10051

APPENDIX C

Built Form and Urban Design Controls

Ethos Urban in conjunction with
Rogers Stirk Harbour + Partners

BARANGAROO SOUTH BUILT FORM AND URBAN DESIGN CONTROLS

BUILT FORM PRINCIPLES

Built Form Principles

1. City's New Western Façade

Create an integrated new western frontage to the city centre, the slender ends of buildings (above podium level) are oriented to the waterfront to define an open silhouette. A new ribbon of residential apartments and the hotel podium facing the waterfront will mediate the scale between the tower forms and the public promenade on the waterfront.

2. Hickson Road as a Boulevard

Promote the scale of Hickson Road as a grand boulevard, buildings are to provide a consistent street wall definition to Hickson Road but with variegated massing heights along the street frontage. The corner to the park at R5 wraps around as a marker to Hickson Park and a bookend to Barangaroo South.

3. Buildings to Define Streets

To define the public space of the street, building façades are to be set to the street alignment with respect to the differing characters, scales and activation of the streets.

4. North South Pedestrian Connections

Provide for greater pedestrian permeability through the blocks which relate to pedestrian desire lines.

The primary focus are the north south pedestrian connections provided between blocks 2 to 4, Wulugul Walk and Barangaroo Avenue, and the more defined and enclosed Scotch Row at ground level which is not less than 6m wide and not less than 50% open to the sky and has a minimum clear height of 2 storeys. It is equally as important to provide east-west links through the main pedestrian walkways including Watermans Quay, Shipwright Walk, Mercantile Walk and Exchange Place.

5. Marking the City Frame

Continue a built form dialogue with the adjoining city, building heights across the site are in keeping with the rest of the city, with the highest form at the north of the precinct to complete the city frame and book-end the city's north western edge.

6. Open Space Within Blocks

Create laneways, courtyards, walkways and parklands around the defined edges of building blocks.

To create a fine grain structure of laneways and streets permeating the blocks, as well as open space at podium level between the tower forms.

7. View Sharing

Promote the equitable access to views towards the harbour, the built form is to be arranged to define the street corridors and to allow view corridors from the existing private buildings to the east.

Provide sky view corridors between residential towers from Napolean Street, Bond Square and the Harbour Bridge.

8. Orientation of Buildings

Create from a city scale and a bridge view a new city skyline silhouette formed by the gaps between the slender towers.

Provide optimum orientation and transparency across the site.

The orientation of the tower buildings are to relate to the fanning principle, while the long façades are to be facing to the north. Buildings facing Hickson Road and the waterfront are to be generally orientated to the east and west to define the linear nature of the road and promenade.

URBAN DESIGN CONTROLS

Set of Controls

These Urban Design Controls have been created to guide the future design and development of the buildings within Barangaroo South. They are intended to be used as a tool to achieve design excellence and a built form that is appropriate within the context of the existing CBD and the human scale. To this end, future project applications should aim to demonstrate consistency with these Objectives and Controls. Where a future design varies from an applicable Control or Standard, any such variation will need to be adequately explained and considered in the project application documentation.

The Objectives within this document describe what the relevant Control is seeking to achieve. The Standards provide an example of how the Objective may be achieved through the building design. It is not intended that these Standards, Controls or Objectives become a set of prescriptive design requirements. This has specifically been avoided to allow for innovation, creativity and alternative design solutions to be achieved on each of the development blocks. The diagrams included are to provide a visual representation of how the building form, massing and articulation may be translated into the future designs (they are merely design possibilities and should not be viewed prescriptively).

The Urban Design Controls cover a range of urban design elements that are considered to be appropriate to facilitate the overall success of the mixed use development. The Controls are set out below.

Control 1: Building Mass and Location

By defining the diagrammatic building mass within the limits of a development envelope, this Control illustrates a simplified distribution of mass.

Control 2: Street Wall Establishment

A Street Wall is the part of a building that faces and defines the street. It functions in collaboration with a grouping of buildings to define the pedestrian environment & provide cohesion to the street experience. A well-defined and active sequence of Street Walls will improve the pedestrian experience and help to promote walking by fostering a sense of safety through passive surveillance. The Street Wall should be human in scale and promote interest and variation at eye level.

Control 3: Building Articulation

Articulated building mass adds visual interest, enhances the play of light and shade, along with scale and proportion to the built environment. The importance of this aspect is explained diagrammatically with this Control.

Control 4: Building Legibility

Emphasises the elements of the building by making them legible in the overall built form. The use of architectural components such as structure, building services, cores, circulation, transparency, and the use of colour are all inherent and valid features of a building.

Control 5: Ground Floor Permeability and Accessibility of Public Realm

Physical permeability and public accessibility through and around buildings enhances the quality of the urban space. Visual permeability allows for orientation, placemaking and helps to bring life to public space. It enhances the perception of security by promoting visual connections between spaces and streets for the users.

Control 6: Ensuring Quality of Rooftops

The relationship of the buildings in Barangaroo South will contribute to the skyline and morphology of the city. Key to this is the spacial relationship of the rooftops and the heights between the buildings.

The roof is a buildings' fifth elevation and the quality of its design is important when it is overlooked by the surrounding city. Much of the built-form in Barangraoo South will be overlooked either from within the site or from existing buildings to the east. Plant and roof equipment should be designed & coordinated to have a positive visual impact.

Control 7: Façades

The quality of facades will be driven by: functional requirements, flexibility, environmental sustainability, proportion, transparency, visual appearance, light and shade, colour, materiality and tactile experience.

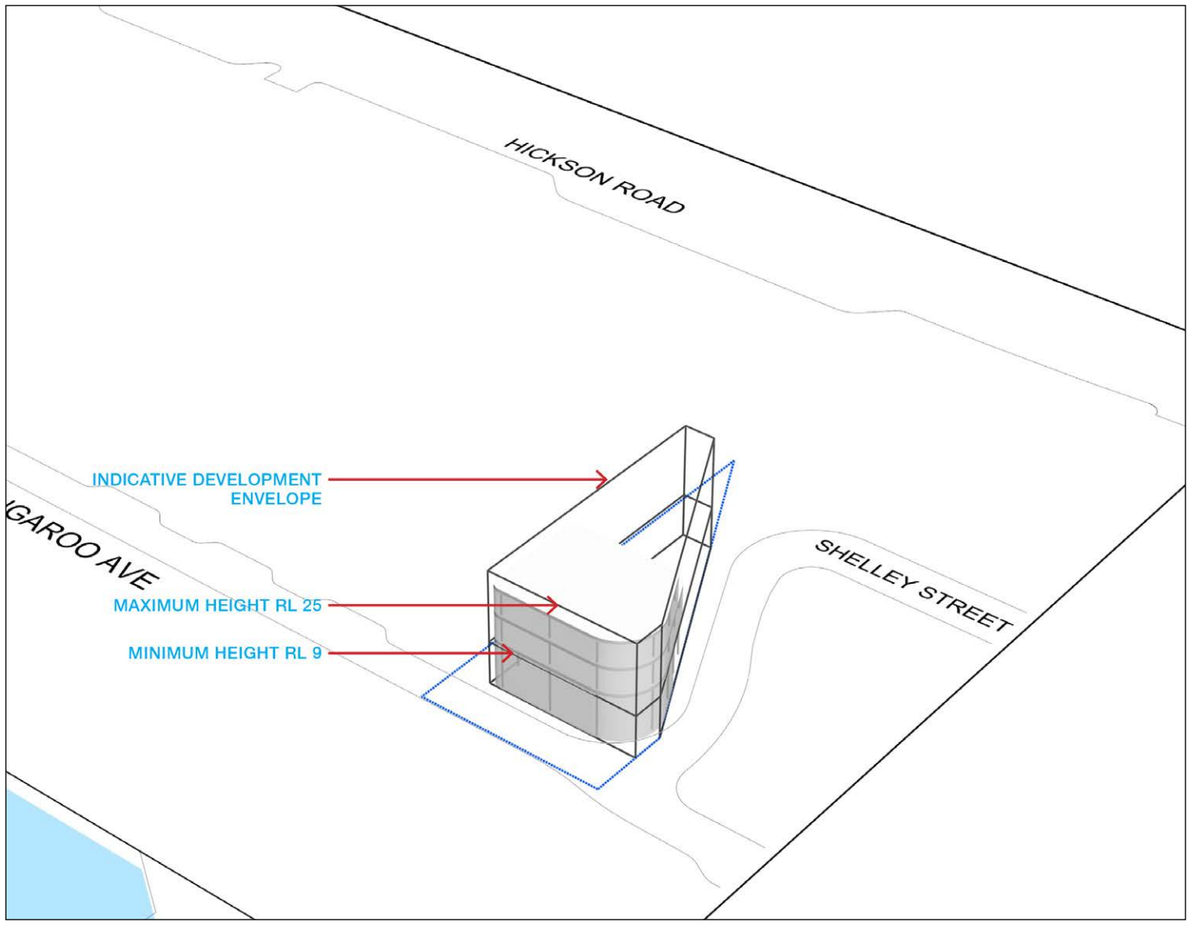
Control 8: Active Streetfronts

Generating activity around the base of the building is imperative to the public domain. Activating uses may include retail, restaurants and services. Accessibility and openness of buildings are highlighted here.

Control 9: Signage

Controls have been developed for building identification and commercial tenant signage. Signage should be integrated into the architecture. The quality of the signage relating to its location, size, materiality and illumination is to be carefully considered.

Urban Design Controls – Block 1



Control 1
Building Mass and Location

Objectives:

- To ensure building mass is appropriate within the envelope.
- To ensure the built form responds to adjacent buildings.

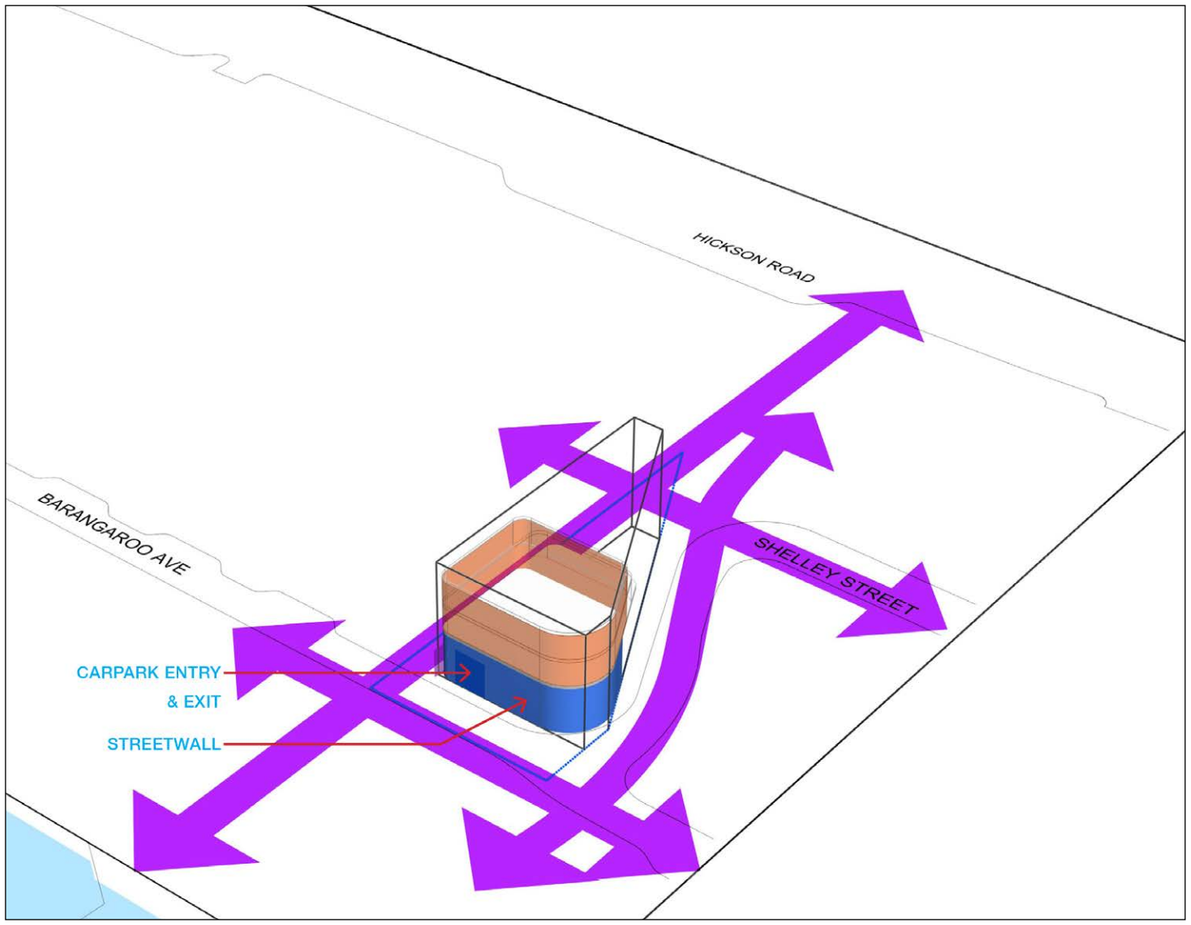
(Please note: The illustrated building mass inside the development envelope is a potential distribution of mass shown for illustrative purposes only)

Standard:

- The bulk of the building mass should be located to provide clear views and have a formal relationship to the C5 Podium from the south.
- The height of the built form should consider the scale of R1 to its west.

Dimension Disclaimer
Dimensions quoted have been measured from plans produced at Concept stage of the design and are approximate and illustrative only. Further development of the design, measurement and construction tolerances and/or further client/tenant requests will

Urban Design Controls – Block 1



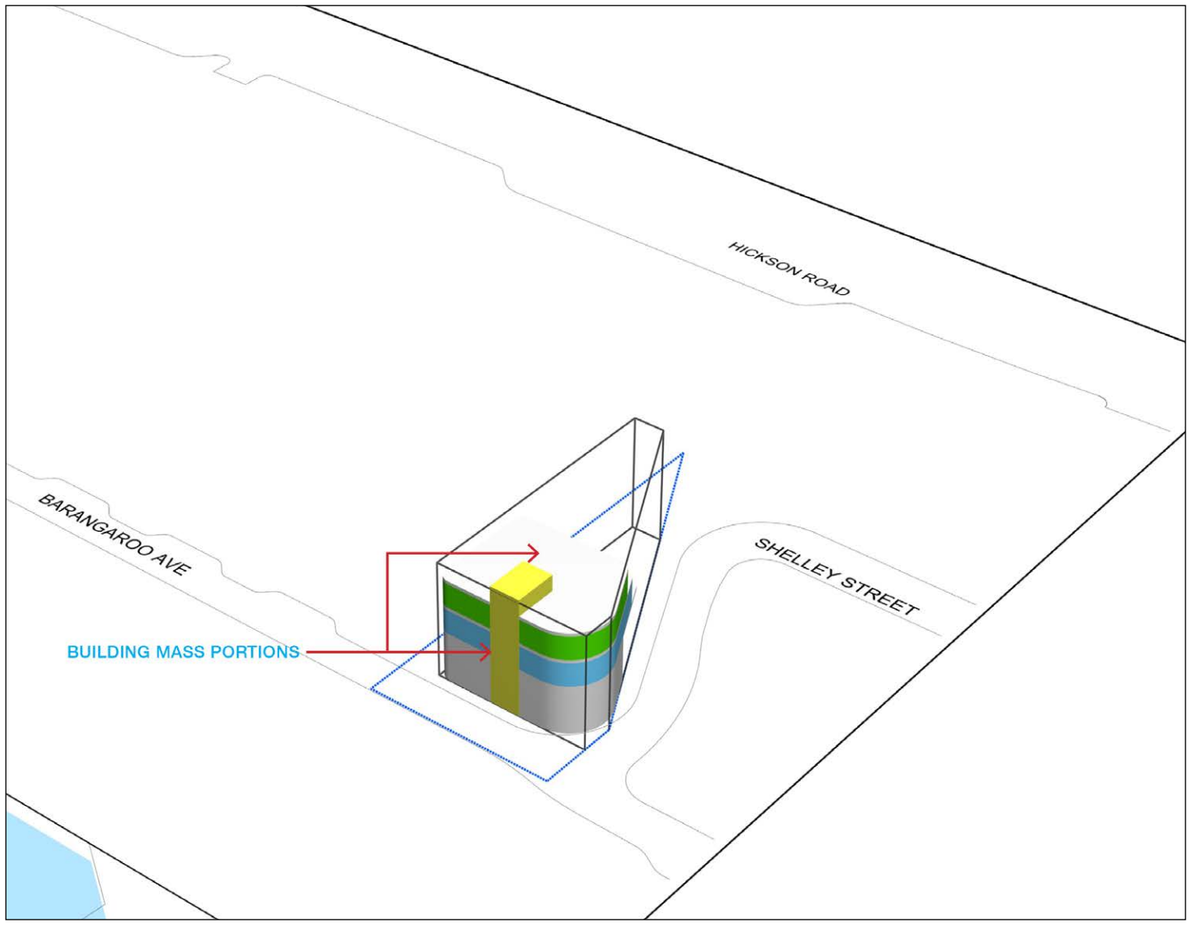
Control 2
Streetwall Establishment

Objectives:

- To define Exchange Place and the extension of Barangaroo Avenue.
- To ensure an active streetwall is established around each Block.

Standard:

- Create a Streetwall that activates Exchange Place and defines the pedestrian route.
- Building mass to define the street wall on Barangaroo Ave and aligns with C5's podium
- A SW corner that defines and marks the corner of Shelley Street and Barangaroo Avenue.



Control 3
Building Articulation

Objectives:

- To establish an articulated, well proportioned building mass.
- Consistent elements of the building should be articulated.
- To establish a building mass that responds to its context
- To encourage interesting built forms with their own distinct character.

Standard:

- The articulation of the building mass should respond to its neighbours including C5 podium and R1 to its west.
- The articulation of the mass should have no dominant facade or orientation.

Urban Design Controls – Block 1

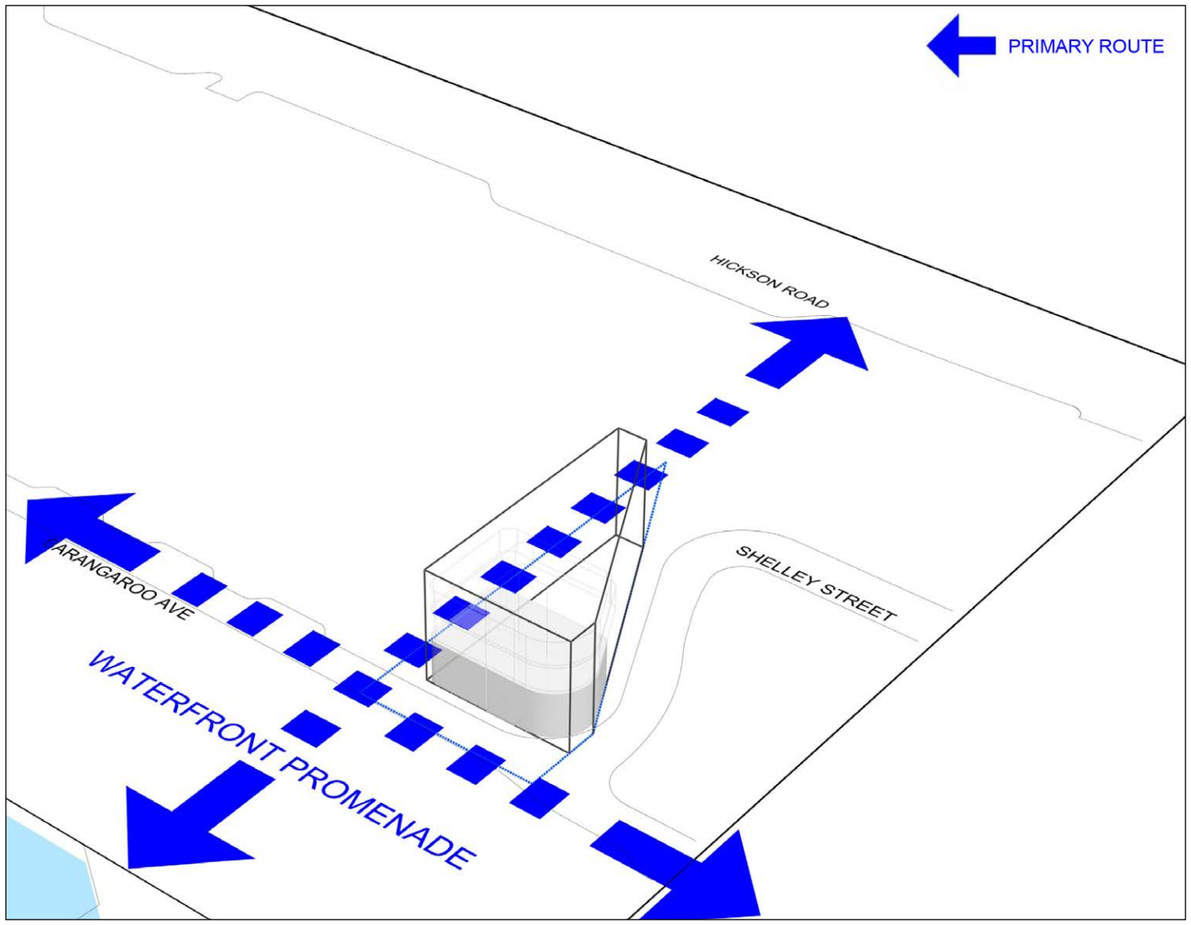
Control 4
Building Legibility

Objectives:

- Constituent elements of the building need to be legible.
- Elements and structure should be legible at the base of the building

Standard:

- The separate primary components of the building will be expressed
- Express facade elements including shading and wind amelioration.



Control 5
Ground Floor Permeability + Accessibility of Public Realm

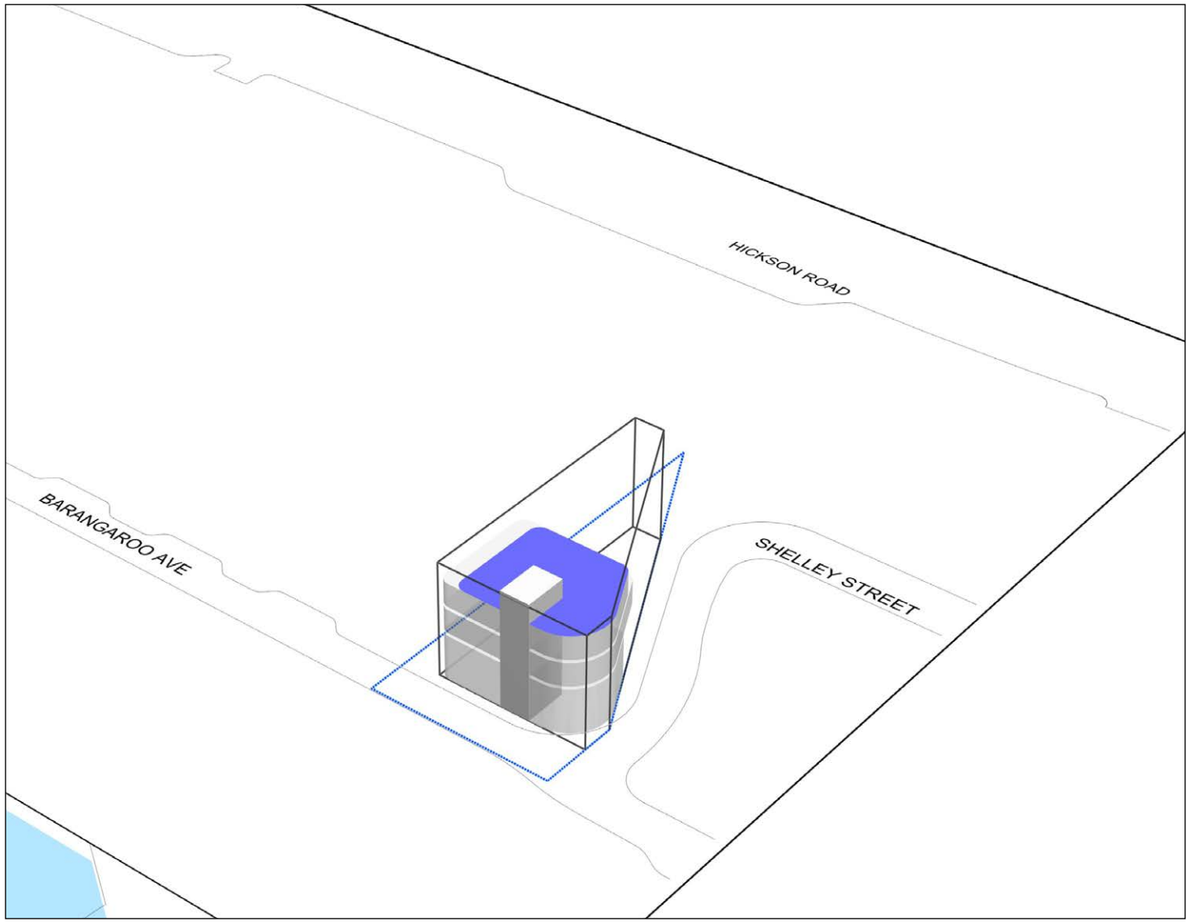
Objectives:

- To ensure sufficient legible and accessible routes through Barangaroo South and encourage visual permeability into the building from all sides

Standard:

- Maintain public access around the block to all sides.

Urban Design Controls – Block 1



Control 6
Ensuring Quality of Rooftops

Objectives:

- To ensure an articulated built volume.
- To ensure architectural quality of the roof.

Standard:

- Provide architectural treatment of roof form
- Access and activation of the roof in order to respond to the western water views is encouraged.
- Provide architectural treatment of exposed elements such as lift shafts, overruns control rooms and any sustainability features.
- Exposed mechanical equipment is to be avoided.
- Use of good quality materials (ie durable, hardwearing, sustainable).

Control 7
Façades

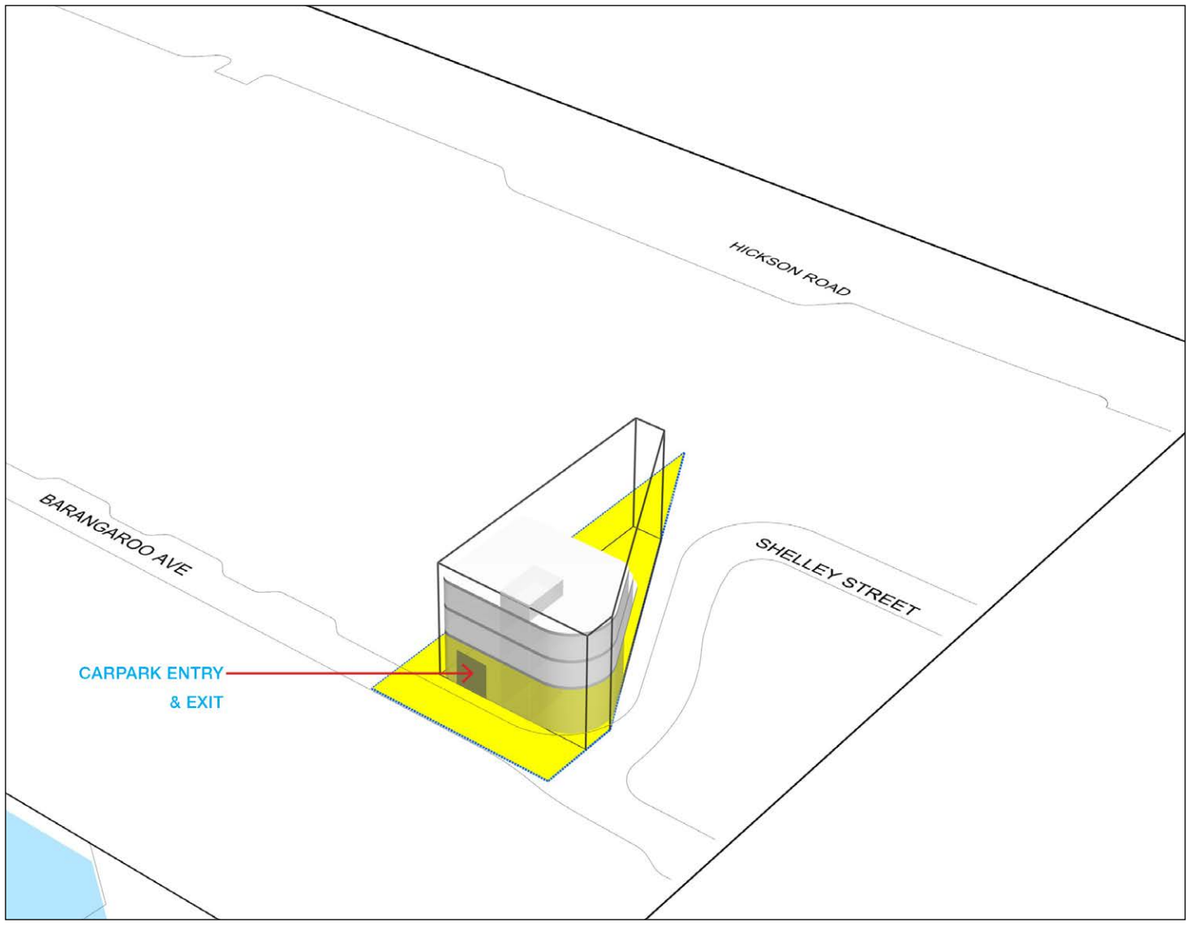
Objectives:

- To ensure quality of façades.
- To articulate building functions and massing with appropriate cladding design and detailing.
- To ensure selection of appropriate materials for longevity, durability and flexibility.
- To ensure that building façades are articulated to define building massing.
- Application of external shading devices to ensure depth and interest of visual appearance.

Standard:

- Use of steel, glass, concrete, timber and aluminium as primary materials for all façades.
- Environmentally sustainable design is to be incorporated into facades.
- Depth and layering of facades is to be achieved through relief and protrusions. Mirrored facades should be avoided.
- Facade components such as external shading shall be used to provide light and shade to the building.
- Express the facade to be sympathetic to its neighbours.

Urban Design Controls – Block 1



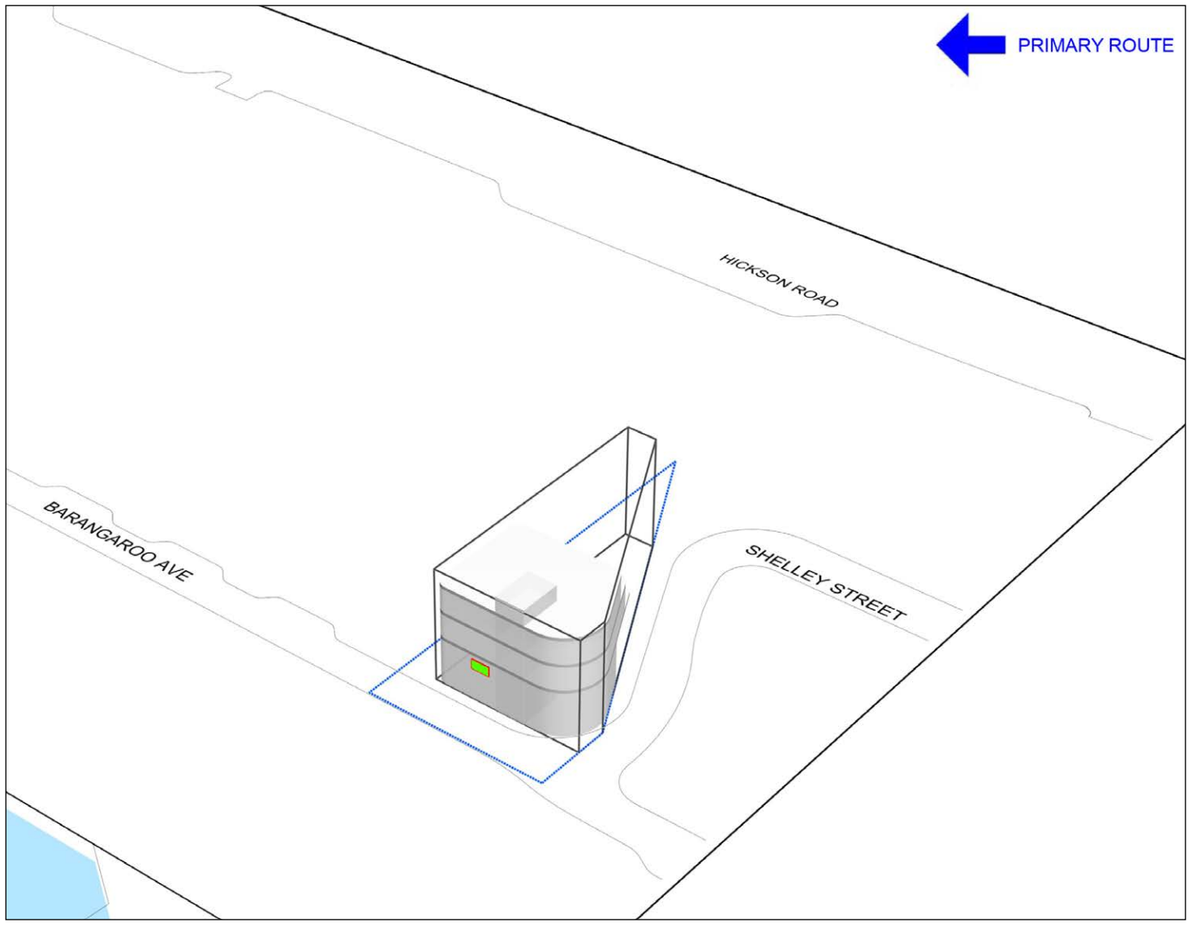
Control 8
Active Streetfronts

Objectives:

- To ensure a vital public domain will be created at street level.

Standard:

- At least 60% of the ground level is to be provided as active streetfront
- Active facades can include stairs, entrances and lobbies but exclude parking entrances.
- The width of the driveway shall be minimised, visually recessive and set back from the street.



Control 9
Signage

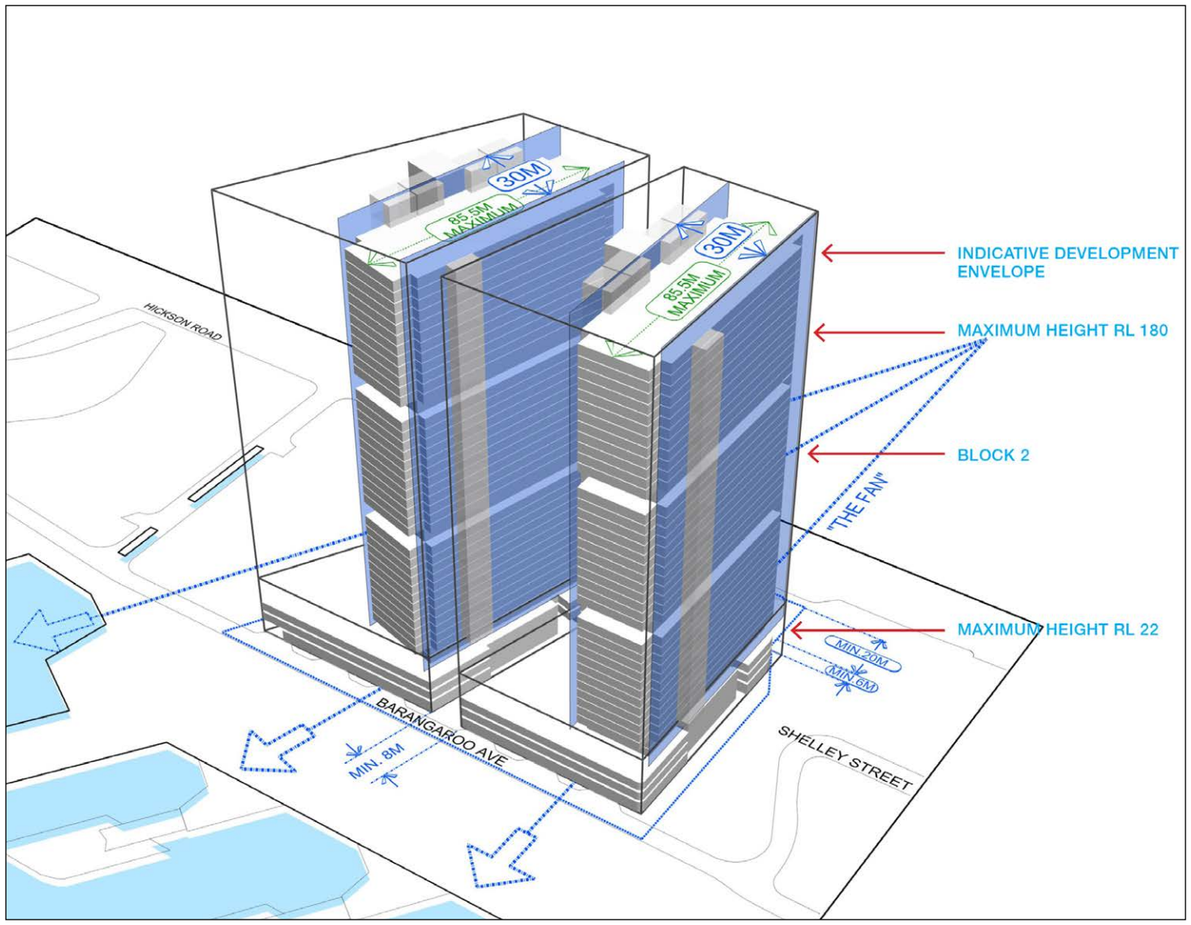
Objectives:

- To ensure control over location, size, appearance and quality of signage on buildings.
- Signage shall be integrated into the building design.

Standard:

- Signage is not to exceed 15m^2 per sign
- Building identification signage is to be limited to a maximum of 2 separate faces per building.
- Identity signage to be incorporated within the building facades.
- Details of the signage to be considered as part of the overall design of the building.

Urban Design Controls – Block 2



Control 1
Building Mass and Location

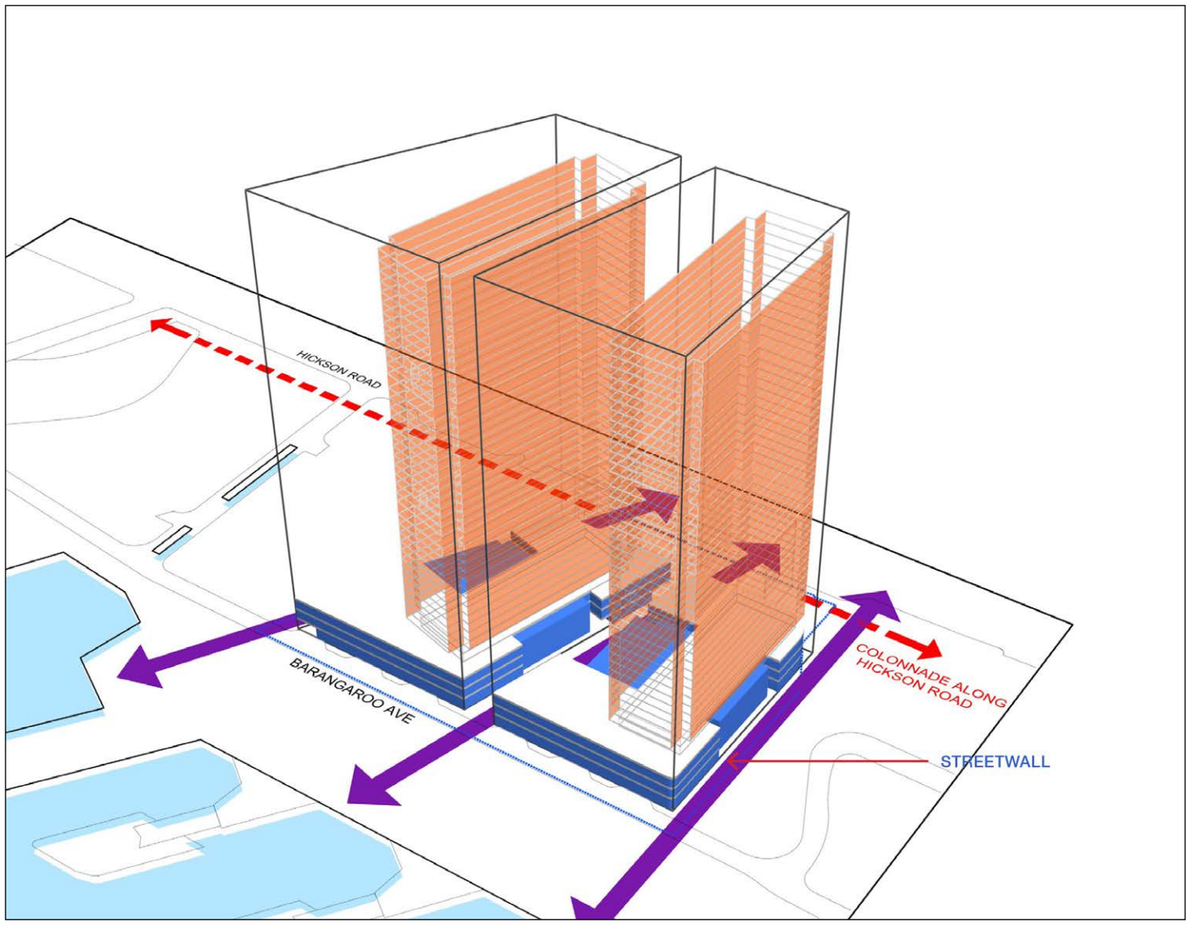
Objectives:

- Adoption of “fanning principle” for siting of buildings.
- To ensure building mass is appropriate within the envelope.
- To ensure that the vertical massing of tower form is an integral part of the composition of towers.

Standard:

- The length of the horizontal floor plate of the North and South elevation of the tower form is to be no more than 85.5m.
- The bulk of building mass will be set back from Hickson Road alignment at a minimum of 20 and a maximum of 29m.
- The primary floor plate depth, excluding structure and shading devices of each tower form sits between vertical planes (light blue), which establishes a 30 metre zone. Expressed structure and secondary floor plate is allowable outside this dimension.
- Podium to be a minimum predominant height of 3 storeys and a maximum of RL27.
- Reduce the height and/or reduce the floor area above RL 160 in one of the towers.
- Hickson Road buildings are to be a maximum height of RL 33.2.
- The predominant mass and bulk of the southern most Hickson Road building should be set back from the southern boundary to create Exchange Place.

Urban Design Controls – Block 2



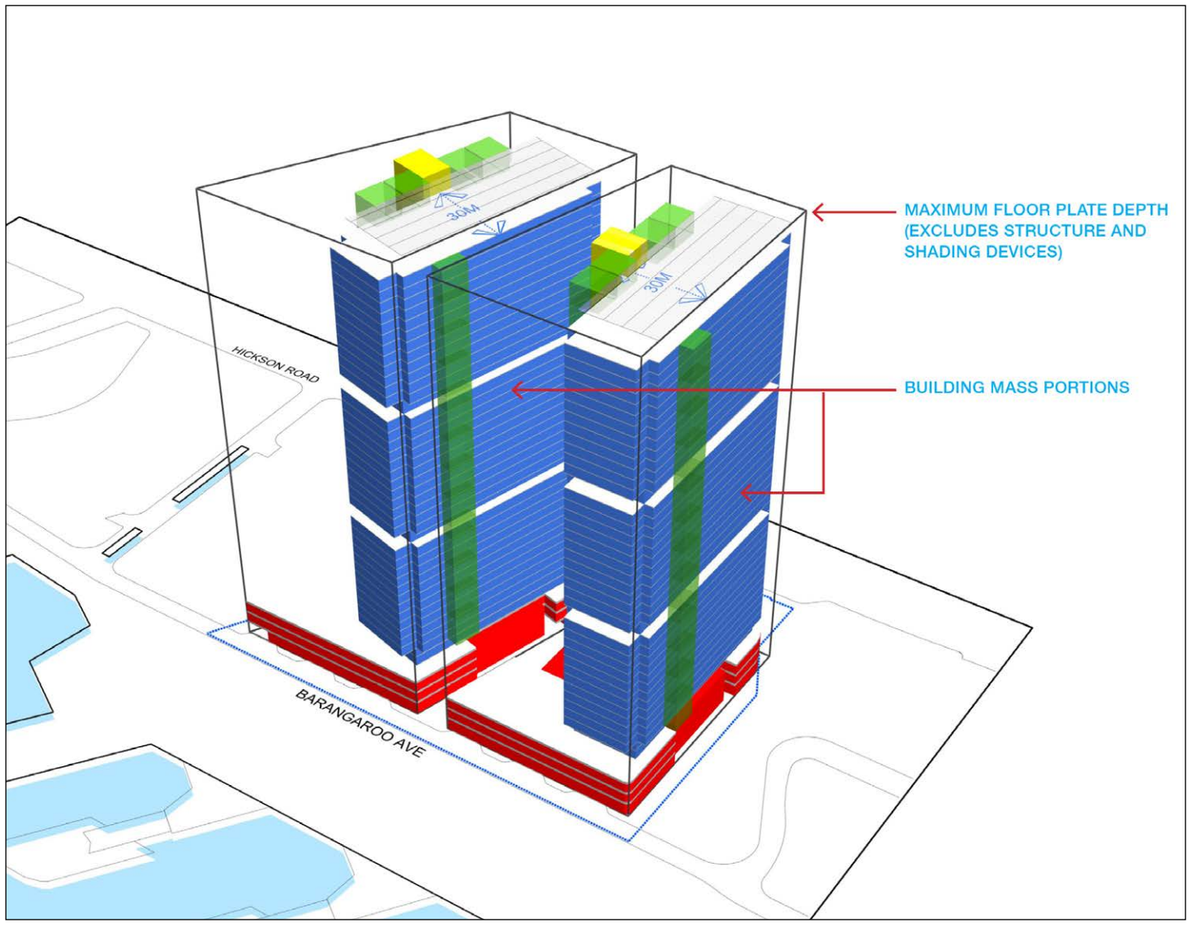
Control 2
Street Wall Establishment

Objectives:

- To establish spaces to articulate and define facades.

Standard:

- Built form to establish a colonnade along Hickson Road.
- Building form to create a street wall with a one storey minimum height for most of the public accessible ground floor facade.
- Building mass to define a street wall on Barangaroo Avenue, Exchange Place, Shipwright Walk and Hickson Road.
- Scotch Row to be a minimum of 6m in width with a defined eastern edge parallel to Hickson Road at ground level.



Control 3
Building Articulation

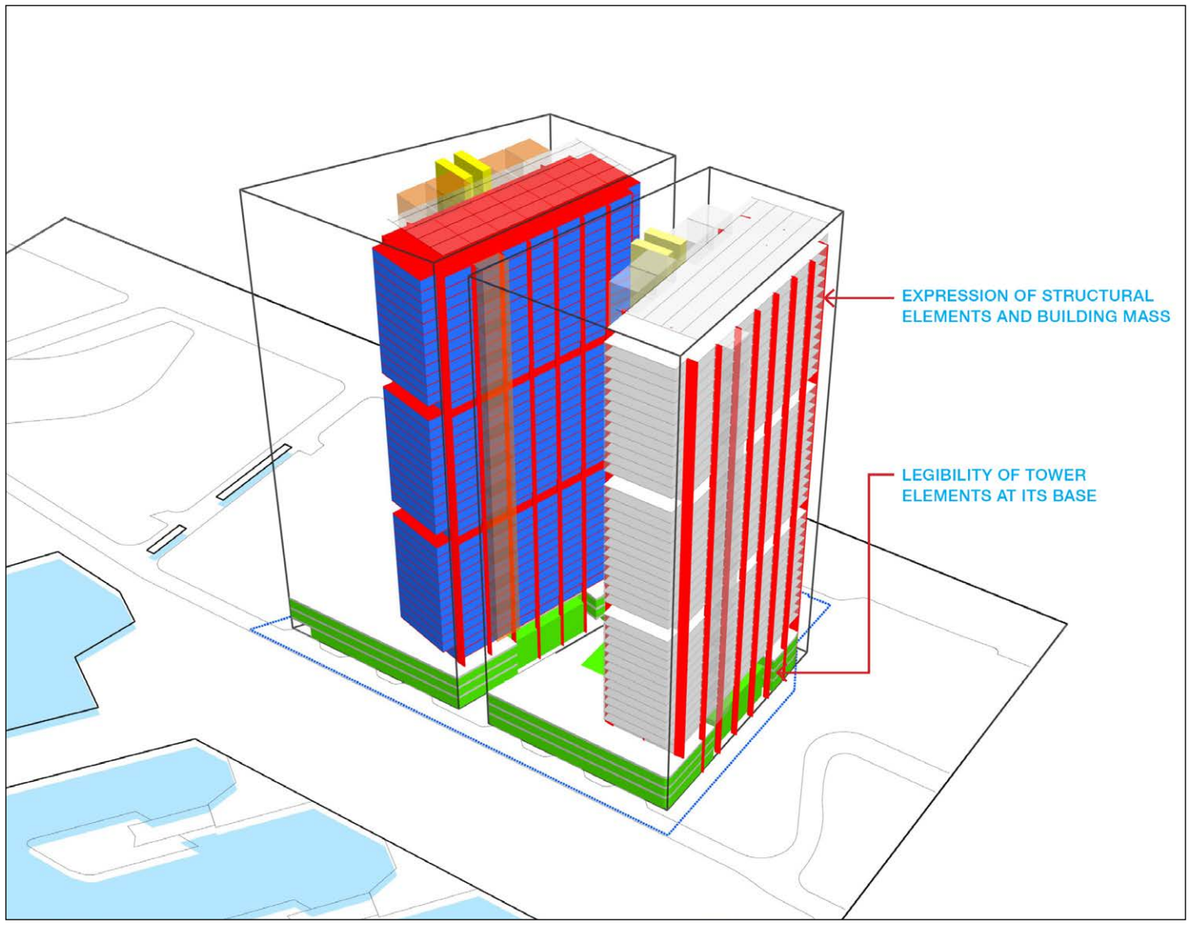
Objectives:

- To establish an articulated, well proportioned building mass.

Standard:

- The building envelope and floor plates are to be articulated and modulated, using a range of architectural components such as prows, corner redents, vertical villages, expressed lift cores, bay windows and other structural expression.
- Tower Form to express sustainability features such as access to natural light.

Urban Design Controls – Block 2



Control 4
Building Legibility

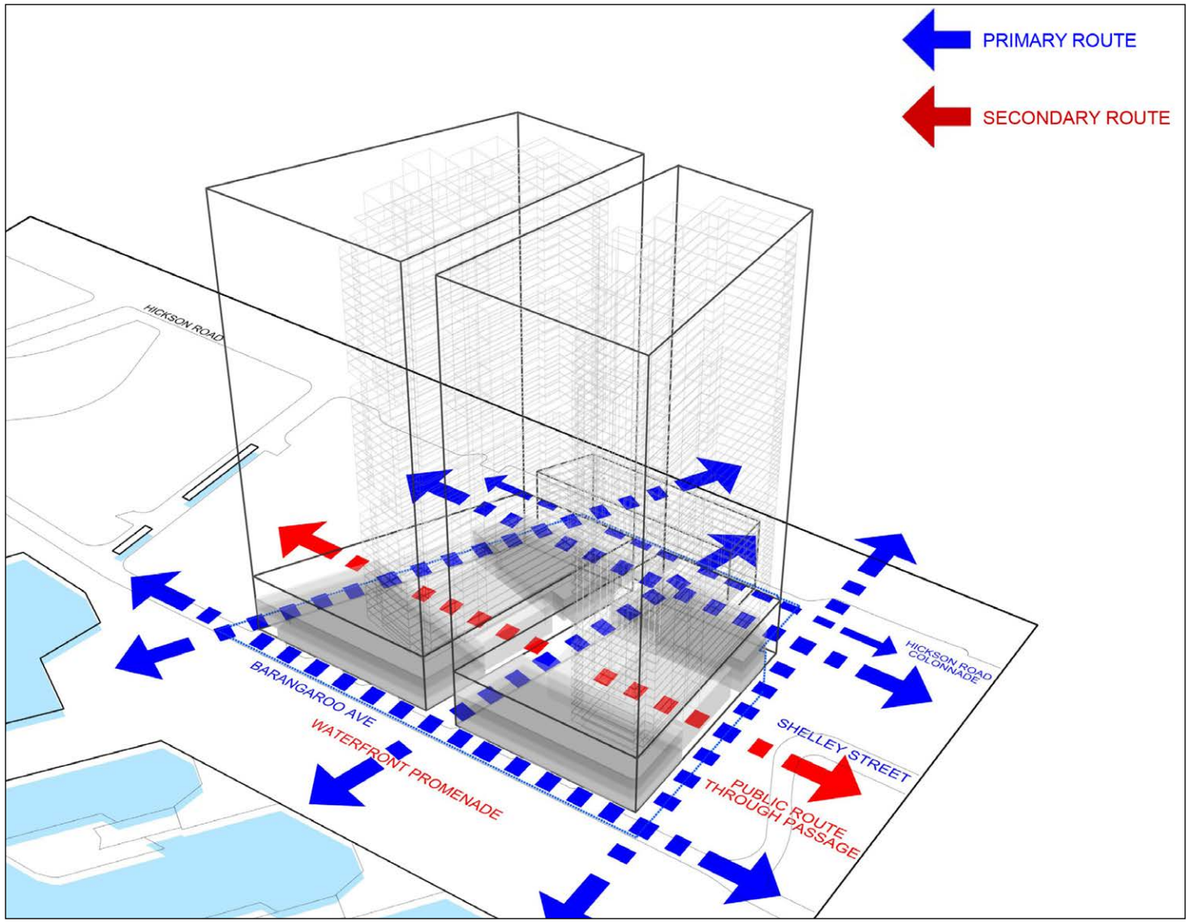
Objectives:

- Constituent elements of the building need to be articulated.
- Elements of the building and structure should be legible at the base.

Standard:

- The separate primary components of the building will be expressed.
- Visible parts of the towers' primary structure are to extend to the ground plane and be expressed as a separate element from the podium.

Urban Design Controls – Block 2



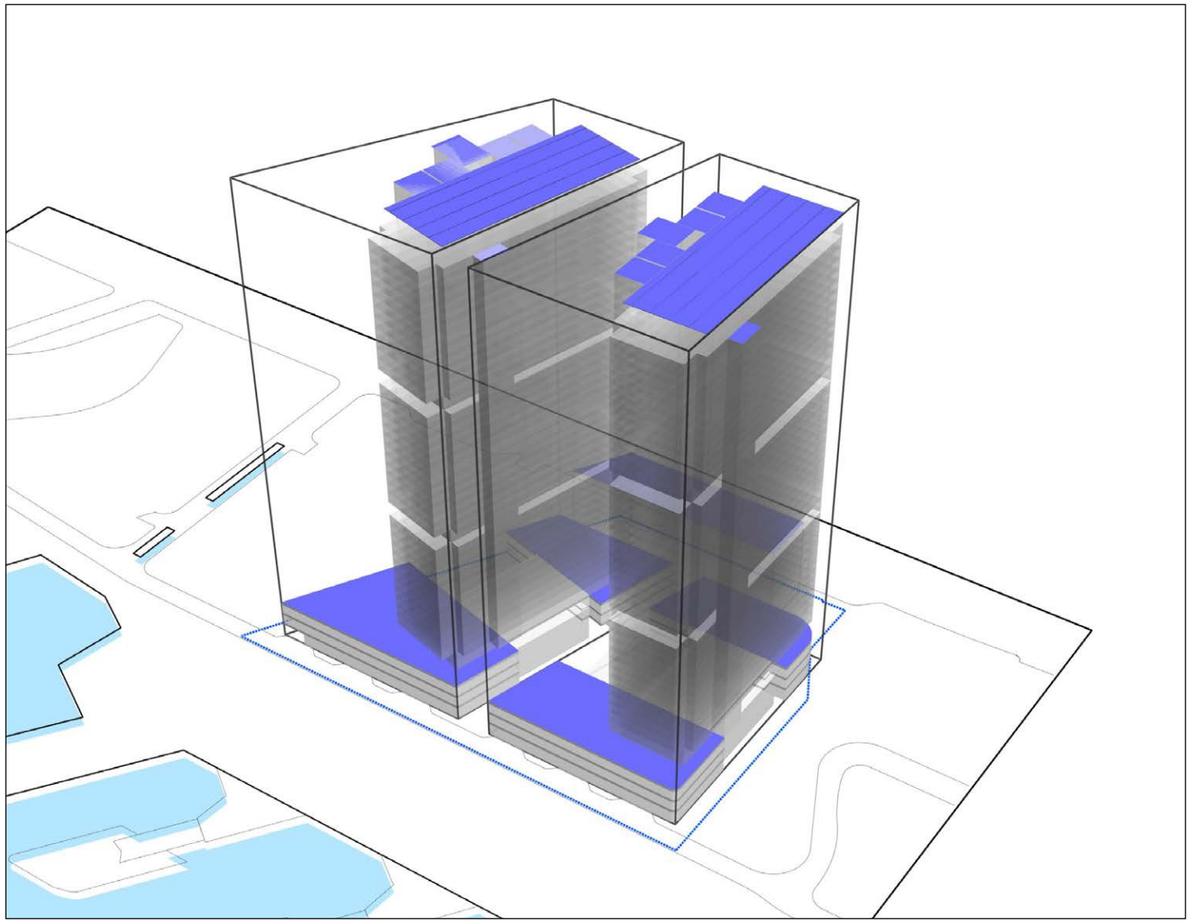
Control 5
Ground Floor Permeability and Accessibility of Public Realm

Objectives:

- To provide permeability and accessibility through Barangaroo South.
- To maximise safety of the public realm
- To ensure public accessibility through Hickson Place.

Standard:

- Public access around the Block is to be maintained on all edges.
- Provide two north to south and one east to west primary connections including the Hickson Road colonnade, through the block.
- Provide one north to south secondary public access route through the block.
- Scotch Row must be not less than 50% open to the sky.
- For security purposes the secondary routes may be closed at certain times
- Maintain 100% public accessibility on the east, west and southern edges of Exchange Place.



Control 6
Ensuring Quality of Rooftops

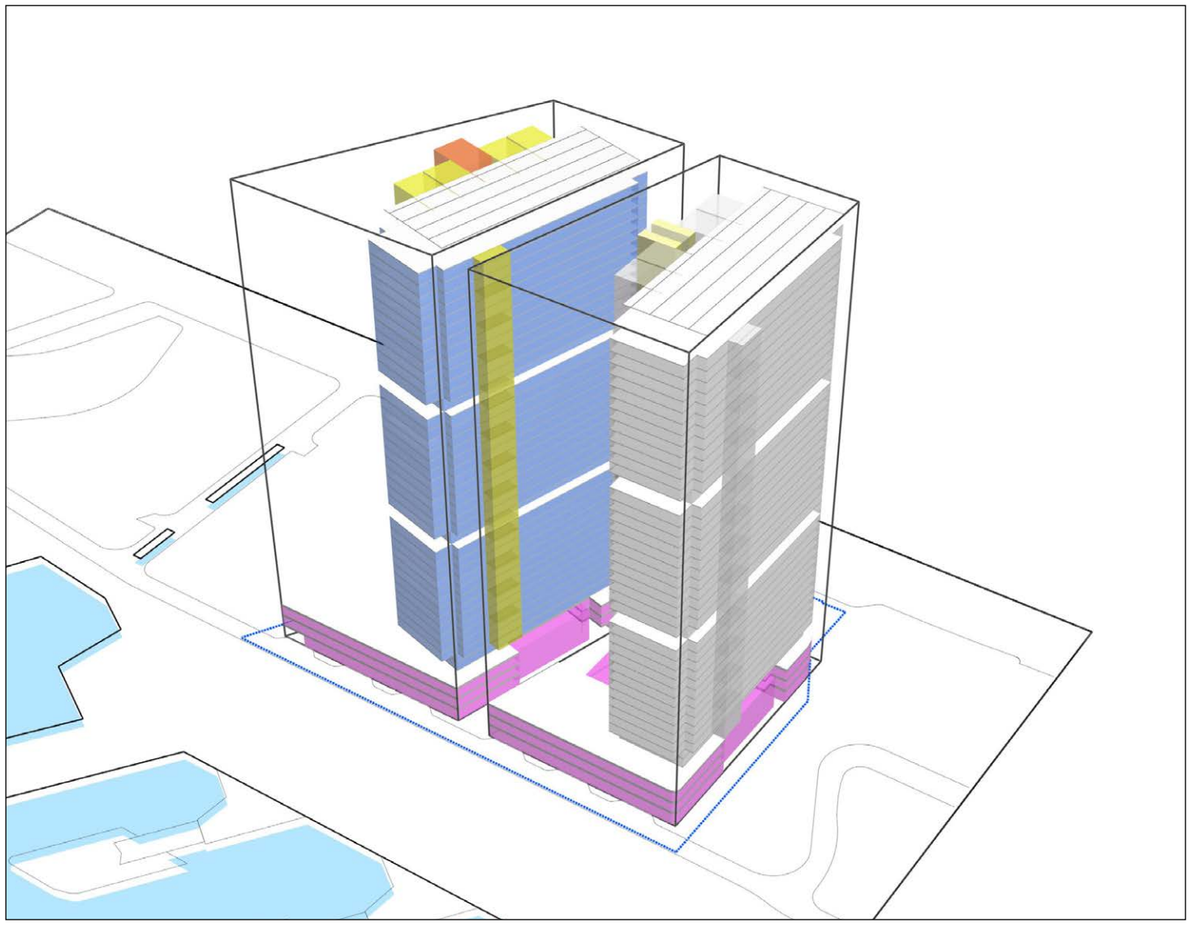
Objectives:

- To ensure that the mass of the rooftop is articulated and legible.

Standard:

- Roof forms to incorporate Architectural treatment.
- Lift shafts, overruns and control rooms are to be extruded above the roof line and used to provide architectural articulation to the roof.
- Exposed mechanical equipment is to be avoided.
- The architectural treatment of the roof and its form is to be designed, coordinated and remain sympathetic to adjacent context.
- Good quality materials (ie durable, hardwearing, sustainable) to be used.
- Roof Design to integrate sustainable features.

Urban Design Controls – Block 2



Control 7
Façades

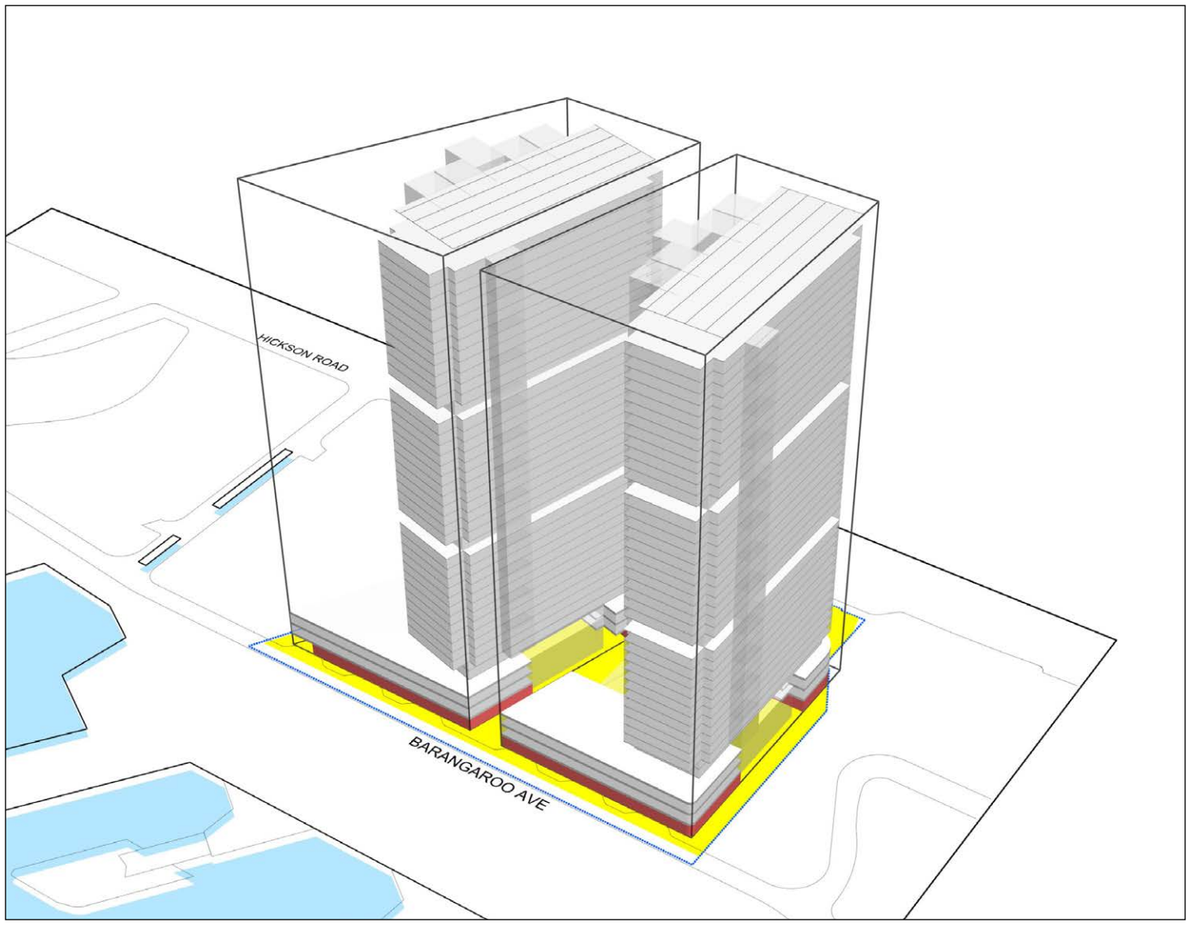
Objectives:

- To ensure the architectural quality of the facades.
- To articulate the building functions and massing with appropriate facade design and detailing.
- To ensure the facades contribute to the building articulation and mass.
- To contribute to the “carbon neutral” aims for Barangaroo South.

Standard:

- Depth and layering of facades is to be achieved through relief and protrusions. Mirrored facades should be avoided.
- The choice of appropriate materiality for longevity, durability and flexibility. Materials such as steel, glass, concrete, timber and aluminium.
- Environmentally sustainable design is to be incorporated on all facades.
- Facade components such as external shading shall be used to provide light and shade to the building and to consider and reinforce Control 2+3.
- Facades longer than 60m are to be modulated above podium level by distinctive and significant architectural elements eg vertical villages, cores or external staircases, in the vertical plane.
- There shall be no single plane in the façade having dimensions greater than 60m in length and 60m in height (or equivalent area) without articulation, and change in plane from adjoining building elements, unless as otherwise determined by the Secretary, in consultation with the Barangaroo Delivery Authority.

Urban Design Controls – Block 2



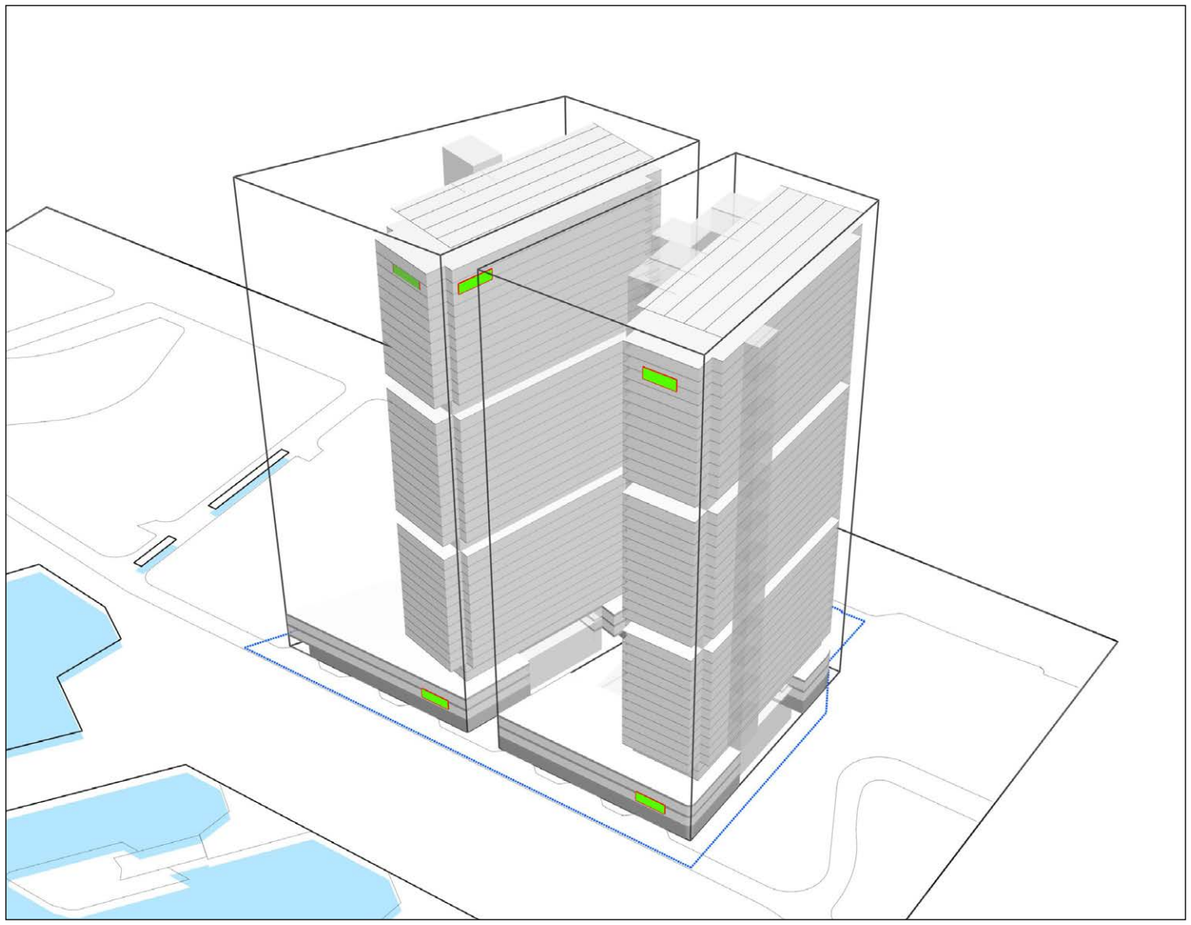
Control 8
Active Streetfronts

Objectives:

- To ensure a vibrant public domain will be created at street level.

Standard:

- At least 60% of the Ground Level is to be active on the primary street wall facades
- Building entrances to internal areas such as office lobbies, exits and service areas or loading docks shall not count toward the 60% requirement.
- Building service areas and loading docks will not be located on Hickson Road or Barangaroo Avenue.



Control 9
Signage

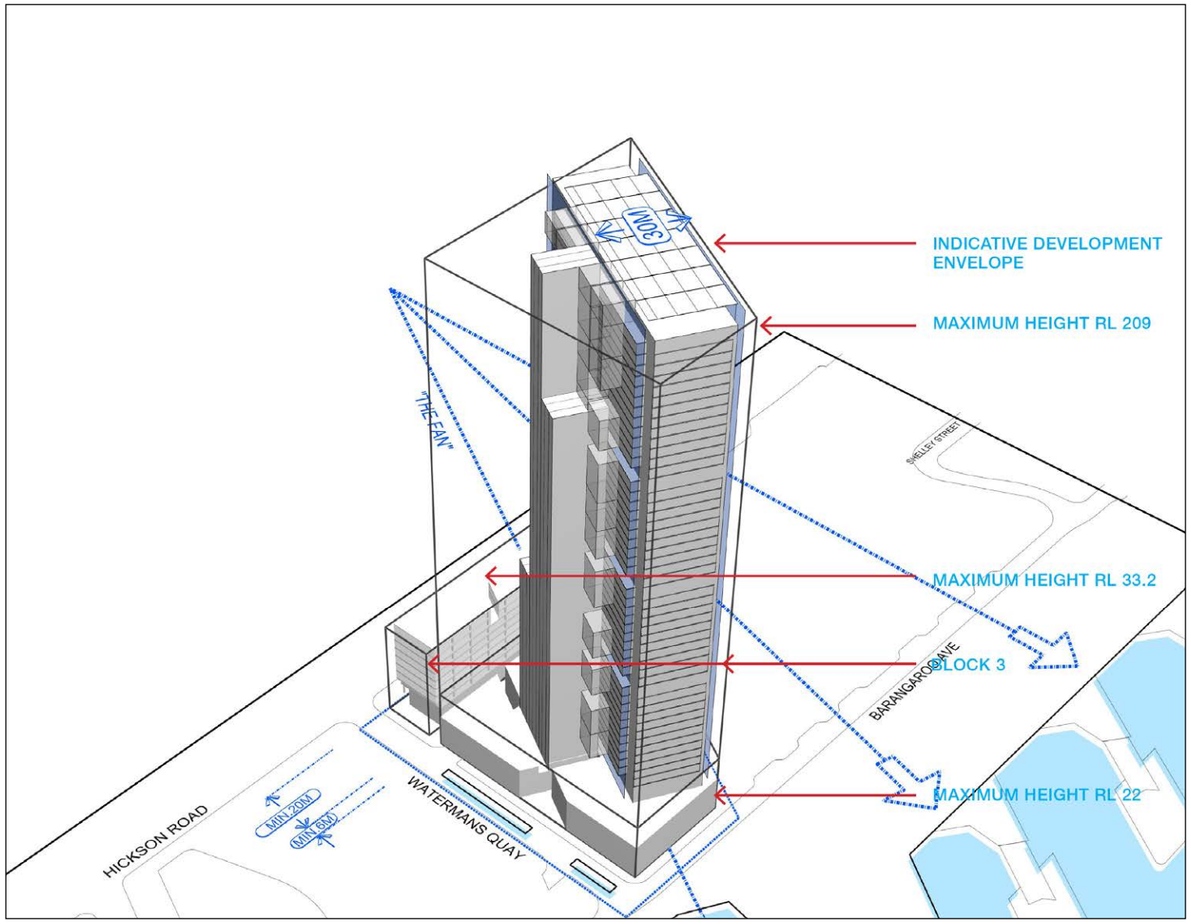
Objectives:

- To ensure that the location, size, appearance and the quality of the signage on the building is appropriate.

Standard:

- High level signage is to be limited to a maximum of 2 separate faces per building.
- Signage is not to exceed 60sqm per sign.
- Identity signage only to be incorporated within the building facades/structure.
- Details of signage to be considered as part of the overall design of the building for the purposes of Design Excellence.
- Signage shall not be greater than 1 building storey high between floor slabs.

Urban Design Controls – Block 3



Control 1
Building Mass and Location

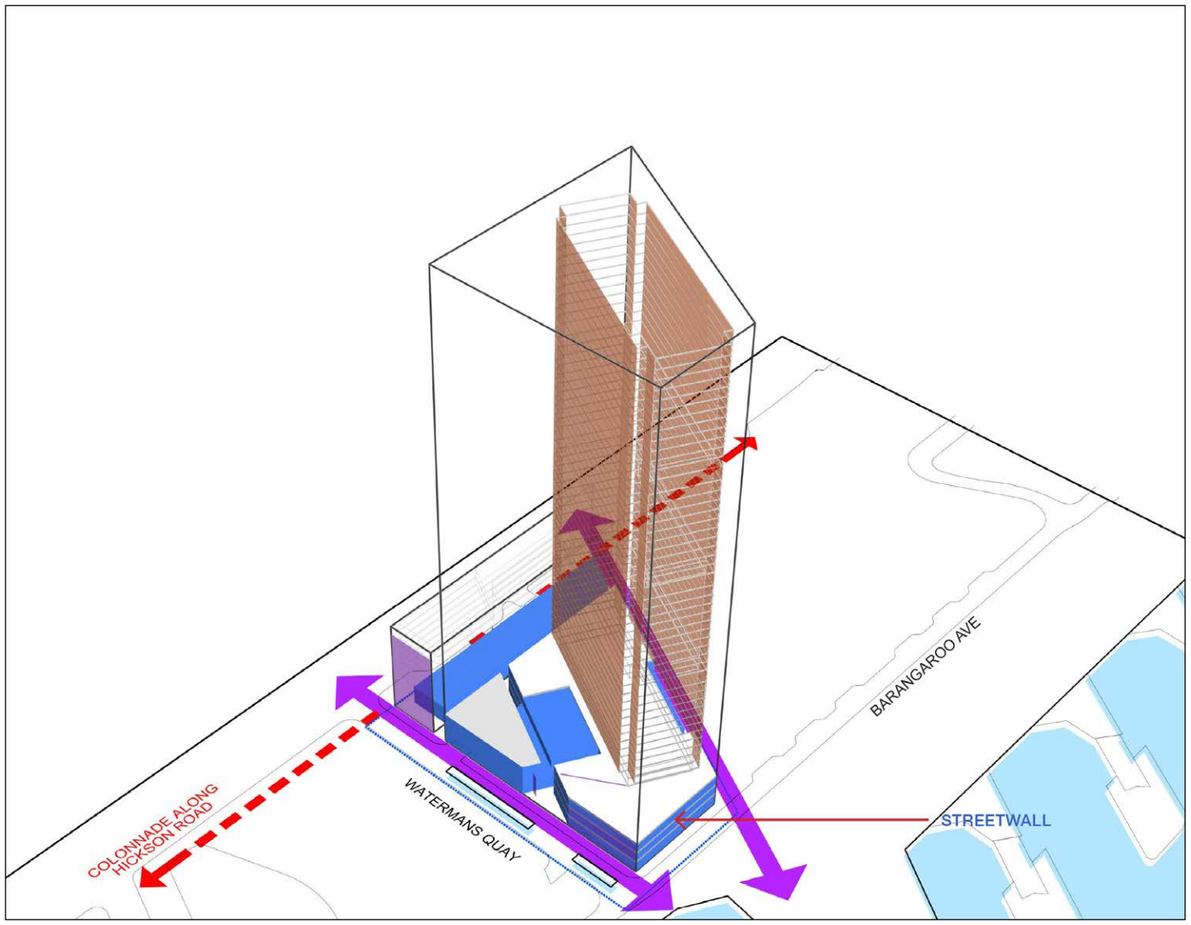
Objectives:

- Adoption of “fanning principle” for siting of buildings.
- To ensure building mass is appropriate within the envelope.
- The northern part of the block shall contain built form of a comparatively lower scale (when compared to the tower forms) as generally indicated in the indicative design.

Standard:

- The length of the horizontal floor plate of the North and South elevation of the tower form is to be no more than 85.5m.
- The bulk of building mass is to be set back from the Hickson Road alignment by a minimum of 20m.
- The primary floor plate depth, excluding structure and shading devices of each tower form sits between vertical planes (light blue), which establishes a 30m zone. Expressed structure and secondary floor plate is allowable outside this dimension.
- Podium to be a minimum predominant height of 3 storeys and a maximum of RL27.
- Hickson Road Buildings are to be maximum height of RL 33.2.

Urban Design Controls – Block 3



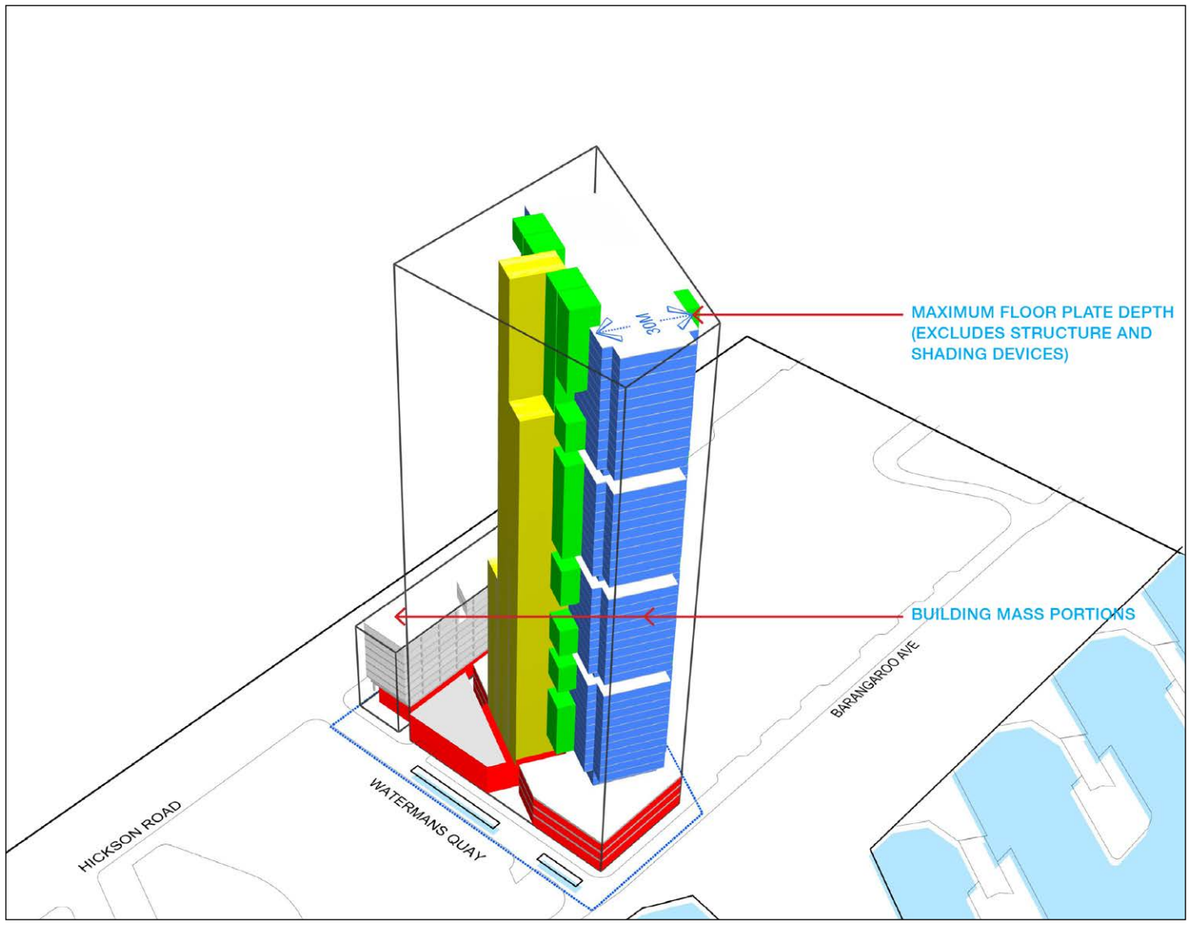
Control 2
Street Wall Establishment

Objectives:

- To establish spaces to articulate and define facades.
- Building mass at podium to form a continuous Street Wall with a minimum predominant podium height of 3 storeys.
- Street Wall to define Barangaroo Avenue.
- Podium height shall be determined having regard to compatibility of streetscape form with the surrounding area, and appropriate engagement and framing of the public domain, together with environmental considerations on the public domain and surrounding buildings.

Standard:

- To establish a colonnade along Hickson Road. The width and height of the colonnade along Hickson Road shall be appropriate to encourage its use, and be integrated into the proportions of the buildings of which it is a part.
- Building form to create a Street Wall with a one storey minimum height for most of the public accessible ground floor facade.
- Building mass to define a Street Wall on Barangaroo Avenue, Shipwright Walk and Hickson Road.
- Scotch Row to be a minimum of 6m in width with a defined eastern edge parallel to Hickson Road at ground level.



Control 3
Building Articulation

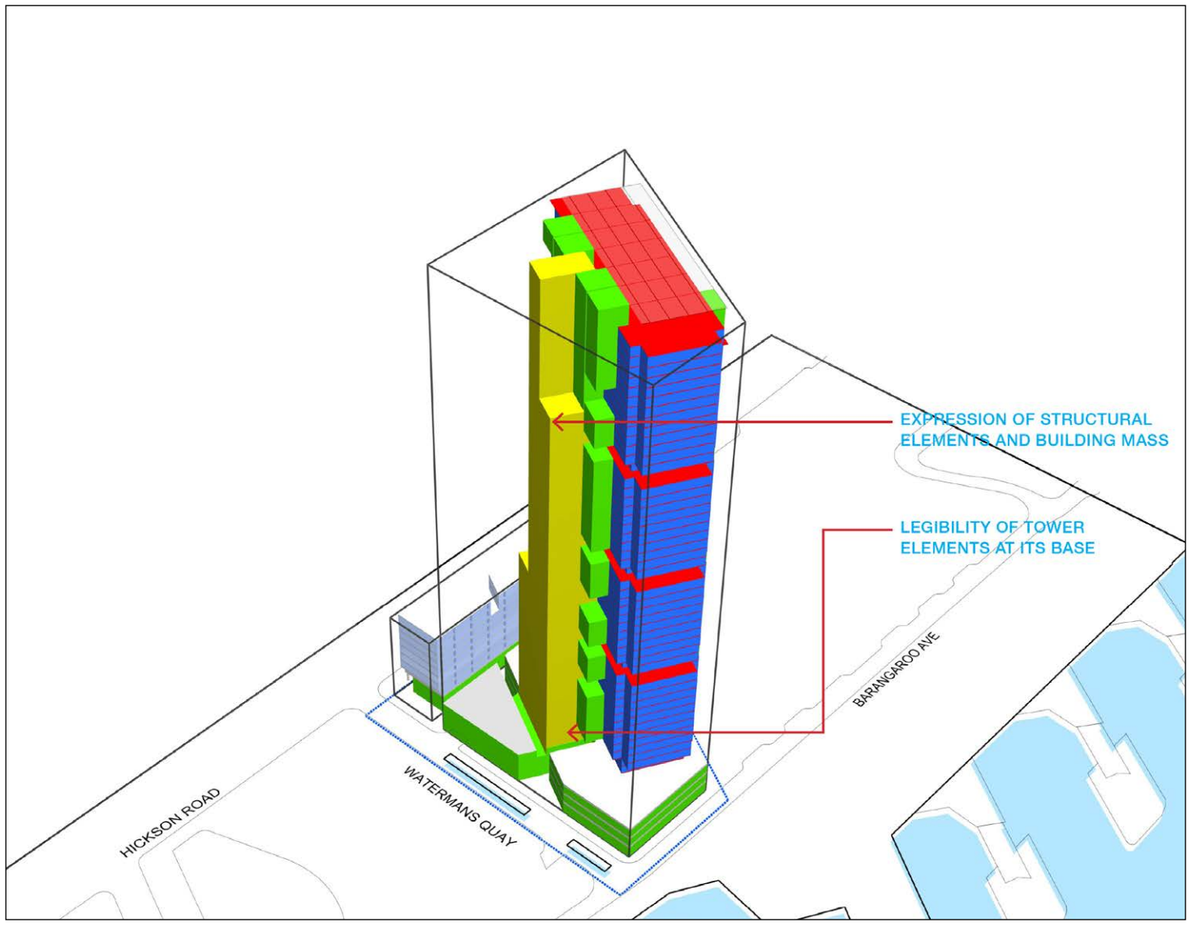
Objectives:

- To establish an articulated, well proportioned building mass.
- To reduce the impact of the building mass.

Standard:

- The building envelope and floor plates are to be articulated and modulated, using a range of architectural components such as prows, corner redents, vertical villages, expressed lift cores, bay windows and other structural expression.
- Tower Form to express sustainability features such as access to natural light.

Urban Design Controls – Block 3



Control 4
Building Legibility

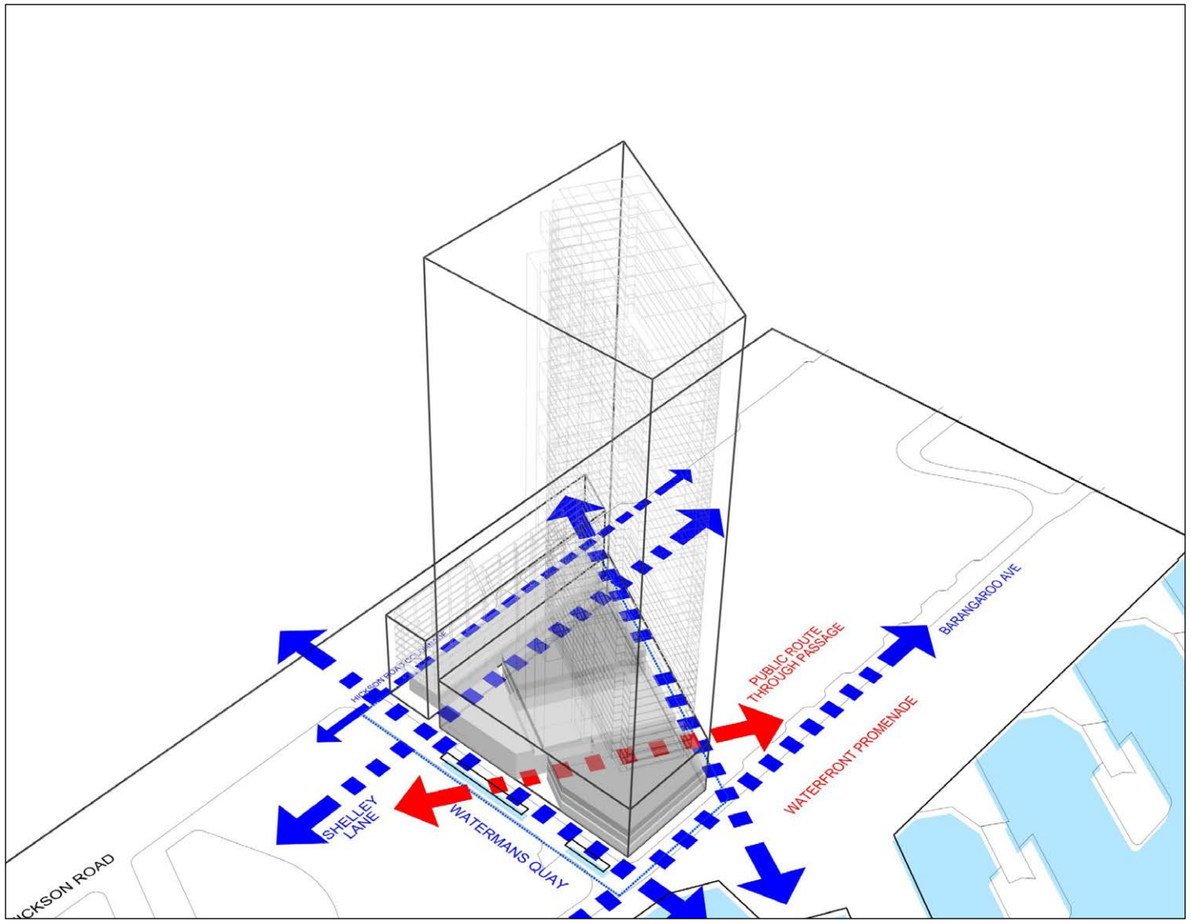
Objectives:

- Constituent elements of the building need to be articulated.
- The elements and structure should be legible at the base of the building.

Standard:

- The separate primary components of the building will be expressed.
- Visible parts of the towers primary structure are to extend to the ground plane and be expressed as a separate element from the podium.

Urban Design Controls – Block 3



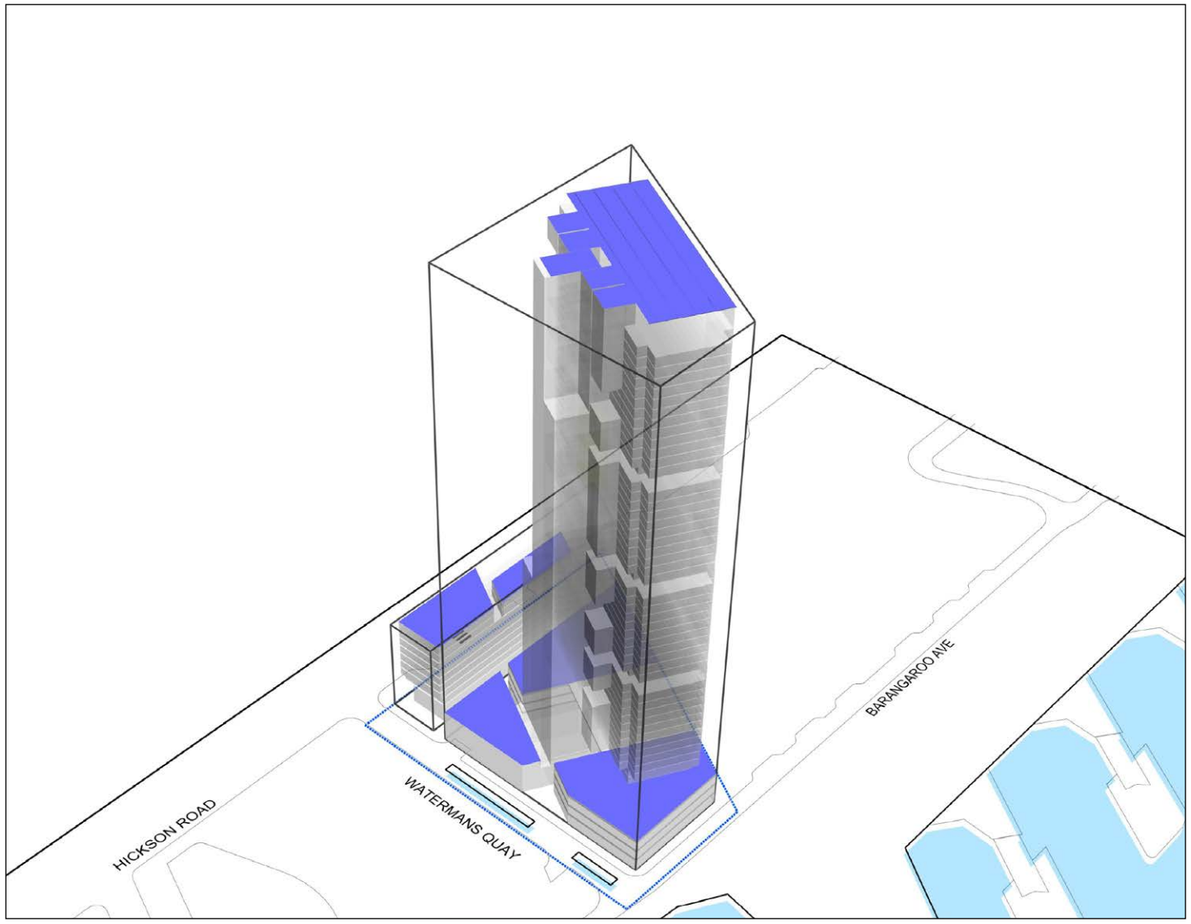
Control 5
Ground Floor Permeability and Accessibility of Public Realm

Objectives:

- To provide permeability and accessibility through Barangaroo South.
- To maximise safety in the public realm.

Standard:

- Public access around the Block is to be maintained on all edges.
- Provide two north south primary connections, including the Hickson Road Colonnade and two east west primary connections (Shipwright Walk & Barangaroo Avenue).
- Provide one north south secondary public access route through the block.
- Scotch Row must be not less than 50% open to the sky.
- For security purposes the secondary routes may be closed at certain times.



Control 6
Ensuring Quality of Rooftops

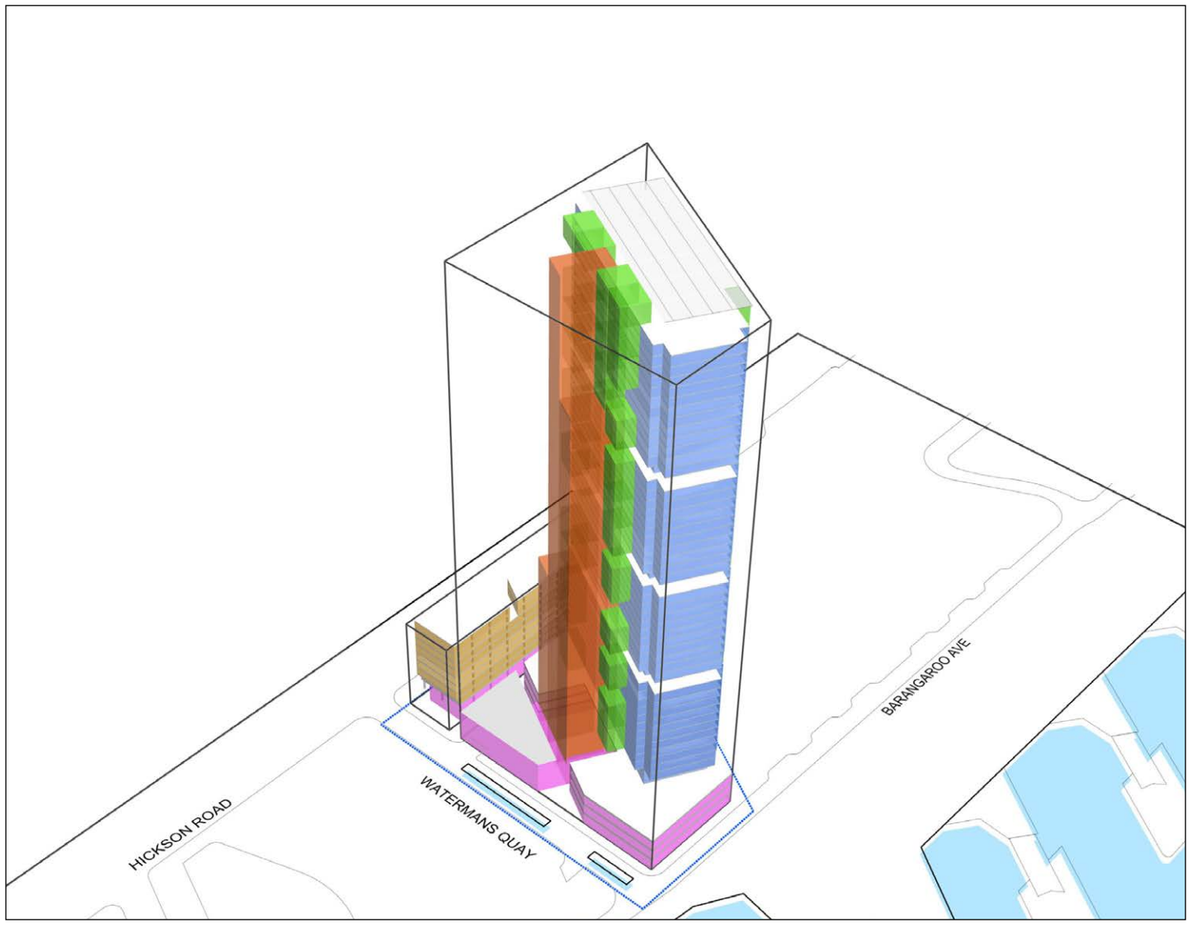
Objectives:

- The mass at the rooftop shall be articulated and legible.

Standard:

- Roof forms to incorporate architectural elements.
- Lift shafts, overruns and control rooms are to be extruded above the roof line and used to provide architectural articulation to the roof.
- Exposed mechanical equipment is to be avoided.
- The architectural treatment of the roof and its form is to be designed, coordinated and remain sympathetic to adjacent context.
- Good quality materials (ie durable, hardwearing, sustainable) to be used.
- Roof Design to integrate sustainable features.

Urban Design Controls – Block 3



Control 7
Façades

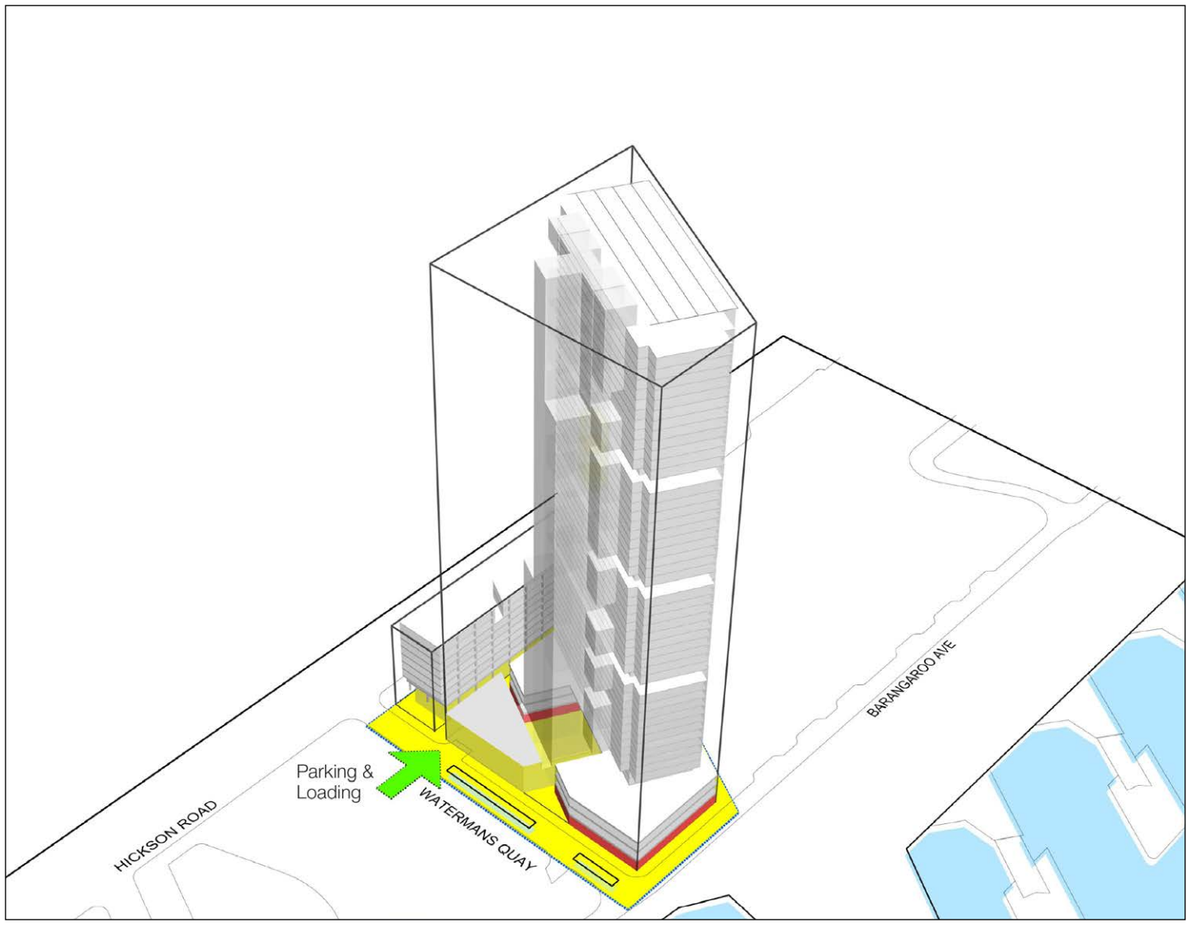
Objectives:

- To ensure the architectural quality of the facades.
- To articulate the building's functions and massing with appropriate facade design and detailing.
- To ensure the facades contribute to the building's articulation and mass.
- To contribute to the "carbon neutral" aims for Barangaroo South.

Standard:

- Depth and layering of facades is to be achieved through relief and protrusions. Mirrored facades should be avoided.
- The choice of appropriate materiality for longevity, durability and flexibility. Materials such as steel, glass, concrete, timber and aluminium.
- Environmentally sustainable design is to be incorporated on all facades.
- Facade components such as external shading shall be used to provide light and shade to the building and to consider and reinforce Control 2+3.
- Facades longer than 60m are to be modulated above podium level by a distinctive and significant architectural elements eg as vertical villages, cores or external staircases, in the vertical plane.
- There shall be no single plane in the façade having dimensions greater than 60m in length and 60m in height (or equivalent area) without articulation, and change in plane from adjoining building elements, unless as otherwise determined by the Secretary, in consultation with the Barangaroo Delivery Authority.

Urban Design Controls – Block 3



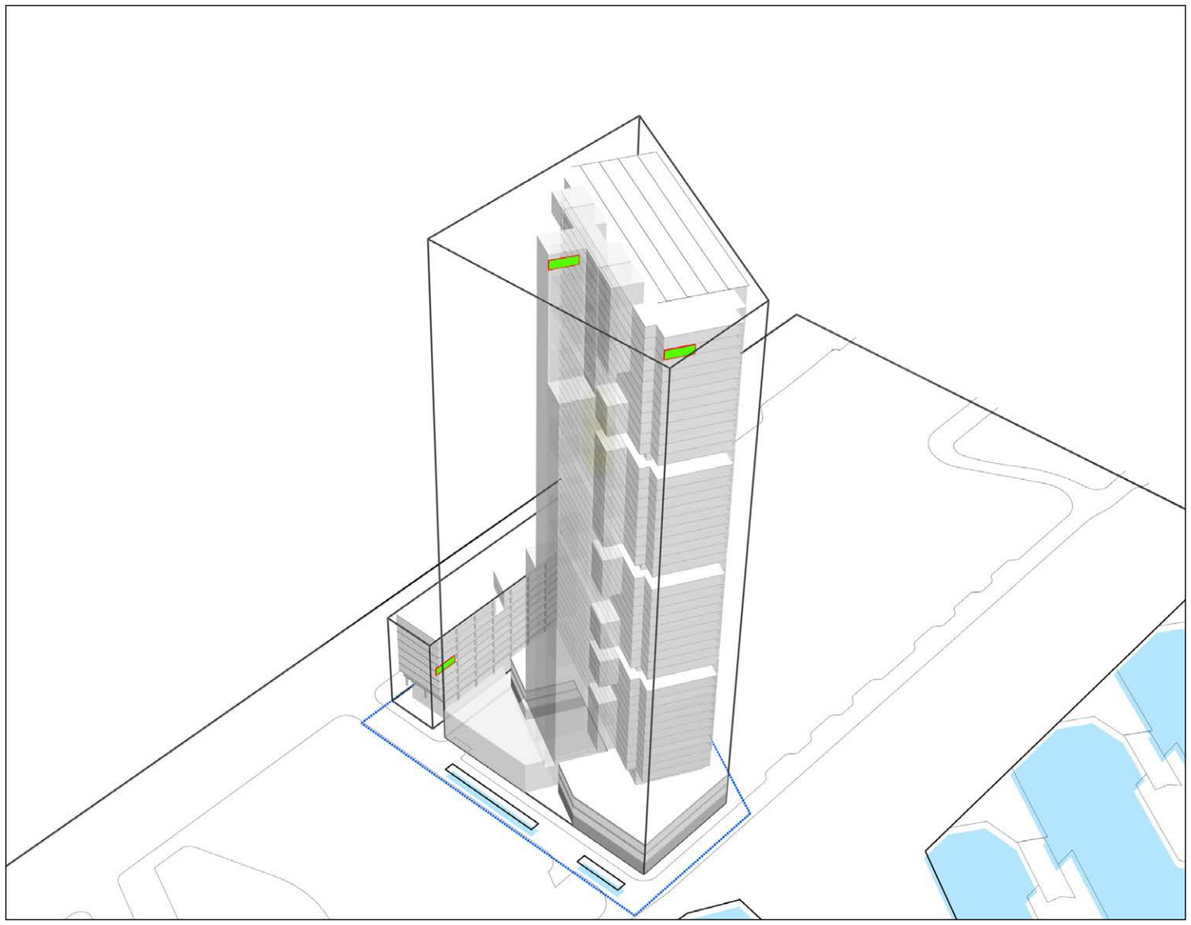
Control 8
Active Streetfronts

Objectives:

- To ensure a vibrant public domain will be created at street level.

Standard:

- At least 60% of the Ground Level is to be active on the primary Street Wall facades
- Building entrances to internal areas such as office lobbies, exit ways and service areas or loading docks shall not count toward to 60% requirement.
- Building service areas, parking entrances & loading docks will be located on Watermans Quay.
- The width of driveways shall be minimised.



Control 9
Signage

Objectives:

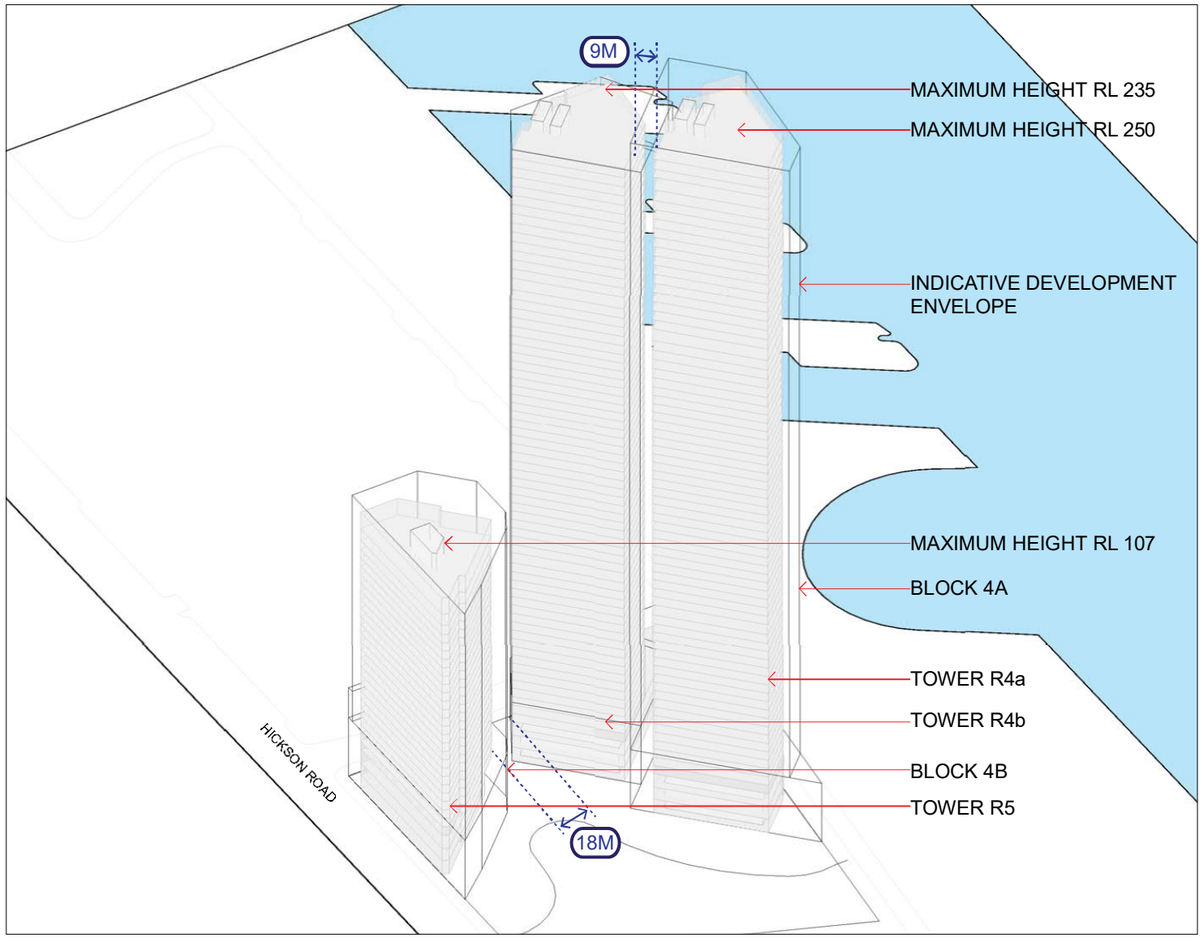
- To ensure that the location, size, appearance and the quality of the signage on the building is appropriate.

Standard:

- High level signage is limited to a maximum of 2 separate faces per building.
- Signage is not to exceed 60sqm per sign.
- Identity signage only to be incorporated within the building facades/structure.
- Details of signage to be considered as part of the overall design of the building for the purposes of Design Excellence.
- Signage shall not be greater than 1 building storey high between floor slabs.

Urban Design Controls – Block 4A + 4B

Indicative buildings shown in Block 4A + B are designed by Renzo Piano Building Workshop.



Control 1
Building Mass and Location

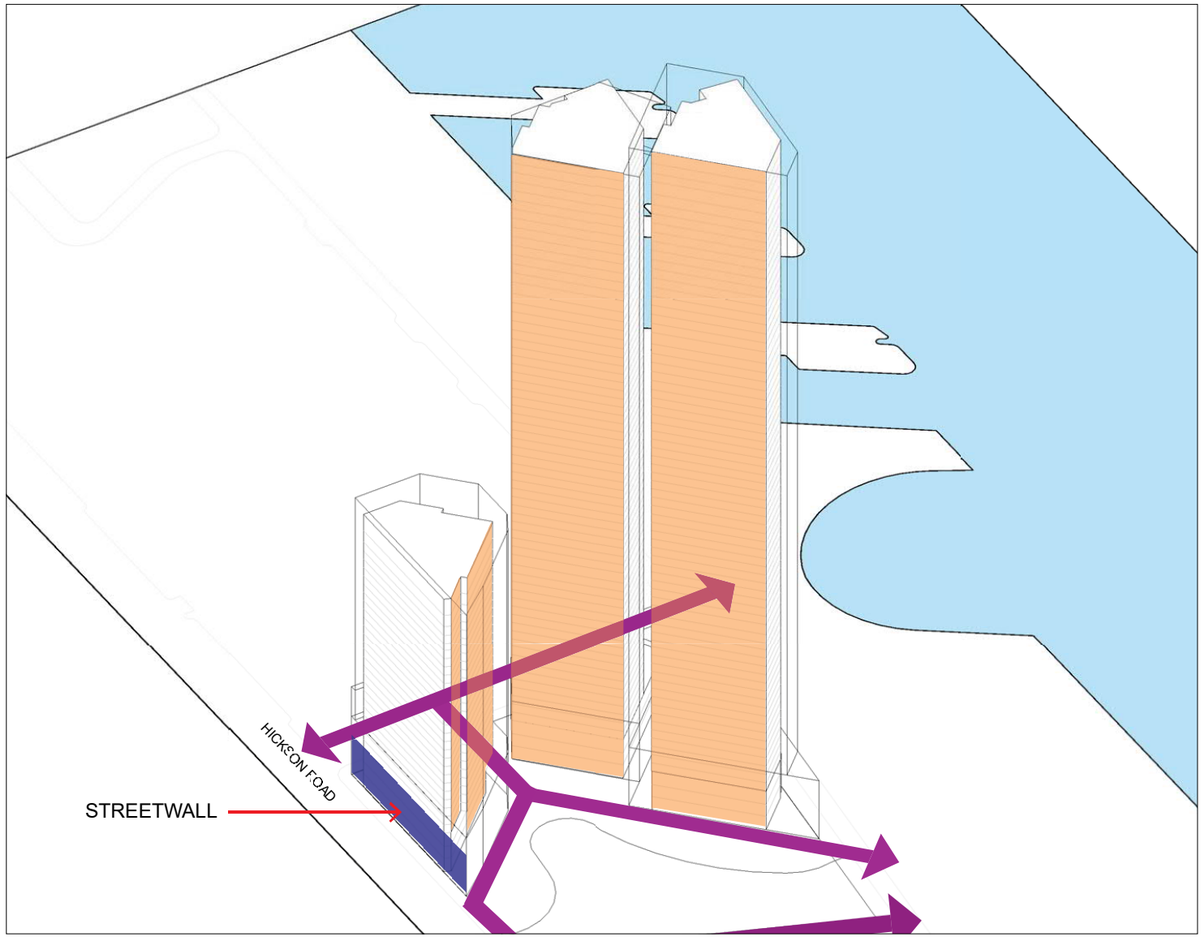
Objectives:

- The orientation and location of the buildings relate to the fan principle.
- To ensure building mass is appropriate within the envelope.
- The podium shall be low to allow sunlight penetration through the buildings to the public domain.
- Building placement to consider existing view corridors from Kent Street buildings.
- To ensure the vertical massing form is an integral part of the composition of towers in block 4A.
- Ensure clear views to the sky between all towers from key vantage points.
- Allow balconies on towers including residential and/or tourist and visitor accommodation GFA to be partially enclosed without the need to include balcony floor areas as GFA.

Standard:

- The height of the towers within the block shall be varied and ascend in height from east to west.
- Towers in Block 4A shall have a minimum of 15m variation in height
- Towers proposed in Block 4A should be separated by a minimum of 9m.
- All predominant tower massing shall provide a minimum of 27m separation from the Block Y tower massing.
- All predominant tower mass shall be set back from Watermans Quay by a minimum of 2m.
- Block 4A podium buildings are to have a maximum height of RL 22.
- Podiums may be built to the edge of the envelope on Watermans Quay.
- For residential and tourist and visitor accommodation development within a building with a height of 30 metres or more; the maximum private external balcony area must not exceed 15% of the GFA of the apartment or tourist and visitor accommodation room to which the balcony is not connected; and the bulk of the building is no greater than it would be if the balconies were not partially enclosed.

Urban Design Controls – Block 4A + 4B



Control 2
Streetwall Establishment

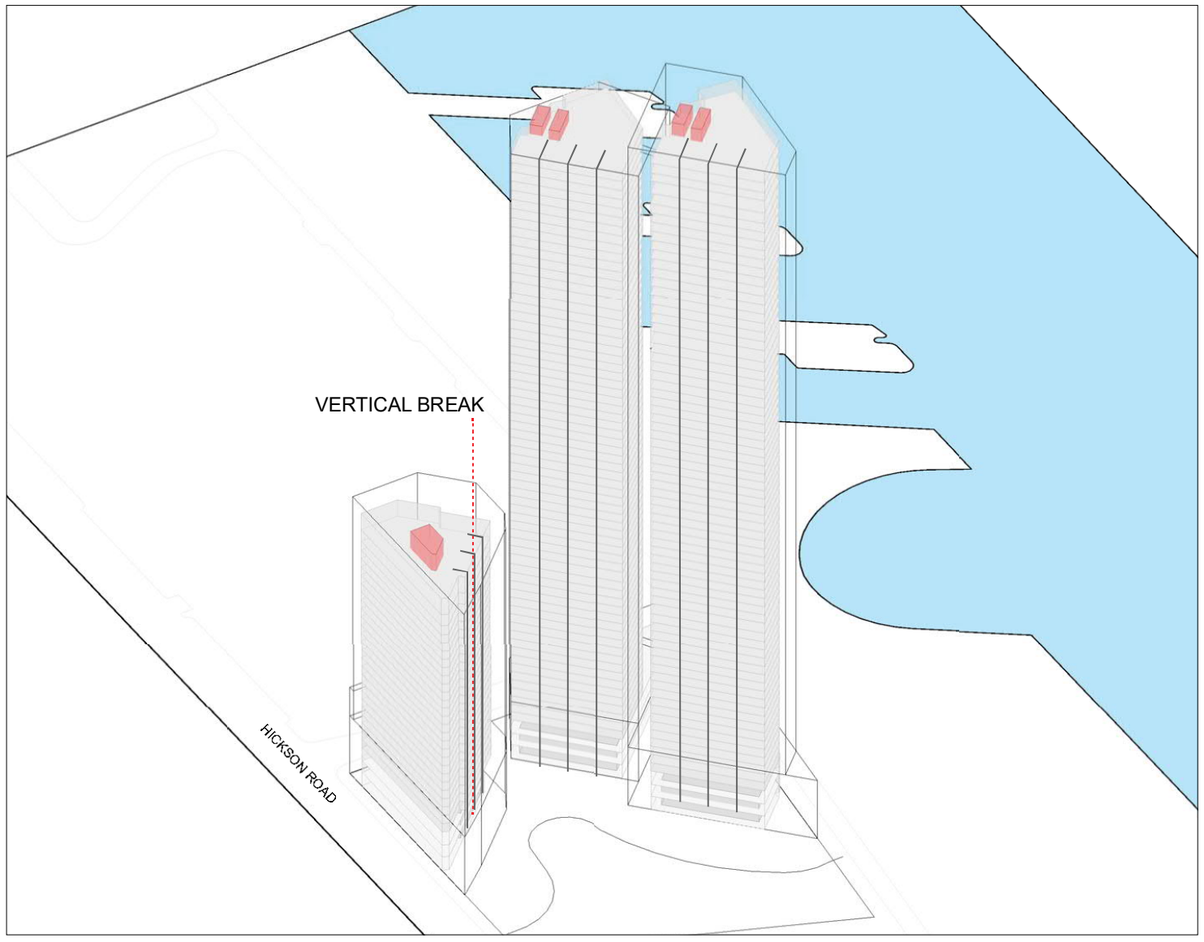
Objectives:

- Ensure that the Street Wall defines Barangaroo Avenue.
- Ensure a human scale streetscape.
- Podium height is to foster a coordinated streetscape and appropriate street level environment.

Standard:

- Building form to create a streetwall with a one storey minimum height for most of the public accessible ground floor facade.
- All podium streetwalls define Watermans Quay and Hickson Road.
- Hickson Road Street Wall will continue the colonnade form existing on Blocks 2 + 3.

Urban Design Controls – Block 4A + 4B



Control 3
Building Articulation

Objectives:

- To establish an articulated, well proportioned building mass.
- To reduce the impact of the building's mass.
- To ensure the podium and towers in Blocks 4A and 4B are considered as a holistic composition.

Standard:

- The building envelopes and floor plates are to be articulated.
- Tower Form is to express sustainability features e.g. Access to natural light, ventilation and solar shading.
- To establish a complementary relationship between the towers in Blocks 4A and 4B such as a common chassis.
- Vertical articulation and breaks are encouraged to minimise the perceived building mass.
- Horizontal articulation and breaks are encouraged to reduce the impact of the building mass.
- Ensure a highly transparent and visually permeable frontage to the park edge. The tower form on the park side is to come to ground and be dominant through any lower levels of the building.

Control 4
Building Legibility

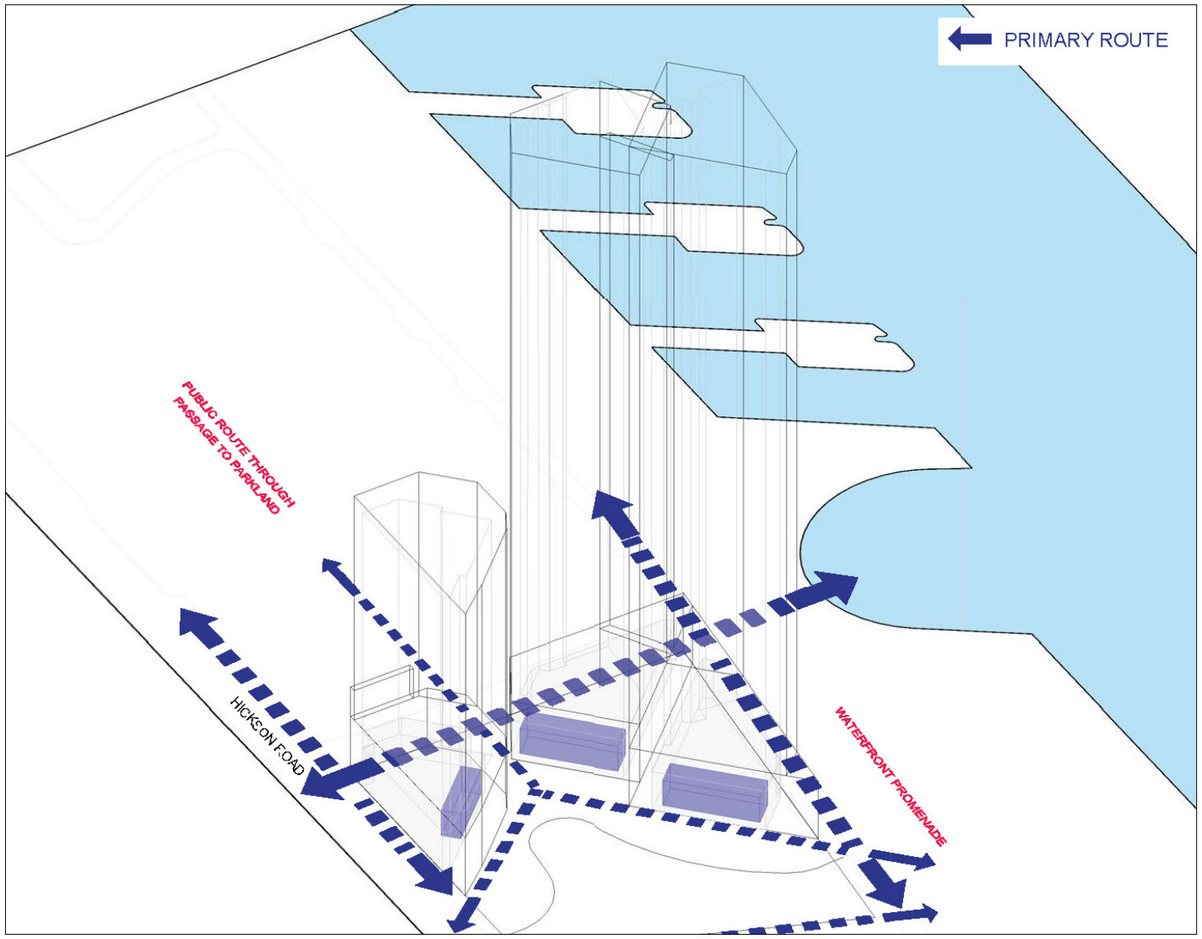
Objectives:

- Constituent elements of the building need to be legible.
- To ensure that building elements and structure are legible at the base.
- To ensure that towers in Block 4A and 4B are complimentary and read as a cohesive composition .

Standard:

- Express facade elements including balconies/ wintergardens shading and wind amelioration.
- Consider a common architecture expression to ensure towers in Block 4A and 4B are complementary to each other yet have their own unique identity.
- Ensure visual permeability of the tower lobbies on the park to allow the structure to be legible at the base.

Urban Design Controls – Block 4A + 4B



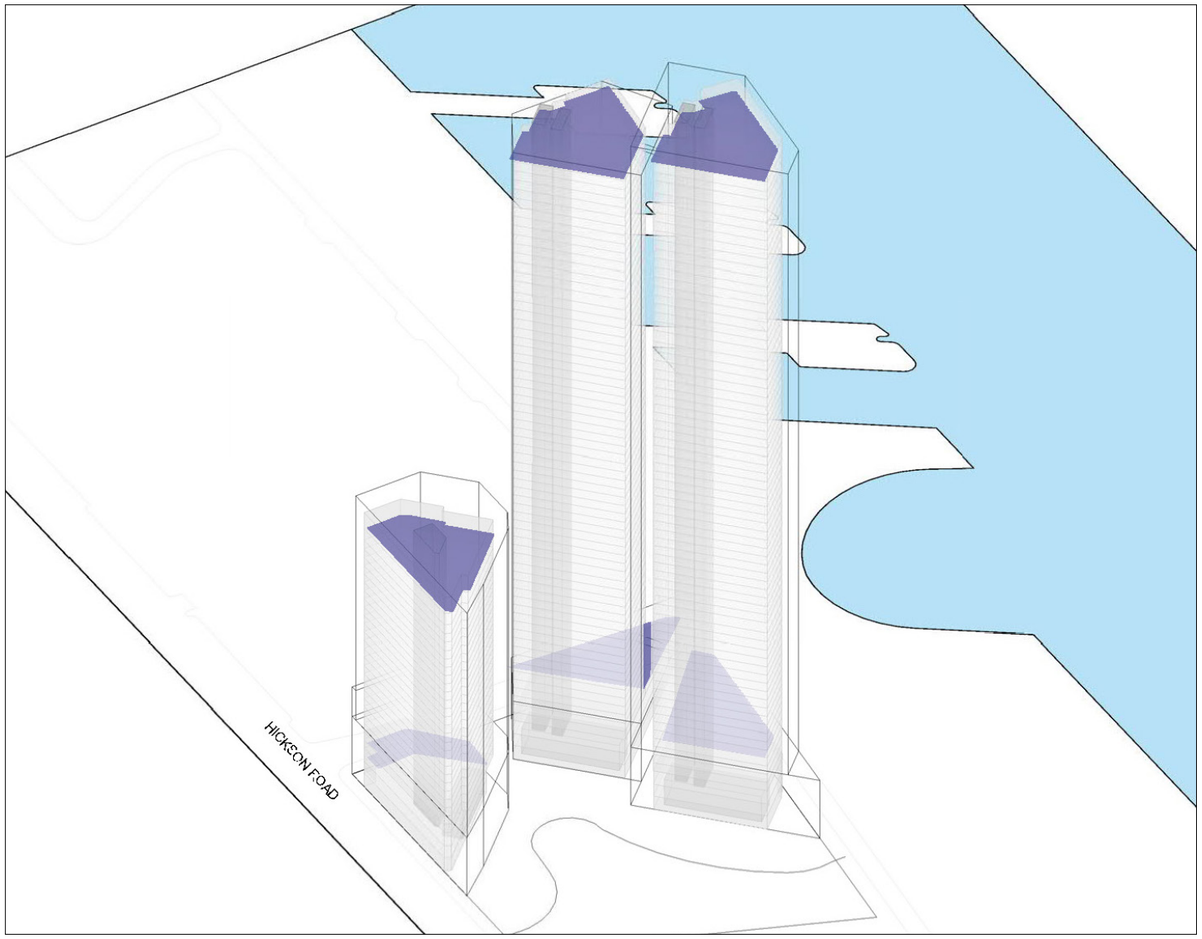
Control 5
Ground Floor Permeability and Accessibility of Public Realm

Objectives:

- To provide permeability and accessibility through Barangaroo South.

Standard:

- Public access around the Block is to be maintained on all edges.
- Provide two north to south primary connections across the block including the Hickson Road colonnade and Barangaroo Avenue.
- One north-south secondary connection is to be provided in Block 4A.
- Watermans Quay retail and podium buildings should consider the address to Scotch Row view.
- Ground floor retail and residential lobbies should consider a relationship to the northern parkland public space.
- Canopies to be located at the park edge.
- Consider lobby street address on Barangaroo Avenue for tower R4a, Watermans Quay for tower R4b and Hickson Road for tower R5 off the plaza.
- A generous through site link to promote visual and physical permeability is to be provided through Block 4A.



Control 6
Ensuring Quality of Rooftops

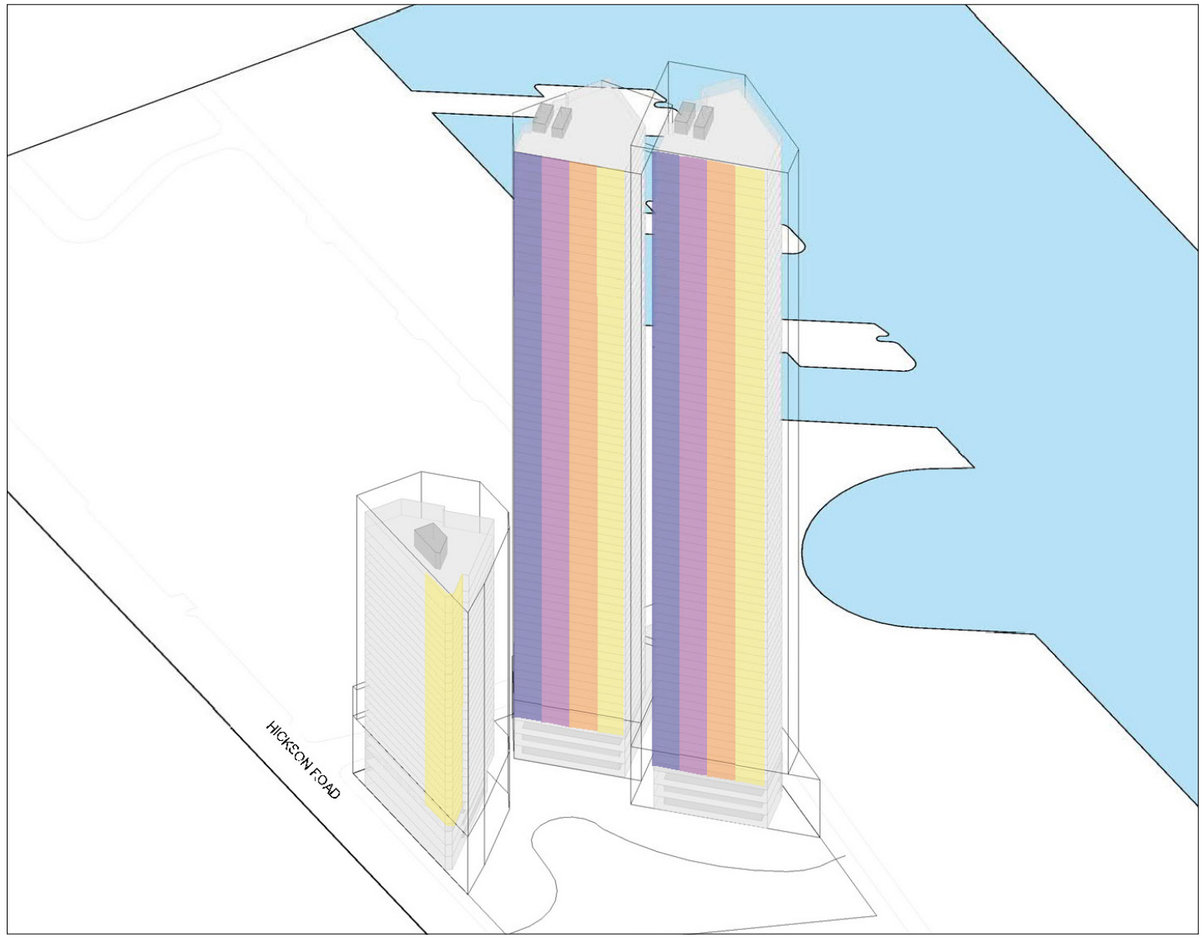
Objectives:

- To ensure that the mass of the rooftop is articulated and legible.

Standard:

- Roof forms to be designed, coordinated, remain sympathetic to its adjacent context, use good quality materials and incorporate architectural treatment of exposed elements such as lift shafts, overruns control rooms and any sustainability features, however, exposed mechanical equipment is to be avoided.
- Roof design may integrate sustainable features, such as photovoltaics.
- Consistency in the roof form between towers in Block 4A is encouraged.

Urban Design Controls – Block 4A + 4B



Control 7
Façades

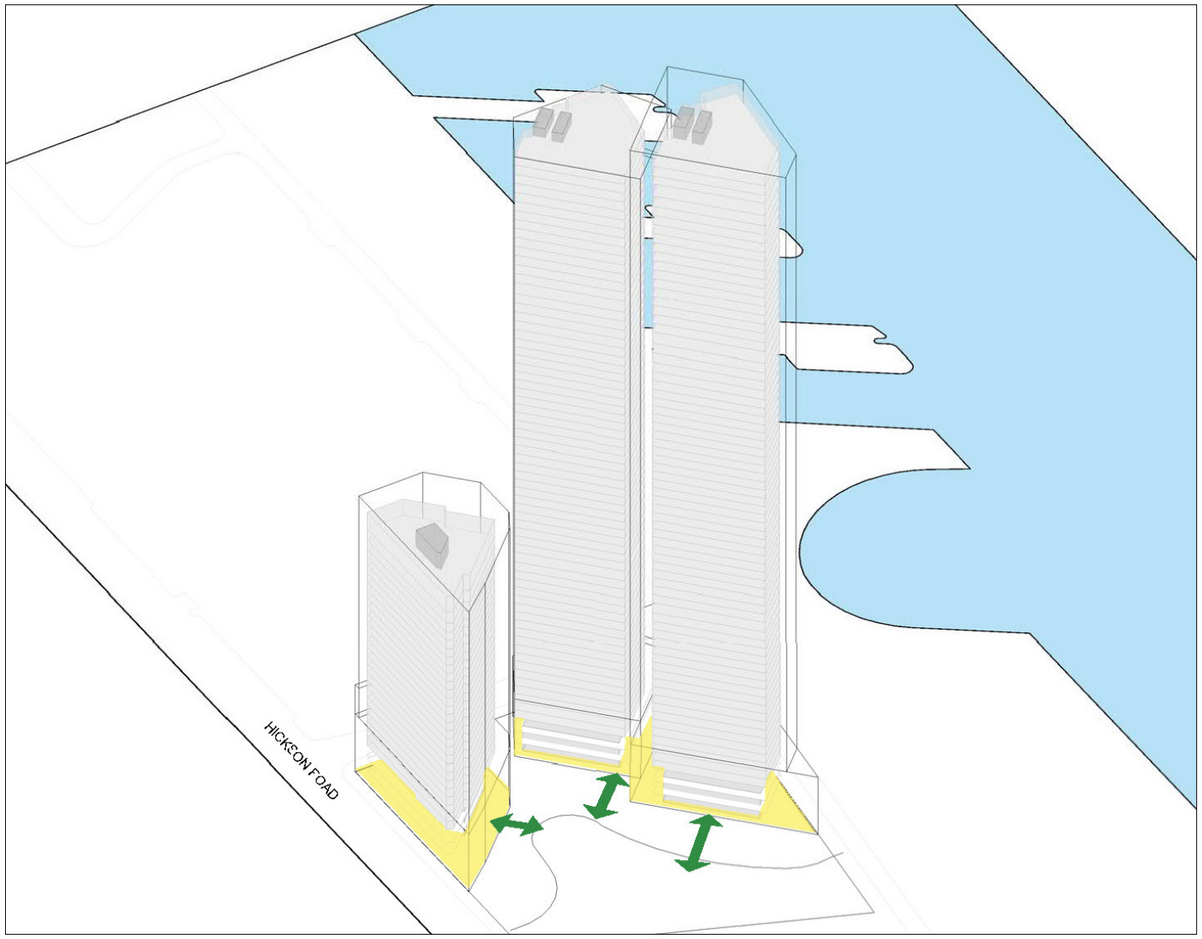
Objectives:

- To ensure the architectural quality of the facades.
- To articulate the building's functions and massing with appropriate facade design and detailing.
- To ensure the facades contribute to the building's articulation and mass.
- To contribute to the "carbon neutral" aims for Barangaroo South.
- Enable the partial enclosure of balconies to provide private open space that is usuable and has a high level of amenity.

Standard:

- The choice of appropriate materiality for longevity, durability and flexibility. Materials such as steel, glass, concrete, timber and aluminium shall be considered.
- Environmentally sustainable design is to be incorporated on all facades.
- Depth and layering of facades is to be achieved through relief and protrusions.
- Facade components such as external shading shall be used to provide light and shade to the building.
- The glass wind screen enclosing a balcony must be designed so that the balcony remains external open space; and the wind screen design ensures permanent natural ventilation and cannot be fully enclosed or sealed from the weather.

Urban Design Controls – Block 4A + 4B



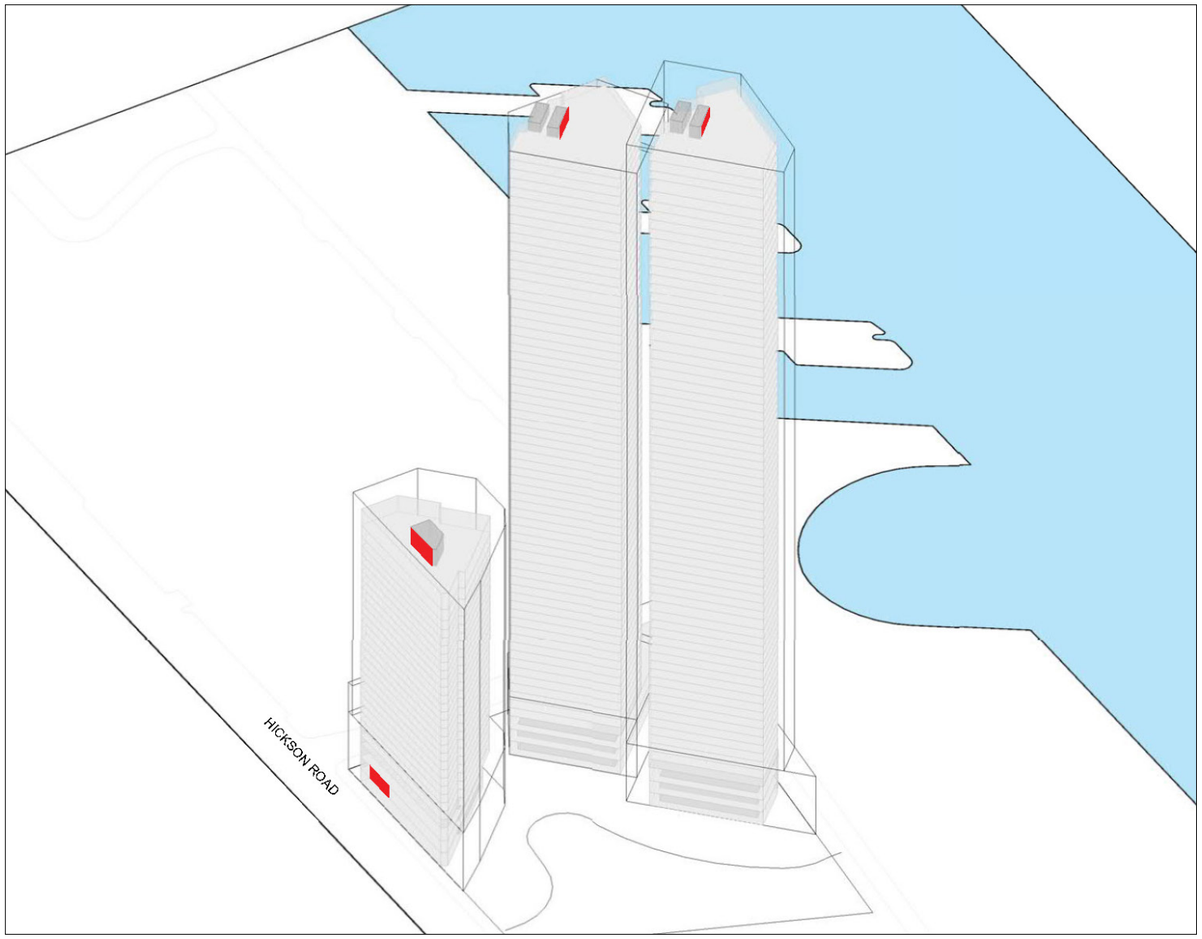
Control 8
Active Streetfronts

Objectives:

- To ensure an activated public domain at street level.

Standard:

- At least 60% of the Ground Level is to be active on the primary Street Wall facades
- Building vehicle access, areas for service and egress shall not count towards the 60% requirement.
- Building service areas, parking entrances and loading docks may be accessed from Watermans Quay.
- The width of driveways shall be minimised.



Control 9
Signage

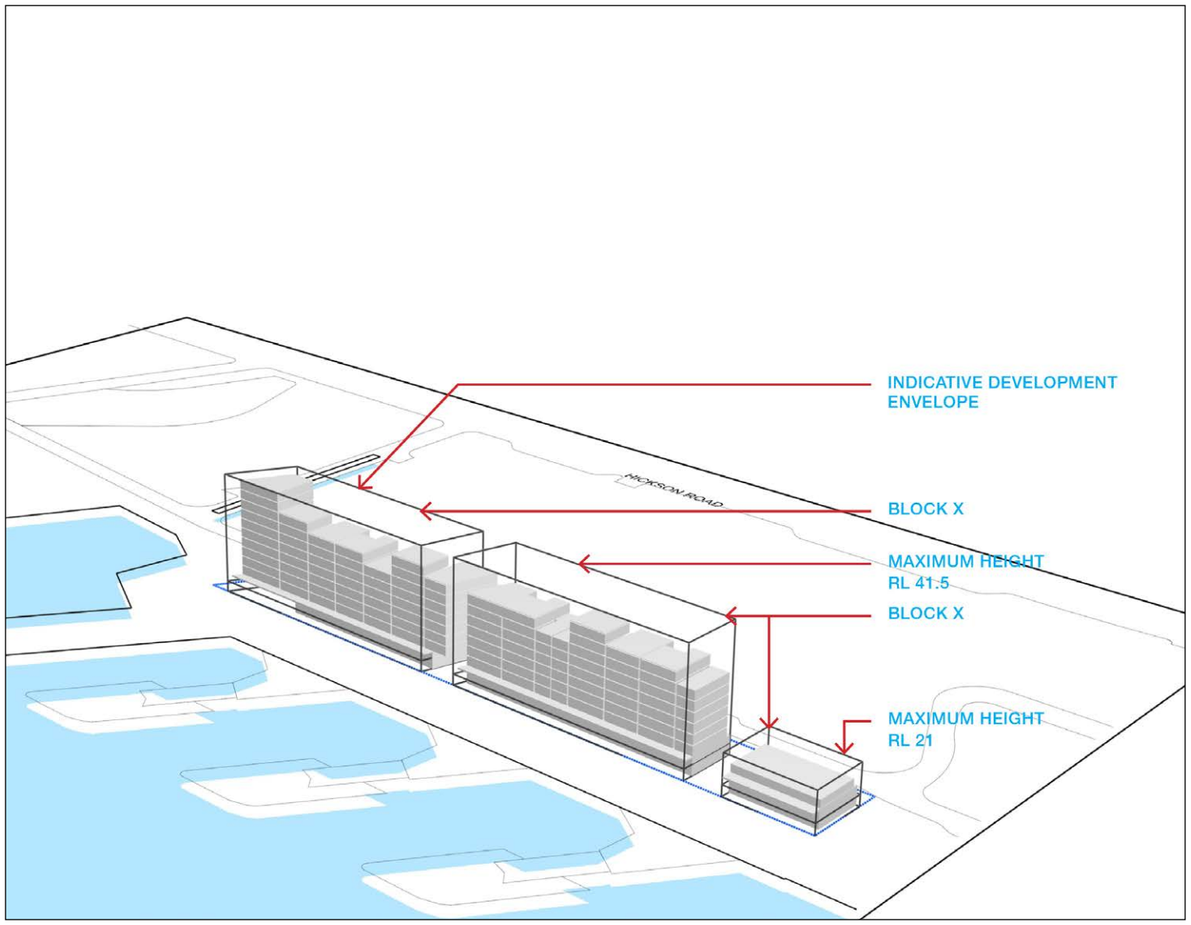
Objectives:

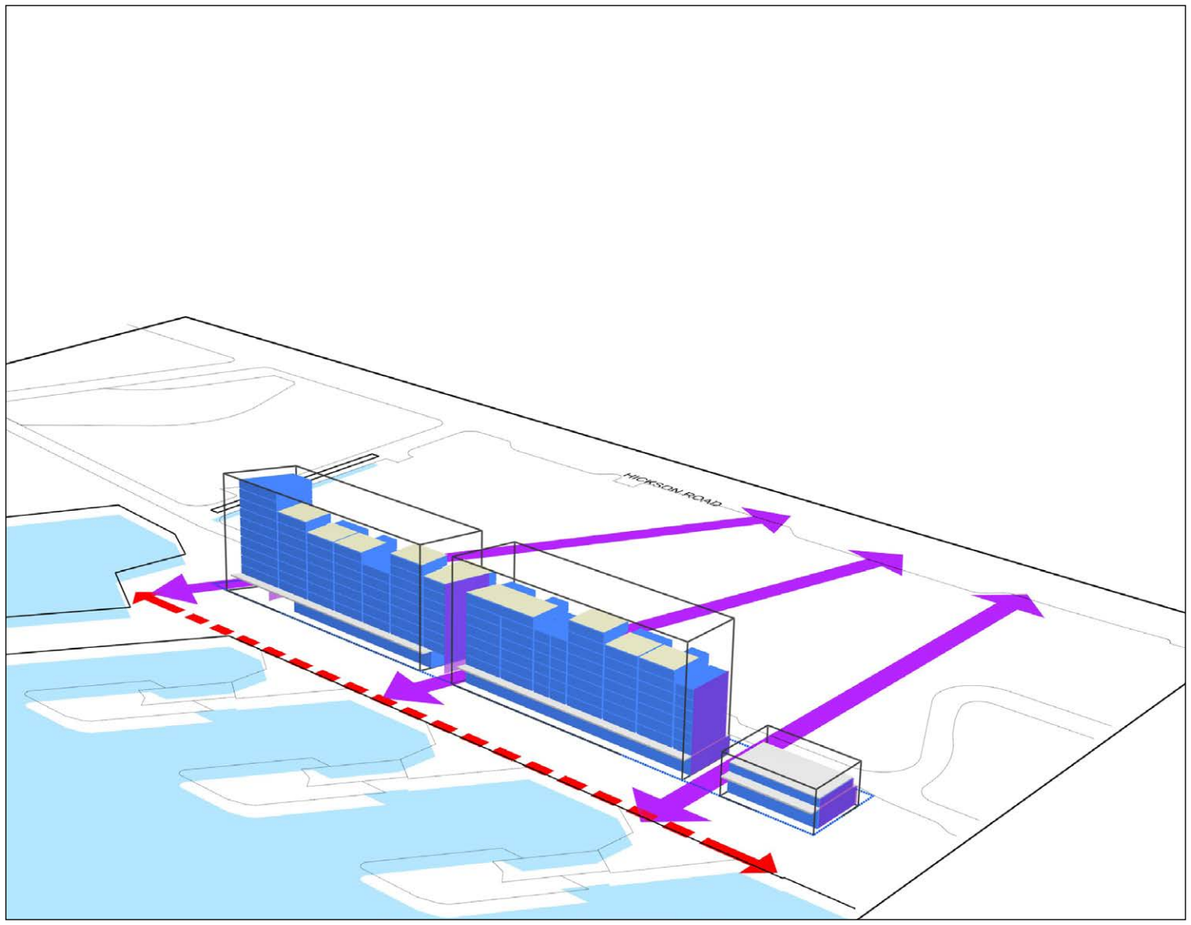
- To ensure that the location, size, appearance and the quality of the signage on the building is appropriate.

Standard:

- Building identification signage is to be limited to one sign per frontage at podium level.
- Signage is not to exceed 15m^2 per sign.
- Details of signage to be considered as part of the overall design of the building for the purposes of Design Excellence.
- Each new development application submitted for the erection of a new building/s is to include as a minimum a description and illustration of intended signage location/s and form. Where detailed signage proposals are not included in the works proposed in a Development Application for the erection of new buildings, actual sign approvals will be subject to separate Development Applications.

Urban Design Controls – Block X





Control 1
Building Mass and Location

Objectives:

- To ensure building mass is appropriate within the envelope.
- The predominant height of the building mass fronting the foreshore promenade shall be 6 or 7 storeys above ground level, with over 70% of the building frontages having a consistent height. Any “pop ups” shall not result in more than 9 storeys above ground level and the overall massing shall be such to create an homogenous yet interesting streetwall.

Standard:

- Above Ground floor level the westerly oriented facades to have a minimum 3m setback. Open and enclosed balconies are allowed to protrude into the setback zones.
- The building mass height will be between maximum and minimum heights of RL41.5 and RL21 respectively. The southern end of Block X (all of Building R1) is to be a maximum height of RL27, with a maximum of six (6) habitable levels above ground.
- On the easterly oriented facades a minimum of 1m setback is required.

Control 2
Street Wall Establishment

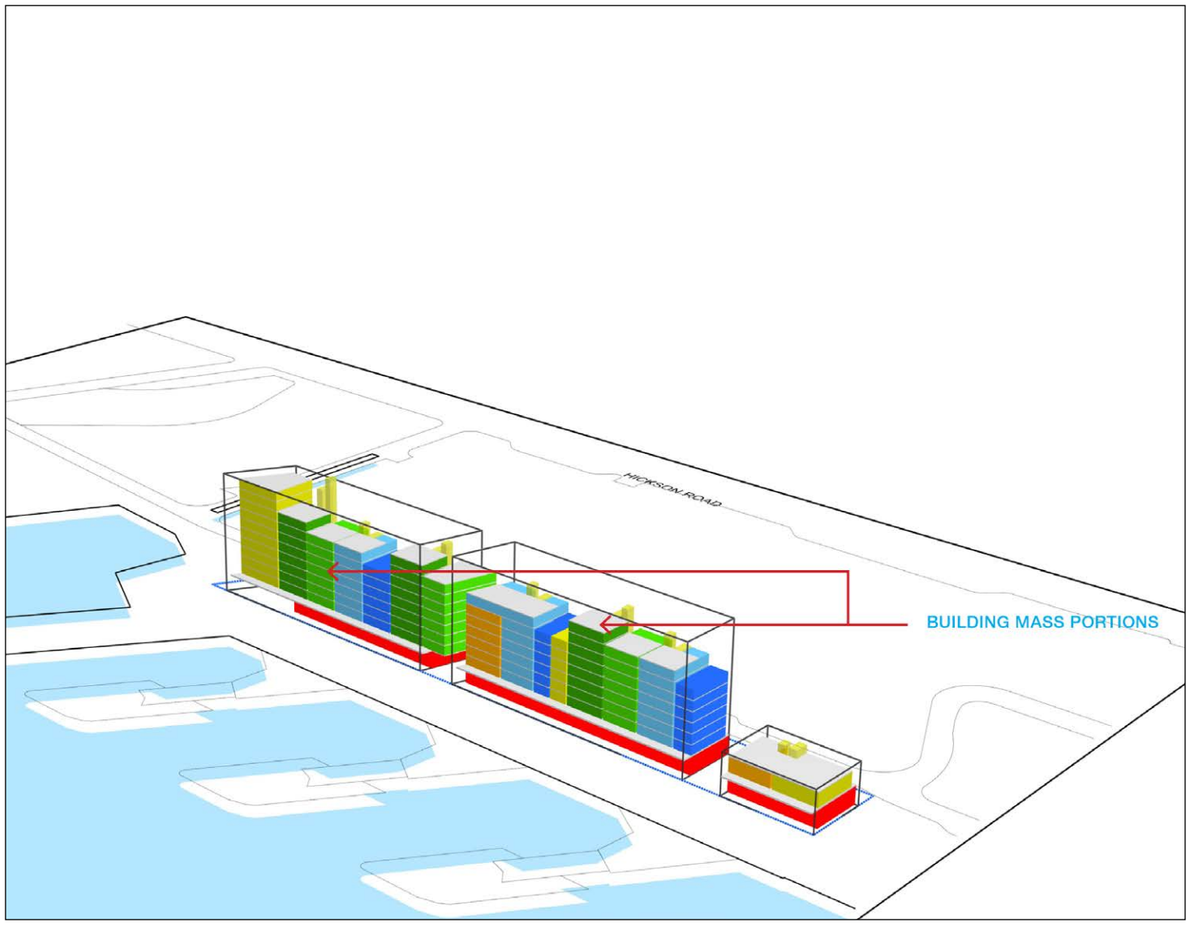
Objectives:

- Street Wall defines promenade and Barangaroo Avenue.
- To ensure an active Street Wall is established around each Block.

Standard:

- The building mass at the podium is to form a continuous Street Wall around the site for a minimum of 85% of the site perimeter.

Urban Design Controls – Block X



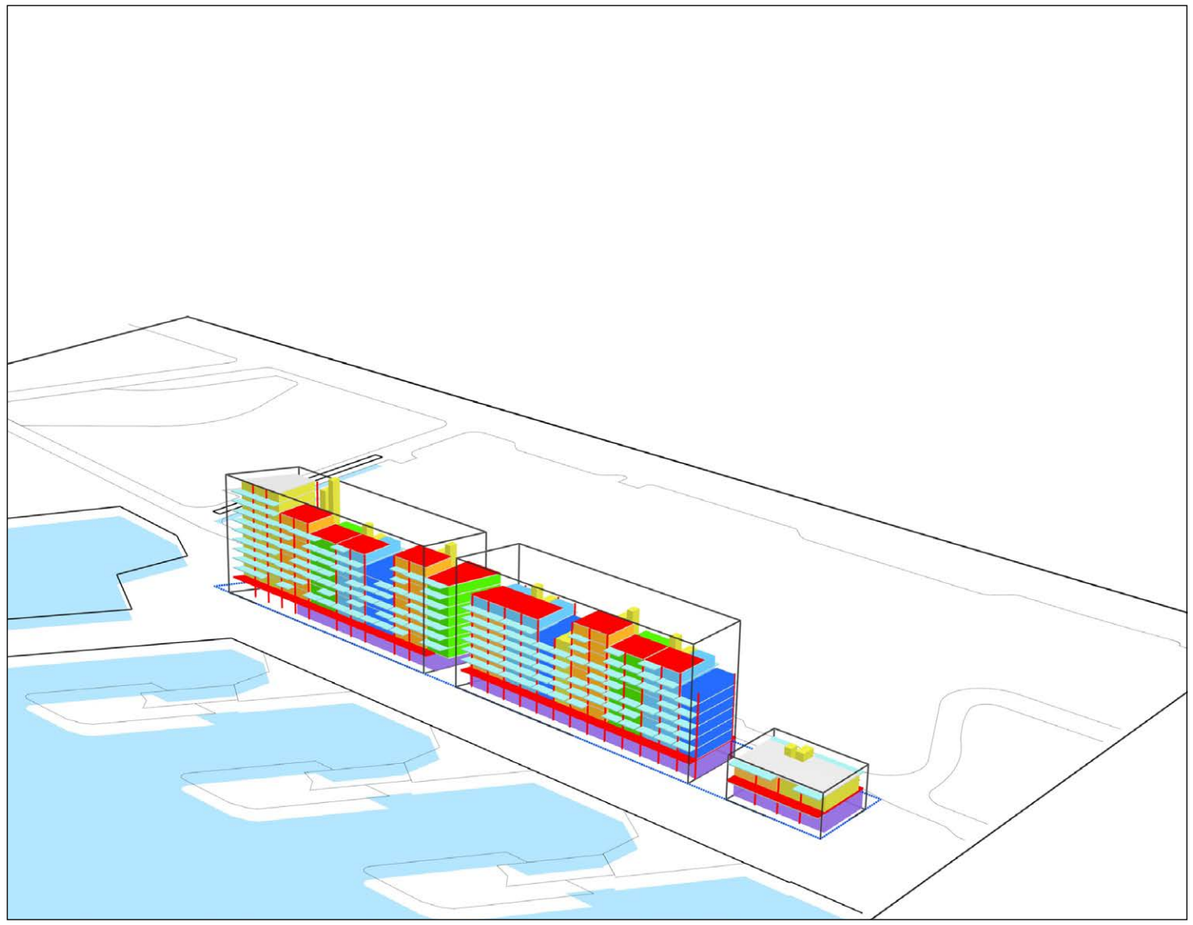
Control 3
Building Articulation

Objectives:

- To establish an articulated, well proportioned building mass.

Standard:

- To reduce the impact of the buildings mass, the envelope and floor plates are to be horizontally and/or vertically articulated, in particular at upper levels.
- Building Form is to express sustainability features such as for example access to natural light, ventilation and solar shading.



Control 4
Building Legibility

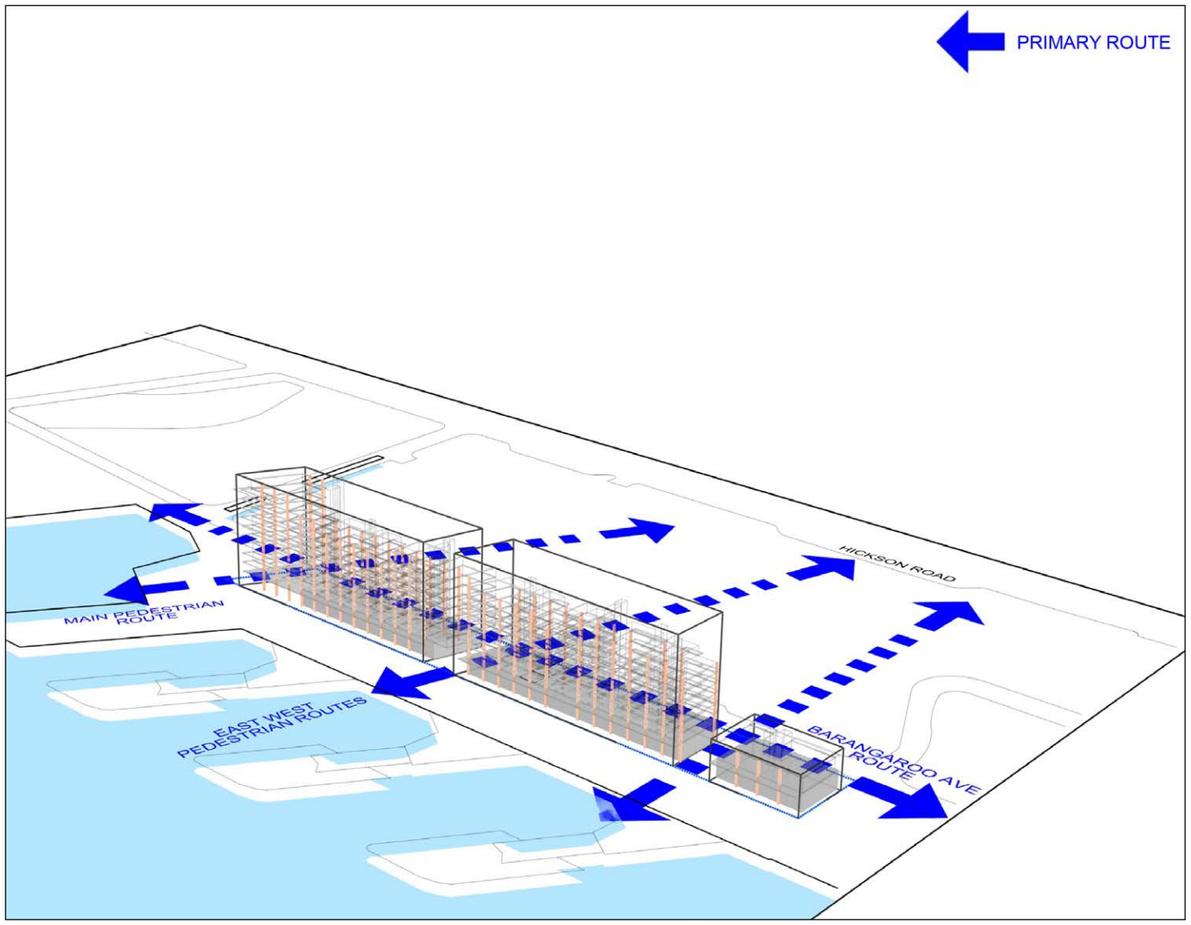
Objectives:

- To ensure that constituent elements of the building are legible.
- To ensure that building elements and structure at the base are legible.

Standard:

- The separate primary components of the building will be expressed and include additional elements such as the open and enclosed balconies.
- Building form is to be reinforced using modulation of open and enclosed balconies, building elements, etc. to avoid monotony.

Urban Design Controls – Block X



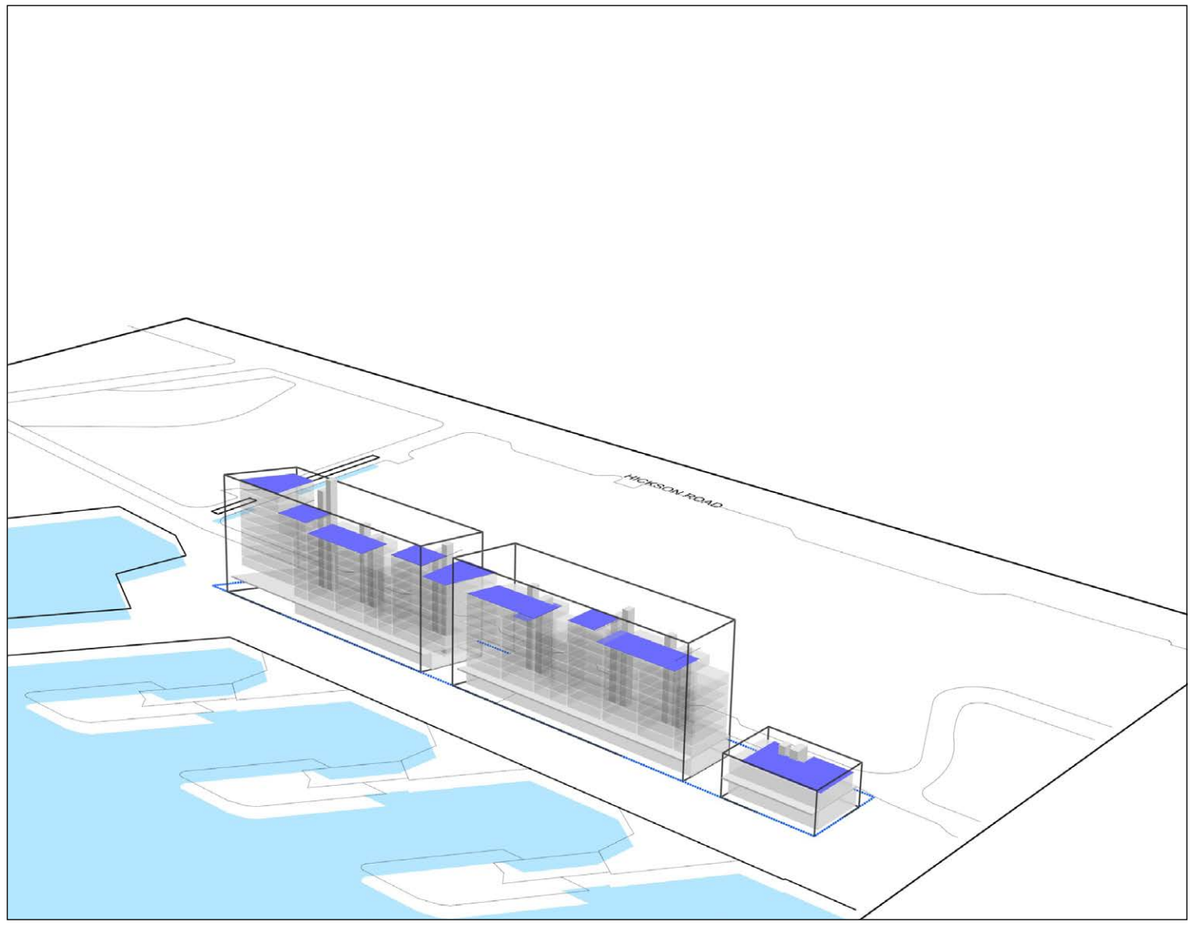
Control 5
Ground Floor Permeability and Accessibility of Public Realm

Objectives:

- To provide permeability and accessibility through Barangaroo South.

Standard:

- Public access around the Block is to be maintained on all edges.
- To provide one north to south and four east to west primary connections.



Control 6
Ensuring Quality of Rooftops

Objectives:

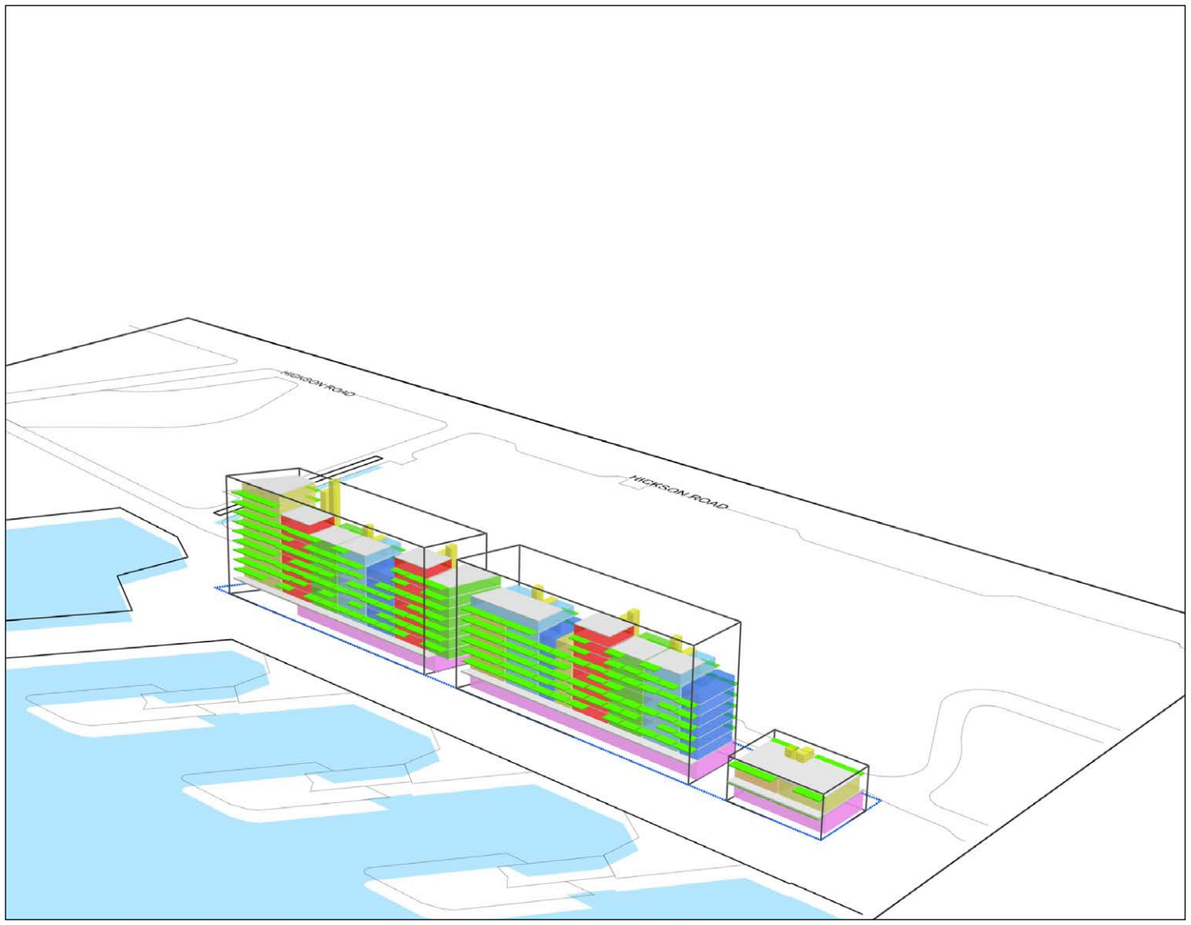
- The mass at the rooftop shall be articulated and legible.
- The architectural treatment of the roof and its form is to be designed, coordinated and remain sympathetic to adjacent context.
- Roof Design to integrate sustainable features.

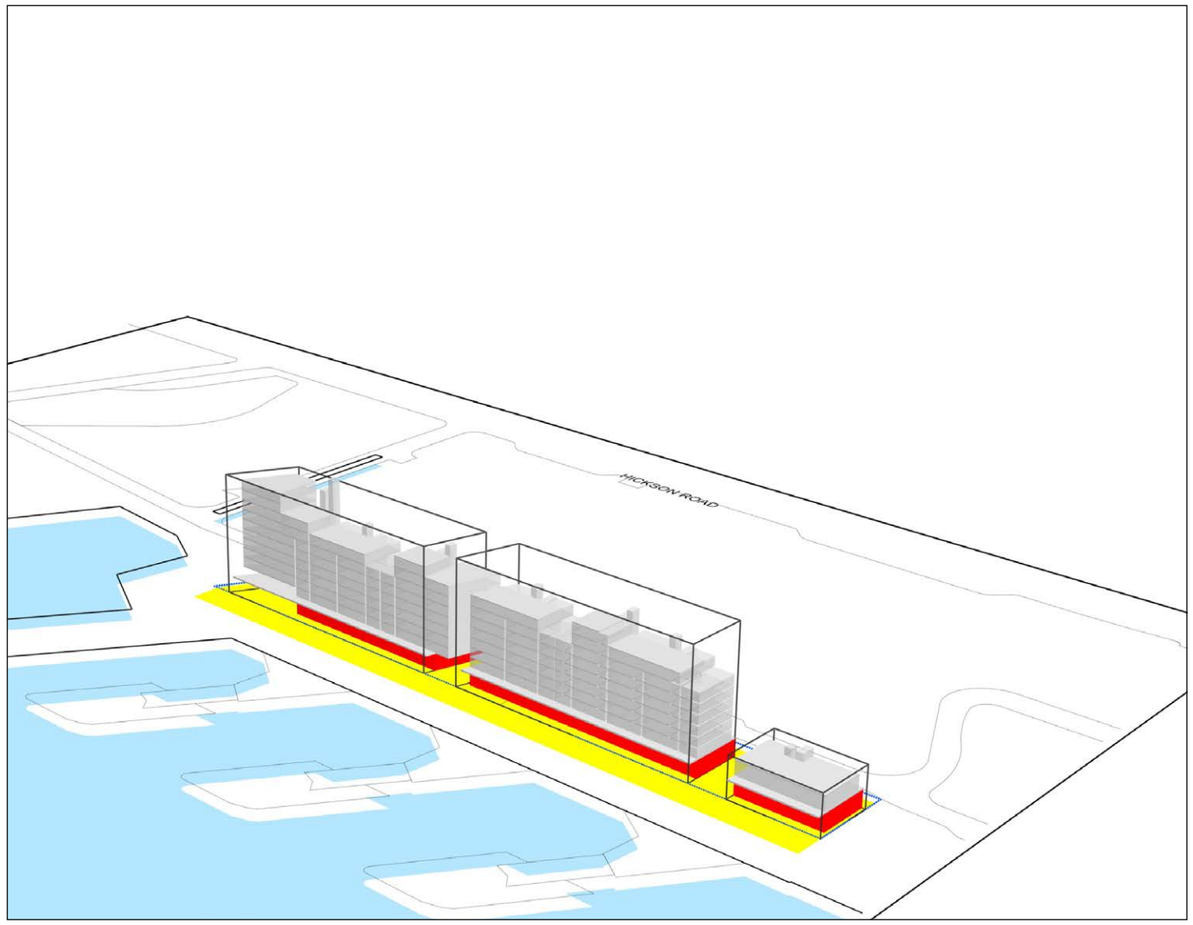
Standard:

- Roof forms to incorporate architectural treament.
- Architectural treatment of exposed elements such as lift shafts, overruns control rooms and any sustainability features.
- Exposed mechanical equipment is to be avoided.
- Good quality materials (ie durable, hardwearing, sustainable) are to be used.
- Roof to incorporate no more than 60% accessible terraces.

Urban Design Controls – Block X

Indicative buildings shown in Block Y are designed by Wilkinson Eyre.





Control 7
Façades

Objectives:

- To ensure the architectural quality of the facades.
- To articulate the building's functions and massing with appropriate facade design and detailing.
- To ensure the facades contribute to the buildings' articulation and mass.
- To contribute to the "carbon neutral" aims for Barangaroo South.

Standard:

- The choice of appropriate materiality for longevity, durability and flexibility. Materials such as steel, glass, concrete, timber and aluminium shall be considered.
- Environmentally sustainable design is to be incorporated on all facades.
- Depth and layering of facades is to be achieved through relief and protrusions. Mirrored facades should be avoided.
- Facade components such as external shading shall be used to provide light and shade to the building.

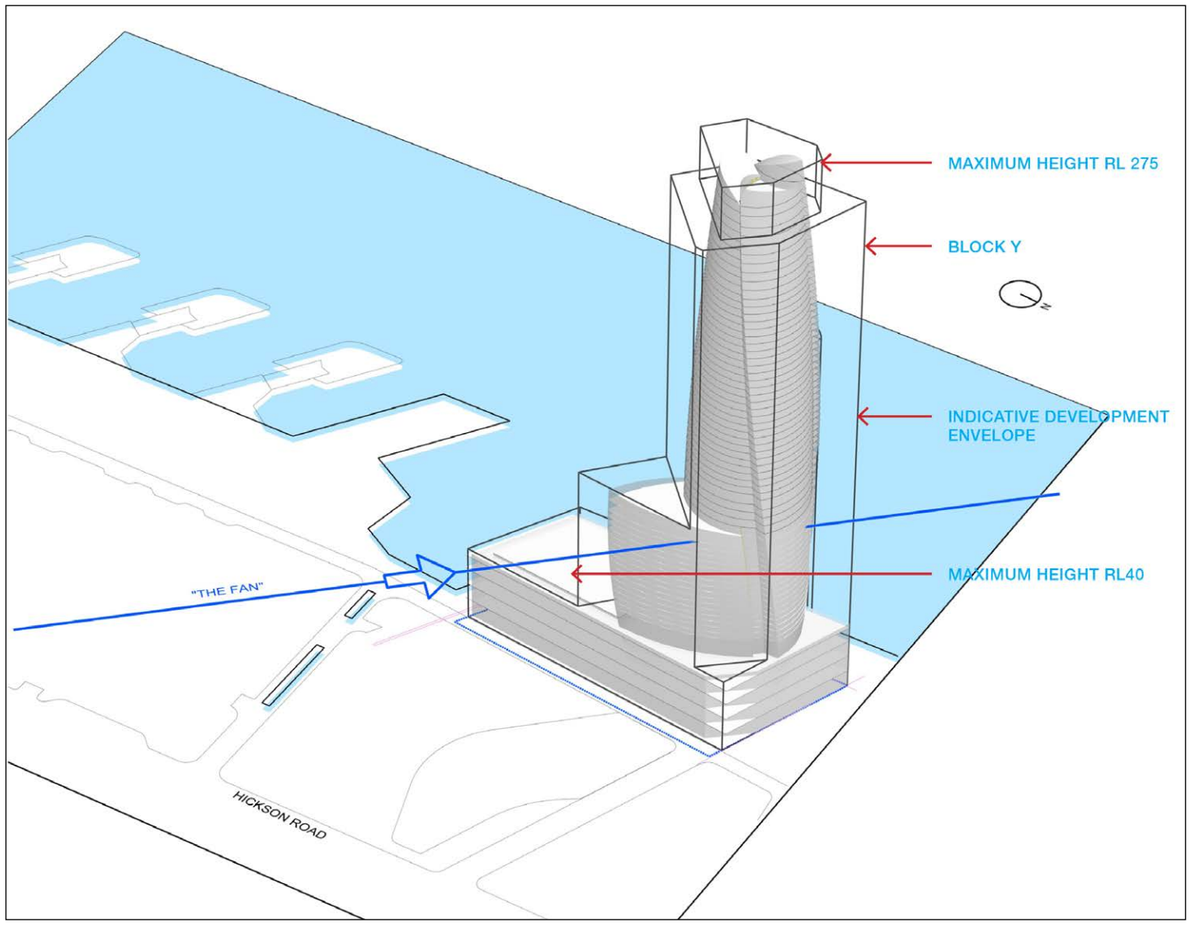
Control 8
Active Streetfronts

Objectives:

- Ensure an activated domain at street level with access to shops, lobbies, etc.
- Ensure that Ground Floor retail uses activate the waterfront.
- At least 70% of the ground floor frontages to the pedestrian waterfront shall comprise retail or entertainment uses, open to the public to activate the adjoining foreshore pedestrian promenade.

Standard:

Urban Design Controls – Block Y



Control 1
Building Mass and Location

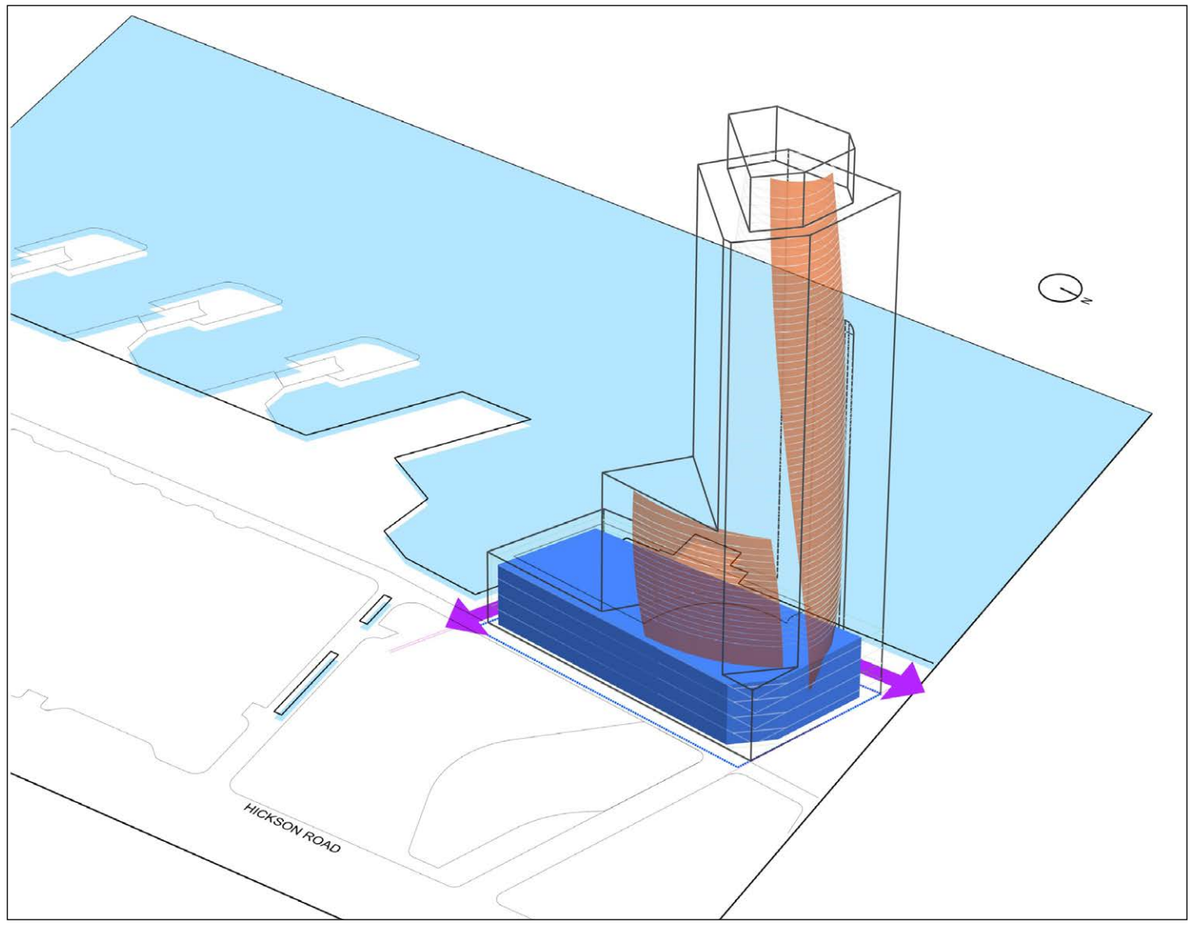
Objectives:

- To ensure building mass is appropriate within the envelope.
- To ensure that a separate building mass is created below the primary hotel room floor plate component
- To ensure building massing at the podium levels gives primacy to the use, enjoyment, accessibility and activation of the public domain and walkways around the promenade.
- Allow balconies on towers including residential and/or tourist and visitor accommodation GFA to be partially enclosed without the need to include balcony floor area as GFA.

Standard:

- Height of building mass shall increase northwards.
- Building mass is to taper to top of the building.
- General building orientation to minimize overshadowing of public domain and respond to key views towards the Harbour Bridge and Opera House.
- Within the maximum RL 40 podium massing the majority should be limited to a height of RL 34.6. Additional features and activities to be set back a minimum of 3m within envelope or not visible from street level.
- For residential and tourist and visitor accommodation development within a building with a height of 30 metres or more; the maximum private external balcony area must not exceed 15% of the GFA of the apartment or tourist and visitor accommodation room to which the balcony is connected; and the bulk of the building is no greater than it would be if balconies where not partially enclosed.

Urban Design Controls – Block Y



Control 2
Ground Plane & Building Orientation

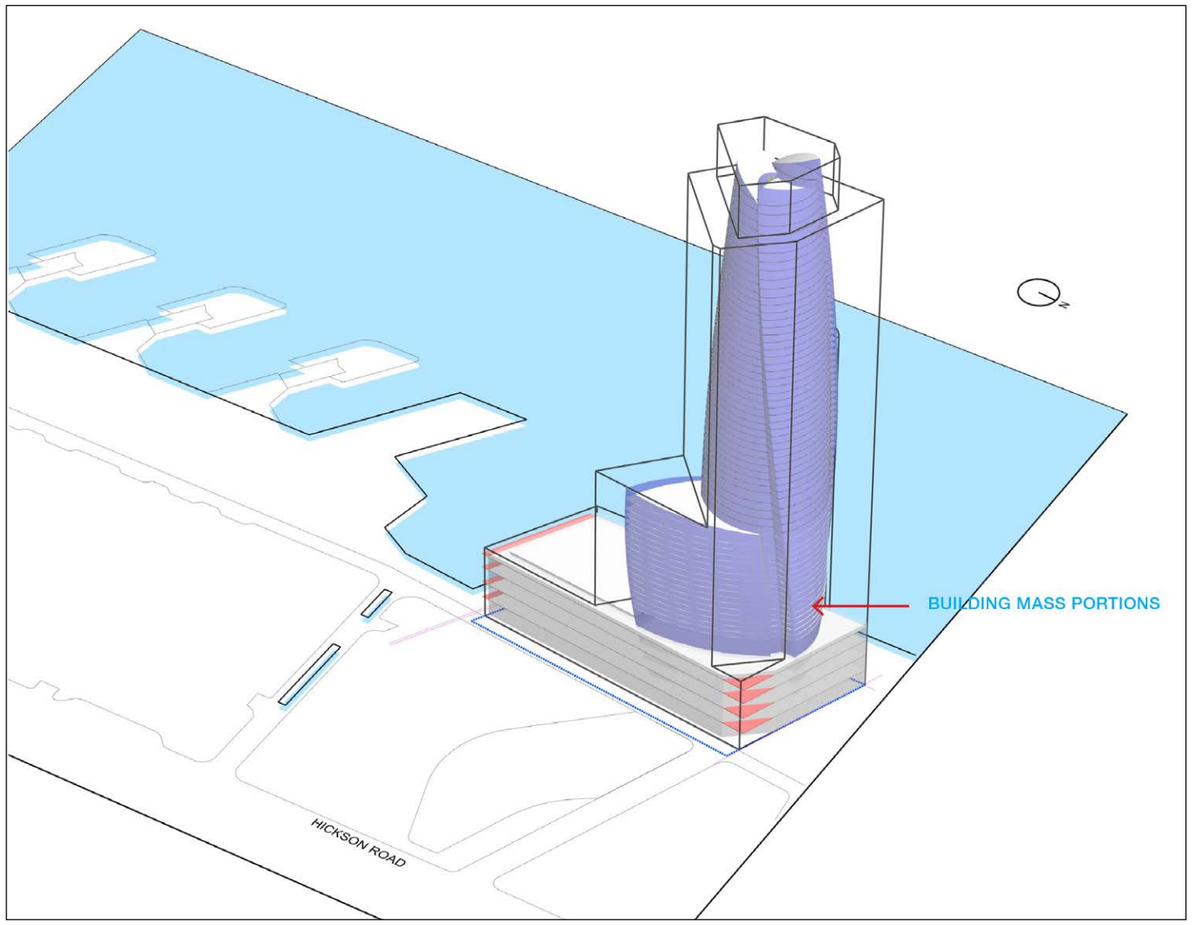
Objectives:

- The orientation of the building relates to the “fan” principle.
- Optimise solar access to external public spaces.
- Emphasize accessibility of the public realm in and around the Hotel.

Standard:

- Canopies and their support structures may protrude beyond the block boundary to provide shelter and comfort for users.
- The building orientation is to maximise sunlight to external public spaces.
- Functions at the lower levels of the building are to be open and inviting to the general public.
- Design and Structure to be a response to prevailing environmental conditions.
- Canopies and awnings shall not dominate or unreasonably impact on views and vistas towards the water or past the building, along public promenades.

Urban Design Controls – Block Y



Control 3
Building articulation

Objectives:

- To establish an articulated, well proportioned building mass.
- To reduce the impact of the building's mass above podium level.
- To ensure the building podium is well articulated and broken down into separate discernable elements.

Standard:

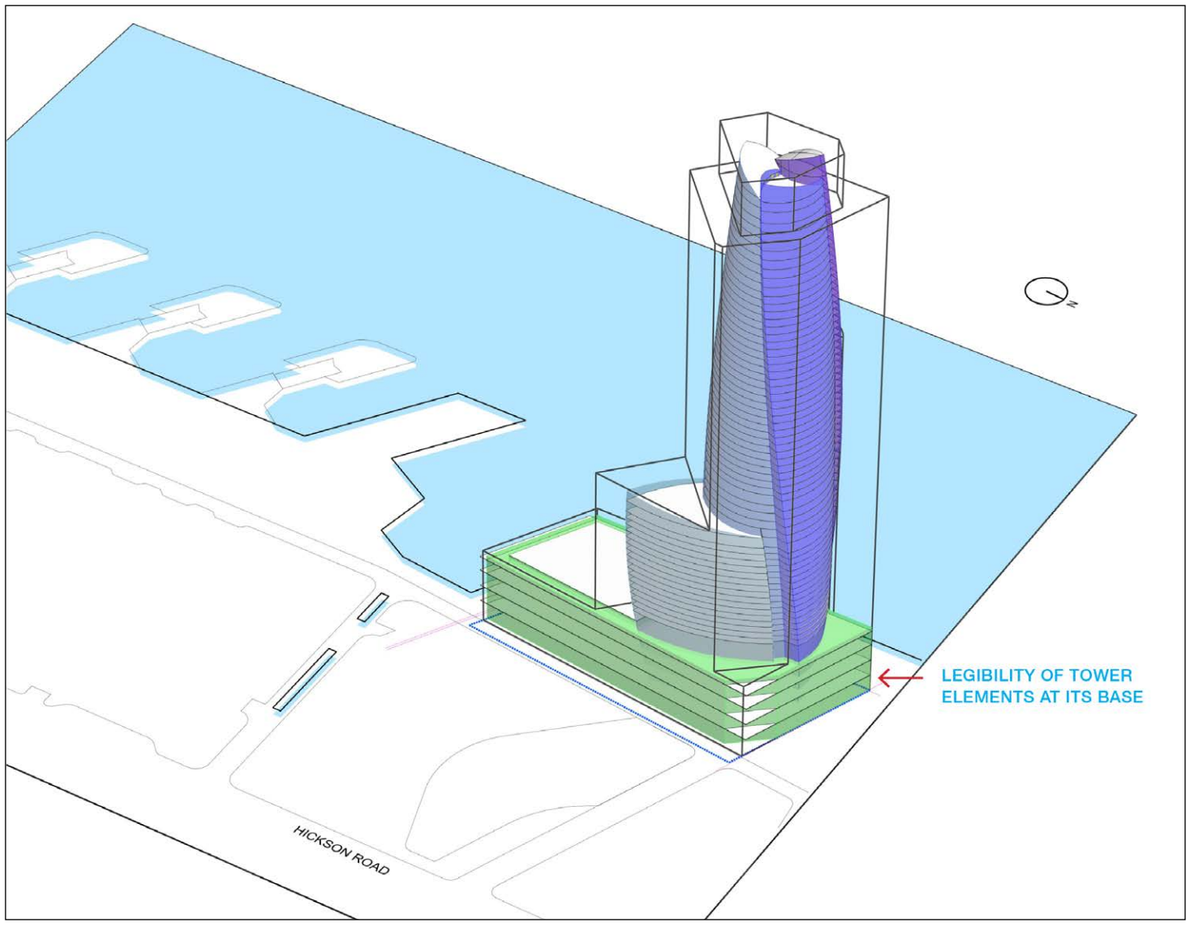
- Tower form to express sustainability features such as access to natural light.
- Building elements are required to moderate environmental conditions and be designed to enliven facades.
- Ensure visual permeability from the parkland to the water at the north-east corner of the podium.
- In order to mitigate the visual perception of bulk the façade of the podium of any future building in Block Y are to be broken down into separate discernable elements, such that:

a) the southern podium façade is comprised of two major elements with an unbroken horizontal dimension of approximately 32.5 metres;

b) the western podium façade is comprised of two major elements with an unbroken horizontal dimension of approximately 45 metres. The two façade elements are to be broken up by an approximately 7 metre wide recess which extends vertically for the full height of the podium; and

c) the eastern façade is to appear as 3 distinct, but visually related, elements.

Urban Design Controls – Block Y



Control 4
Building Legibility

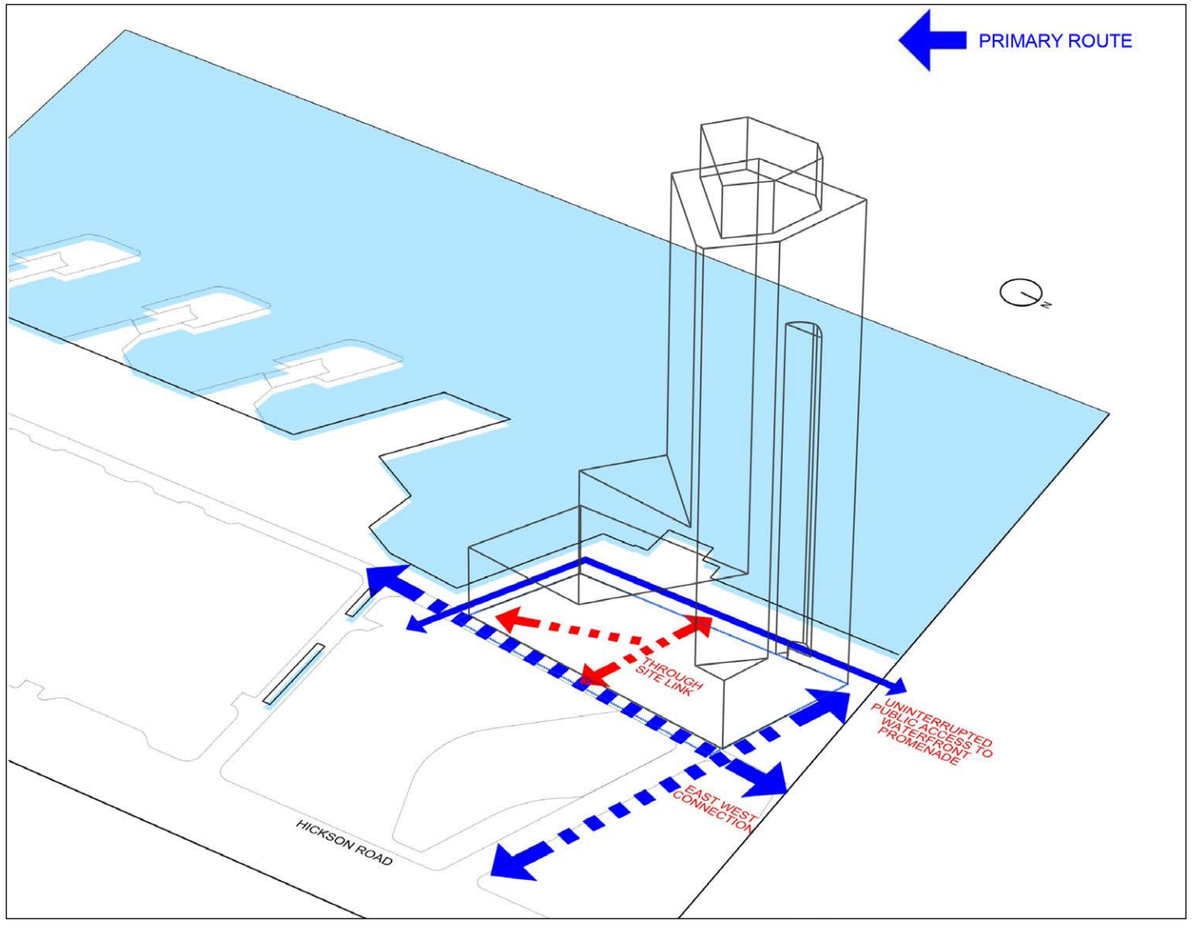
Objectives:

- To ensure that constituent elements of the building are appropriately articulated.
- To ensure that the building elements and structure is legible at the base.

Standard:

- Building function may be expressed in massing and articulation.
- The composition of the building envelope will clearly define a base, a middle and a top with well balanced vertical and horizontal proportions.
- Entries to be clear and perceptually evident.

Urban Design Controls – Block Y



Control 5
Ground Floor Permeability and Accessibility of Public Realm

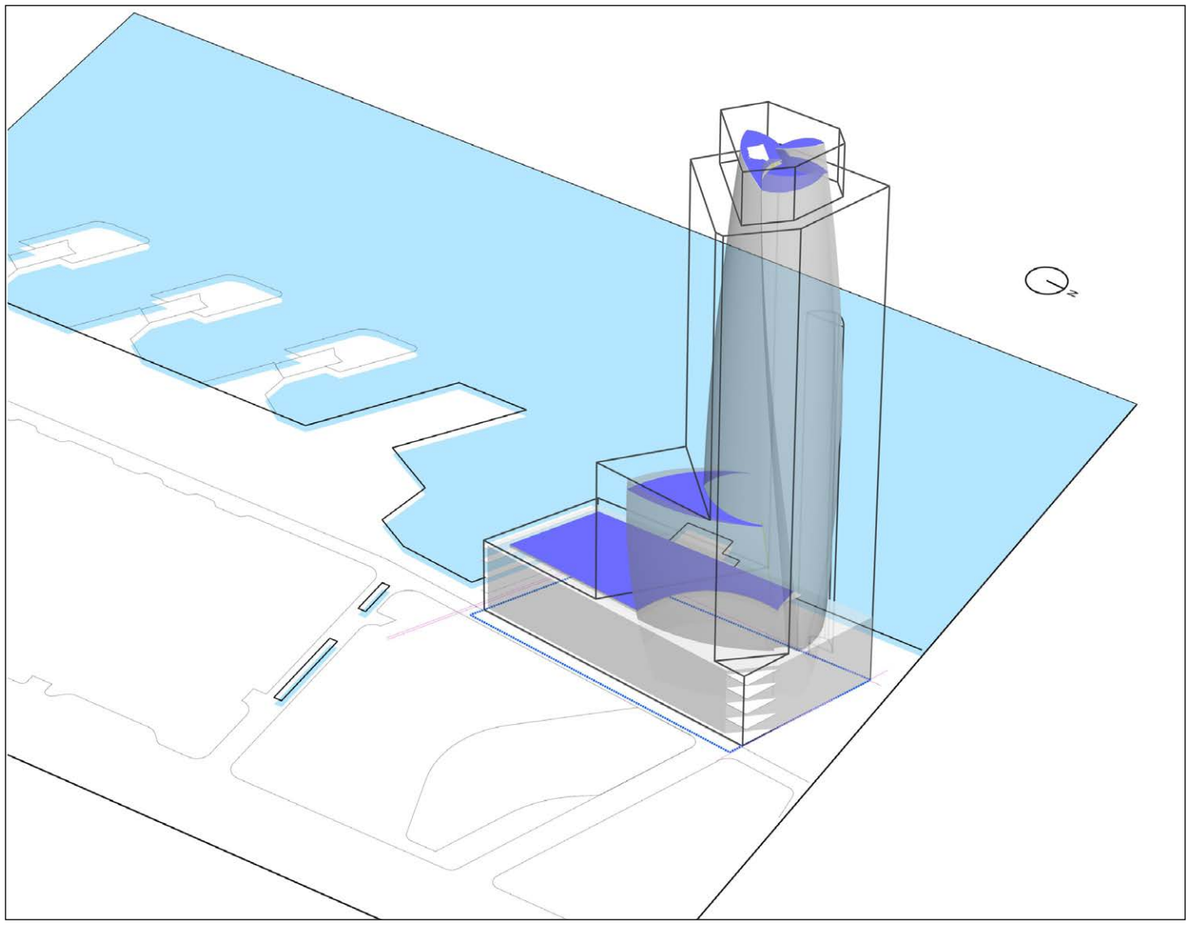
Objectives:

- To provide permeability and accessibility through Barangaroo South.
- Continuation of Wulugul Walk.

Standard:

- Public access around the Block is to be maintained on all edges.
- Building entries must be clearly articulated and be visible from the public domain.
- Building entries to establish a public sense of arrival.
- Secondary links open to public access providing additional routes between Barangaroo Avenue, Watermans Quay and the Waterfront.
- In order to provide an appropriately dimensioned unobstructed public promenade on the northern edge of Watermans Cove, any future building to be located in Block Y is to comply with the following setback controls from the nothern edge of Watermans Cove:
  a) an average of approximately 27.5m to the ground floor facade (excluding any structures associated with any future ground floor licensed area); and
  b) a minimum 18.5m to the outside edge of any vertical structure associated with any ground floor licensed area. This setback is to be unobstructed including by any ground level structures associated with any future ground floor licensed area.

Urban Design Controls – Block Y



Control 6
Ensuring Quality of Rooftops

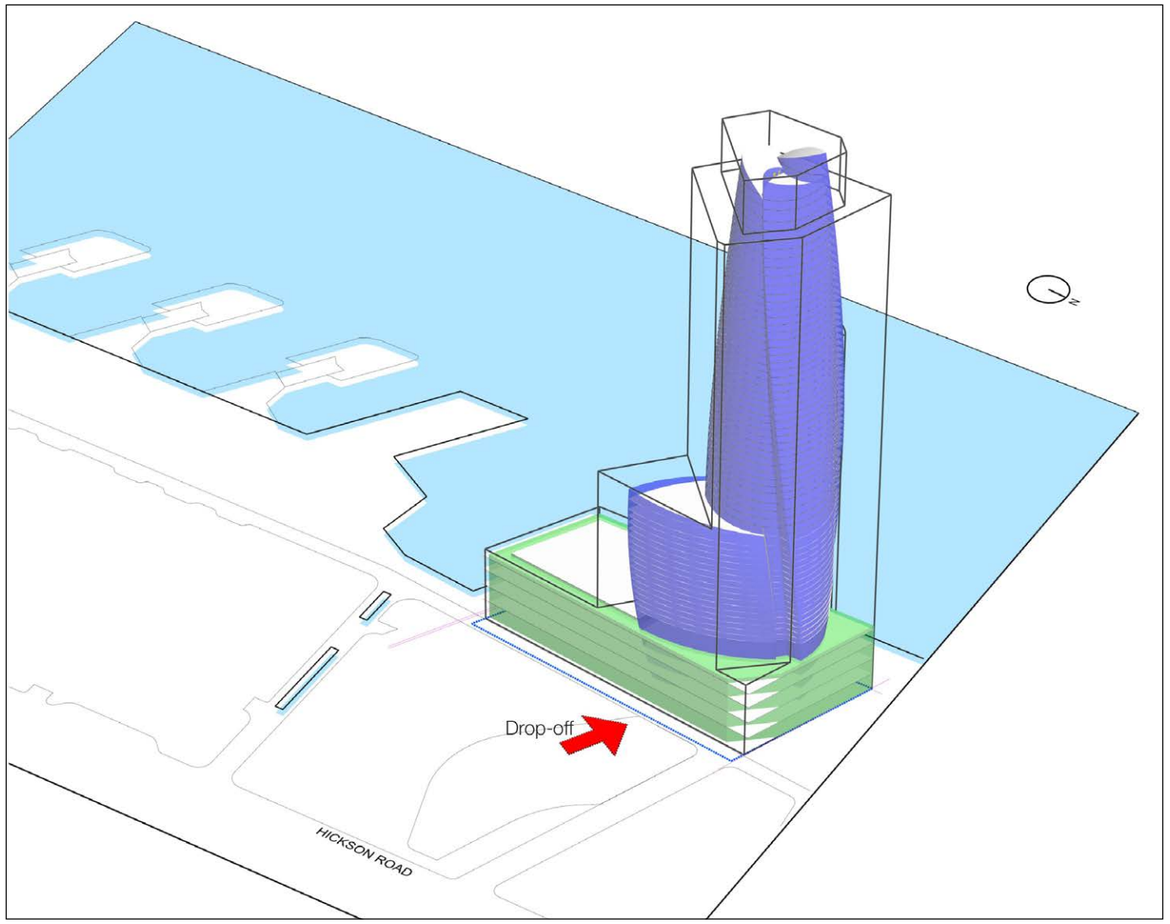
Objectives:

- To ensure that the mass at the rooftop shall be expressed as a key architectural component.
- The architectural treatment of the roof and its form is to be designed, coordinated and sympathetic to the building.

Standard:

- Architectural treatment of exposed elements such as lift shafts, overruns control rooms and any sustainability or architectural features shall contribute to the articulation of the roof.
- Exposed mechanical equipment is to be avoided.
- Public access to the tower roof for viewing activities is encouraged where appropriate.

Urban Design Controls – Block Y



Control 7
Façades

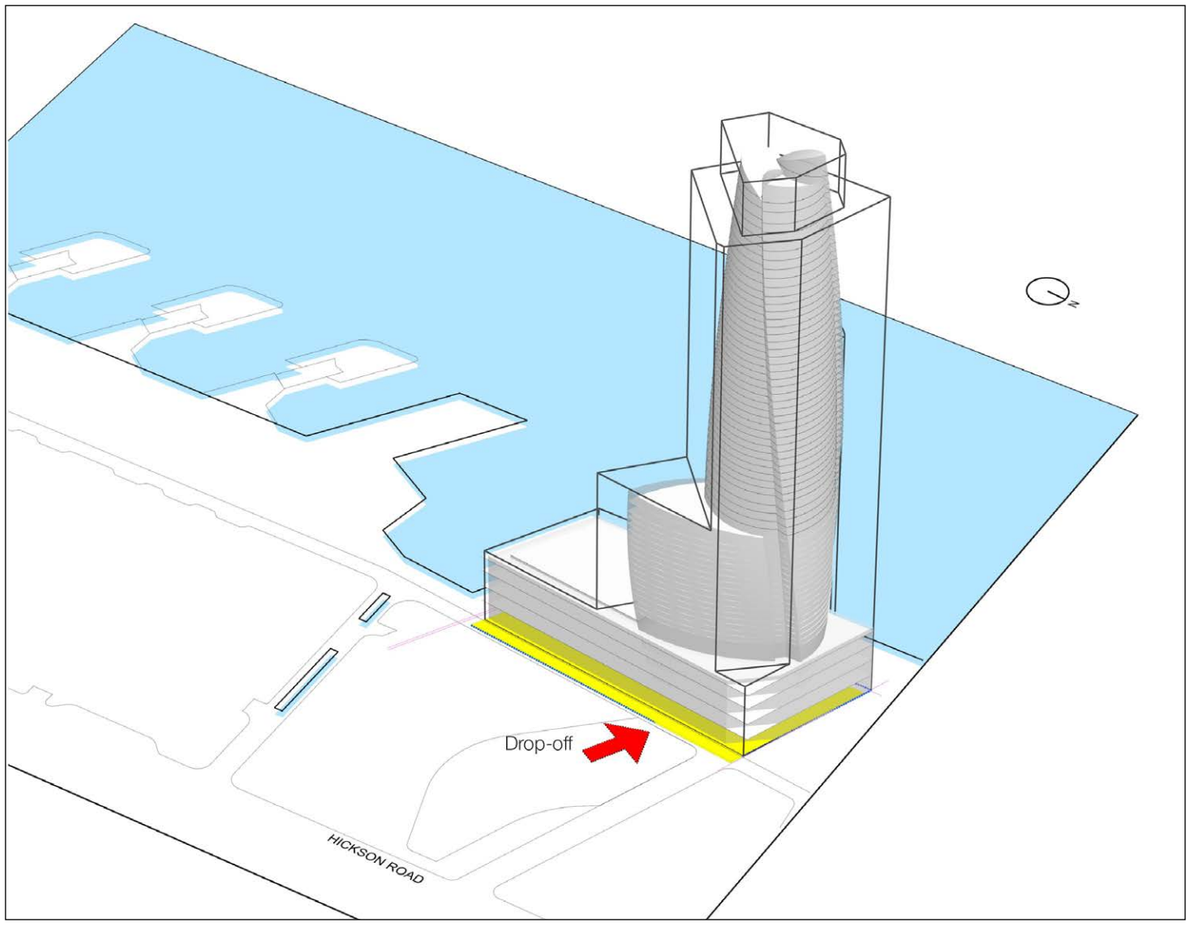
Objectives:

- To ensure the architectural quality of the facades.
- To articulate the buildings functions and massing with appropriate facade design and detailing.
- To ensure the facades contribute to the building's articulation and mass.
- To contribute to the "carbon neutral" aims for Barangaroo South.
- Enable the partial enclosures of balconies to provide private open space that is usuable and has a high level of amenity.

Standard:

- The choice of appropriate materiality for longevity, durability and flexibility. Materials such as steel, glass, concrete, timber and aluminium.
- Environmentally sustainable design is to be incorporated on all facades.
- Depth and layering of facades is to be achieved through relief, protrusions, materiality and arrangement.
- Facade components such as external shading and materiality shall be used to provide light and shade to the building.
- The glass wind screen enclosing a balcony must be designed so that the balcony remains external open space and the wind screen design ensures permanent natural ventilation and cannot be fully enclosed or sealed from the weather.

Urban Design Controls – Block Y



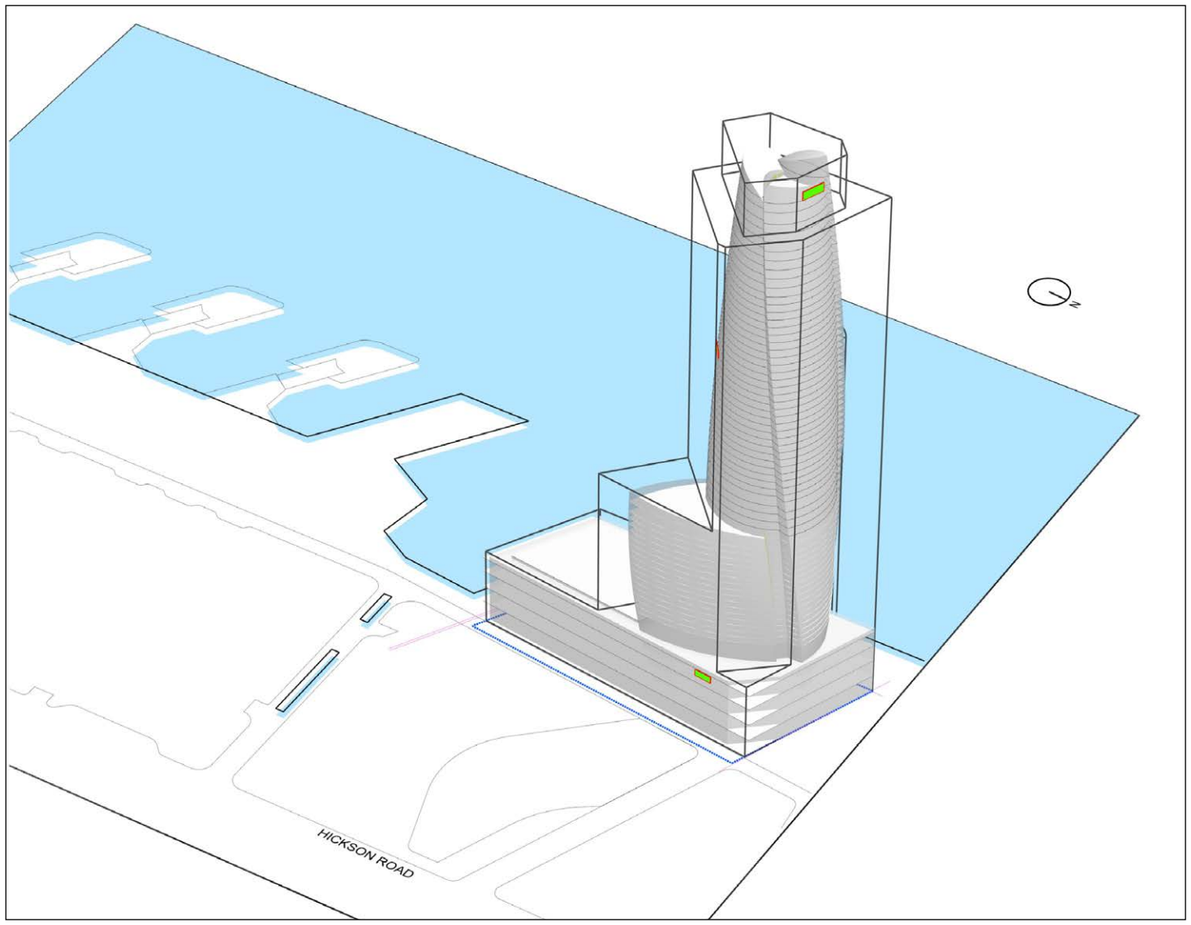
Control 8
Active Ground Plane

Objectives:

- Ensure an activated domain at street level.
- Ensure the openness and accessibility of building.
- Ensure priority pedestrian access to the waterfront.
- Maximise natural light penetration to ground level public spaces.

Standard:

- Public uses, eg: food and beverage / dining to be located on the Ground Floor of the building with access to and from the public domain and waterfront.
- Building service areas and loading docks will only be located in the basements. No loading or deliveries will be provided at ground level.
- Public uses at the base may be enclosed or open spaces.
- 80% active ground floor frontage (inclusive of porte cochère area and other public entry/exits.)
- Public domain ground plan levels within licensed areas shall be designed to promote openess and connectivity of the licensed area with the Public Domain.
- Seating in licensed area shall be directly accessible from and open to the public domain.



Control 9
Signage

Objectives:

- To ensure that the location, size, appearance and the quality of the signage on the building is appropriate.

Standard:

- Signage is appropriate on podium, mid-rise and tower.
- Signage is to be considered as part of the overall design of the building.
- Each development application submitted for the erection of a new building/s is to include as a minimum a description and illustration of intended signage location/s and form. Where detailed signage proposals are not included in the works proposed in a development applicaiton for the erection of new buildings, actual sign approvals will be subject to separate Development Applications.