Bowl
- 550mm for Loge Boxes and West Premium Lower Bowl
- 610mm for the Directors and Sponsors Box seating



Related sections in the submitted Design & Access Statement:

7.5.4

3.8 USER FACILITIES - BOWL

3.8.1 General Admission

The spectator experience in general admission areas has been improved with the following:

- C-values in the upper tier have increased from a minimum of 60mm to 90mm throughout the bowl (c-value is a measurement of pitch visibility from each seat)
- Vomitory and gangway widths have been increased to provide safer ingress and egress
- All gangways are linear, with any change of direction omitted for improved circulation
- Easy access amenity seating has been included in general admission areas, in locations that reduce the need to use radial gangways

3.8.2 Hospitality

Hospitality areas have been developed both in response to the Club's brief and also for general improvements to spectator experience:

- Box sight lines have been optimised
- There is greater flexibility in the Boxes for wheelchair viewing positions
- The Loge Boxes have been adjusted to provide level access to the top row of Loge Boxes, and remove the visual obstruction from the hospitality lounge behind them.
- North Dining Lounge has been introduced with an unobstructed view of the pitch
- The Director's and Sponsor's Boxes have been developed for improved viewing experience and access to the seats at the front of the upper tier, as per Goodison Park

3.8.3 Accessible Seating

The accessibility of the bowl has been improved for all users. This has been achieved via the following adjustments:

- Increased general admission wheelchair viewing positions to 228 in line with SGSA methodology for calculation of provision
- Increased hospitality wheelchair viewing positions to 55 in line with SGSA methodology for calculation of provision (note - this does not include positions in hospitality boxes)
- Improved access to wheelchair viewing positions with additional vomitories for better movement of people
- Compliance with industry good practice for wheelchair viewing positions and easy-access amenity seating
- Re-design of Level 01 East Hospitality to provide level access to the bowl



View of the south stand



View of the hospitality boxes and lounge seats



View of a wheelchair tribute with companion seats

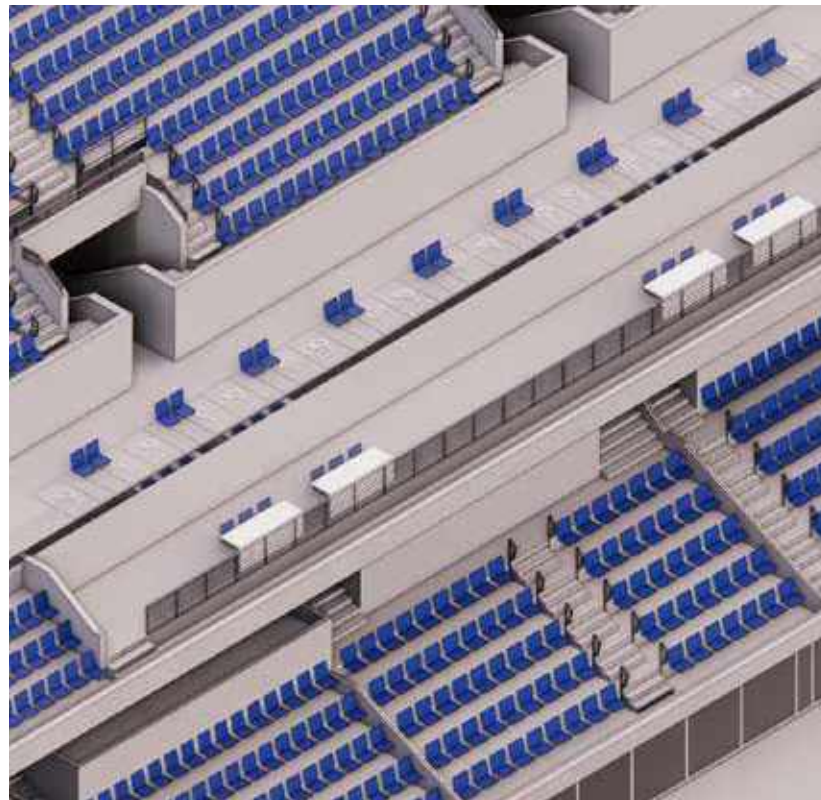
Related sections in the submitted Design & Access Statement:

- 7.8.3
- 7.8.4
- 7.8.5

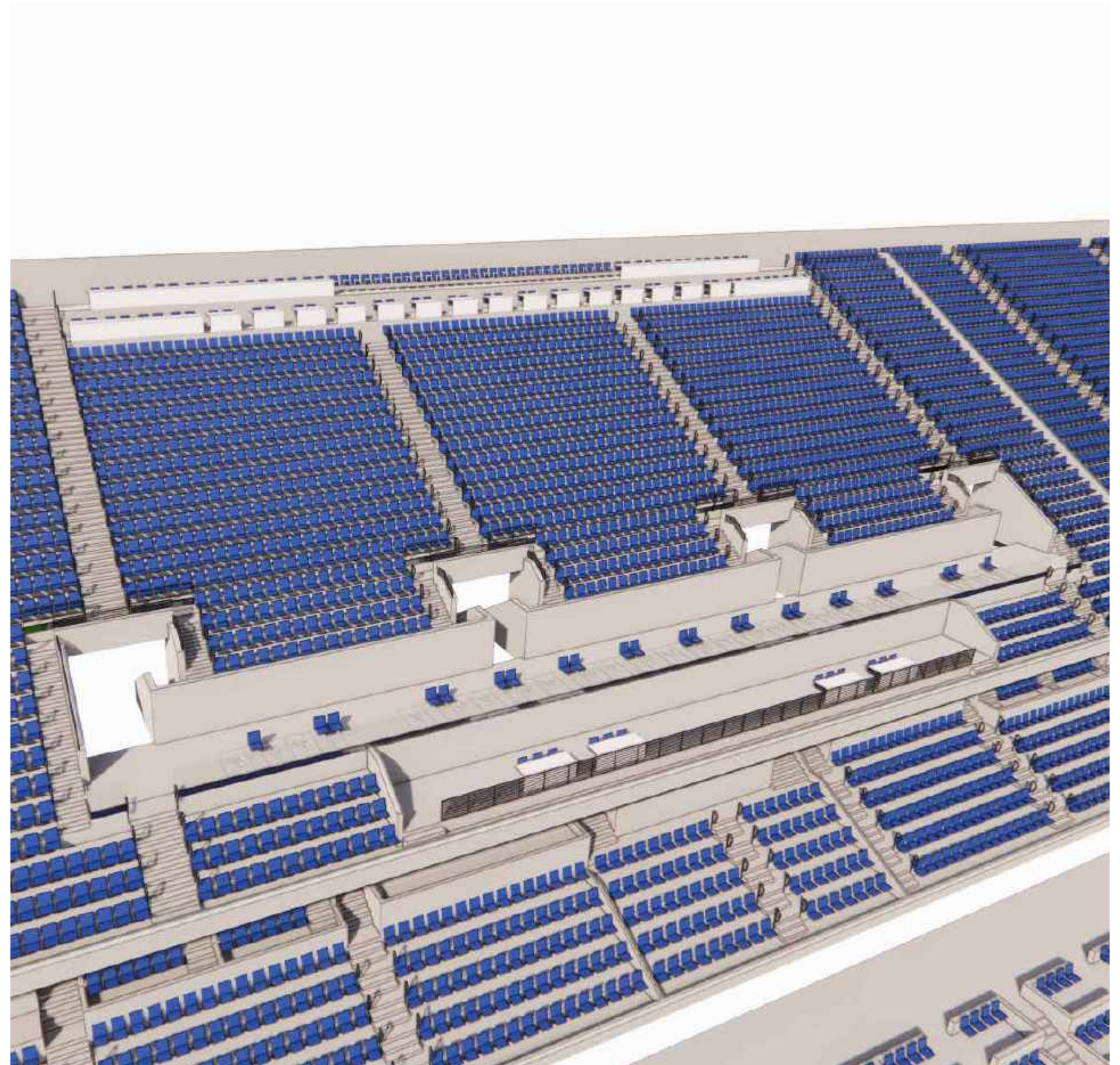
3.8.4 Media

The layout of the media areas within the bowl has been developed to achieve the following:

- Improved sightlines and C-values for all media members, from 60mm to 90mm across all positions
- Provision of designated wheelchair viewing positions for media members
- Improved safety by increasing gangway and vomitory widths
- Improved segregation and flexibility that can adapt to the requirements of different competitions
- Optimised geometry that will allow for a safer construction process



View of the media tribune



View of a the west stand

Related sections in the submitted Design & Access Statement:

7.8.7



3.9 ACCOMMODATION SCHEDULE

As a result of the revised building massing the internal layouts of the stadium have been updated. There is an overall reduction in area due to the removal of the Multi-Storey Car Park (MSCP). However, there was a 4.5m increase to the east and west facades to accommodate stadium programme that was previously located above the car park. This minor expansion of the east and west has also allowed for rationalisation of the stairs and entrance turnstiles in order to maximise the usable area at each level.

Plant rooms and risers have been developed in line with the engineers' requirements and to ensure the efficient function of the building systems. There has generally been a reduction in MEP area due to a rationalisation of equipment that relates to the Design for Manufacture and Assembly (DfMA) construction approach that has been adopted by the team.

The following pages show the updated level plans and outline some of the key developments at each level.

| Stadium Internal Programme Area | | | | | | |
|---------------------------------|----------|----------|----------|----------|----------|------------|
| Stadium Programme | Level 00 | Level 01 | Level 02 | Level 03 | Level 04 | Sub-totals |
| Back of House | 2,107m² | 932m² | 419m² | 457m² | - | 3,915m² |
| General Admissions | 7,953m² | 2,835m² | 10,304m² | 2,164m² | - | 23,256m² |
| Hospitality | 1,503m² | 5,371m² | 2,863m² | 3,554m² | - | 13,291m² |
| Kitchen | 1,234m² | 89m² | 132m² | 25m² | - | 1,480m² |
| Media | 1,105m² | - | 114m² | 160m² | - | 1,379m² |
| Medical | 215m² | 64m² | 70m² | 29m² | - | 378m² |
| Plant & Risers | 1,471m² | 2,974m² | 505m² | 1,846m² | 199m² | 6,995m² |
| Player Area | 1,572m² | - | - | - | - | 1,572m² |
| Retail | 554m² | 608m² | 124m² | 48m² | - | 1,334m² |
| Security | 301m² | - | 187m² | - | - | 488m² |
| Stadium Facilities | 1,160m² | - | 33m² | - | - | 1,193m² |
| Vertical Circulation | 2,248m² | 1,679m² | 1,900m² | 743m² | - | 6,570m² |
| Sub-totals | 21,423m² | 14,552m² | 16,651m² | 9,026m² | 199m² | |
| Total Internal Area | | | | | | 61,851m² |

Table 1 - Internal Programme Area within the Stadium Building, by Department

| Ancillary Buildings | |
|------------------------------|---------|
| Parking | 4,749m² |
| Outside Broadcast Compound | 2,300m² |
| Outside Broadcast Substation | 876m² |
| Grow Light Compound | 690m² |
| Security Booth | 13m² |
| Total Ancillary Buildings | 8,628m² |

Table 2 - Gross External Area of Ancillary Buildings and Zones within Application Site

| Stadium Gross External Area (GEA) | |
|-----------------------------------|-----------|
| Level 00 | 24,695m² |
| Level 01 | 17,525m² |
| Level 02 | 19,585m² |
| Level 03 | 10,170m² |
| Level 04 | 195m² |
| Pitch | 9,415m² |
| Total Bowl | 23,920m² |
| Total Stadium Development | 105,505m² |

Table 3 - Gross External Area of Stadium Building, by Level

Related sections in the submitted Design & Access Statement:

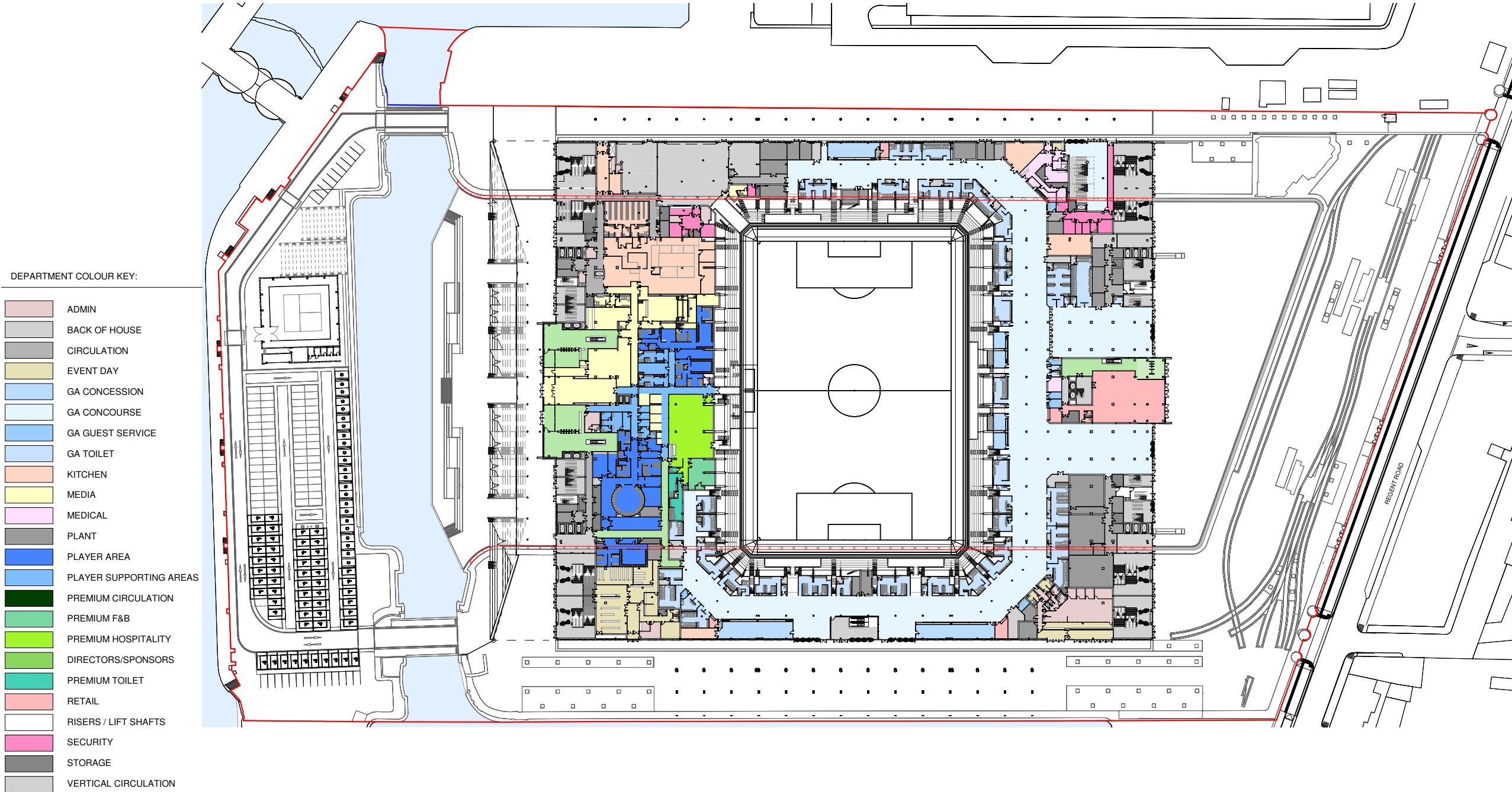
7.6

3.10 GENERAL ARRANGEMENT PLANS

The design team have developed the general arrangement of the building to achieve a number of improvements to the scheme based on functionality, efficiency and user experience:

3.10.1 Level 00

- GA concourse entries reconfigured to achieve a mirrored arrangement and maximise usable internal area
 - Away fan entry simplified and aligned with building grid for greater efficiency
 - Medical Centre relocated for better link to east Fan Plaza
- West Hospitality entry and vertical circulation reconfigured to pair escalators and lifts, maximise river views and increase internal usable area
 - Club shop revised for greater frontage along east Fan Plaza and create a clear separation from the hospitality entrance
 - Media provided with dedicated separate entry
 - Escalators added to the south 'home' stand for GA fans



Related sections in the submitted Design & Access Statement:
7.8.8

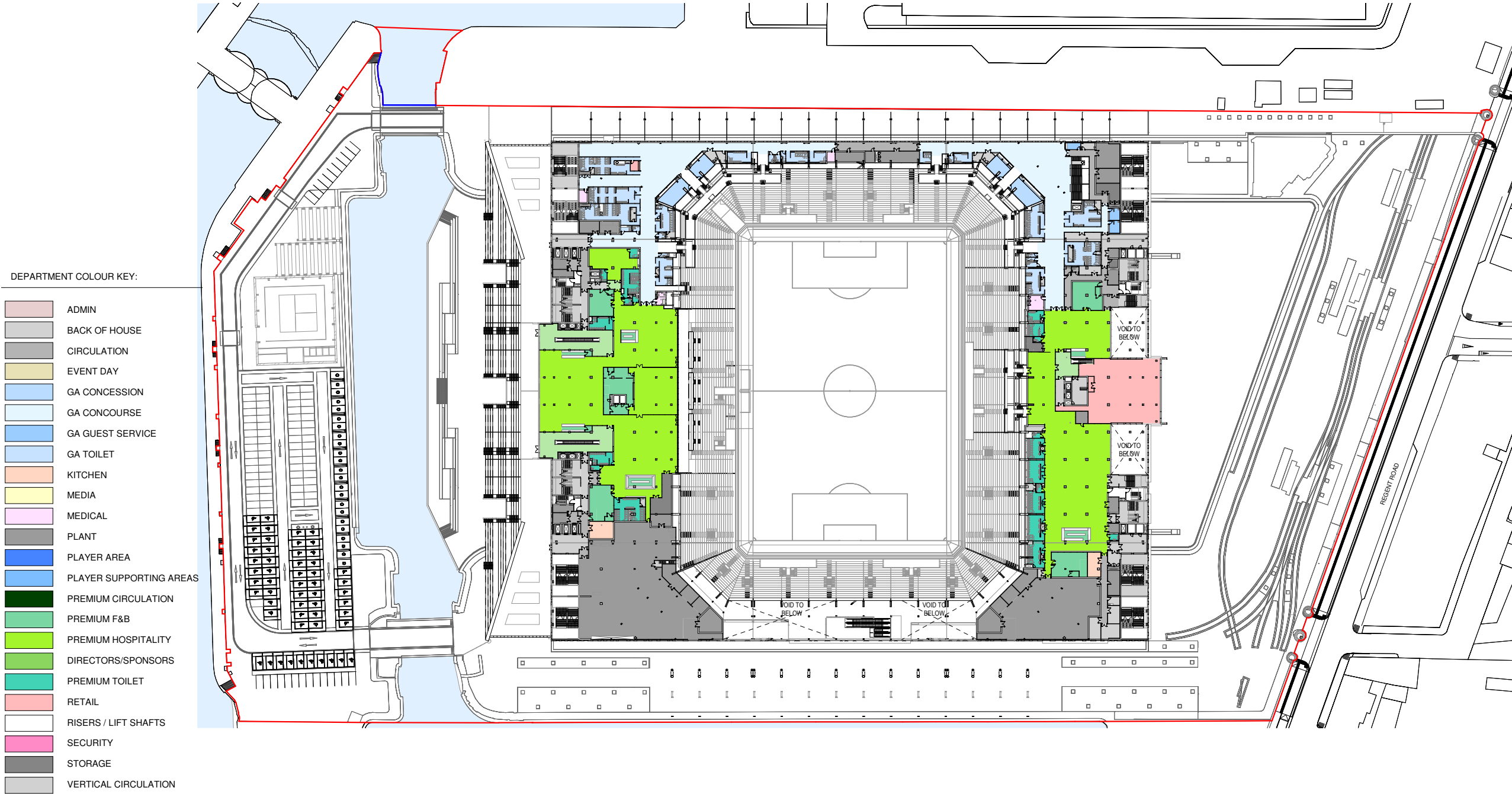
Level 00 layout plan



3.10.2 Level 01

- Family concourse redesigned to maximise available facilities
 - Away concourse redesigned to respond to new stair arrangement and develop opportunity for away fan hospitality offer
- Changing Places facility provided in Family Concourse with access provided from the Hospitality Lounge
 - Corner stairs area reconfigured for improved circulation and efficient use of space
 - East and West Hospitality Lounge areas redesigned as per the Club's brief
- West Hospitality Lounge developed to maximise river views and connection to West Terrace (for non-match day use)
 - Improved views from West Hospitality Lounge into bowl

Related sections in the submitted Design & Access Statement:
7.8.9



Level 01 layout plan

