

12

**COMMUNITY
HEALTH
BUILDING**



20
ZONE
IN 20 MINS
11.11.2020 14.11.2020

WORCESTER
AVENUE

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WORCESTER AVENUE

12.1 Design Concept

Vision

The master plan will include a new community health facility which will be sited on the north-east corner along Worcester Avenue adjacent to Lilywhite House. The increase in residential provision and the local shortfall in health care make this a key part of the development for both new and existing residents. It is envisaged that this will host a NHS health centre which will provide more options for local residents and assist in providing the additional facilities for other health specialists as part of the Government's drive to deliver more health services in the community.

The building will sit within an existing residential street, and will act as a mediator between the terraced houses, to the mass of Lilywhite House and the Stadium. It will conceal the back of house facilities of Sainsbury's and the stadium goods yards and the back door to the stadium. This will provide a more attractive frontage to the street and the podium public realm, and complement Lilywhite House by drawing activity to the Northern Podium on non-match day.

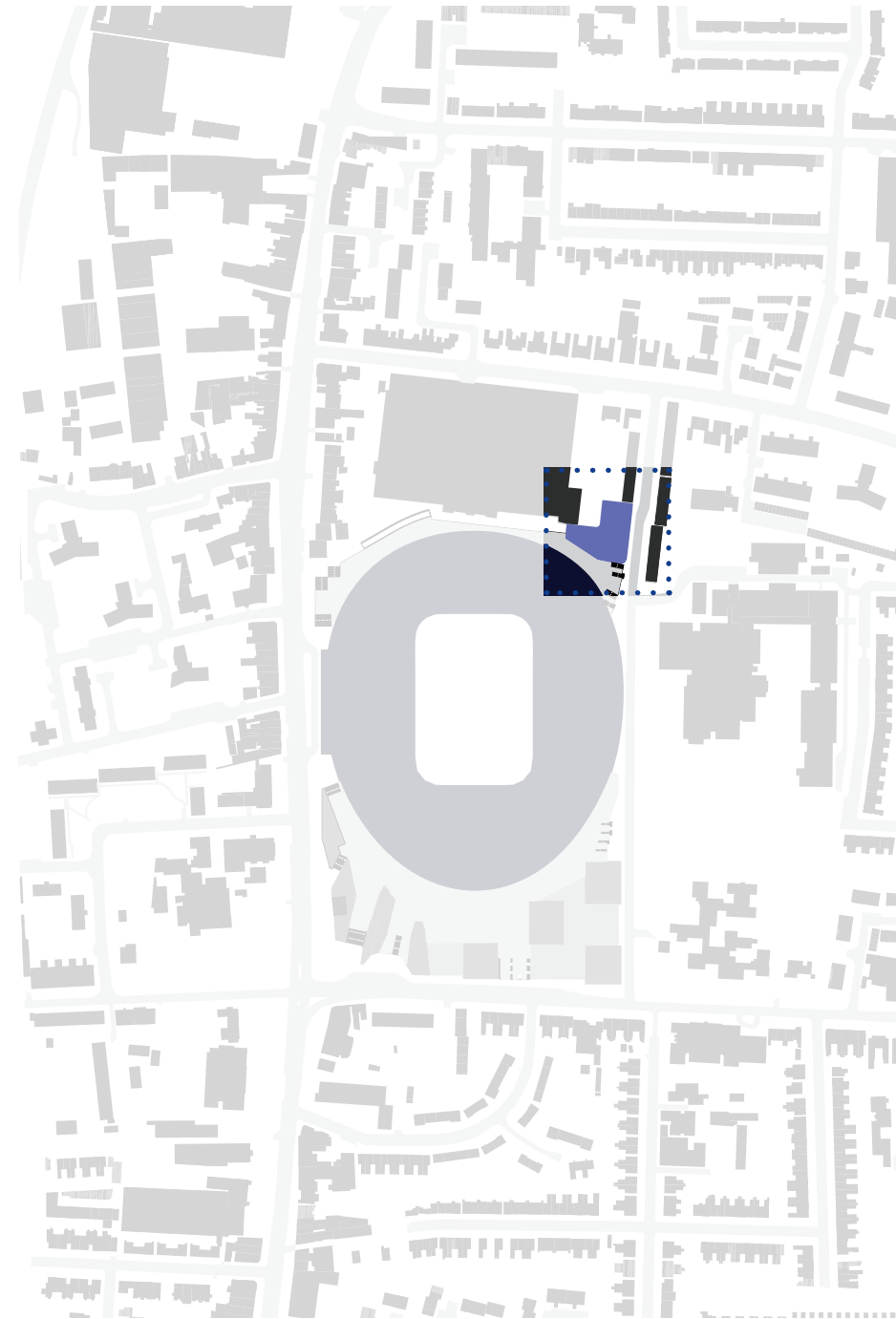


12.2 Access and Egress

12.2.1 SITE LOCATION AND DESCRIPTION

The Health Centre will be sited above the Stadium goods yard with a street frontage to the northern end of Worcester Avenue and an additional entrance to the north podium and Lilywhite House. Although it sits in a quieter corner of the NDP site, it forms a small but key component of the overall master plan.

The building acts as a transition from the existing Lilywhite House down to the existing terrace houses along Worcester Avenue and has an important role in mediating the scale of the stadium with the adjacent residential neighbourhood.

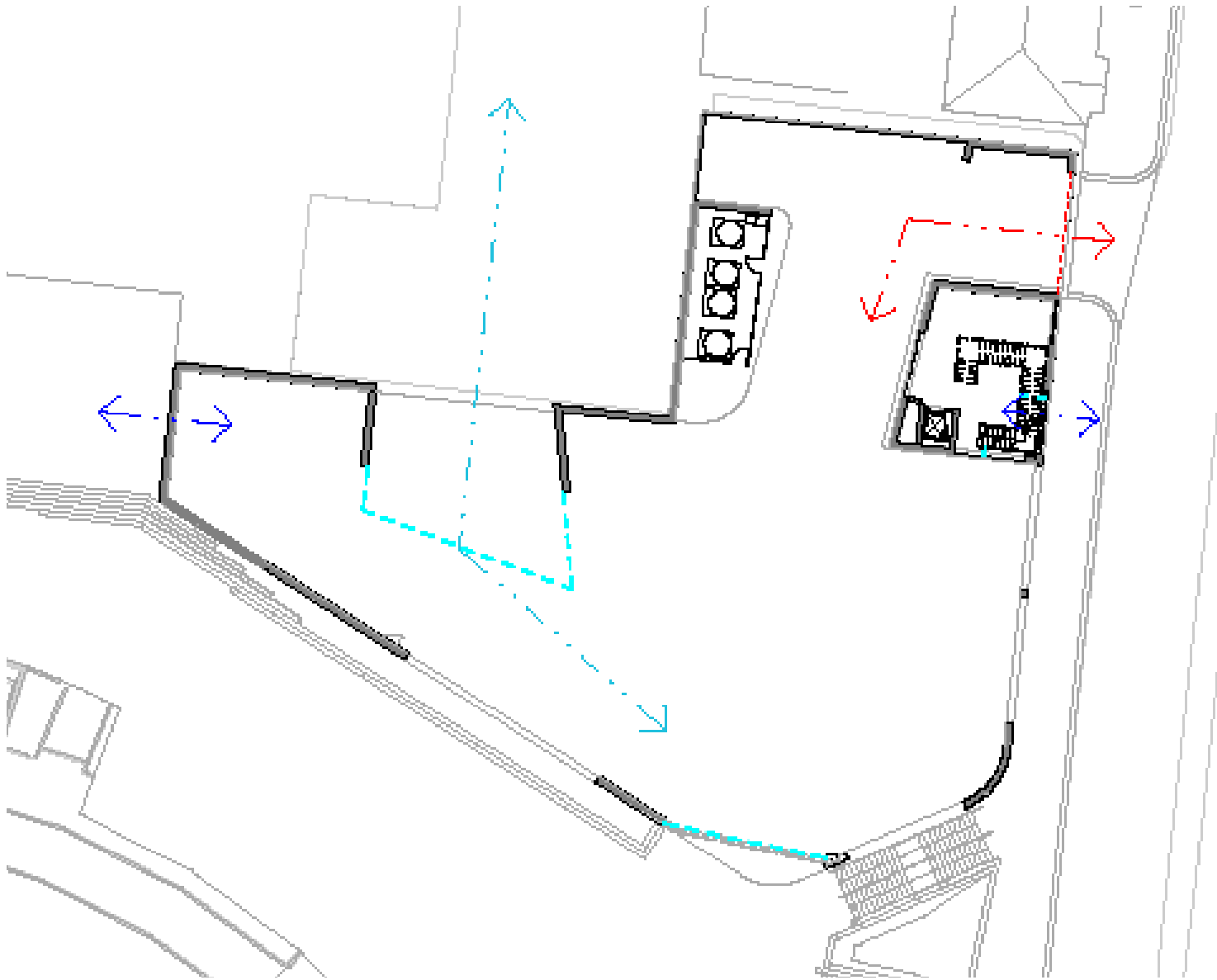


12.2.2 VEHICLE AND PEDESTRIAN ACCESS

Pedestrians to the health centre will be able to access the building from the east side at street level into a dedicated entrance to Worcester Avenue served by lift and stairs linking to the main levels above. Visitors to the health centre from the High Road in the west will be able to use the external lifts and stairs and cross the north podium to enter the building via an entrance next to Lilywhite House at podium level.

The Street level of the health centre will serve the stadium principally, and provide one of the main service vehicle entrances to the stadium. Goods arriving to the stadium will enter via the Sainsbury's goods yard through a gate and use the area to manoeuvre and reverse into the loading dock. Stadium refuse and recycling will also be serviced through this area providing space for the loading and unloading of compactors. This will provide the main vehicular pitch access to allow vehicles to access the pitch for events or for maintenance reasons.

A secondary vehicle entrance to Worcester Avenue will be provided to allow an alternative route to and from the pitch and the stadium for vehicles in the event that the Sainsbury's goods yard becomes busy and congested.



12.3 Inclusive Design

Service Entrance, Basement and Back of House

The North-East Building will house an NHS clinic and is currently designed with a shell and core layout, which will be subject to tenant fit-out. The building will incorporate features laid out in the inclusive design parameters in Section 1.6 such as step-free entry and external doors that conform to AD M Table 2 providing at least 1000mm effective clear width.

Internally, circulation spaces will conform with Approved Document M (AD M) and BS 8300 in providing suitable widths for people to circulate through the building and when necessary pass each other. Internal stairs will conform to Approved Document K (AD K); there will be a lift with car size exceeding the minimum requirements of AD M adjacent to the stairs.

Sanitary accommodation will include cubicles for ambulant disabled people in separate sex toilets. An adjacent unisex wheelchair accessible WC will be provided in the same location; a wheelchair accessible shower will be provided on the ground floor.



12.4 Accommodation and Layout

12.4.1 ACCOMMODATION OVERVIEW

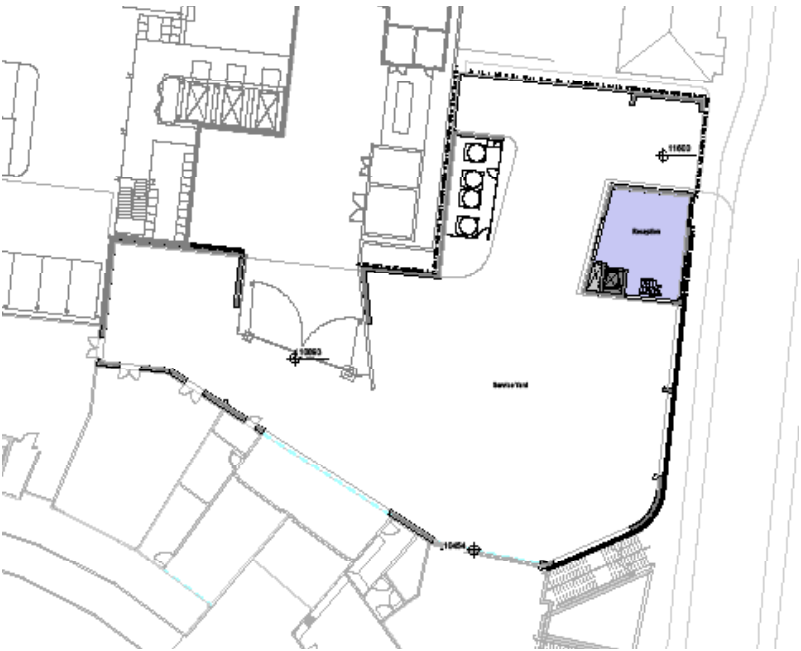
The accommodation in the Health centre will be organised over three internal levels levels with a small amount of rooftop plant.

Most of the street level will form part of the main stadium accommodation in the form of a goods yard and service access for the stadium. A lift and stair core to serve the health centre will drop down from above and provide street frontage for the building for visitor and service access.

The service yard is also designed as a column free space to facilitate a variety of vehicle movements anticipated in this area. This requires the upper floors to have a transfer structure to avoid the use of columns at this level.

At podium level a second entrance and reception to the health centre will be provided to allow stair and lift access offering an alternative for visitors arriving to the health centre from the High Road. The main first and second floor level will accommodate flexible offices and consulting rooms for the health centre.

Plant for the health centre will be located at roof level, with some allowance for stadium plant adjacent to a green roof. The rooftop plant is grouped towards the western side of the roof to reduce the impact on Worcester Avenue.



LEVEL 0 ILLUSTRATIVE PLAN



LEVEL 1 ILLUSTRATIVE PLAN



LEVEL 2 ILLUSTRATIVE PLAN

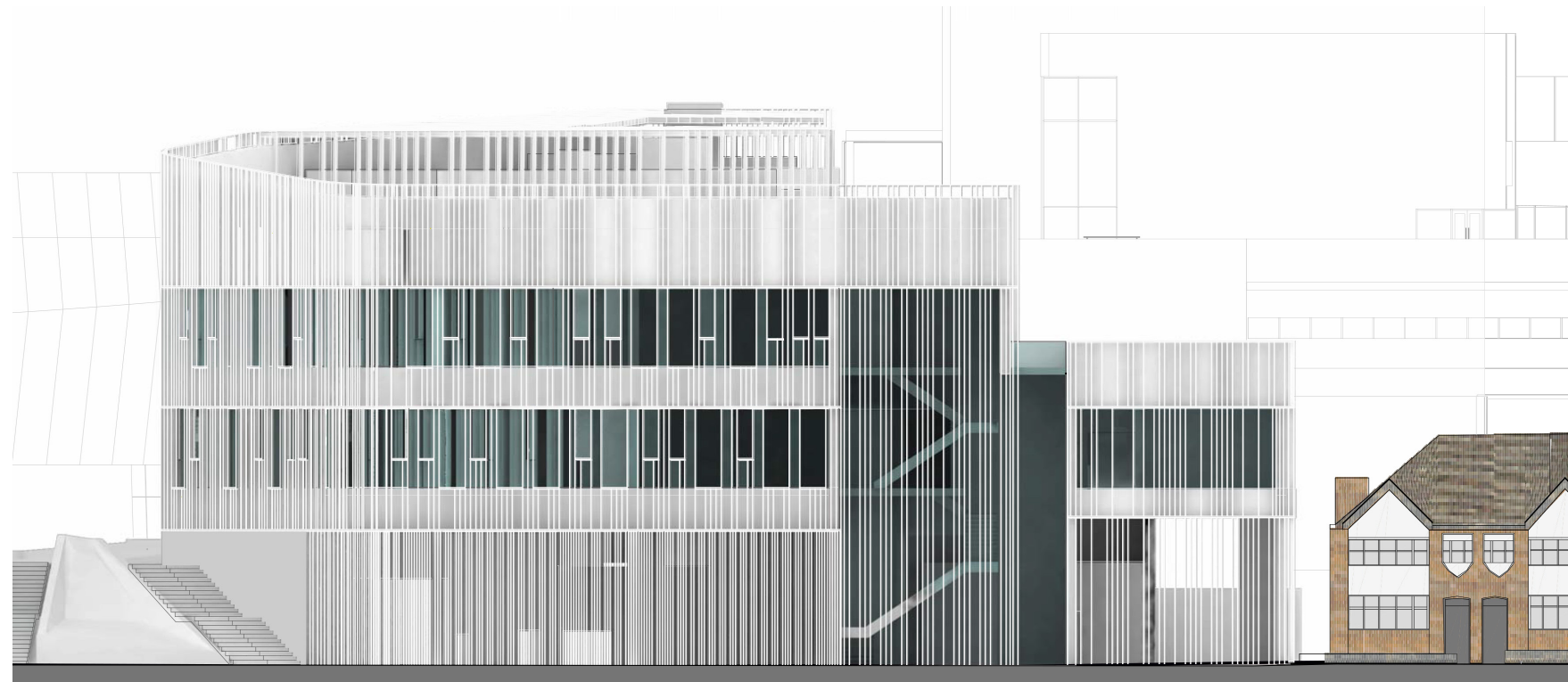


ILLUSTRATIVE ROOF PLAN

12.4.2 VERTICAL CIRCULATION

The health centre will make use of the external vertical circulation to the north podium of stairs and external lifts, as well as internal forms of vertical circulation.

Internally there will be two cores served with lift and stair to access the building. The main core will link from Worcester Avenue to the two office and consulting room levels. The second core will provide a reception at podium level, linked by a stair and lift to a half level to the main accommodation.



12.5 Scale and Massing

CONTEXT AND RESPONSE

The Health Centre will sit within an unusual context between a 1930's residential terrace, Lilywhite House and the new stadium. It will sit within the streetscape as an intermediary between the terrace and the stadium, and also linking Lilywhite House, podium and Worcester Avenue, providing continuation of the definition created by Lilywhite House to the north podium edge and buffer from the busy fan experience to the residential gardens.

It gently steps up in scale to from the two storey terrace in a similar manner to the way in which Lilywhite House has used steps in the building mass to mediate between the domestic scale of the residential buildings to the larger mass of a urban civic building.

The façade holds the street frontage of the residential terrace before gently peeling away to reveal the landscape of steps that will link the street level to the stadium podium. The gentle curve responds to the flow of pedestrians round the building edge.

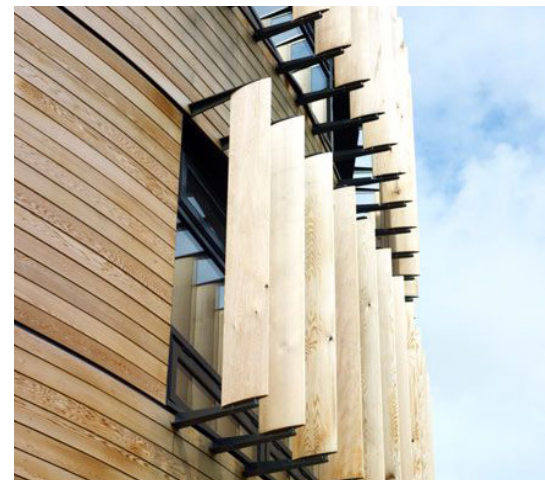
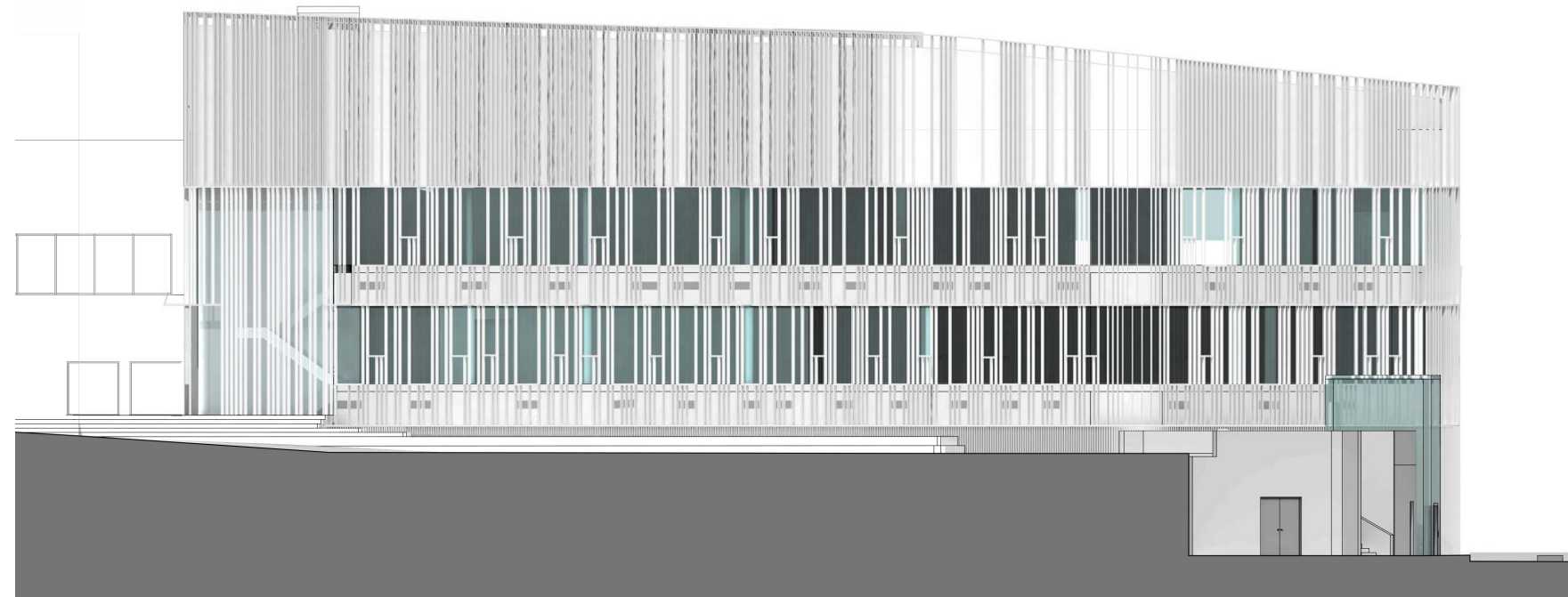


12.6 External Apperance

12.6.1 ELEVATIONAL TREATMENT

The elevations of the health centre respond to the existing context of Lilywhite House and the residential street, and the new context of the stadium. The outer skin is a powder-coated, louvered metal exoskeleton which provides a unified treatment to the two different activities. At street level the slatted treatment allows for ventilation to the service yard while providing visual screening. At the upper levels this external screen will offer a buffer of privacy to the offices and treatment rooms while still allowing natural light to penetrate. At roof level the screen will then, wrap up and over the rooftop plant to help to conceal the plant while still allowing adequate ventilation.

The slatted screen will be white to link to Lilywhite House, and the white render of the terraced houses. It will play by creating visual depth, light and shadow across the façade in a similar manner to the perforated metal skin of the stadium.



12.6.2 MATERIALITY

The materiality of the Health Centre will relate to the existing materiality of Lilywhite House with the use of white powder-coated slatted louvres which sits over the top of a powder-coated metal panel system and glazing, which provides the thermal envelope to the building.

The roof, which will be visible from the adjacent building, will have a combination of the slatted louvres to screen the plant areas, ecological green roof and accessible terraces from the two accommodation levels.



Glazing



Louvre Materiality



Louvre Materiality



Louvre Materiality



Louvre Materiality

12.7 Mechanical, Electrical and Plumbing

GENERAL

The Building Services for the new Health Centre have been developed in tandem with the Architectural and Structural design and are summarised below:

Utilities

Water

The Health Centre will take its potable water feed from the main stadium supply which helps to maintain a turn-over of water in the tank and avoids duplication

Gas

As the Health Centre takes it's heating feed from the Stadium it does not require a dedicated Gas connection.

Electricity

A separate low voltage utility supply will be provided.

Space is allowed on the roof for Tenants to install a Standby Generator if needed.

Communications

The Club have started direct negotiations with BT to provide the necessary connectivity to the new stadium and the Health Centre will be provided with a dedicated BT connection.

BEMS

The Health Centre shall have a dedicated BEMS system which shall be compatible with the Stadium system although stand alone.

VENTILATION

The Health Centre ventilation will be developed with the end user but currently roof space has been allocated for this purpose.

HEATING AND COOLING

The Central gas fired boiler plant is located in the East Level 6/7 plant area. The stadium is provided with centralised gas fired boiler plant as it enables the connection to a future District Heating Network to be accommodated, in the future, with an adjacent riser to ground level for the pipework.

The boilers are located in the East stand plant room and currently the intake room for the future district heating connection is located directly below it in the basement. With the future development of the Southern part of the site it may be better to locate the central district heating connection point within the Southern development.

The heating will distribute horizontally at level 6 and drop within each of the 6 risers to lower level plant rooms and loads. Distribution temperatures of 80/50 Deg C, are proposed as this achieves a efficient balance as far as hot water generation and pump/ pipe sizing design. The heating feed to the Health Centre will drop down Core 4 or 5 and across the level 0 slab to the Health Centre, details TBC.

The Chilled water system is more zonally separated. Whilst the East and North upper plant rooms have adequate space for these large items of equipment the West stand with its need to accommodate the Office areas on level 6 and 7 does not. For this reason the East Stand has two chillers each sized at approximately 75% of the East stand load and the North stand has space allocation for 5 Chillers (each sized for 25%). It is intended to link the distribution system at level 6 so that it will be possible to take a chiller off line for maintenance and improved resilience while still maintains environmental conditions.

The Chilled water feed to the Health Centre will follow a similar route to the heating down Core 4 or 5 and across to the covered Service yard. Local cooling for diagnostic equipment will be located on the roof.

DOMESTIC HOT AND COLD WATER

The Health Centre will be served with potable cold water from the main stadium tanks and boosted ring main. A local hot water heater Calorifier or plate and buffer will provide domestic hot water for this building.

FIRE SERVICES

The Stadium Sprinkler system could be extended to the Health Centre Building if required.

LIGHTING

All areas will be provided with low energy lighting systems, LED based, and appropriate controls, as part of the measures to comply with Building Regulations Part L1A.

FIRE DETECTION AND ALARM SYSTEM

A stand alone fire detection and alarm system to BS5839 Pt 1 will be provided, with information links to the Stadium to provide notification alerts.

SECURITY SYSTEMS

Simple stand alone intruder alarm and intercom systems will be provided.

Any electronic access control or CCTV system will be provided by the tenants

