

11.3.4 POPULOUS SCHEME: NOVEMBER 2014

Description of proposal

The Populous residential scheme evolved following a six month period of design development, which included solar overshadowing and wind tunnel tests. This resulted in a less dense proposal with four residential towers to the east of the hotel, ranging from 12 to 26 storeys above a three-four storey landscaped plinth, which is in turn one storey above the main podium for the stadium.

Observations

The layout has been reconfigured to provide greater distances between each tower in order to improve sunlight and daylight into the apartments and the amenity space between towers.

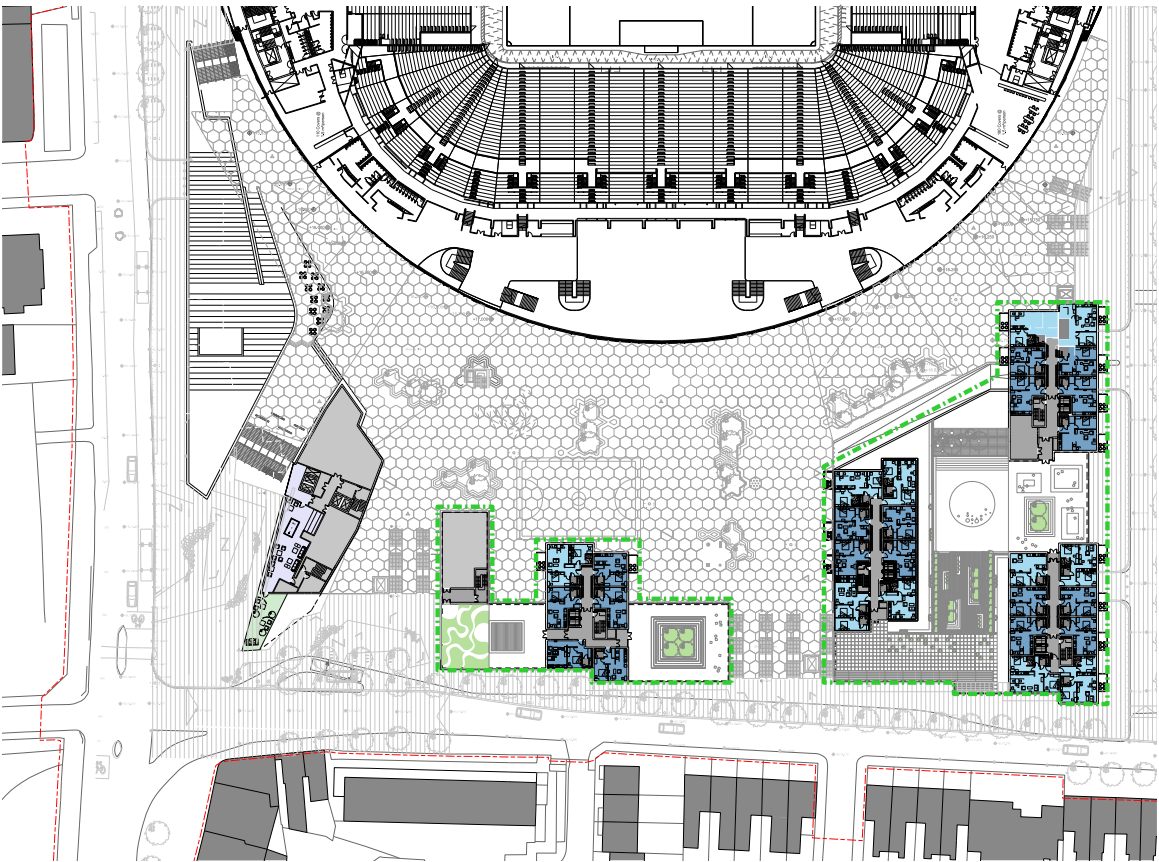
The towers are stepped in plan and section to break up the bulk. Clip-on balconies provide a contrast to the sleek skin proposed for the hotel. However, these balconies and the deep internal flat plans would be likely to result in insufficient daylight levels for many of the single aspect flats.

The masonry treatment of the plinth elevation includes duplex townhouses along Park Lane, which begins to respond to the scale and material context of the Victorian terraced houses to the south.

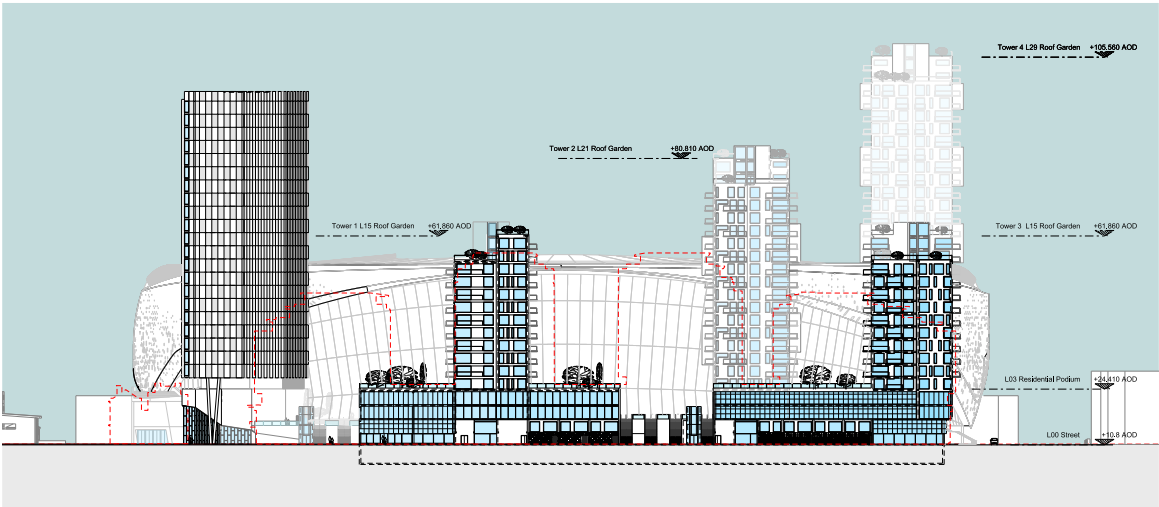
The relatively narrow floorplate width proposed will provide slender towers in views from the south, but the significantly longer flank east and west elevations of the towers may present the appearance of a ‘wall’ of tall buildings in views from the east and west.



Aerial view from south-west



Populous proposed plan at plinth level

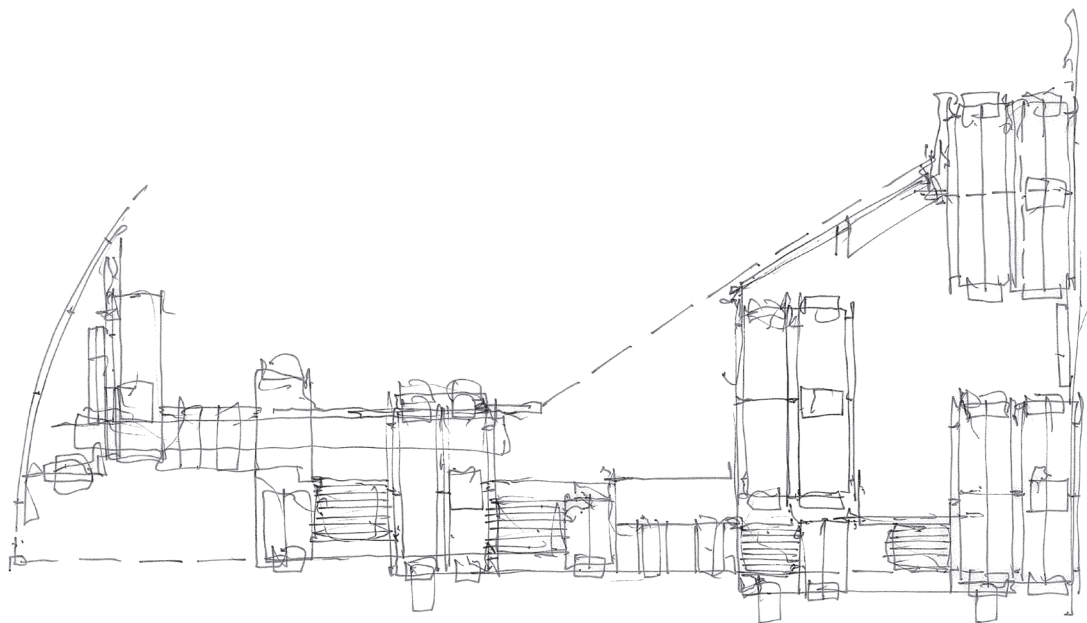


Populous proposed south elevation with the consented scheme massing outlined in red

11.3.5 A&M EARLY STUDIES: FEB 2014

Allies and Morrison were appointed by THFC to review the 2014 scheme designed by Populous and carry out a feasibility study to consider options for four or five residential towers of varying heights.

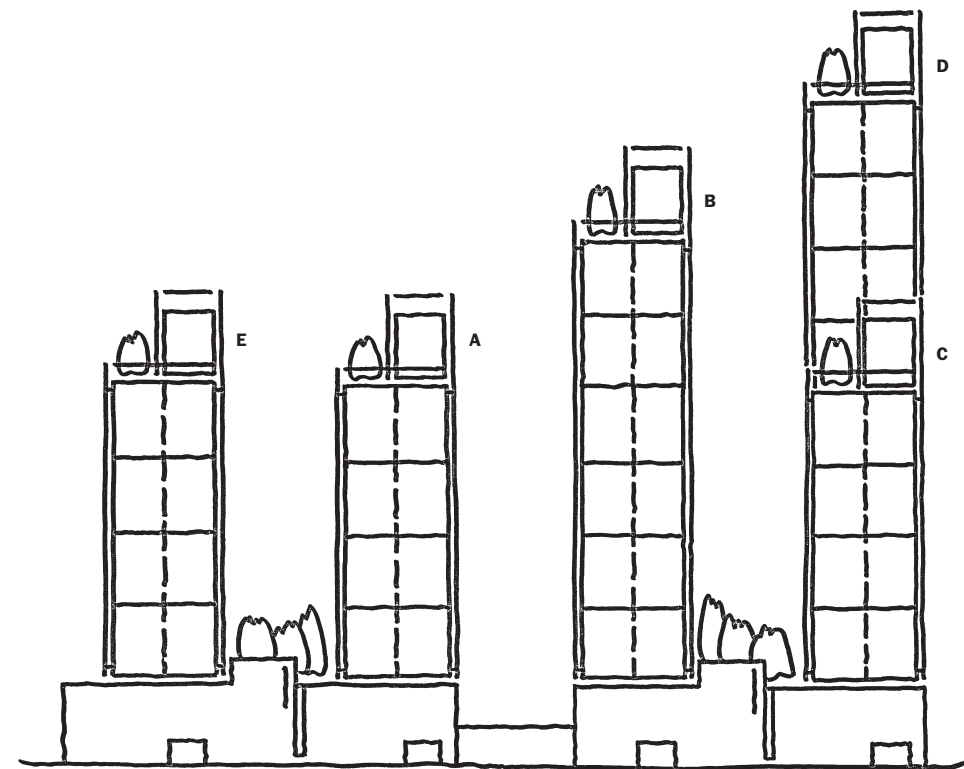
- The five residential tower scheme tested considered a giant order of 3 storeys;
- Tower heights of between 12 to 27 residential storeys above plinth level were tested in terms of daylight/sunlight and overshadowing of the public realm amenity spaces;
- The plinth height, which was at least a storey above the main stadium podium level, varied along Park Lane between 3 and 4 storeys;
- Landscaped amenity and play space was considered at roof levels of the plinth and tower roofs, similar to the Populous proposals.



Concept sketch site plan



Five residential towers plan



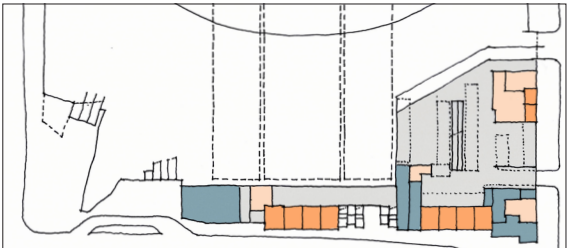
Five residential towers elevation

11.3.6 BRIEFING AND CONSTRAINTS STUDIES:
APRIL 2015

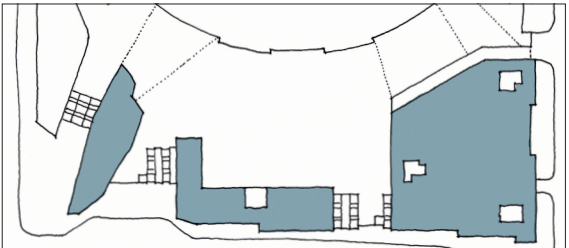
Allies and Morrison undertook analysis of the 2014 Populous scheme and the brief to determine the most appropriate uses within the plinth based upon the constraints within the wider stadium masterplan. These included:

- siting the towers to co-ordinate structurally with retractable trays for the NFL American football pitch
- car park and pedestrian access stairs and lifts along Worcester Avenue and Park Lane
- emergency and services vehicular access ramp up to the podium
- internal layouts for stadium and NFL facilities

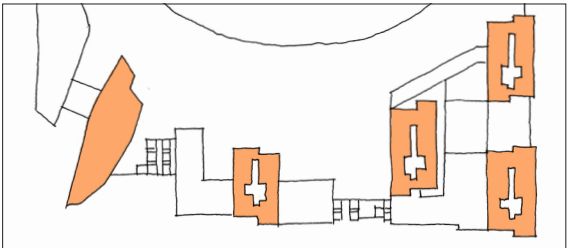
Studies were undertaken to test the most appropriate arrangements for street entrances and foyers to the residential towers and community/ commercial spaces. Further studies were carried out to test the form and privacy distances achieved between each tower and their relationships to the Stadium, Extreme sport building and Hotel.



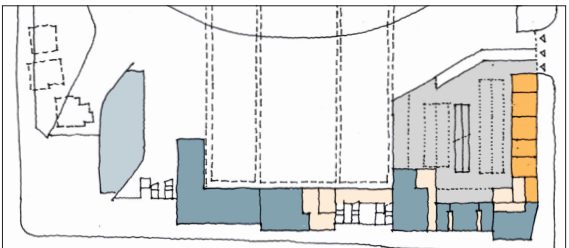
Populous ground floor plan



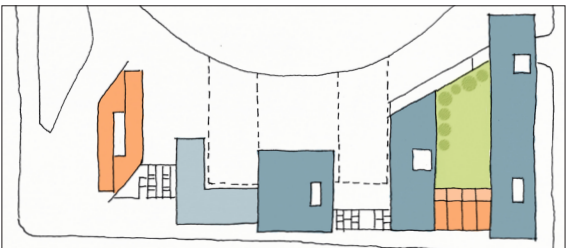
Populous podium plan



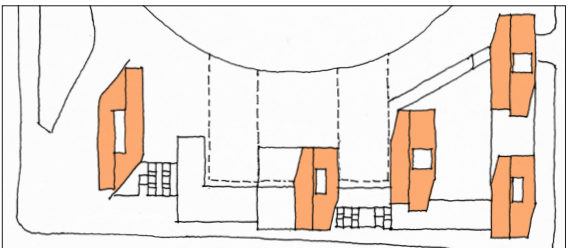
Populous 4-15 tower plan



Allies and Morrison ground floor plan



Allies and Morrison podium plan



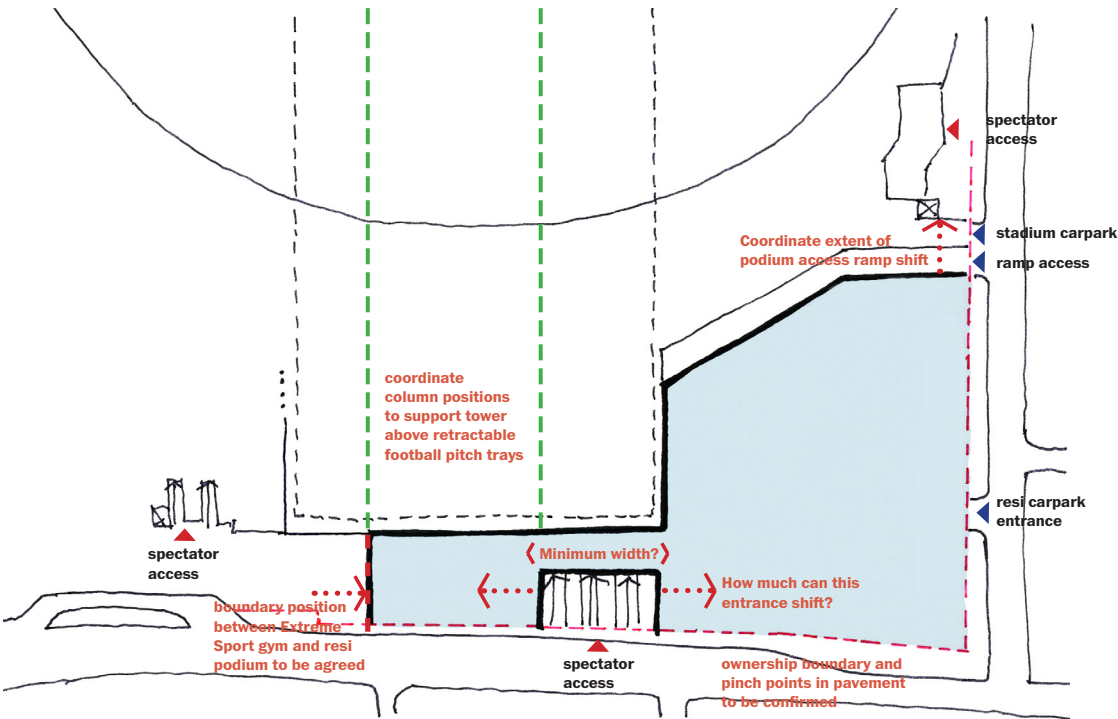
Populous 4-32 tower plan

- resi
- resi core/ancillary
- commercial or community use
- car park

Ground floor comparison

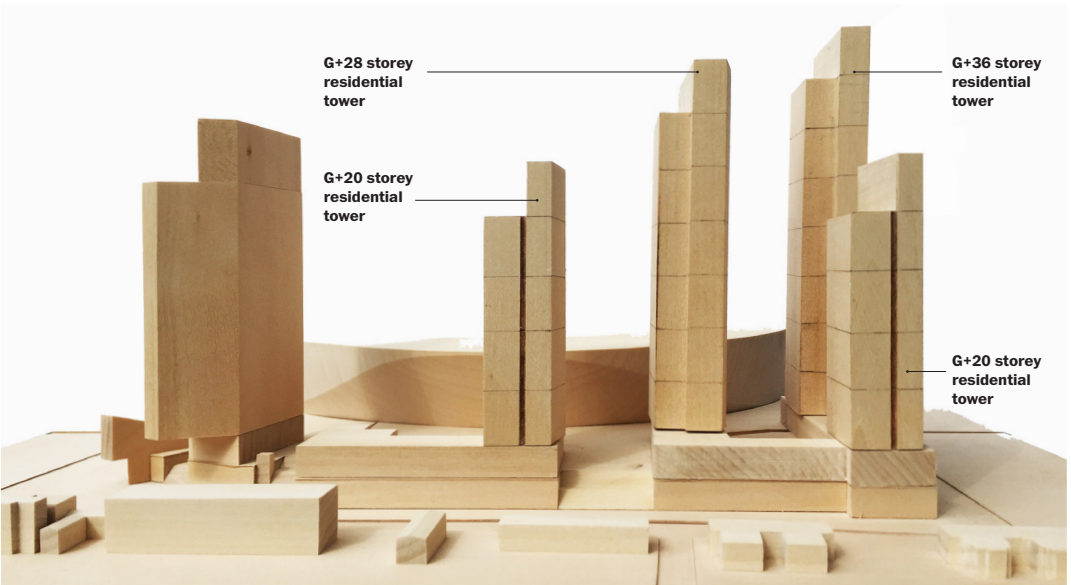
Podium level options

Typical tower level comparison



Stadium coordination and boundary constraints

www.alliesandmorrison.com



Four residential towers and hotel to the west

11.3.7 TOWER PLAN ANALYSIS STUDIES: MAY 2015

Further analysis and design studies were carried out to test the form of the towers and the most appropriate configuration on the sites in terms of providing high quality amenity space on the plinths between each tower, and minimising the amount of overshadowing to the plinth top gardens, and providing privacy and sufficient daylight into the apartments in accordance with the London Design Guidelines.

Linear ‘slab-block’ plan forms based upon the previous arrangement designed by Populous were considered, but spatial constraints on the eastern side of the site limited privacy distances between towers A and B. The length of Tower D was constrained to the north by the maximum allowable cantilever over a newly introduced sliding football pitches to allow for NFL matches in the new stadium.

Allies and Morrison carried out a “peer review” analysis of the Populous flat plans, which concluded that the emerging unit layouts were unlikely to comply with the space and daylight standards in the London Housing Design Guidelines.

Long and relatively narrow ‘slab’ tower floor plates were tested, considering options that provide daylight into the core or circulation, in comparison with the slightly more compact tower floor plate by Populous, which had no daylight to the core or circulation spaces.

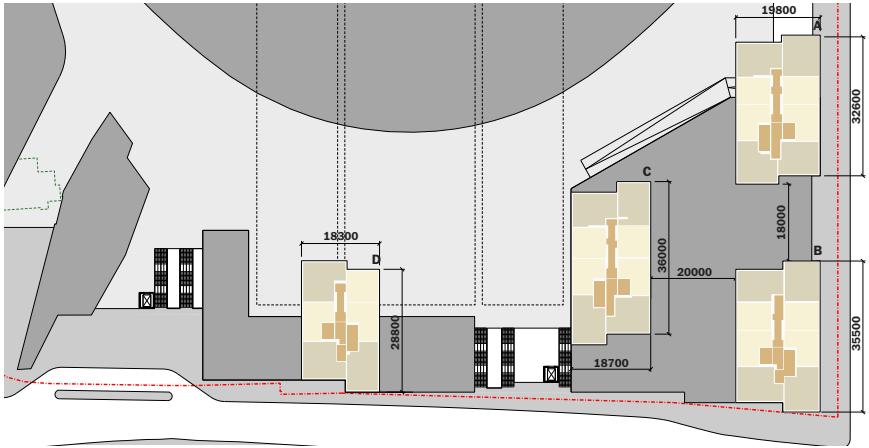
Consequently, a square tower plan form was explored, and this was ultimately chosen as the most appropriate floor plate for the site. This floor plate allows a more slender form in local and distant views from all directions, maximises privacy distances and minimises overshadowing of the public and communal amenity spaces.



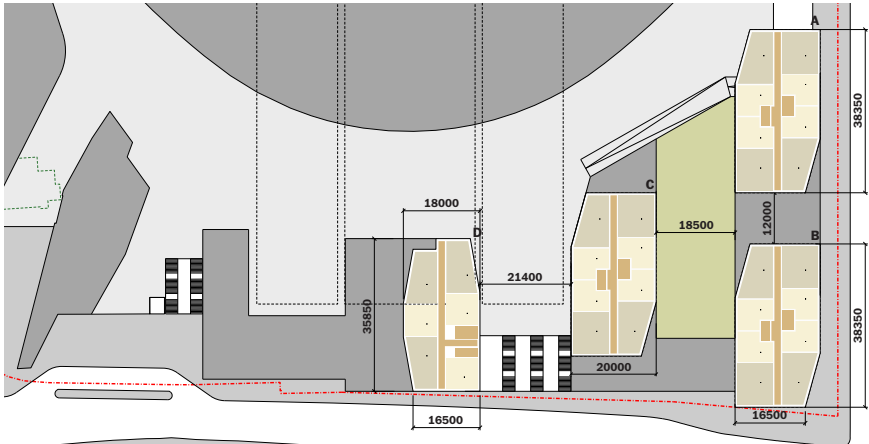
Study model - slab tower option



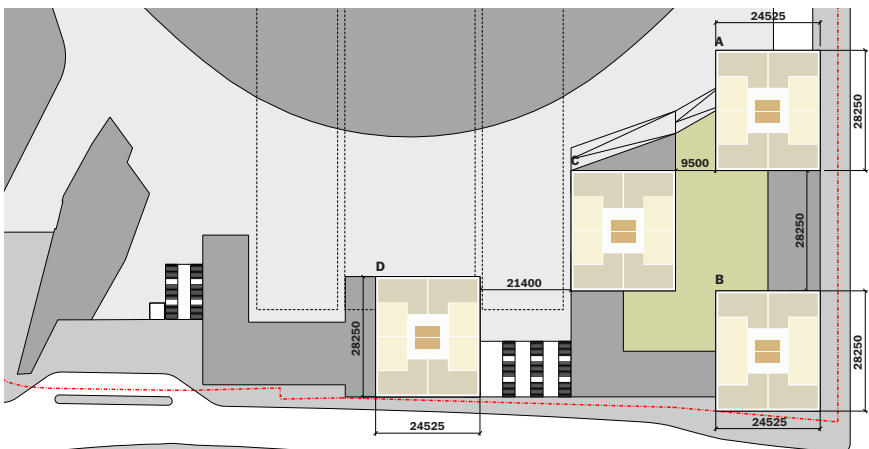
Study model - square tower option



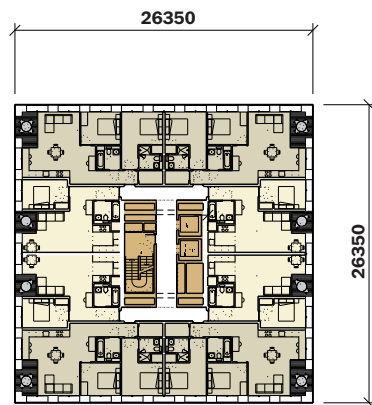
Tower massing - Populous 2014 proposal



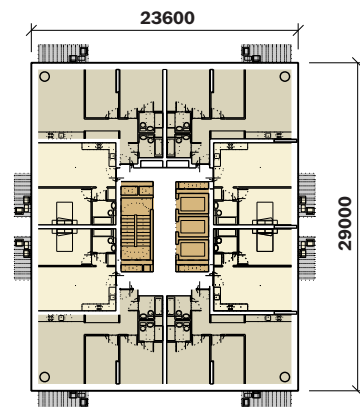
Slab tower massing option



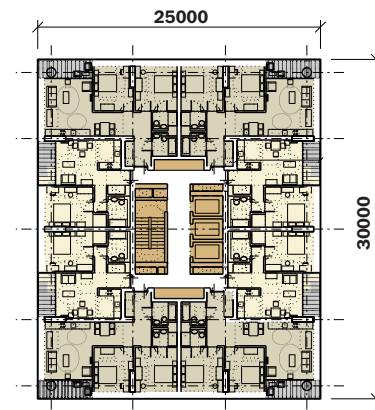
Square tower massing option



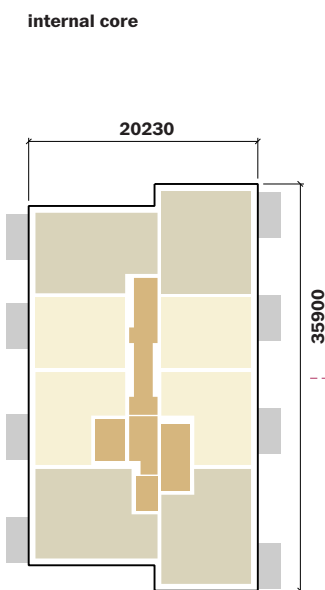
Square tower plan analysis 8 units / floor



clip-on balconies



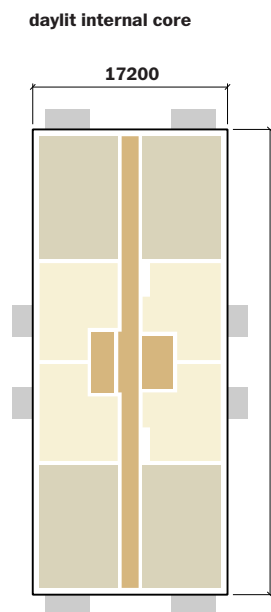
inset balconies



internal core

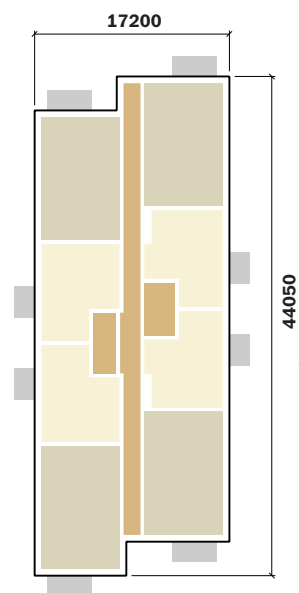
Populous scheme

Slab tower plan analysis 8 units/floor

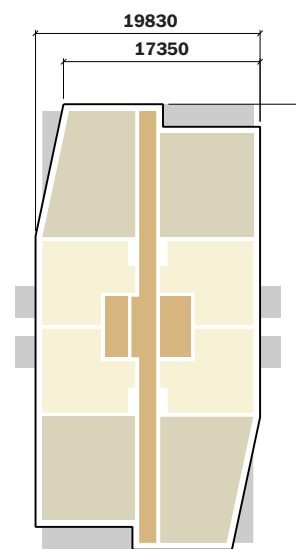


daylit internal core

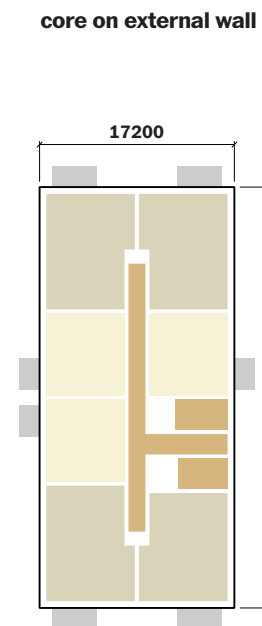
A1 internal core



B1 internal core

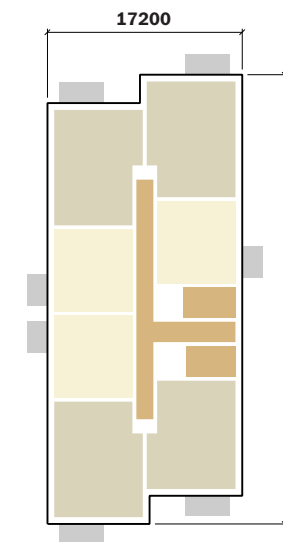


C1 internal core

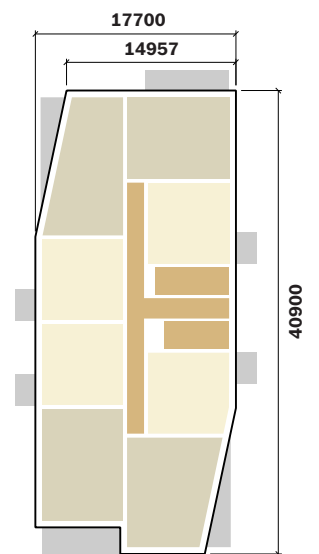


core on external wall

A2 core on external wall



B2 core on external wall



C2 core on external wall

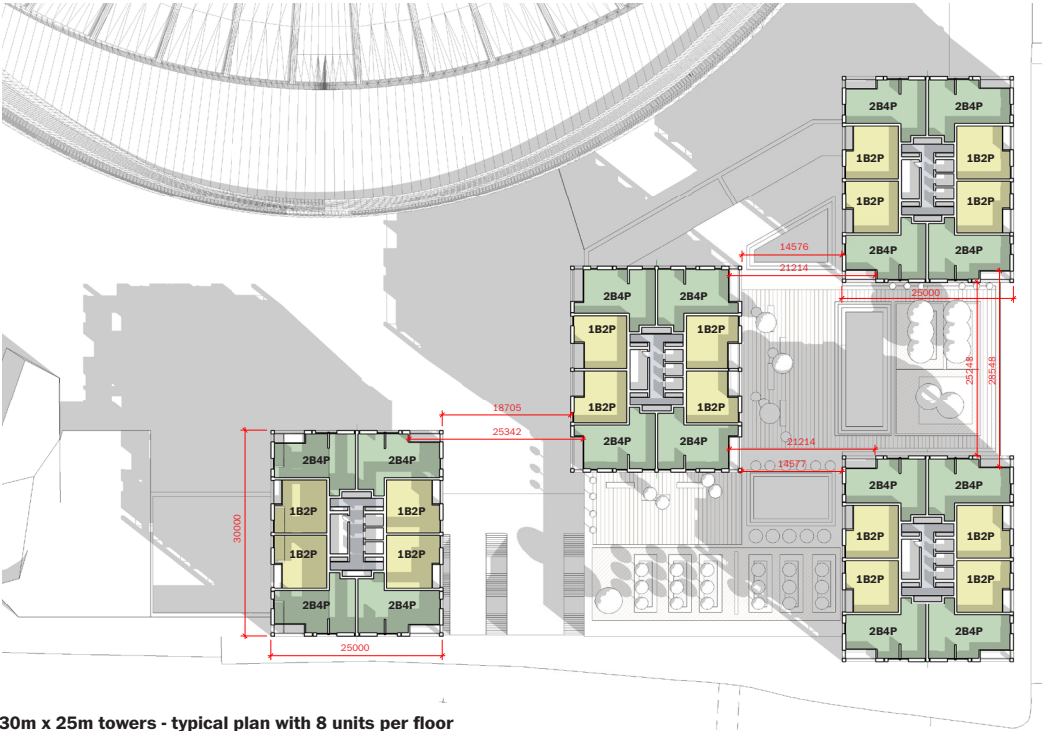
11.3.8 PRESENTATION TO LBH PLANNING OFFICERS: EARLY JUNE 2015

Site analysis and the strategic approach to Allies and Morrison's revised design was presented to LBH in early June 2015. Sketch 3d view studies were presented to review the tower massing, form and heights where visible from the Conservation Area and the local context. A larger study model was presented to test the tower positions on the development site in the context of the stadium, the public amenity space on the podium, and communal gardens on the residential plinths.

The plinth line is set back due to the requirement for the existing pavements (which form the ownership boundary) to be widened by approximately 2 to 3 metres to provide sufficient width to safely accommodate match day crowd flow. Consequently, a strategy of allowing the towers to shift or cantilever beyond the plinth line was developed in order to maximise distances between towers to allow daylight and sunlight into the flats by providing a minimum of 16m privacy distance between each tower. A chamfered form was considered an elegant and effective means of relating the towers to the plinth — allowing the tower form to 'grow' out of the plinth, over-sailing the pavement or podium access staircases.

Initial ideas about cladding materials and colours were introduced and artist's impression aerial views were introduced. The use of terracotta as infill panels and the four storey precast frame structure was positively received by the planners. It was agreed that the following further studies should be carried out before the next presentation:

- Testing to be carried out to determine appropriate location for the tallest tower on the site;
- Studies to consider the top form of the tower
- Further studies to consider privacy distances
- Townscape view studies of the proposals as seen from the Conservation Area and local context
- Communal roof garden space at the tower tops and at plinth level (one storey above public podium level) to be developed. This should be tested in terms of microclimate: wind and overshadowing



30m x 25m towers - typical plan with 8 units per floor

