aurecon

City Rail Link Project



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AUCKLAND'S PLAN

30 YEAR VISION AND STRATEGY FOR AUCKLAND

LOCAL BOARD PLAN

3-Year plans for 21 Local Boards

UNITARY PLAN

Policies and rules to implement the Auckland plan

PLACE BASED PLANS

Spatial Plans for geographical area e.g. Local area plans, City Centre Master plan, and Waterfront Plan

UNITARY PLAN

Regional Land Transport Plan, Economic Development Strategy, Major Events Strategy, Visitor Plan

UNITARY PLAN

Council's 10 year plan and budget

LOCAL BOARD AGREEMENT

Annual budgets of 21 Local Boards

WYNYARD QUARTER DOWN TOWN LEARNING QUARTER

VICTORIA QUARTER AOTEA QUARTER

CITY RAIL LINK -SCOPE OF WORK





CITY RAIL LINK TO DELIVER A NEW PREMIER CIVIC SPACE FOR THE CITY DELIVER:

- A MANA WHENUA NARRATIVE THROUGH DESIGN RESPONSE
- A CULTURAL HERITAGE NARRATIVE THROUGH DESIGN RESPONSE
- A SPACE THAT HAS CHARACTER THAT REFLECTS NEW ZEALANDS UNIQUE ENVIRONMENT AND CULTURAL HISTORY

DOWNTOWN PUBLIC SPACES -

BRITOMART STATION SURROUNDS FUNCTION



Britomart 1989

AN ARRIVAL SPACE

A PLACE WHERE WE COME TOGETHER, AND A PLACE THAT WELCOMES SPONTANEITY AND CAN SERVE AS A STAGE FOR THE STREET THEATRE OF EVERYDAY LIFE IN THE CITY

MEETING PLACE

A SINGLE LARGE OPEN GATHERING SPACE FOR CELEBRATION, FORMALITY, CEREMONY AND DEMONSTRATION

CIVIC HEART

A DEMOCRATIC SPACE FOR ALL PEOPLE TO OCCUPY AND ENJOY

EVENTS PLACE

THE HARBOUR GATEWAY TO THE CITY AND A PLACE FOR VISITORS TO BE WELCOMED

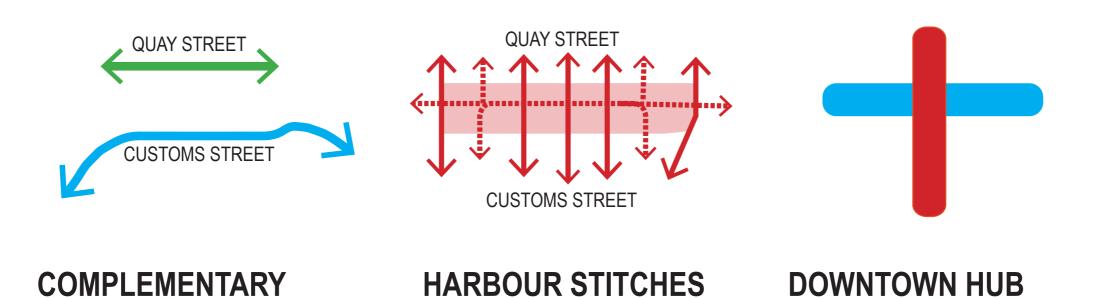
PUBLIC TRANSPORT HEART

WHERE PEOPLE COME TOGETHER AND USE THE BUSES, TRAINS AND FERRIES

ORGANISING IDEAS -

DOWNTOWN FRAMEWORK



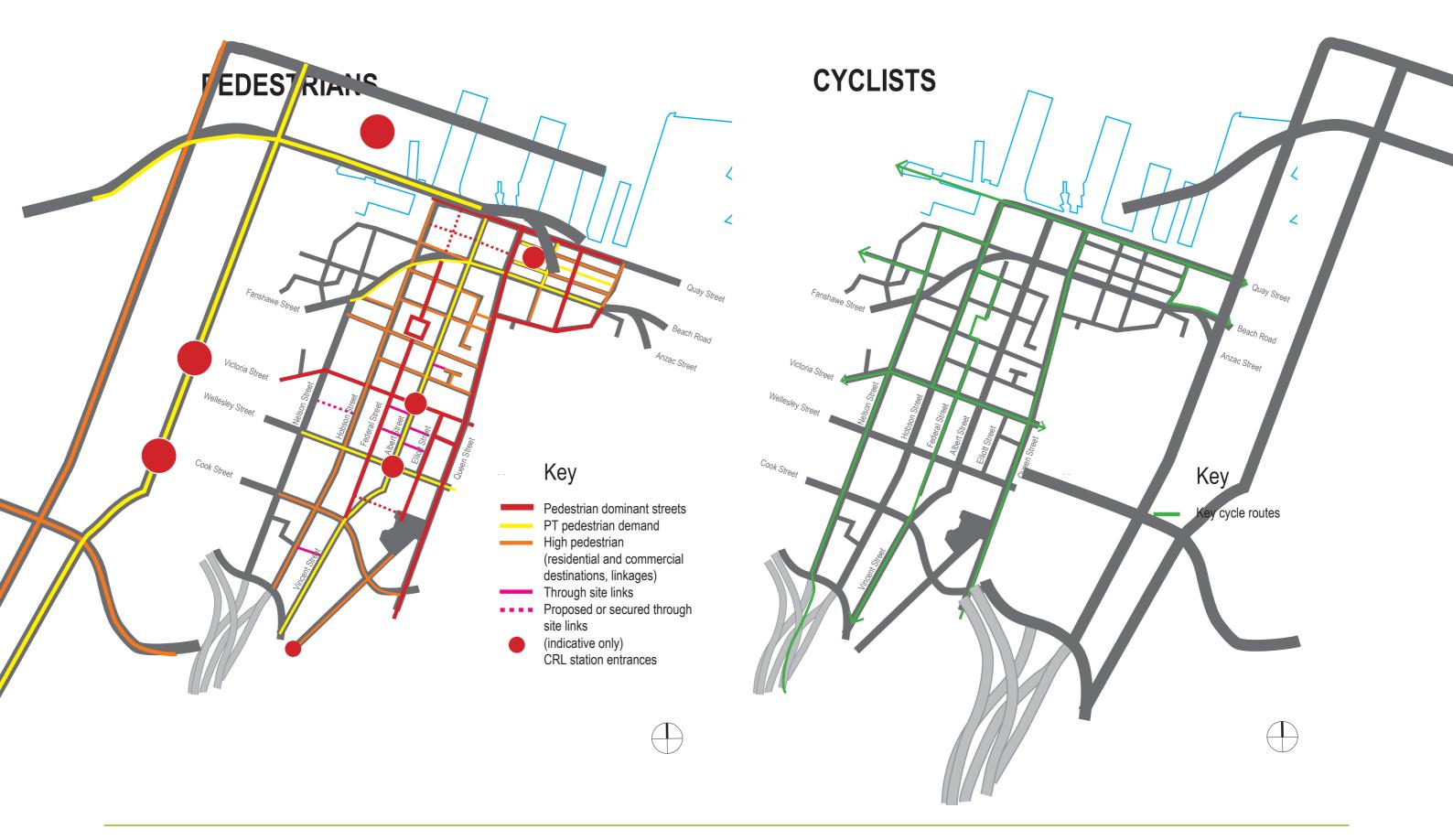


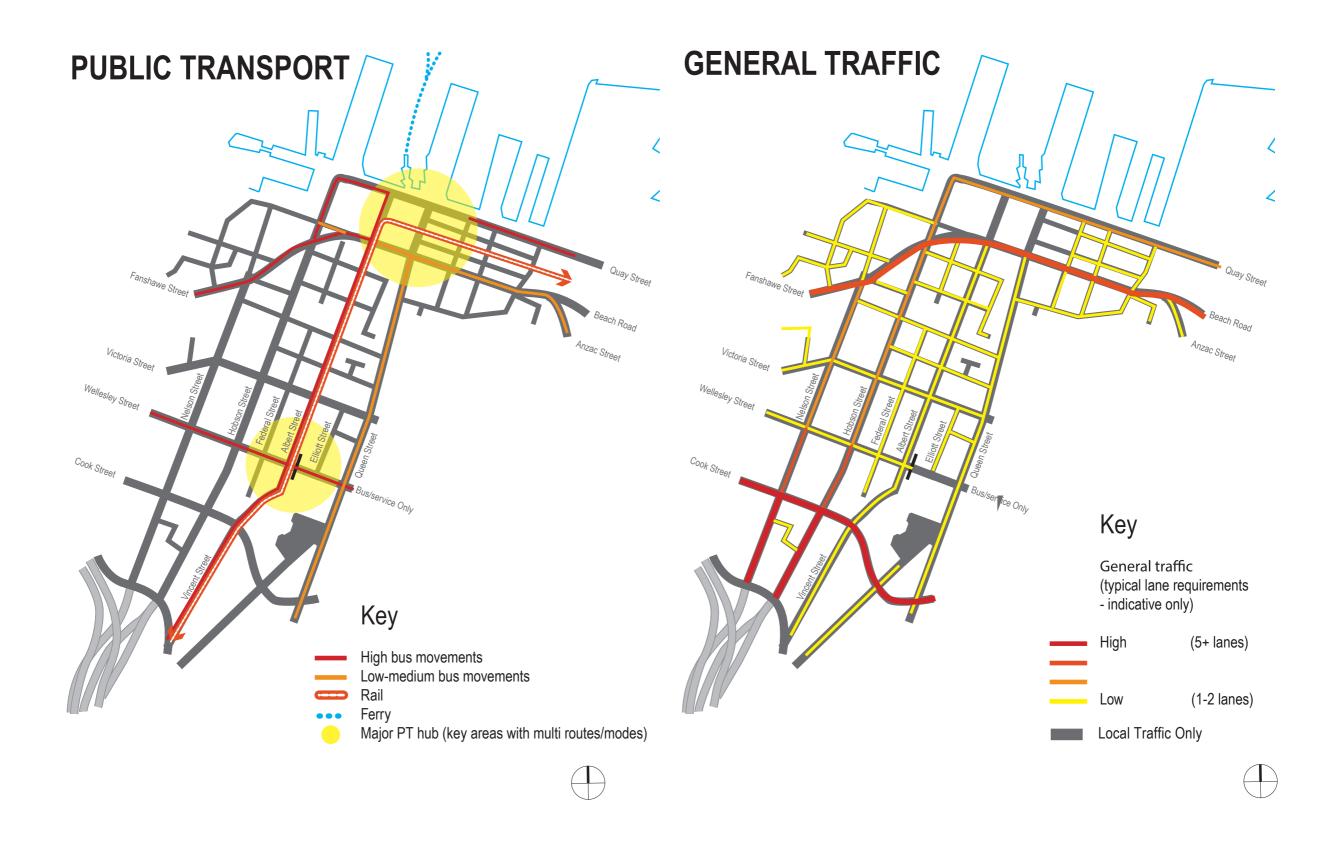
& LANEWAY CIRCUIT

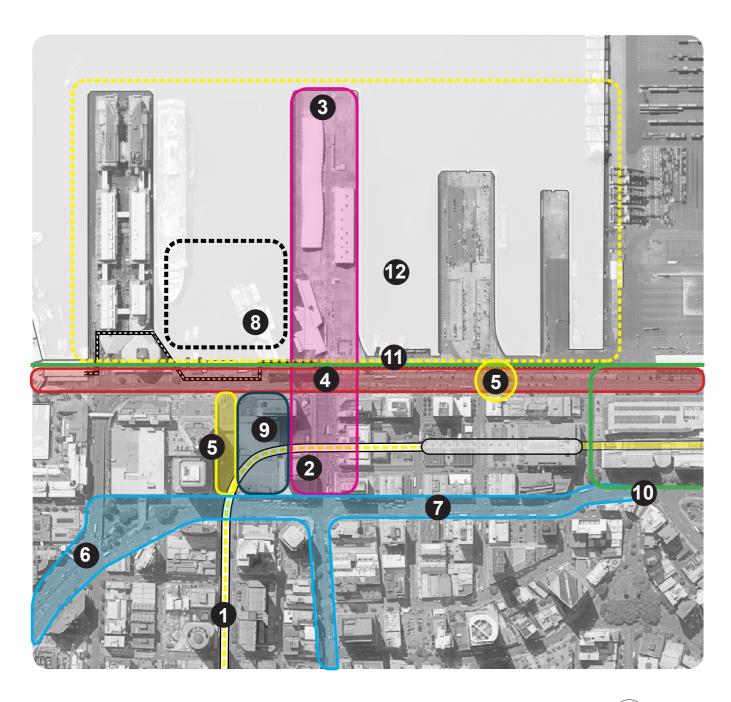
CORRIDORS

MOVEMENT NETWORKS IN DOWNTOWN -

DOWNTOWN FRAMEWORK







KEY CURRENT PROJECTS

- 1 ALBERT STREET
- 2 LOWER QUEEN STREET
- 3 QUEENS WHARF
- 4 QUAY STREET AND HARBOUR EDGE PROJECTS
- DOWNTOWN BUS STATION (NEW NETWORK OPTIMISATION)
- 6 FANSHAWE STREET URBAN BUSWAY / LIGHTRAIL
- 7 CUSTOMS STREET UPGRADE / LIGHT RAIL
- 8 FERRY BASIN REDEVELOPMENT
- 9 COMMERCIAL BAY
- BEACH ROAD / QUAY STREET CYCLEWAY (STAGE 2)
- **11** SEAWALL UPGRADE
- CENTRAL WHARVES STRATEGY



DOWNTOWN PUBLIC SPACES -

LOWER QUEEN STREET OPEN SPACE NETWORK



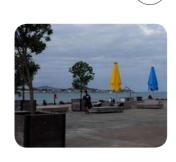












1. QUAY STREET

WALKING AND RUNNING
CYCLING
EXERCISING
VIEWING
DOG WALKING
FERRY BOARDING
EATING
PROMENADING

2. FERRY BASIN

RELAXING
EATING
BOAT WATCHING
HARBOUR VIEWING
PROMENADING
CLOSE ACCESS TO
WATER

3. ADMIRALTY BASIN

RELAXING
EATING
ALL DAY SUN
HARBOUR VIEWING
PLAYING
CULTURAL DESTINATION

4. LOWER QUEEN ST

SITTING AND WATCHING
CEREMONIAL AND FORMAL
EVENTS
CIVIC WELCOMES
EVERYDAY MEETING PLACE
MOVING THROUGH
GATHERINGS, DEMONSTRATIONS
AND MARCHES
SHOPPING AND OUTDOOR DINING

5. TAKUTAI SQUARE

SHELTERED AND SUNNY
RELAXING
WATER PLAY
WEEKLY FARMERS MARKET

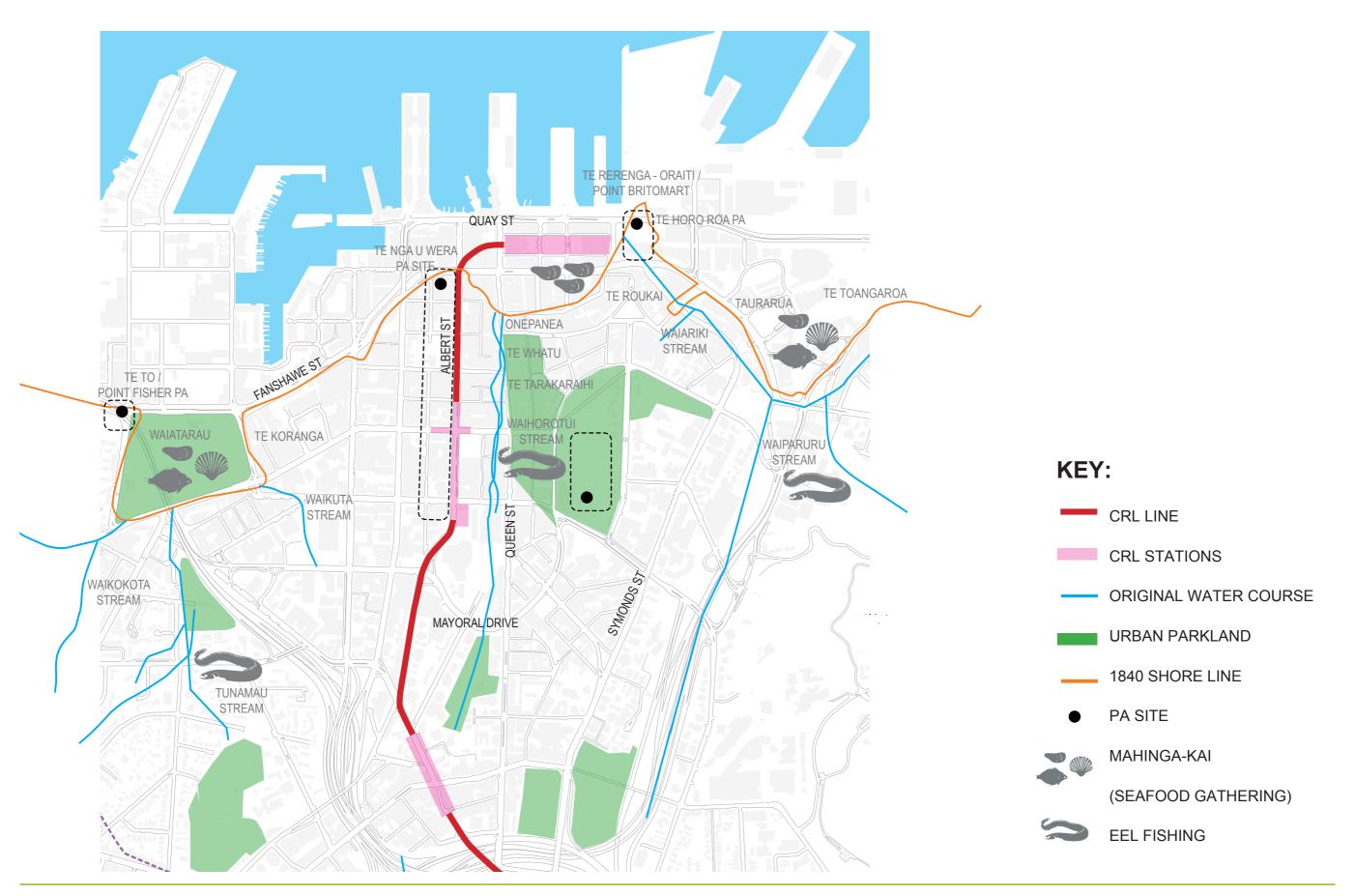
6. QUEENS WHARF

WALKING AND RUNNING
RELAXING
BALL SPORTS
HARBOUR VIEWING
FERRY BOARDING
EVENTS
CRUISE SHIPS
CULTURAL DESTINATION

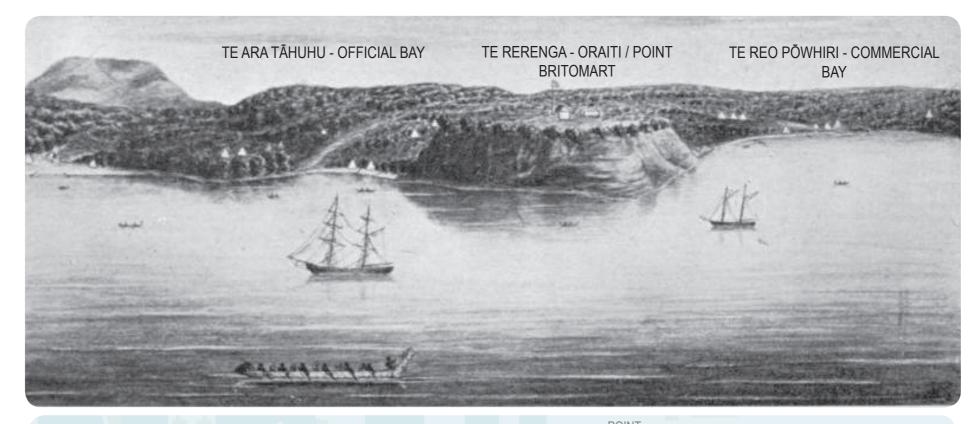


CULTURAL INTEGRATION -

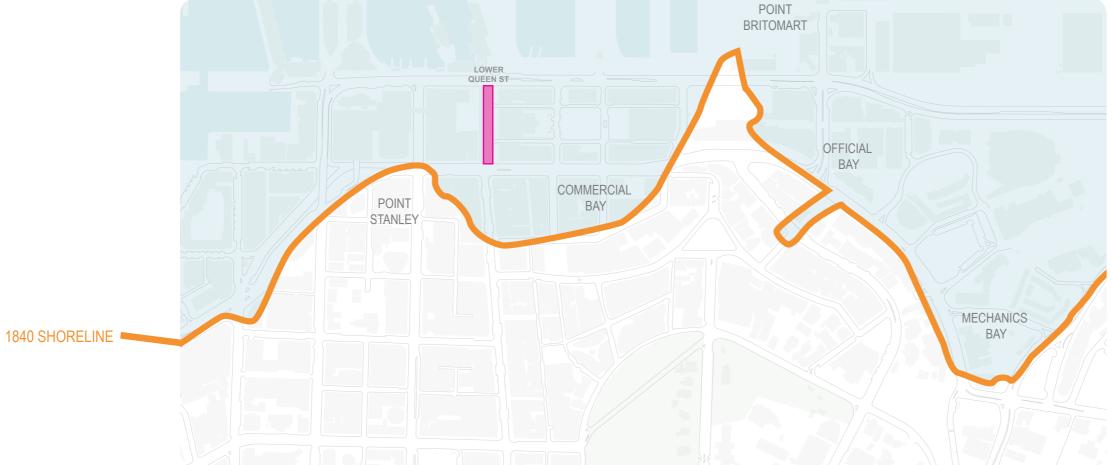
TELLING OUR STORIES



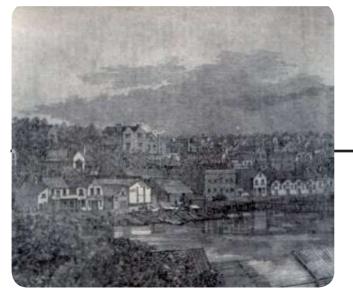
HISTORY OF COMMERCIAL BAY

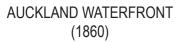


Auckland 1840



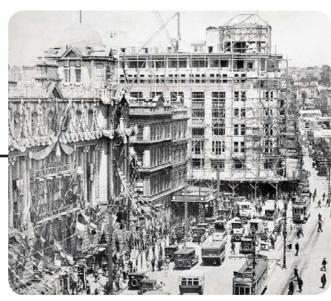
CULTURAL HISTORY TIME LINE







LOWER QUEEN ST (1912)



LOWER QUEEN ST (1927)



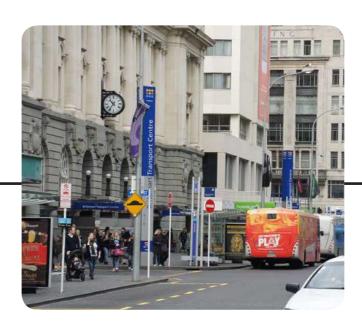
LOWER QUEEN ST (1930)



LOWER QUEEN ST (1956)

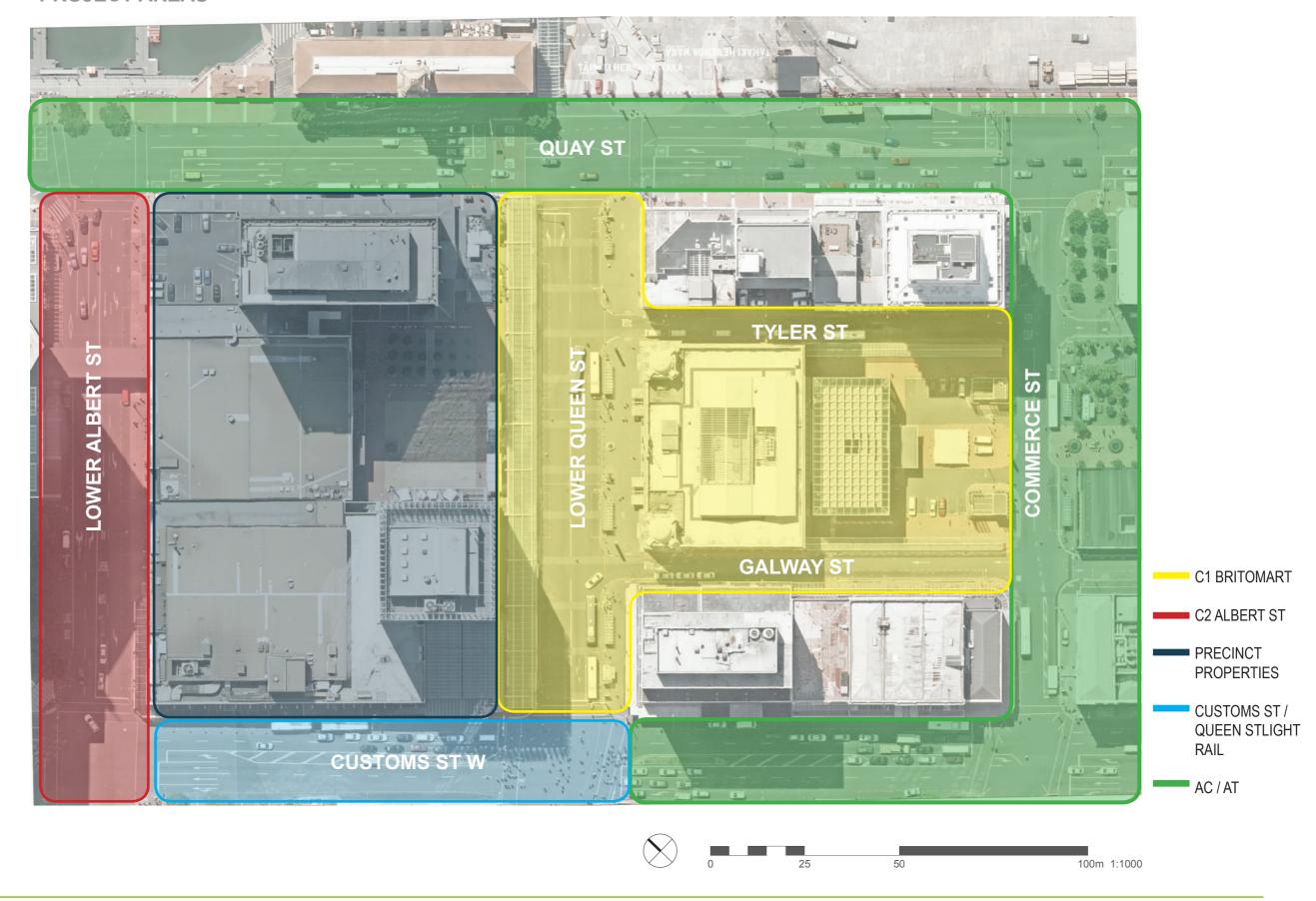


LOWER QUEEN ST (1989)

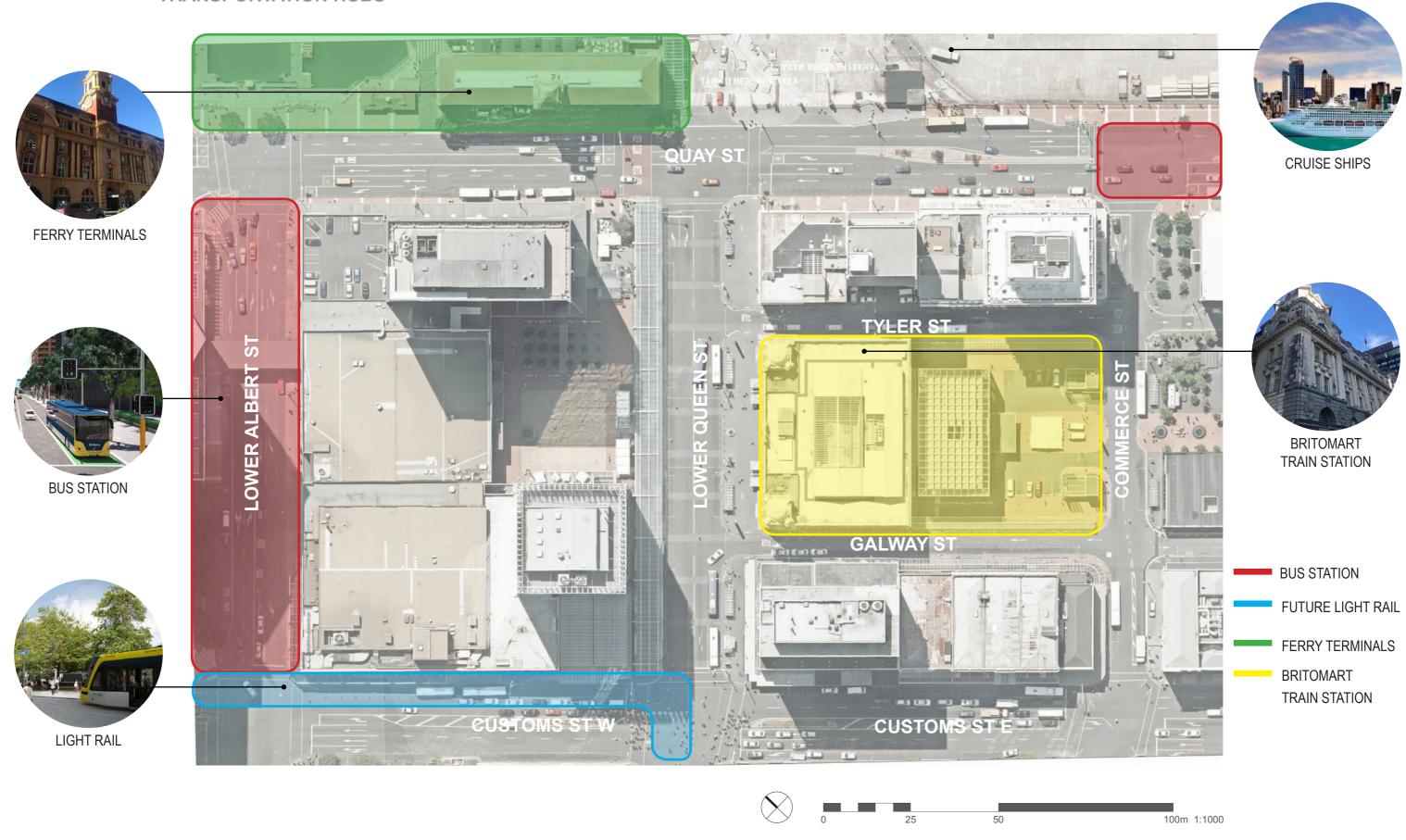


LOWER QUEEN ST (2010)

PROJECT AREAS



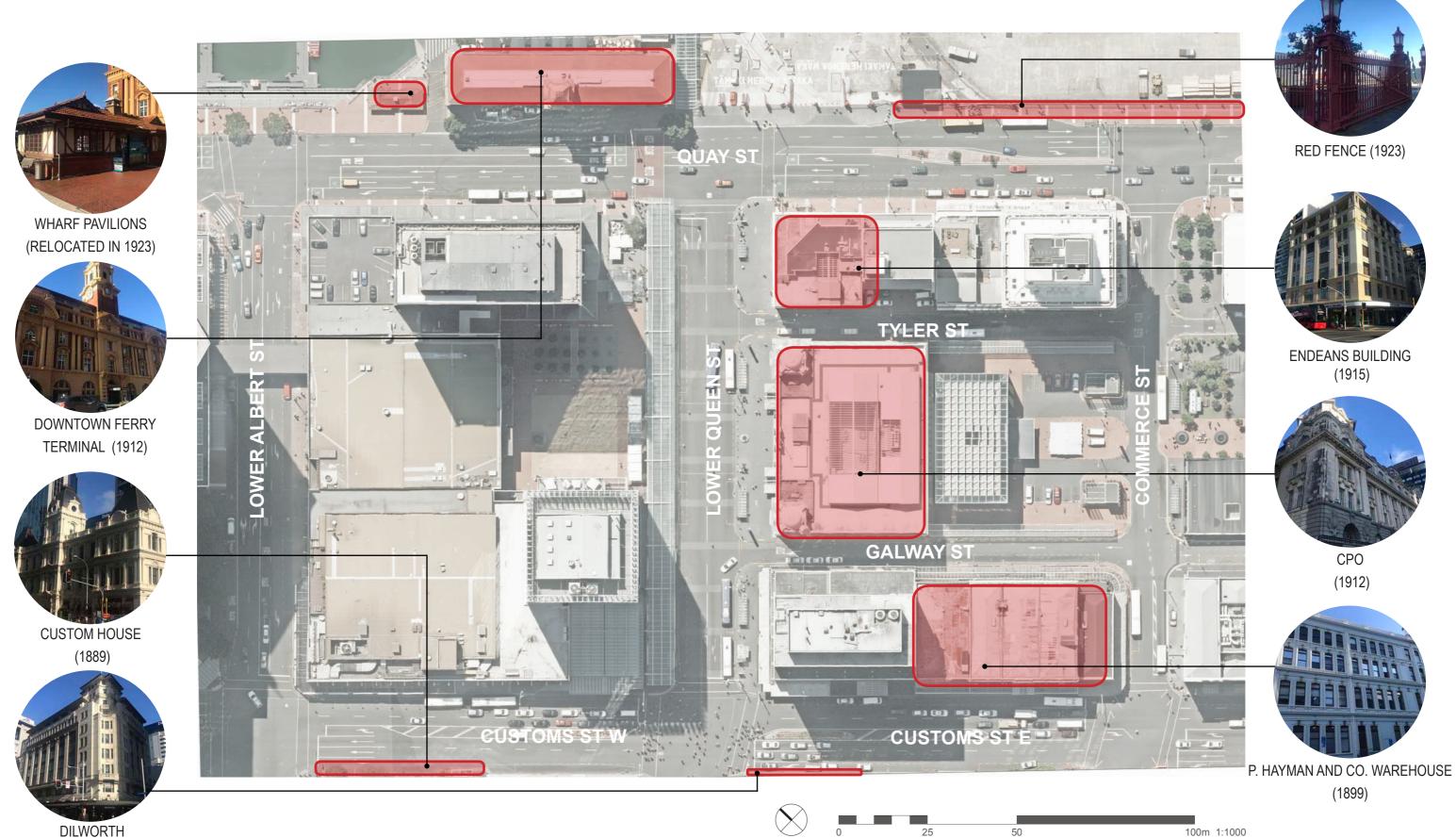
TRANSPORTATION HUBS



LAND USE

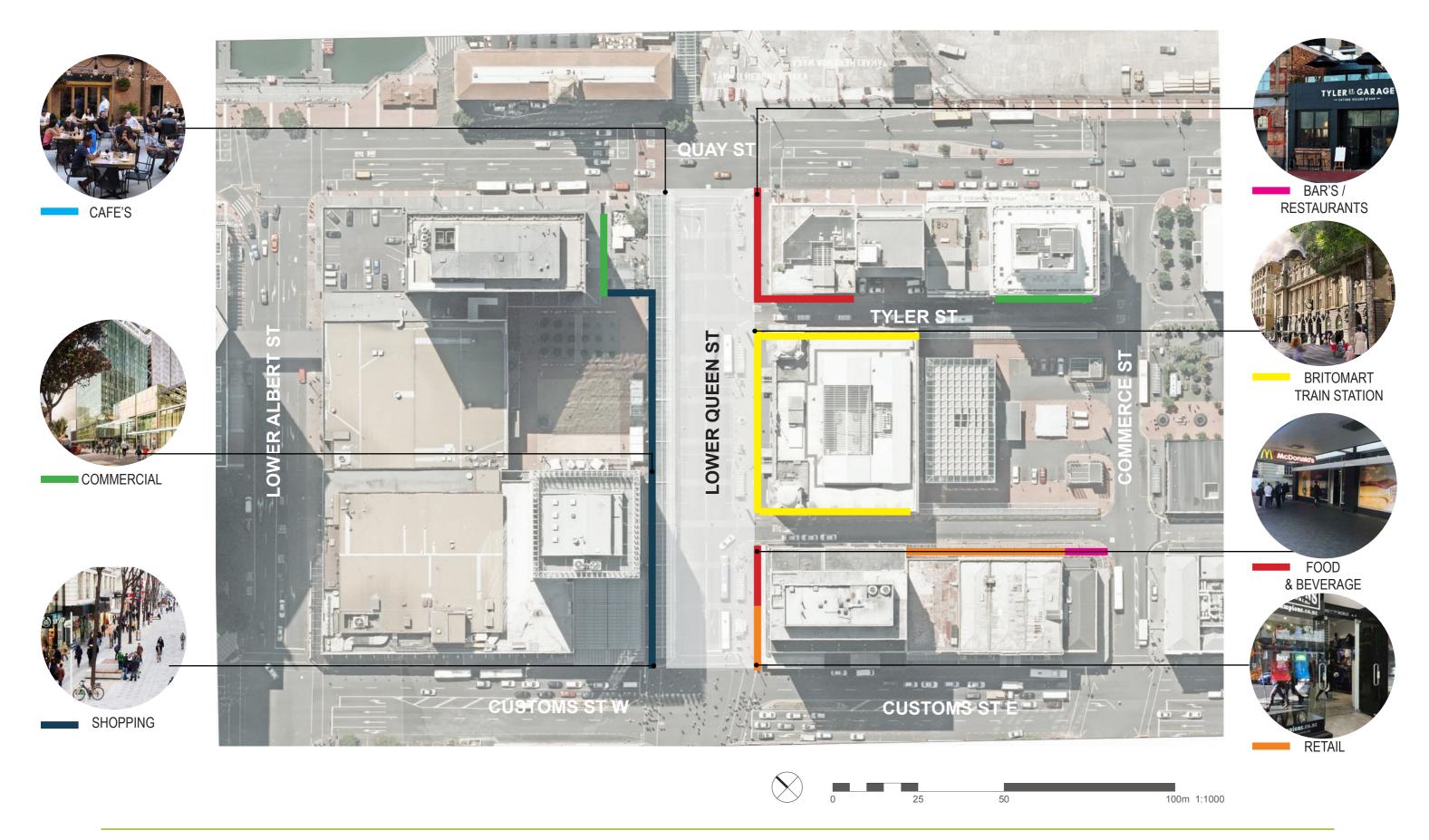


HERITAGE BUILDINGS

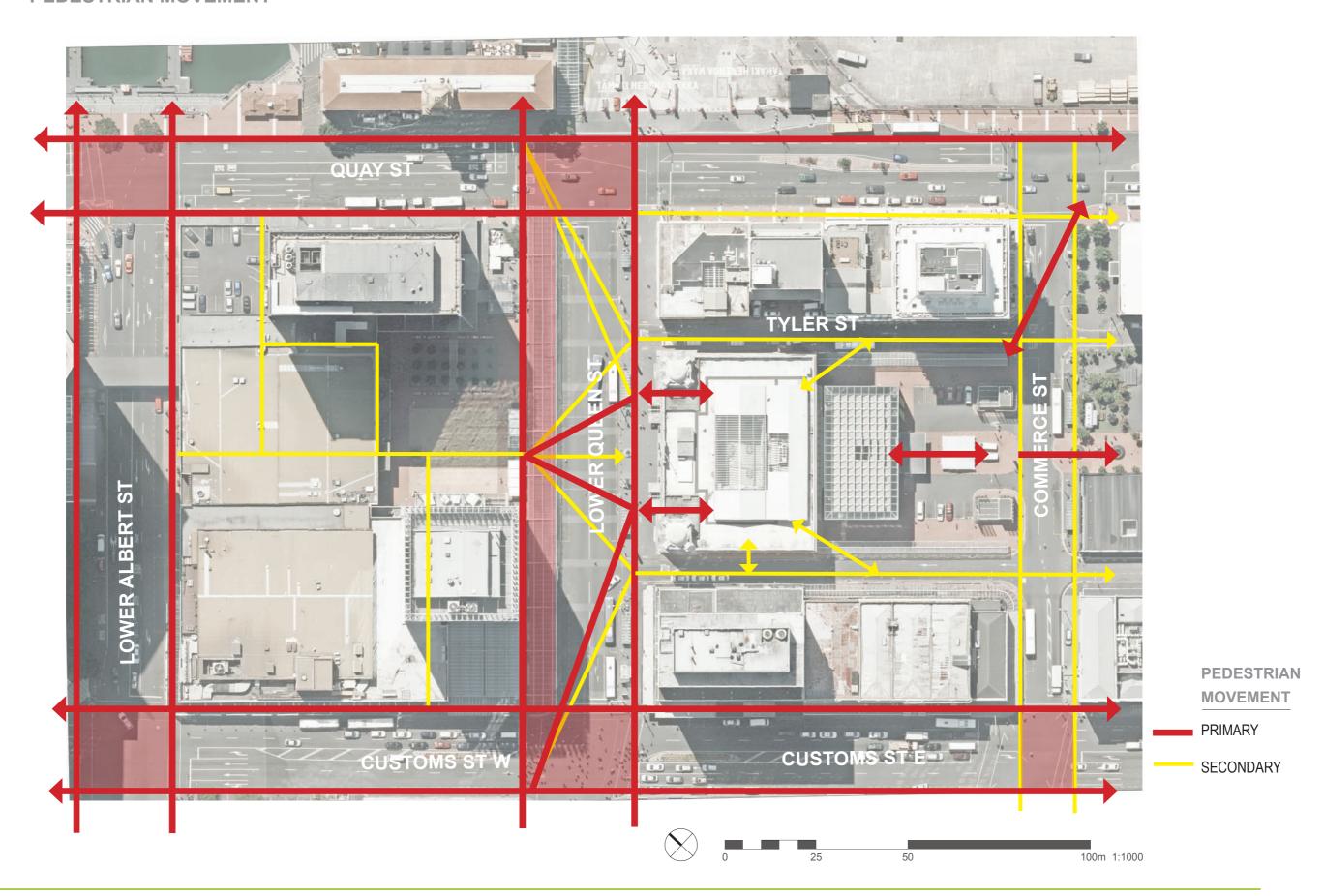


BUILDING (1927)

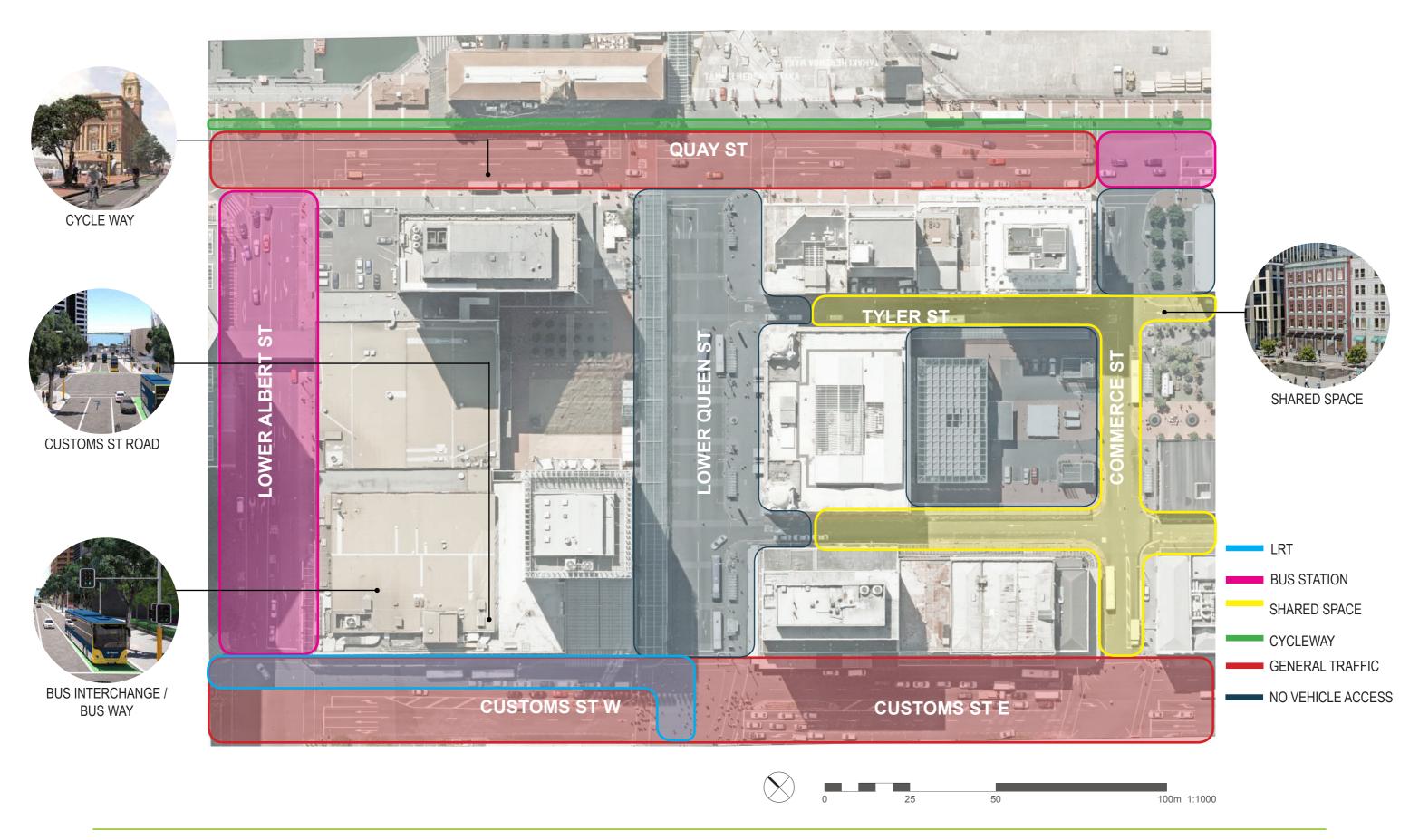
EDGE ACTIVATION



PEDESTRIAN MOVEMENT



VEHICLE MOVEMENT



SQUARE COMPARISON - LOCAL

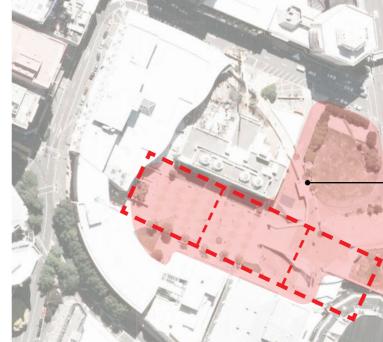
SCALE: 1:1500 at A3



CHRISTCHURCH CATHEDRAL SQUARE

CITY POPULATION: 350,000+ SQUARE AREA: 26,200M²







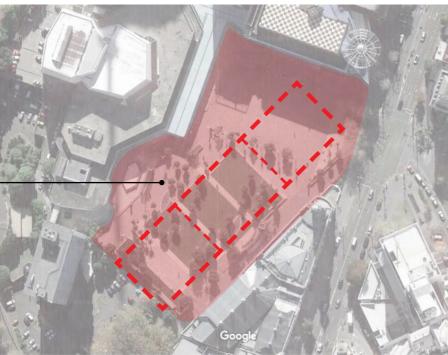
WELLINGTON CIVIC SQUARE

CITY POPULATION: 400,000+ SQUARE AREA: 8,600M²

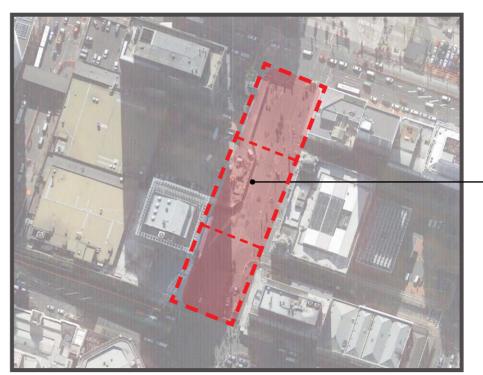


AOTEA SQUARE

CITY POPULATION: 1,400,000+ SQUARE AREA: 11,500M²



Lower Queen Street Outline On All Plans For Comparison



LOWER QUEEN ST

CITY POPULATION: 1,400,000+ SQUARE AREA: 5,140M²

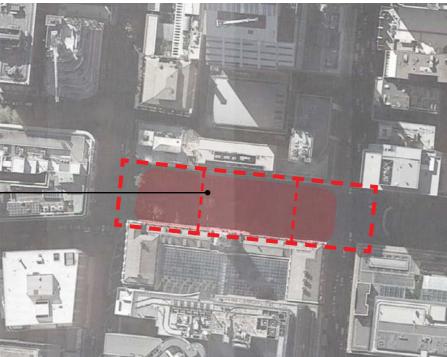
SQUARE COMPARISON - INTERNATIONAL

SCALE: 1:1500 at A3

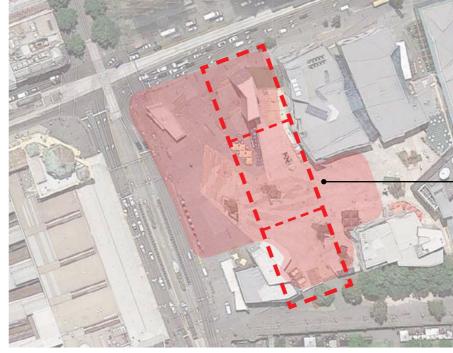


MARTIN PLACE, SYDNEY

CITY POPULATION: 4,000,000+ SQUARE AREA: 3,100M²









MELBOURNE FEDERATION SQUARE

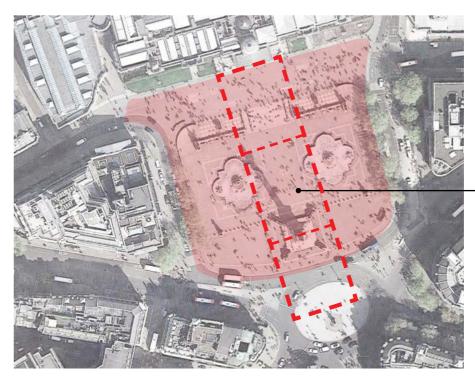
CITY POPULATION: 4,600,000+ SQUARE AREA: 8,000M²



MARIAHILFERSTRASSE SQUARE, VIENNA

CITY POPULATION: 1,8000,000+ SQUARE AREA: 4,800M²





Lower Queen Street Outline On All Plans For Comparison

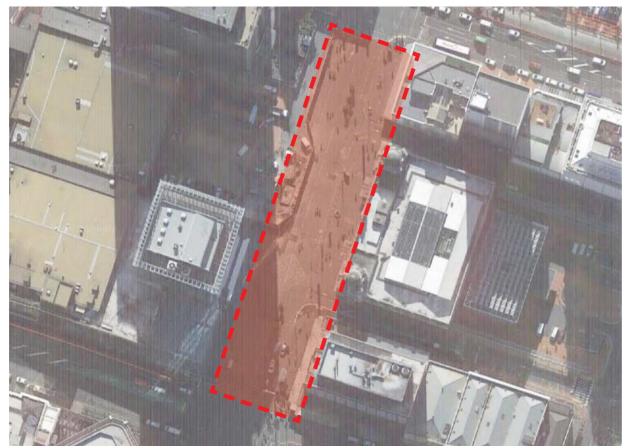


LONDON TRAFALGAR SQUARE

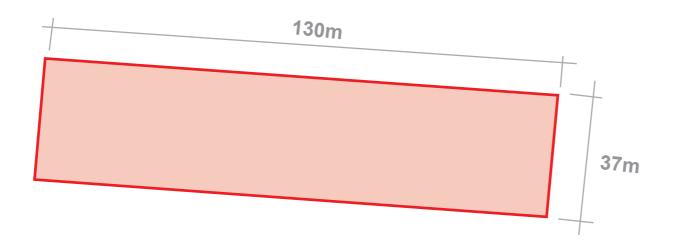
CITY POPULATION: 7,800,000+ SQUARE AREA: 13,400M²

BRITOMART STATION SURROUNDS - AUCKLAND

CLOSER LOOK



DIMENSIONS



KEY FUNCTIONS

- Pedestrian zone
- Events plaza
- Train station
- Commercial use
- Transportation hub
- Accommodation
- Bar / restaurants
- Retail
- Harbour views







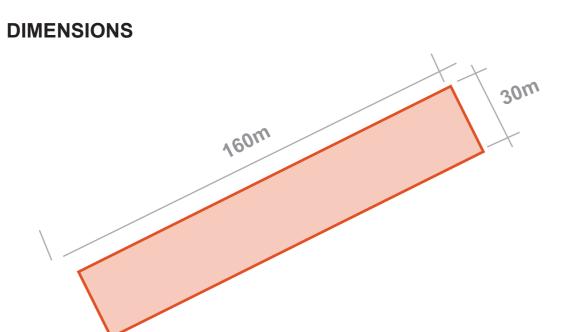
MARIAHLFERSTRASSE SQUARE - VIENNA

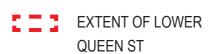
CLOSER LOOK

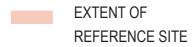


KEY FUNCTIONS

- Pedestrian zone
- Transportation hub
- Underground u-bhan
- Metro train
- Commercial use
- Transportation
- Accommodation
- Bar / restaurants
- Retail











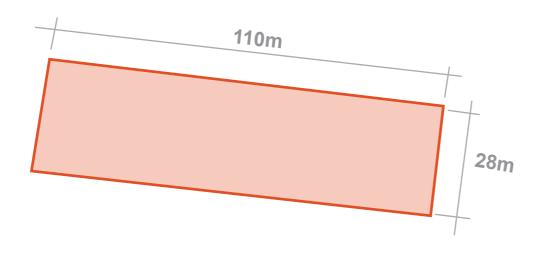


MARTIN PLACE - SYDNEY

CLOSER LOOK



DIMENSIONS



KEY FUNCTIONS

- Pedestrian zone
- Events plaza
- Transportation hub
- Train station
- Commercial use
- Banks
- Accommodation
- Bar / Restaurants
- Retail
- War memorial
- EXTENT OF LOWER

 QUEEN ST
- EXTENT OF REFERENCE SITE



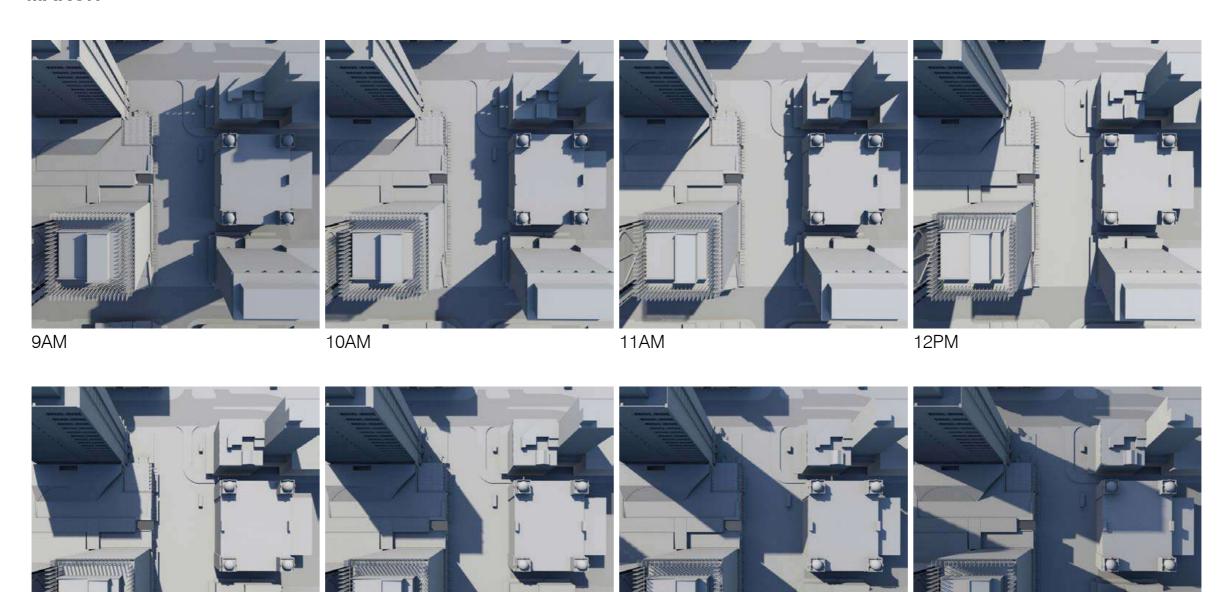




SHADE STUDY

BRITOMART STATION SURROUNDS

MARCH



3РМ

.C.L

4PM

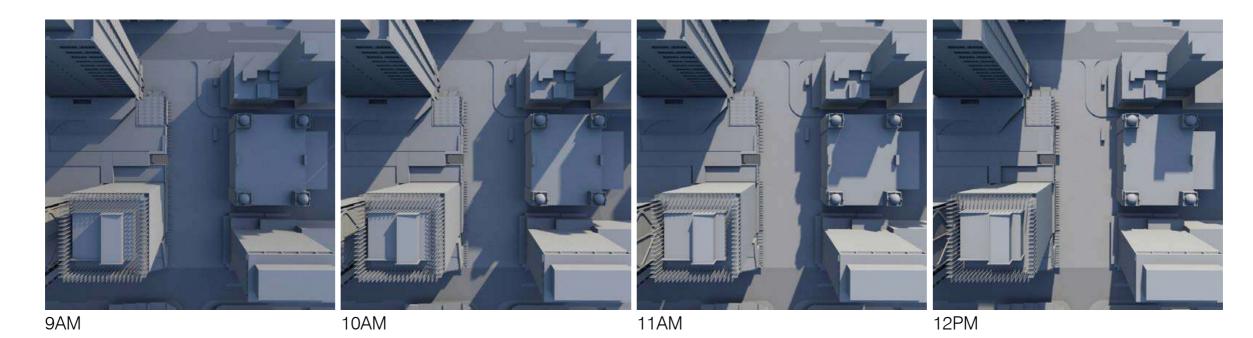
1PM

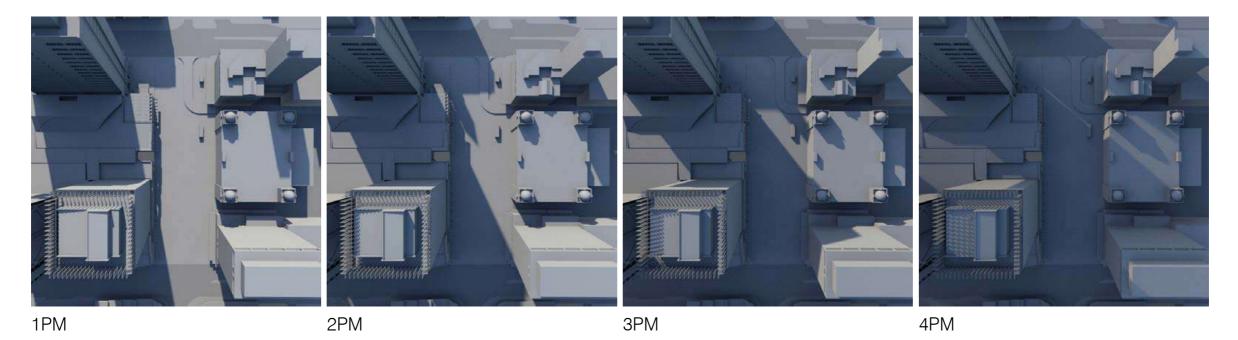
2PM

SHADE STUDY

BRITOMART STATION SURROUNDS

JUNE





.C.L

SHADE STUDY

BRITOMART STATION SURROUNDS

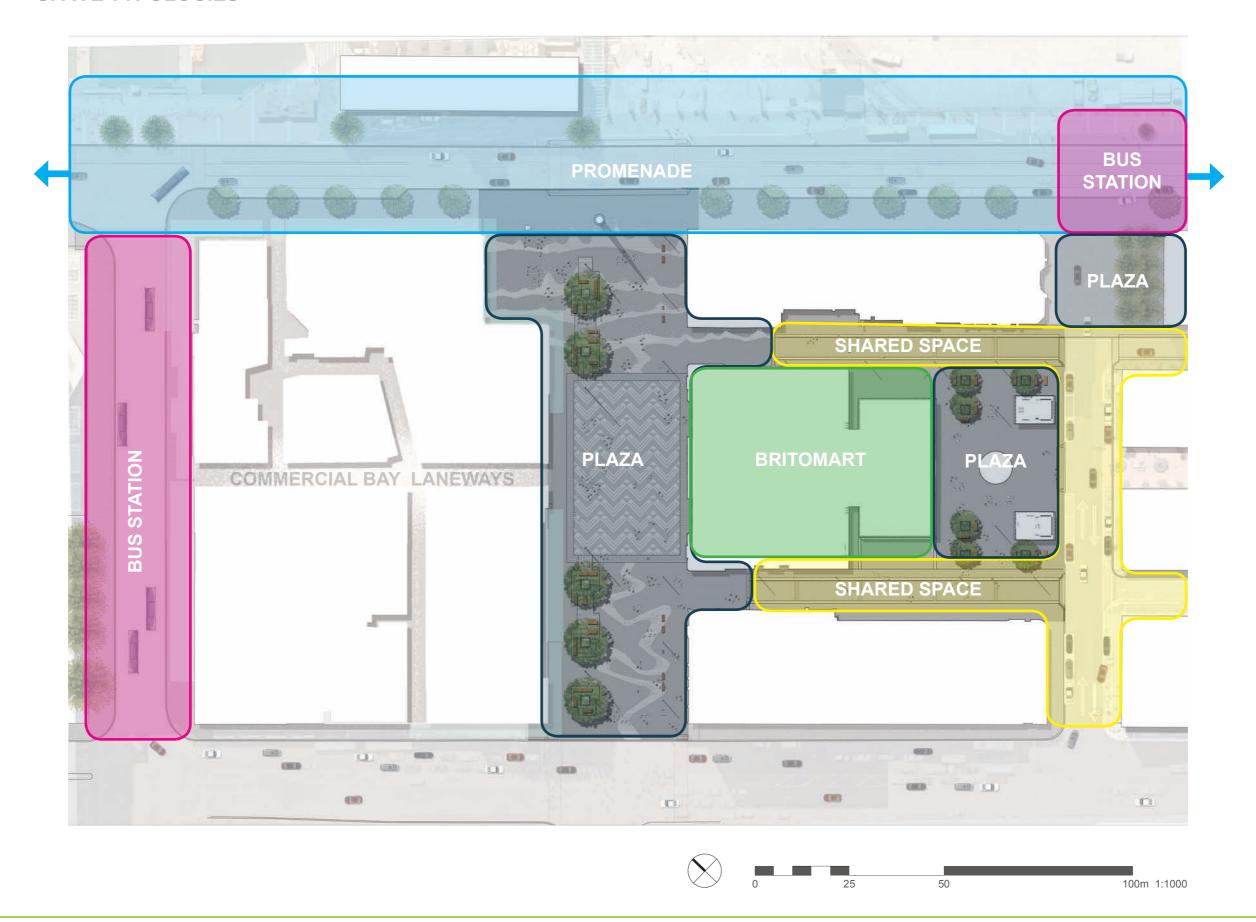
SEPTEMBER





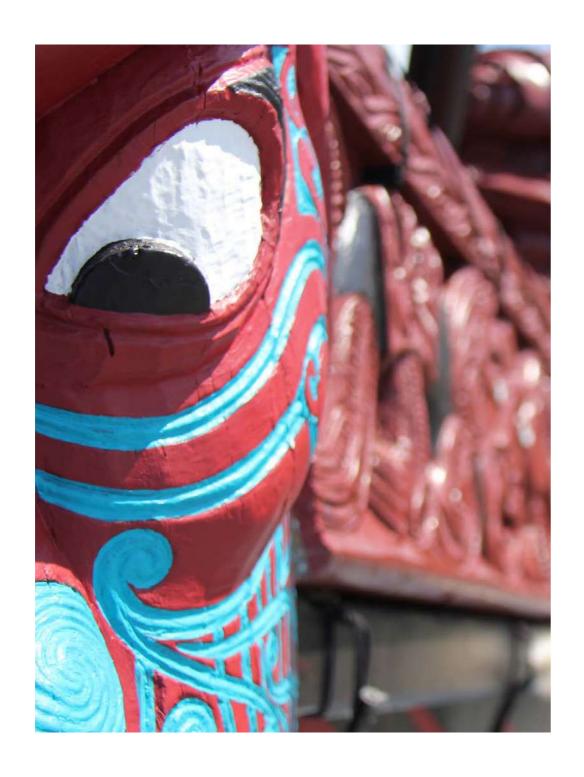
.C.L

SPACE TYPOLOGIES



CULTURAL INTEGRATION -

TE ARANGA DESIGN PRINCIPLES



MANA / RANGATIRATANGA

AUTHORITY

WHAKAPAPA

NAMES AND NAMING

TAIAO

THE NATURAL ENVIRONMENT

MAURI TU

ENVIRONMENTAL HEALTH

MAHI TOI

CREATIVE EXPRESSION

TOHU

THE WIDER CULTURAL LANDSCAPE

AHI KĀ

THE LIVING PRESENCE

CULTURAL INTEGRATION -

TE ARANGA DESIGN PRINCIPLES

MANA / RANATIRATANGA AUTHORITY



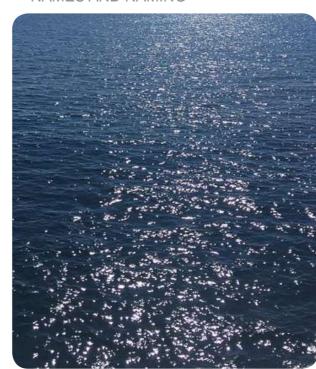








WHAKAPAPA NAMES AND NAMING

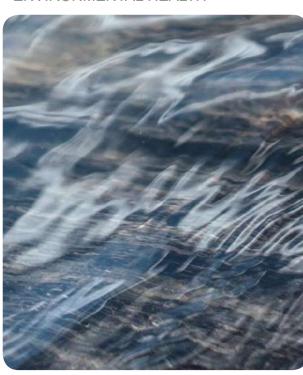


TAIAO THE NATURAL ENVIRONMENT

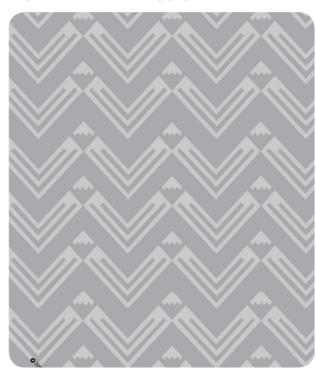


MAURI TU ENVIRONMENTAL HEALTH

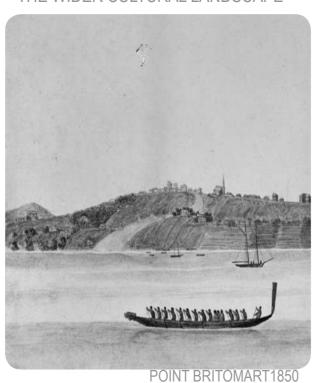
NGĀI TAI



MAHI TOI CREATIVE EXPRESSION



TOHU
THE WIDER CULTURAL LANDSCAPE



AHI KĀ THE LIVING PRESENCE



Aurecon | Mott MacDonald | Jasmax | Grimshaw | ARUP | IMAGE REFERENCE: Sir George Grey Special Collections, Auckland Libraries

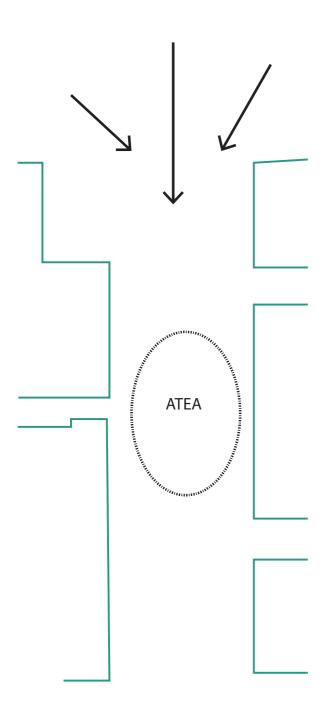
TOHU - DESIGN NARRATIVE PRECEDENTS

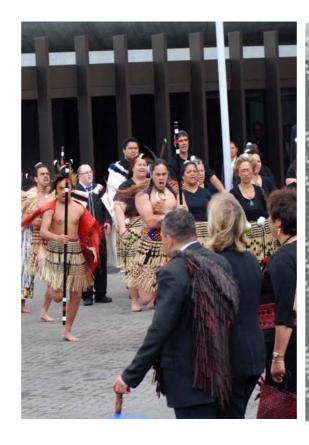
TWO WATERS - TOHU

WAITEMATA



MANAAKITANGA



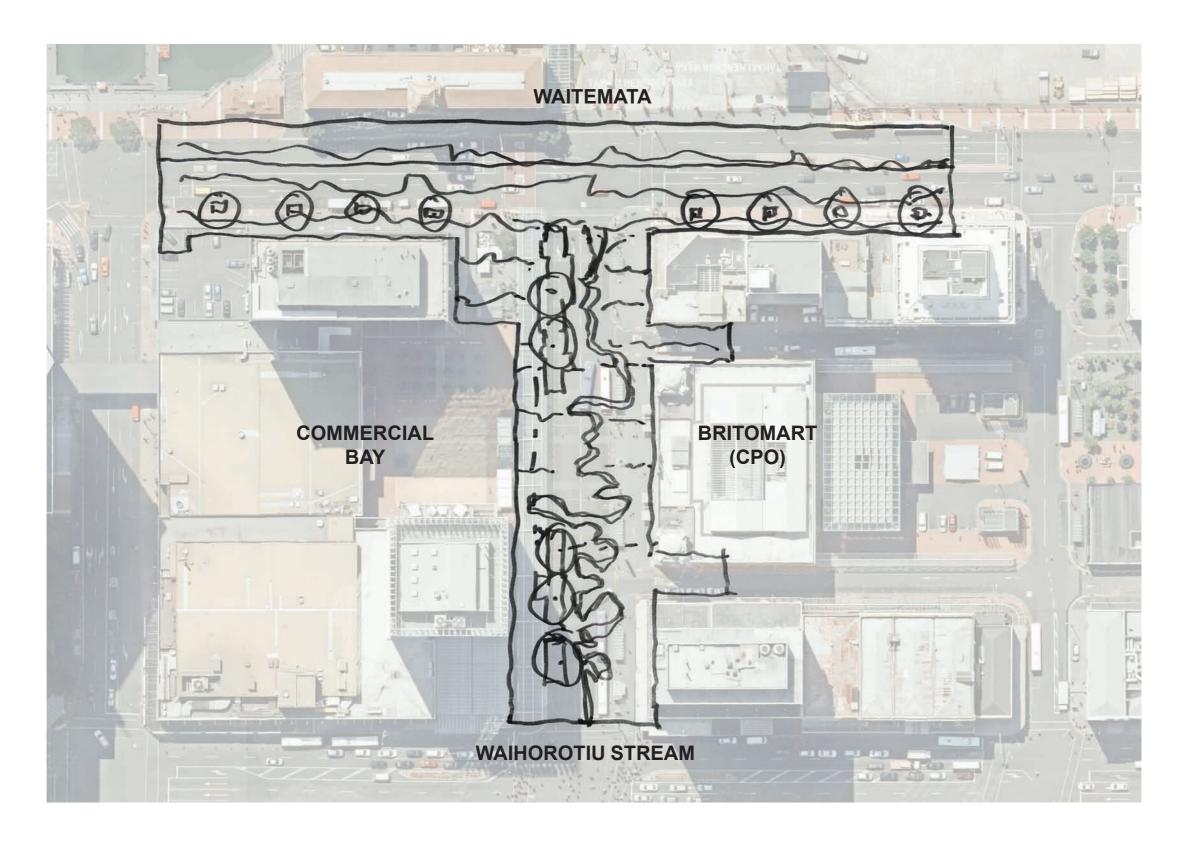




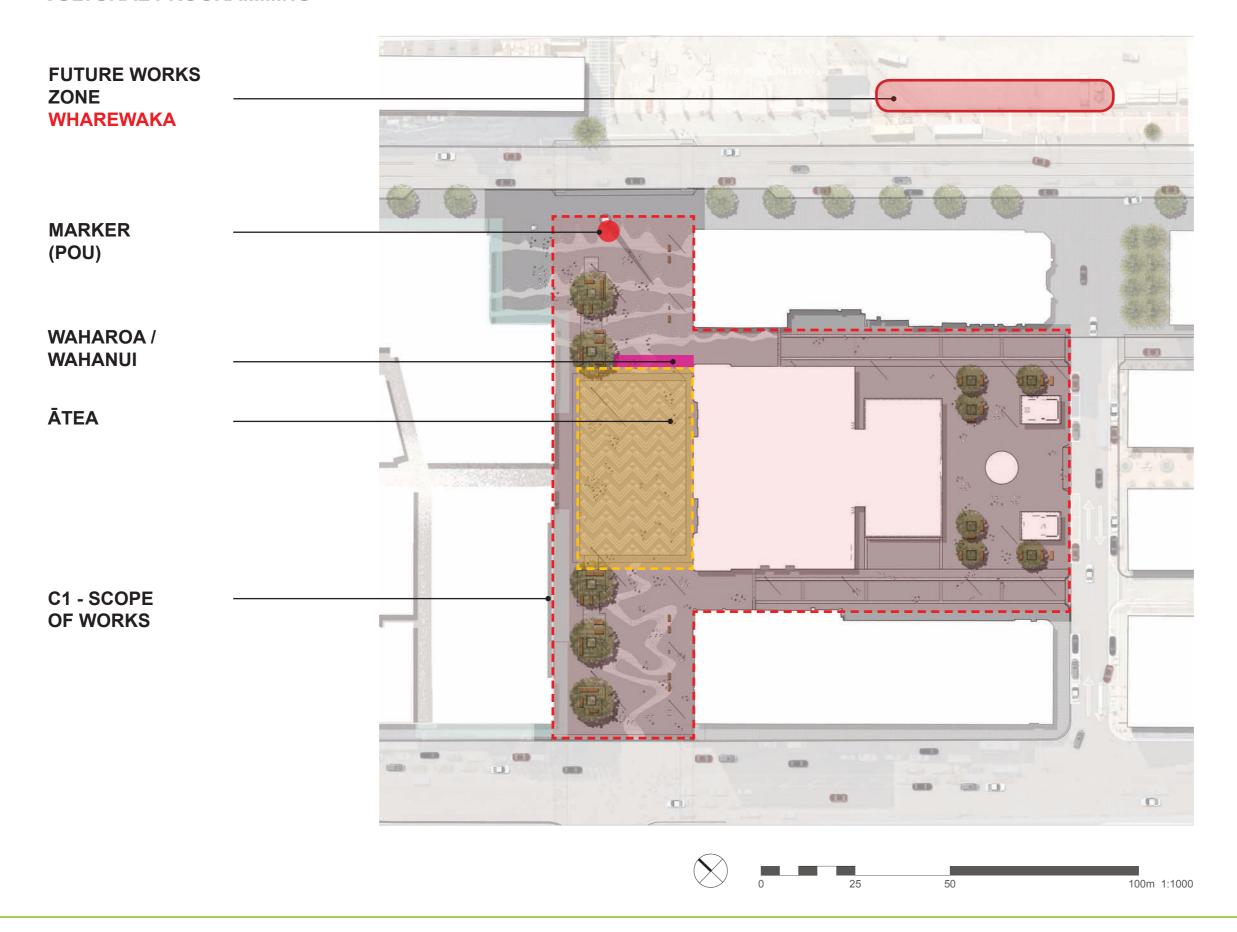


Aramoana pattern, cloak 1497

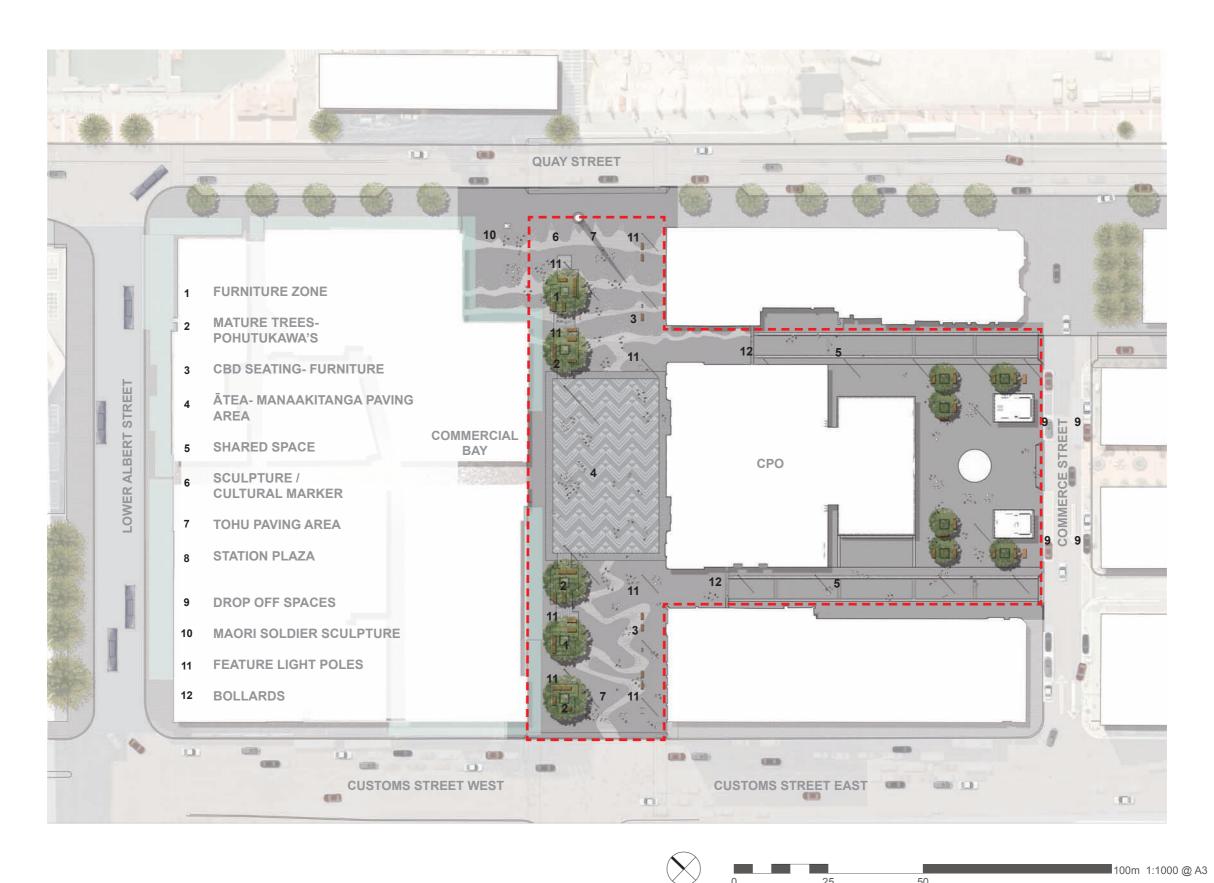
CONCEPT DIAGRAM



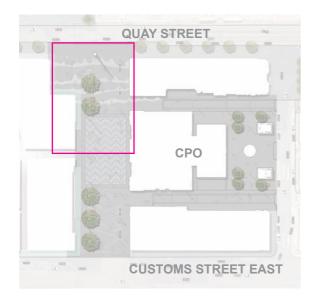
CULTURAL PROGRAMMING



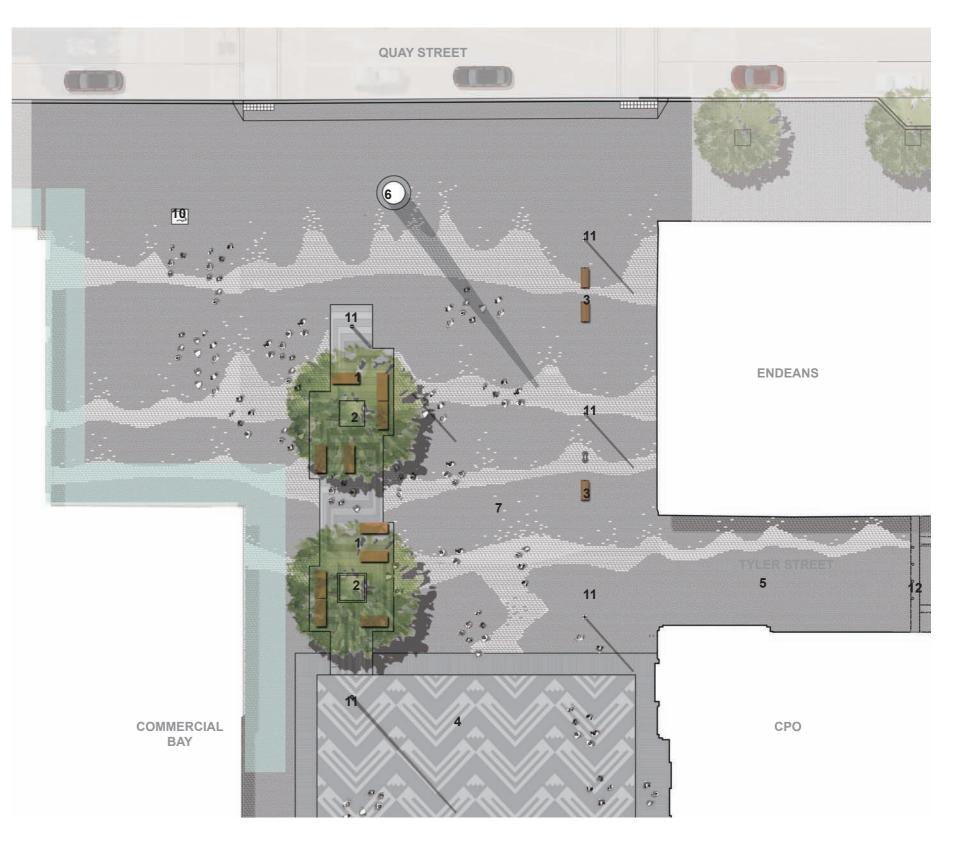
DESIGN CONCEPT



DESIGN CONCEPT

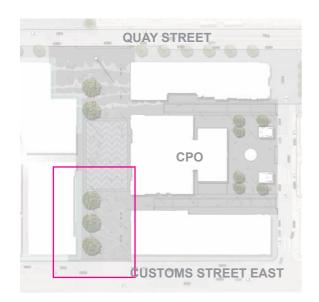


- 1 FURNITURE ZONE
- 2 MATURE TREES-POHUTUKAWA'S
- 3 CBD SEATING- FURNITURE
- 4 ĀTEA- MANAAKITANGA PAVING AREA
- 5 SHARED SPACE
- 6 SCULPTURE / CULTURAL MARKER
- 7 TOHU PAVING AREA
- 8 STATION PLAZA
- 9 DROP OFF SPACES
- 10 MAORI SOLDIER SCULPTURE
- 11 FEATURE LIGHT POLES
- 12 BOLLARDS





DESIGN CONCEPT

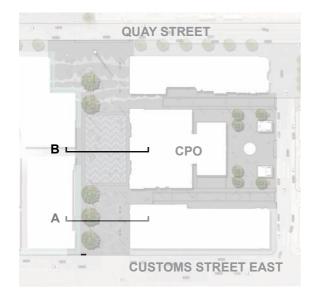


- 1 FURNITURE ZONE
- 2 MATURE TREES-POHUTUKAWA'S
- 3 CBD SEATING- FURNITURE
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- 5 SHARED SPACE
- 6 SCULPTURE / CULTURAL MARKER
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- 10 MAORI SOLDIER SCULPTURE
- 11 FEATURE LIGHT POLES
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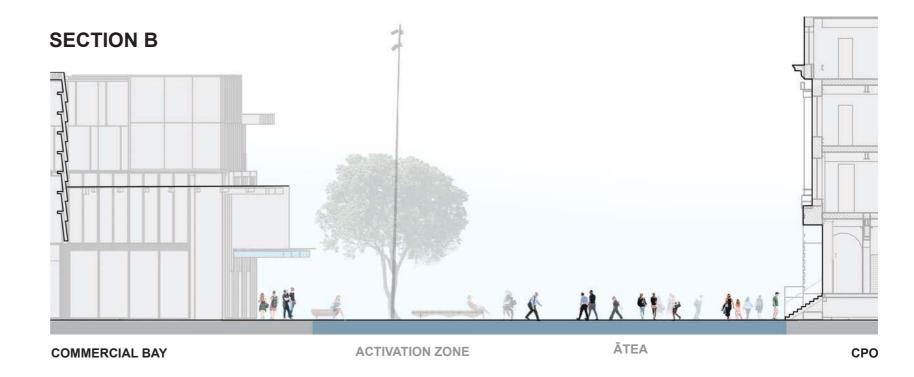


CONCEPTUAL SECTIONS



SECTION A

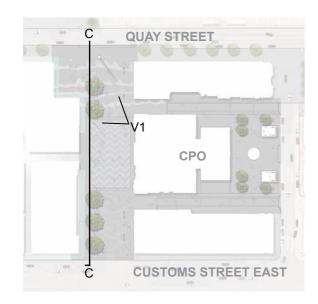


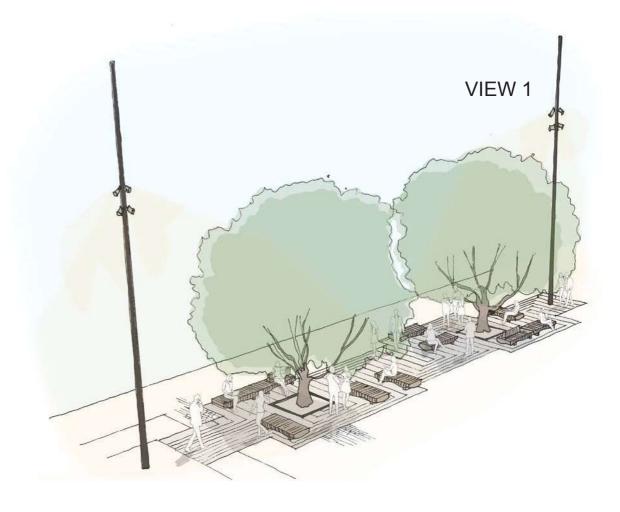


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12.5

CONCEPTUAL SECTIONS



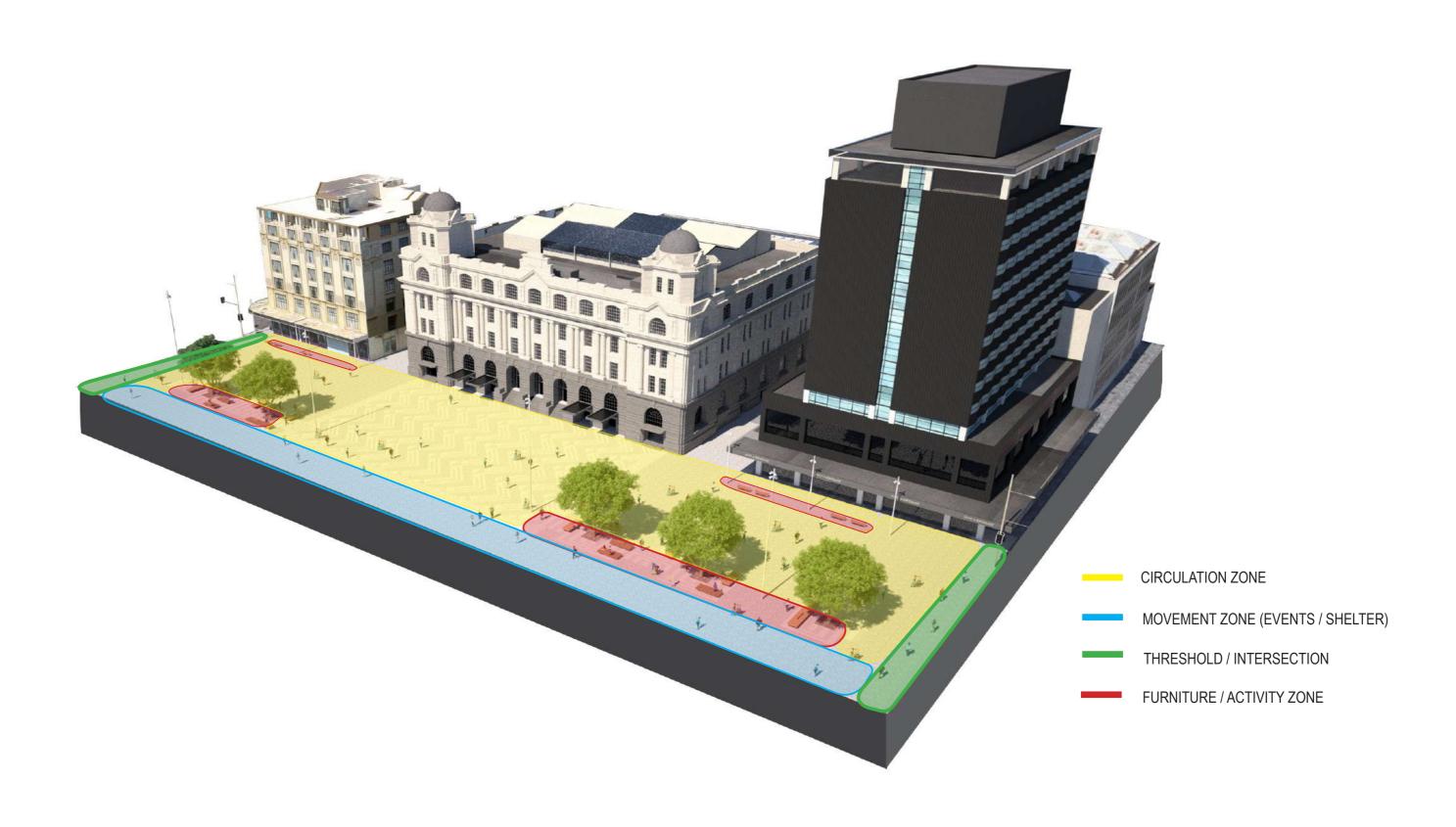




GENERAL ARRANGEMENT

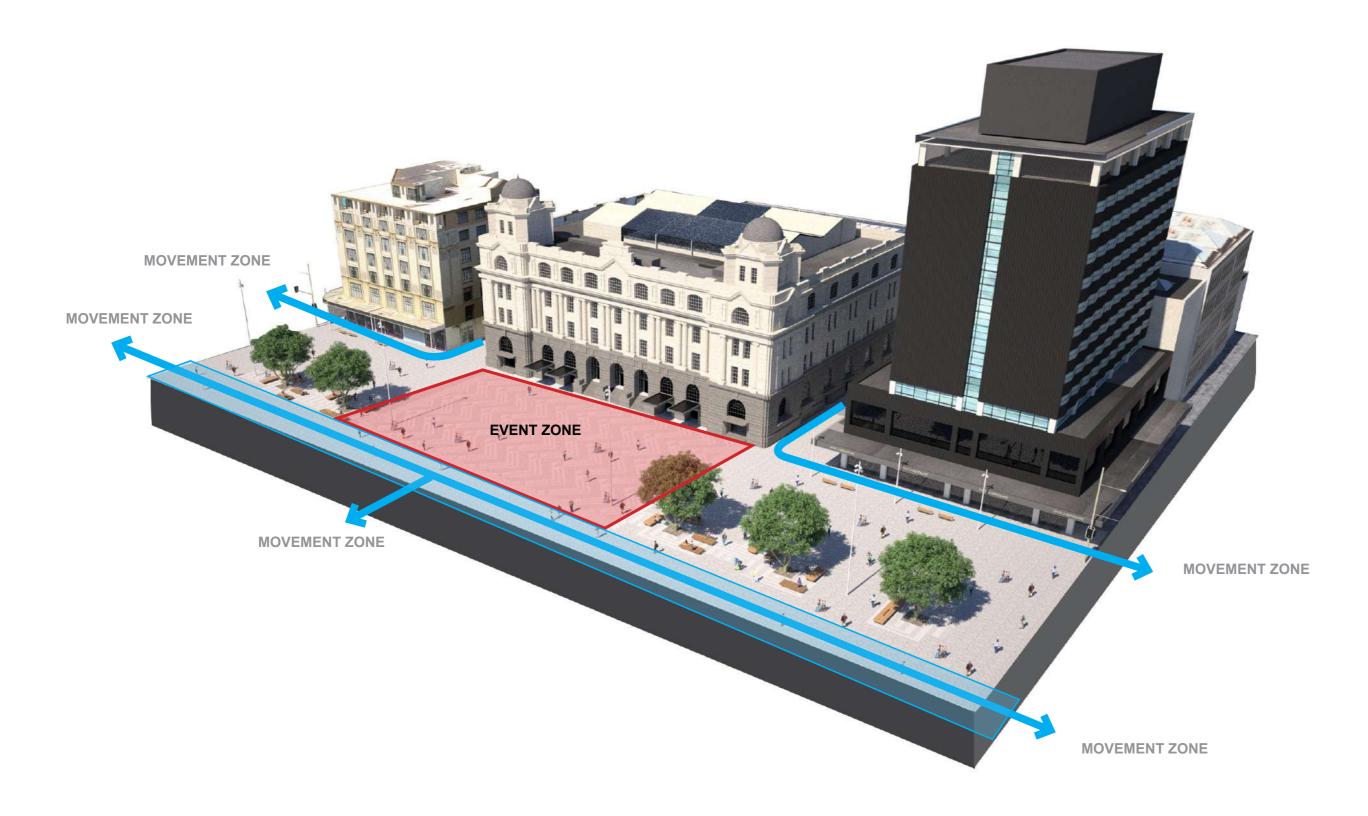


GENERAL ARRANGEMENT- SPATIAL PROGRAMMING



Aurecon | Mott MacDonald | Jasmax | Grimshaw | ARUP

GENERAL ARRANGEMENT- EVENT DAY



CONCEPTUAL VISUALISATIONS- SOUTH VIEW



CONCEPTUAL VISUALISATION- NORTH VIEW



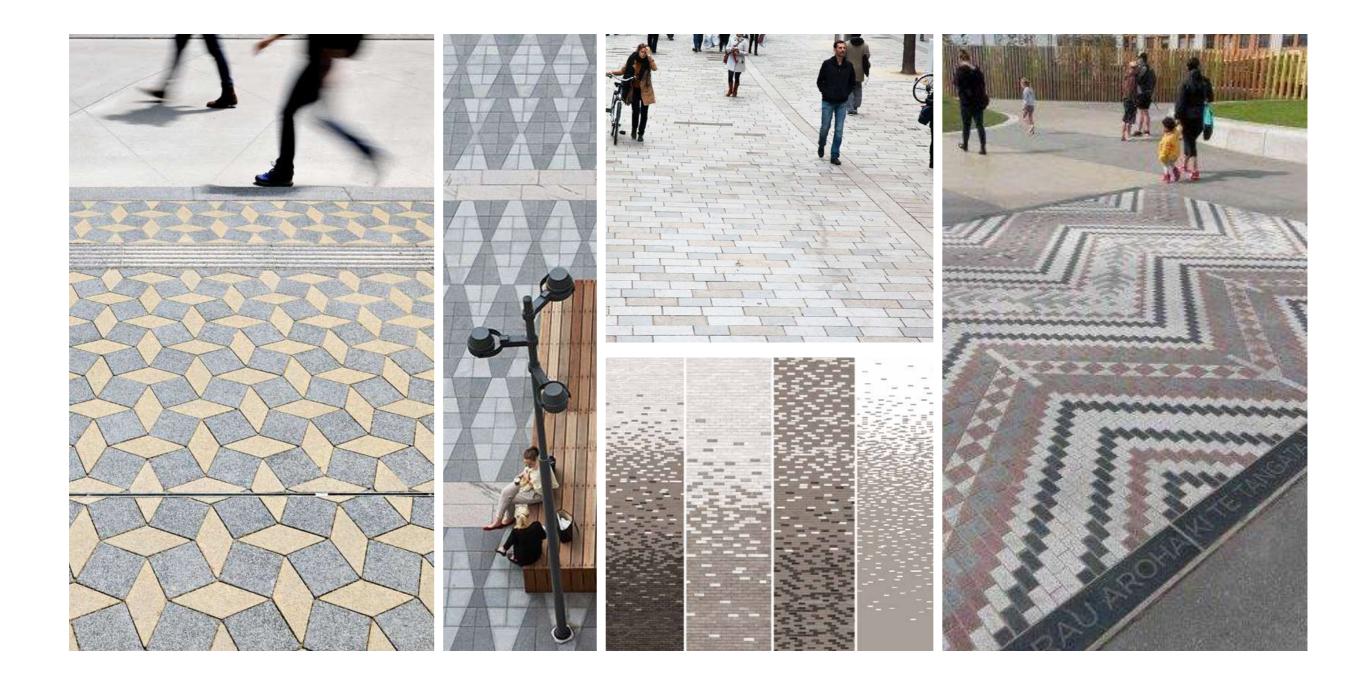
CONCEPTUAL VISUALISATION- NORTH WEST VIEW



CONCEPTUAL VISUALISATION- GALWAY STREET VIEW



PAVING DESIGN PRECEDENTS



MATERIALS AND FURNITURE

CBD FURNITURE SUITE

The design proposes the use of the CBD suite, using key elements to provide a range of uses along the activity zones of Britomart station surrounds



MATERIALS AND FURNITURE

PAVING

Stone pavements and kerbing is proposed and will accommodate vehicle loading. Colours and finishes are under development

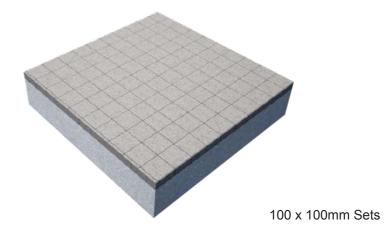




Basalt Pavers

300mm Width Basalt Kerb





MATERIALS AND FURNITURE

TREE PIT

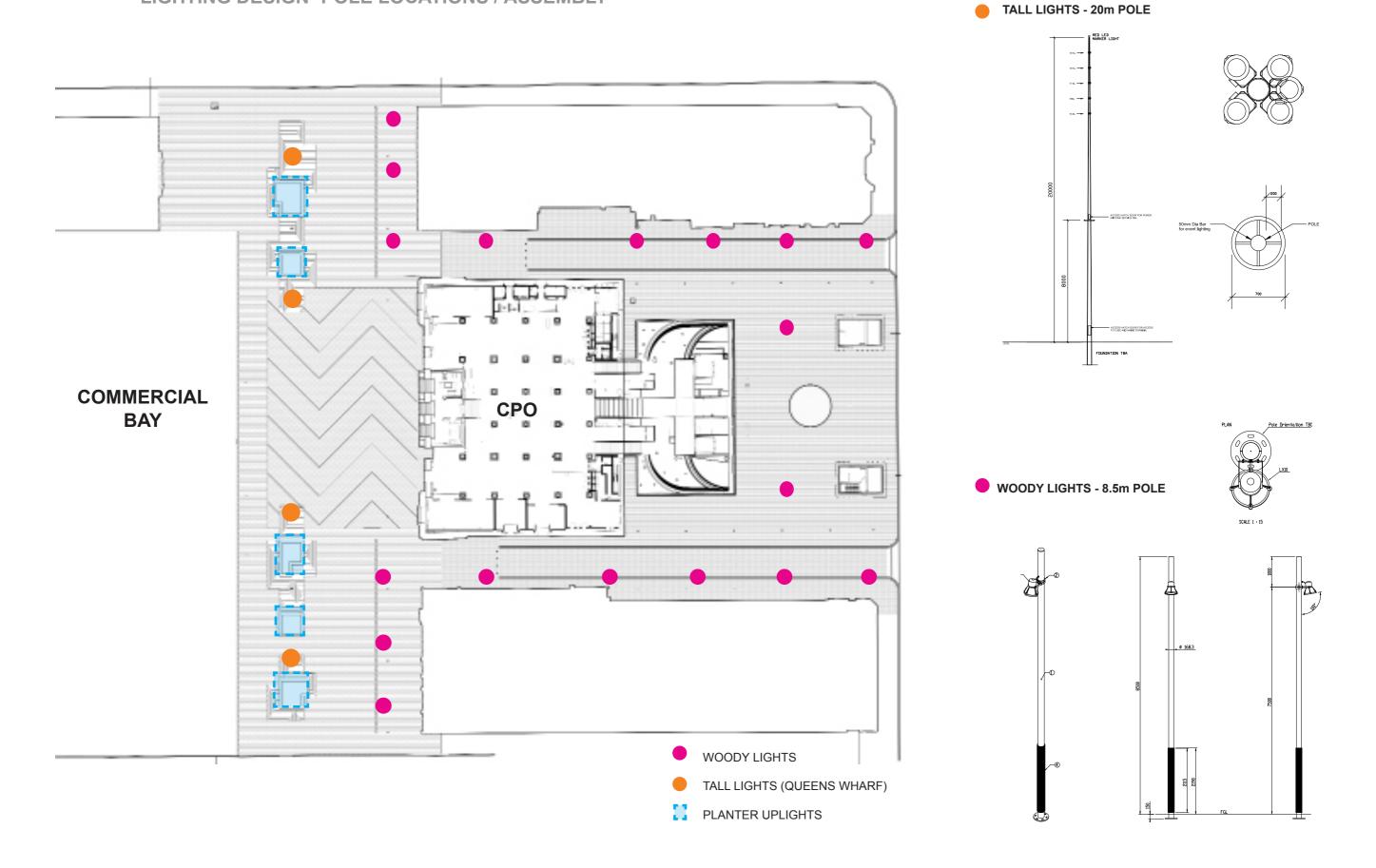
Tree pits are proposed with an opportunity to create a unique tree grille to enhance the character of Britomart station surrounds.



MATERIALS AND FURNITURE ACTIVITY / FURNITURE ZONE

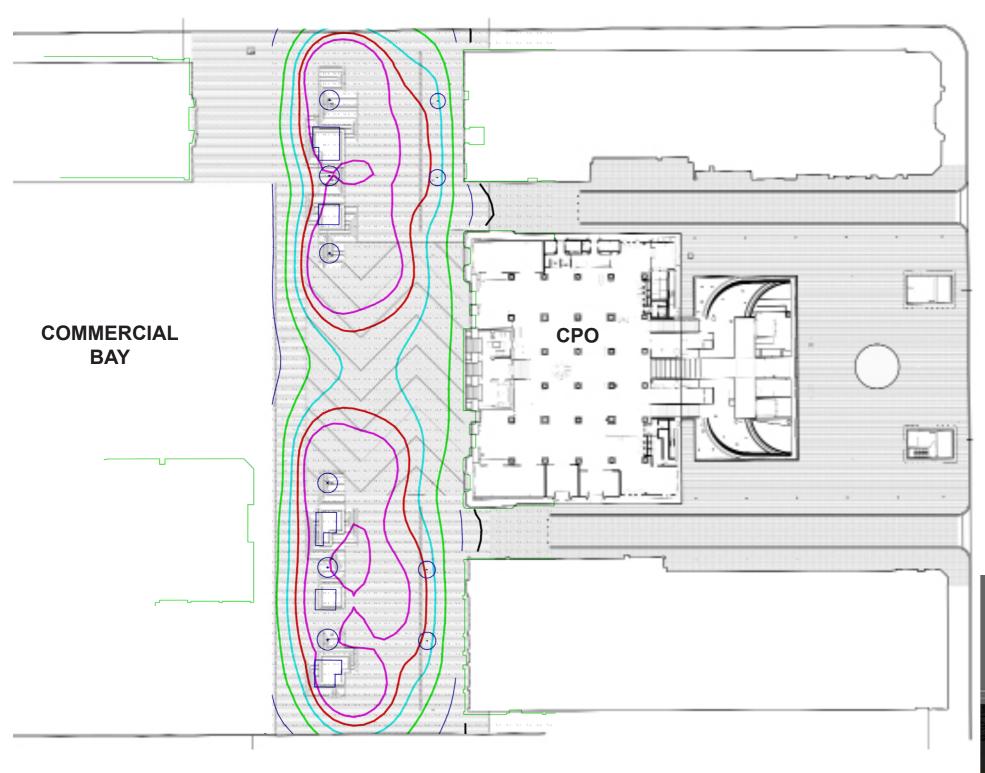


LIGHTING DESIGN-POLE LOCATIONS / ASSEMBLY



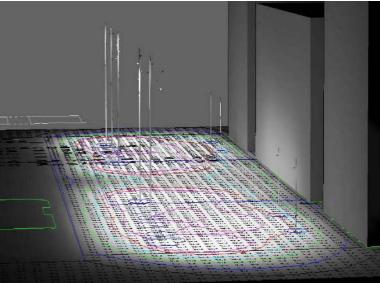
LIGHTING DESIGN-ILLUMINATION DIAGRAM

(DESIGNED IN ACCORDANCE WITH P6/P7 RATINGS)

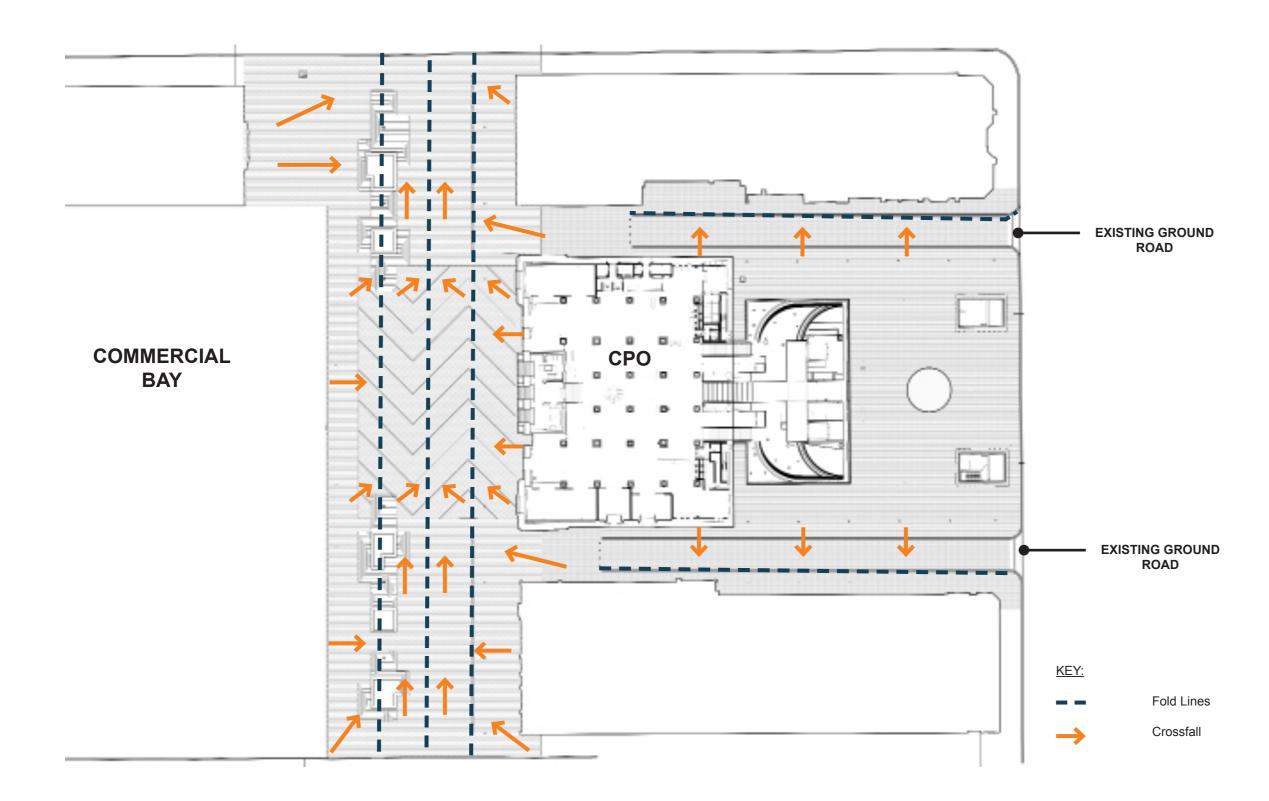


CALCULATIONS:

ILLUMINANCE (LUX)
AVERAGE = 29.17
MAXIMUM = 96.8
MINIMUM= 1.9
AVG / MIN RATIO = 15.35
MAX / MIN RATIO = 50.95

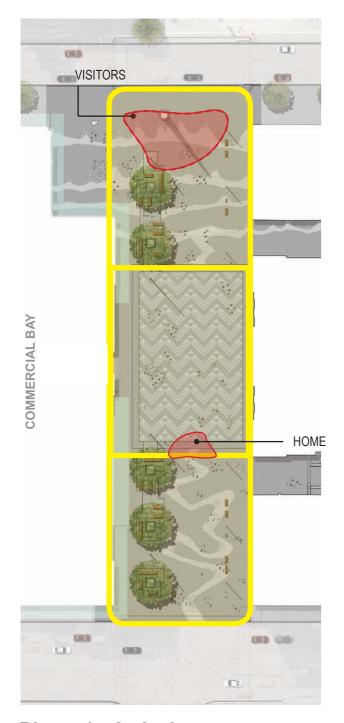


INDICATIVE LEVELS DESIGN / OVERLAND FLOW



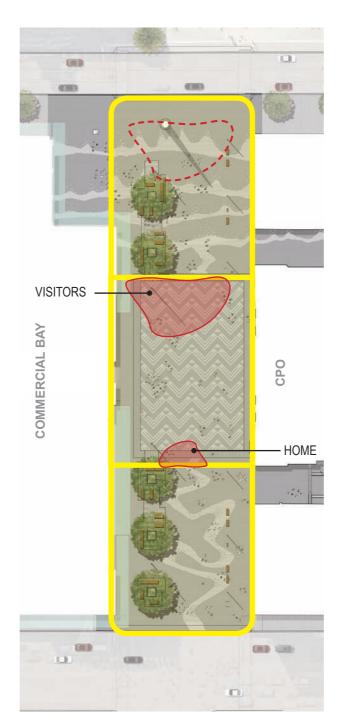
Aurecon | Mott MacDonald | Jasmax | Grimshaw | ARUP

SEQUENCE OF A FORMAL WELCOMING



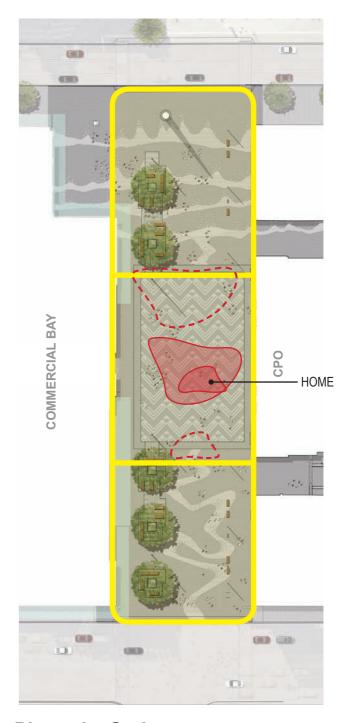
Phase 1 - Arrival

VISITORS- 300 HOME - 100



Phase 2 - Welcome

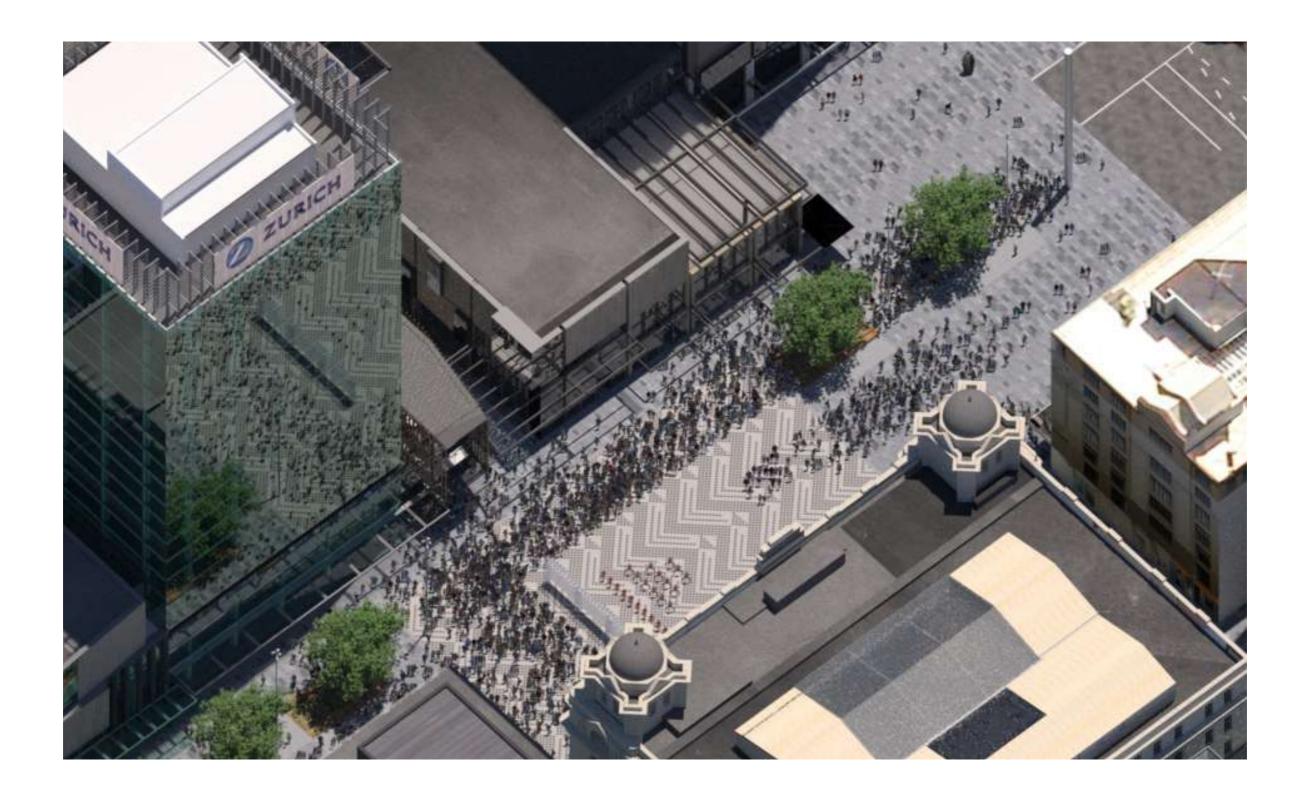
VISITORS- 300 HOME - 100

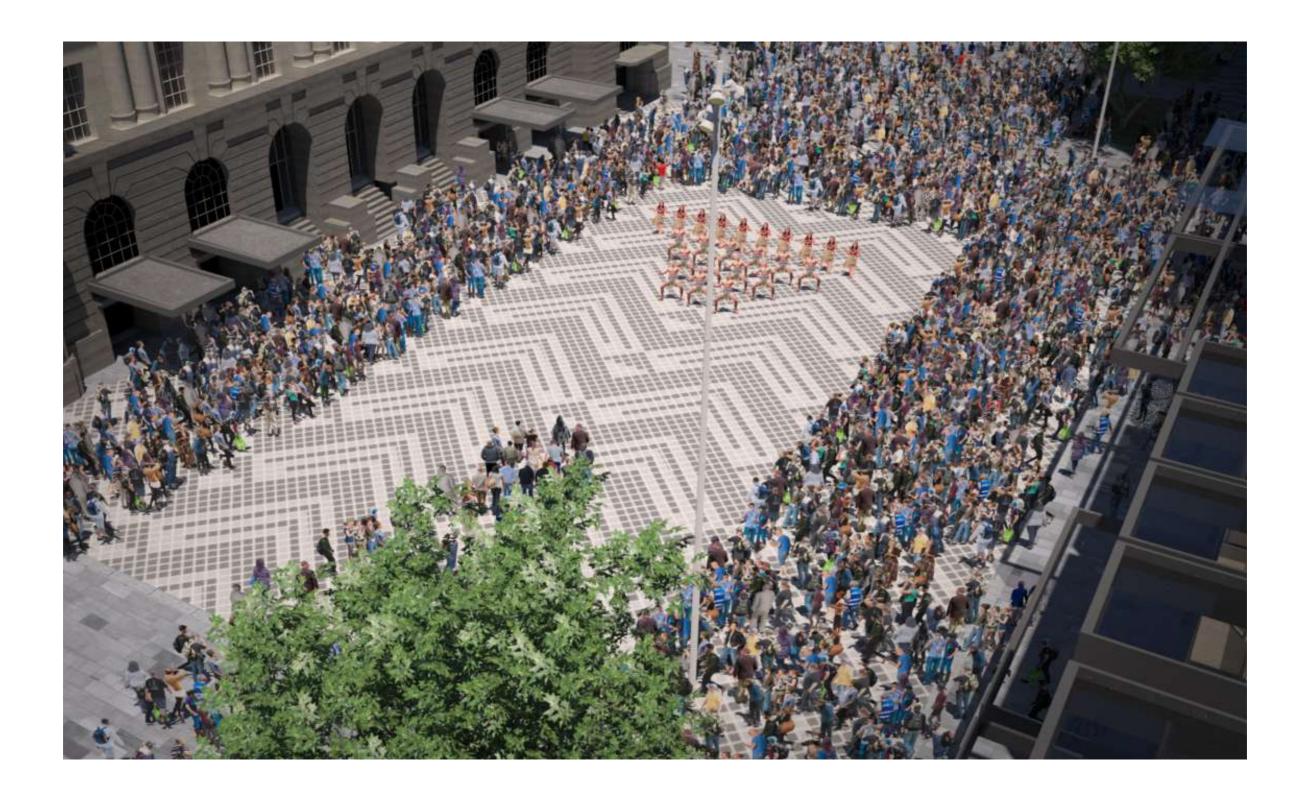


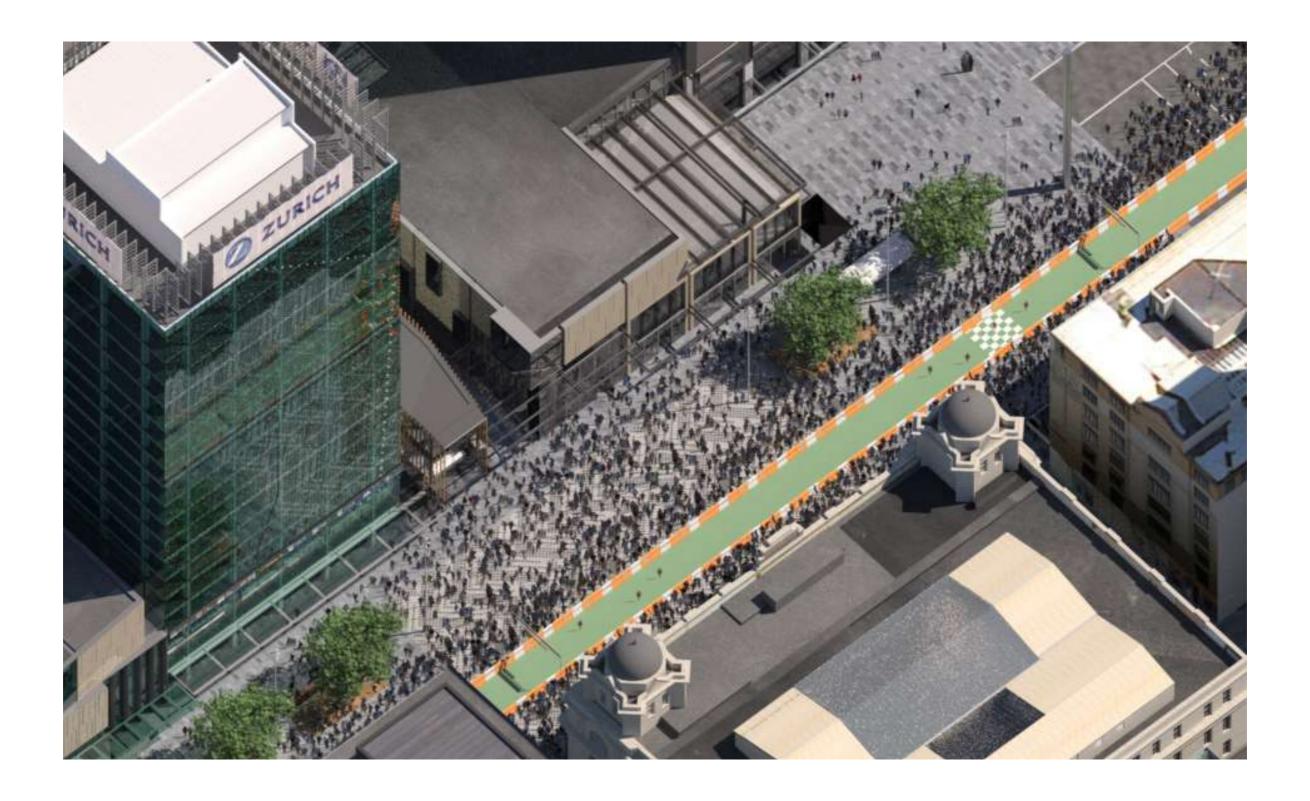
Phase 3 - Gather

HOME - 400











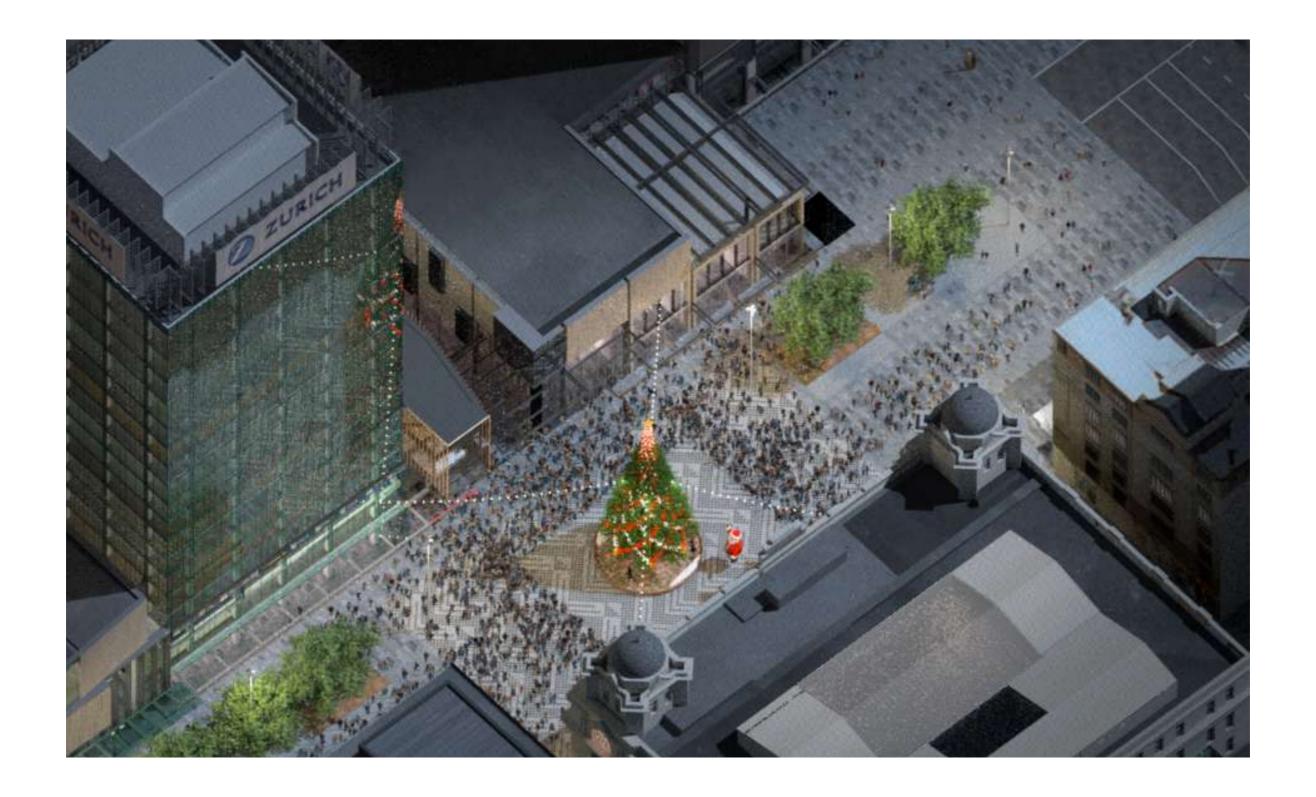




IMAGE REFERENCES

P4

F1. W Young, Eric. Sir George Grey Special Collection, Auckland Libraries, 1021-207. 1989. "Public Square. Aucklander's enjoying the area in front of Britomart Transport Center in 1989 before buses were moved there." Auckland Library, Auckland.

P5

F1. CRL Enabling Works. Public Realm Reference design. 2015. "Auckland Anniversary, 2015." Auckland Council.

P10

F1 - F6. CRL Enabling Works, Public Realm Design. Revised Interim Developed Design. Lower Queen Street. 2015. Boffa Miskell. TCL. Beca. TPC. Calyx. Greenscene NZ.

P13

F1. Barr, John. The City of Auckland, New Zealand, 1840-1920. 1922. "Auckland, 1840, showing the Tents of First Settlers." Whitecombe & Tombs Limited, 1922.

P14

- F1. The New Zealand Insurance Company Limited. 1959. "Auckland Waterfront 1859." New Zealand Insurance Company Limited. Bold Century. Auckland.
- F2. Sir George Grey Special Collections, Auckland Libraries. 1-W913. "Opening of the CPO. 1912." Auckland Library, Auckland.
- F3. Sir George Grey Special Collection, Auckland Libraries, AWNS-19270224-44-6. "Fit for Royals: The CPO decked out for a Royal Visitor in 1927." Auckland Library, Auckland.
- F4. New Zealand Freelance: Photographic prints and negatives. "Lower Queen Street 1930, Car's parked outside the Chief Post Office in the 1930's." 1/2 100894-G. Alexander Turnball Library, Wellington.
- F5. Sir George Grey Special Collection, Auckland Libraries, 1207-881. "Last Tram. Auckland's flocked to Lower Queen Street opposite the Chief Post Office to see the last tram run in 1956." Auckland Library, Auckland.
- F6. W Young, Eric. Sir George Grey Special Collection, Auckland Libraries, 1021-207. 1989. "Public Square. Aucklander's enjoying the area in front of Britomart Transport Center in 1989 before buses were moved there." Auckland Library, Auckland.
- F7. City Rail Link. Stations- Britomart. "Traffic, Buses and some Vehicles such as taxis returned to the space outside the Britomart Transport Center until the start of preparatory works for the CRL. https://www.cityraillink.co.nz/crl-stations-britomart/ (Accessed 2017).

P19.

- F1. Kaiser Tiger. Timeout. "Kaiser Tiger." https://www.timeout.com/chicago/restaurants/kaiser-tiger (Accessed 2017).
- F2. Commercial Bay. "Lower Queen Street- Public Space and Façade." https://www.commercialbay.co.nz/ (Accessed 2017).
- F3. Rijkenberg, Ricky. B+B. Landezine. "Mariahilferstrasse Square." 2014. http://www.landezine.com/index.php/2014/11/mariahilferstrasse-by-bureau-bb/ (Accessed 2017).
- F4. Tyler Street Garage. "Rooftop Bar: The Deck at Ostro." https://www.therooftopguide.com/rooftop-bars-in-auckland/tyler-street-garage.html (Accessed 2017).
- F5. Champions of the World. Auckland and Queen Street." http://www.champions.co.nz/stores (Accessed 2017).

P22

- F1. HRI. "Christchurch Cathedral Square." 2016. http://humanrobotinteraction.org/2016/attending/ (Accessed 2017).
- F2. Auckland Design Manual. Civic Space. "Aotea Square, central Auckland." http://www.aucklanddesignmanual.co.nz/project-type/parks/hub/civic-space/guidance/enjoy/design-formore-use-and-a-range-of-experiences (Accessed 2017).
- F3. Bear & Plants. Wellington City. "Wellington Civic Square." http://bearandplants.com/travelling/wellington-city/ (Accessed 2017).

P23

- F1. Rotenstein, John. Wikimedia Commons. "Martin Place, Sydney." 2005. https://commons.wikimedia.org/wiki/File:Martin_Place,_Sydney.jpg (Accessed 2017).
- F2. Rijkenberg, Ricky. B+B. Landezine. "Mariahilferstrasse Square." 2014. http://www.landezine.com/index.php/2014/11/mariahilferstrasse-by-bureau-bb/ (Accessed 2017).
- F3. Pinterest. "Melbourne Federation Square." https://www.pinterest.com/pin/407364728764882761/ (Accessed 2017).
- F4. Mayoral of London, London Assembly. Trafalgar Square. "London Trafalgar Square." https://www.london.gov.uk/about-us/our-building-and-squares/trafalgar-square> (Accessed 2017).

P25

F1. Rijkenberg, Ricky. B+B. Landezine. "Mariahilferstrasse Square." 2014. http://www.landezine.com/index.php/2014/11/mariahilferstrasse-by-bureau-bb/ (Accessed 2017).

P26

- F1. Rotenstein, John. Wikimedia Commons. "Martin Place, Sydney." 2005. https://commons.wikimedia.org/wiki/File:Martin_Place,_Sydney.jpg (Accessed 2017).
- F2. ArchitectureAu. Martin Place to become Urban Patio. "The proposed new Martin Place by the CITY OF Sydney." https://architectureau.com/articles/martin-place-to-become-urban-patio/ (Accessed 2017).

IMAGE REFERENCES

P31

F3. CRL Enabling Works. Public Realm Reference design. 2015. "Manawhenua." Auckland Council.

P32

- F1. City Rail Link. Manawhenua Icons. "Te Ākitai Waiohua, Te Kawerau a Maki, Ngāti Maru, Ngāti Paoa, Ngāti Te Ata Waiohua, Ngāti Tai ki Tāmaki, Ngāti Tamaoho and Ngāti Whātua o Ōrākei." https://www.cityraillink.co.nz/crl-sustainability-kaitiakitangi/ (Accessed 2017).
- F2. Free Great Picture. 2016. "Blue Skies Blue Sunny Ocean Sea Water Sparking." http://maxpixel.freegreatpicture.com/Blue-Skies-Blue-Sunny-Ocean-Sea-Water-Sparkling-974228 (Accessed 2017).
- F3. Van Dijk, Marion. Fair Fax NZ. 2017. "Pohutukawa Tree." http://www.stuff.co.nz/business/farming/92221112/Potentially-deadly-disease-to-pohutukawa-and-manuka-arrives-in-Northland (Accessed, 2017).
- F4. Zugr. 2013. < https://unsplash.com/collections/153951/flow?photo=asrWX-IU3RE> (Accessed 2017).
- F5. The First Immigrant Ships. 2001. "Auckland waterfront 1844 Drawing." http://homepages.ihug.co.nz/~tonyf/first/settlers.html (Accessed 2017).
- F6. Wellington Scoop. Hilary Clinton's first Powhiri. 2010. "Kapa Haka." http://img.scoop.co.nz/stories/images/1011/f284c1452afcc7e800da.jpeg (Accessed 2017).

P34

- F1. Wellington Scoop. Hilary Clinton's first Powhiri. 2010. "Kapa Haka." http://img.scoop.co.nz/stories/images/1011/f284c1452afcc7e800da.jpeg (Accessed 2017).
- F2. Schollum, C.A. Te Whatu Taniko. "Aramoana pattern, cloak 1497." From the collection of the Auckland Institute and Museum.
- F3. Otakaro Limited. "Ngā Whāriki Manaaki, stone weaving patterns." 2017. https://www.otakaroltd.co.nz/anchor-projects/avon-river-precinct/ (Accessed 2017).

P55

F1, 2. Lightworks Ltd Lighting Design. 2017. Light design calculation drawings.

P58

F1. Sir George Grey Special Collections, Auckland Libraries. 1-W913. "Opening of the CPO. 1912." Auckland Library, Auckland.