

studiopacificarchitecture

Taupō District Council Civic Administration Building

Concept Design Ideas

Prepared for the Taupō District Council
March 2020



GREAT LAKE TAUPŌ
Taupō District Council

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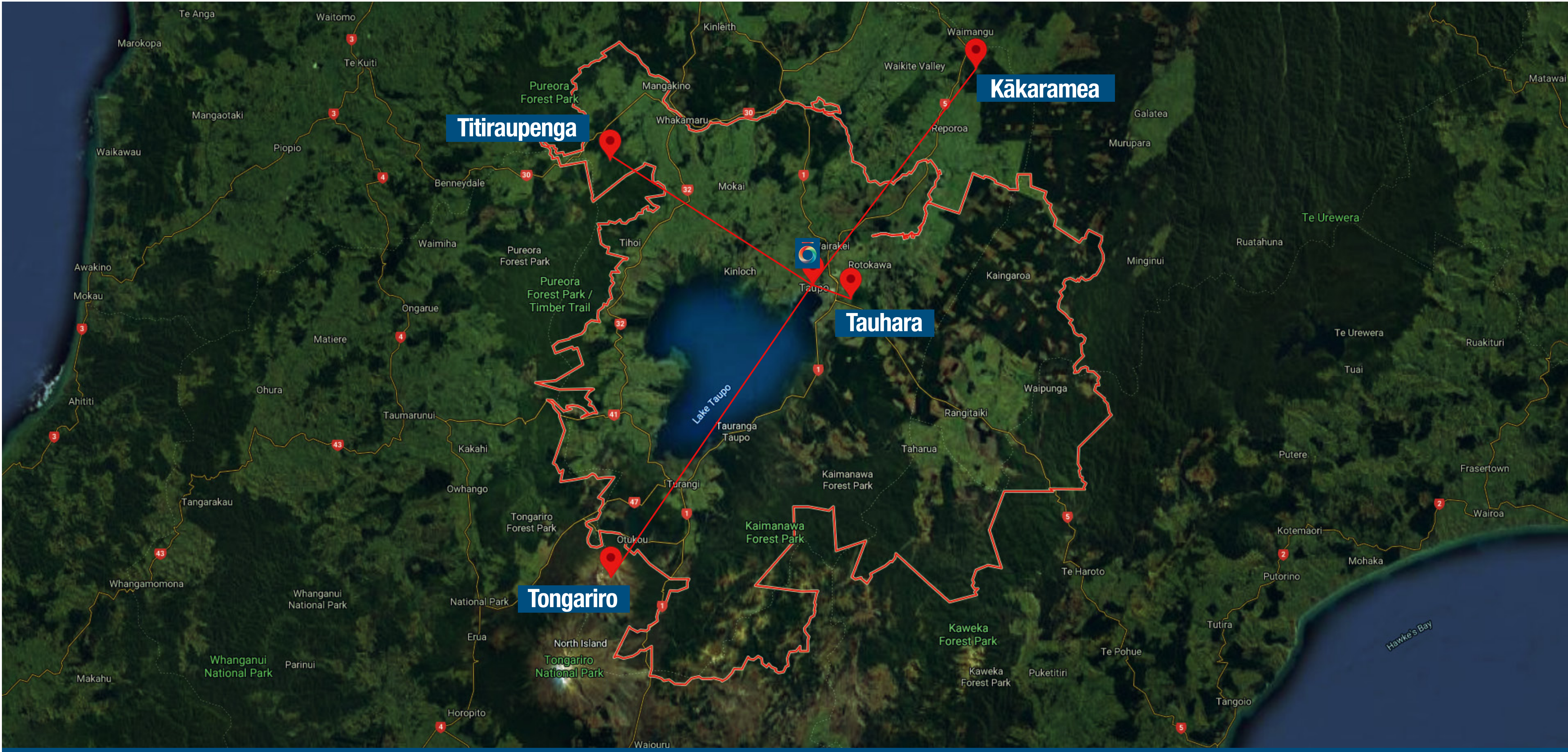
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The District

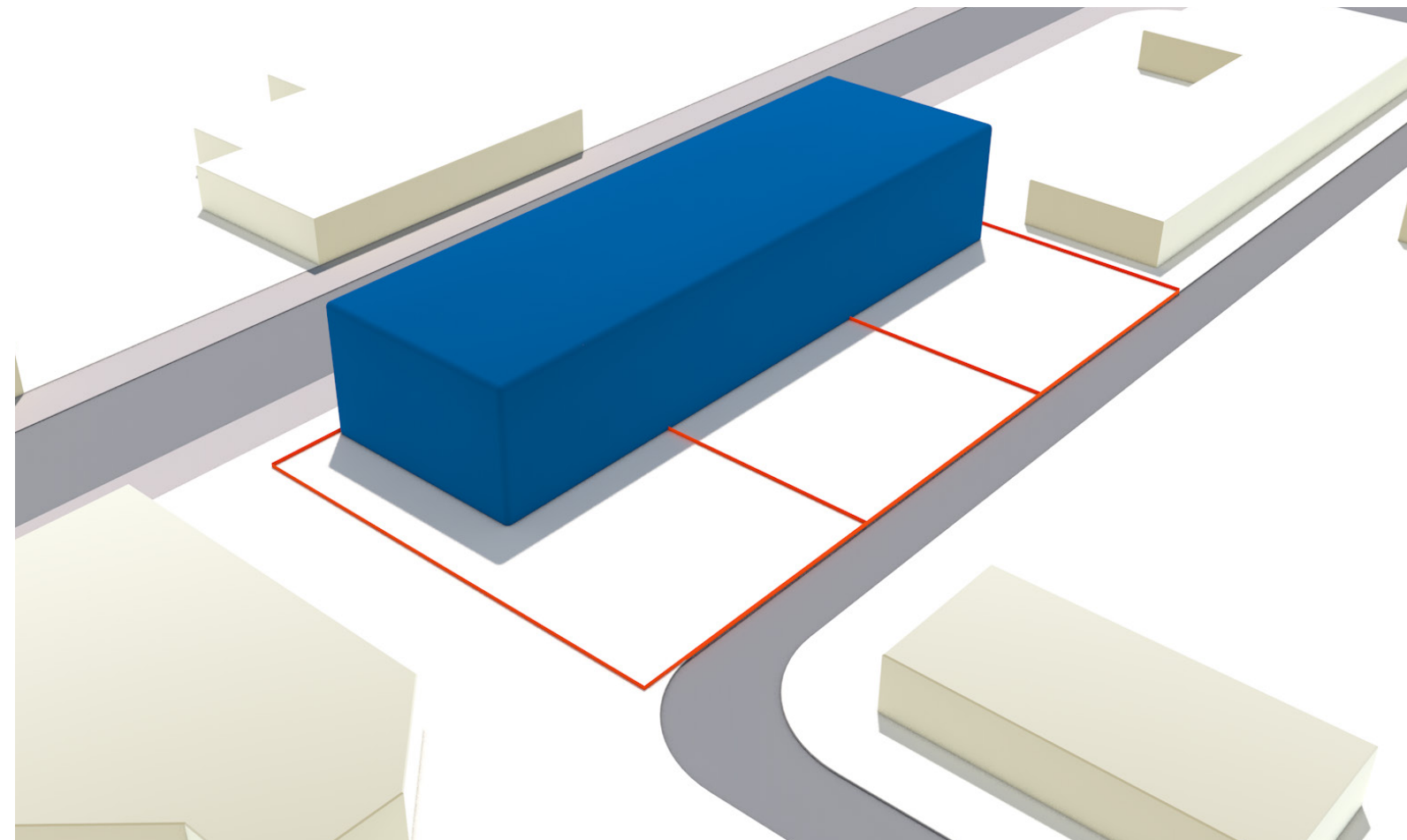
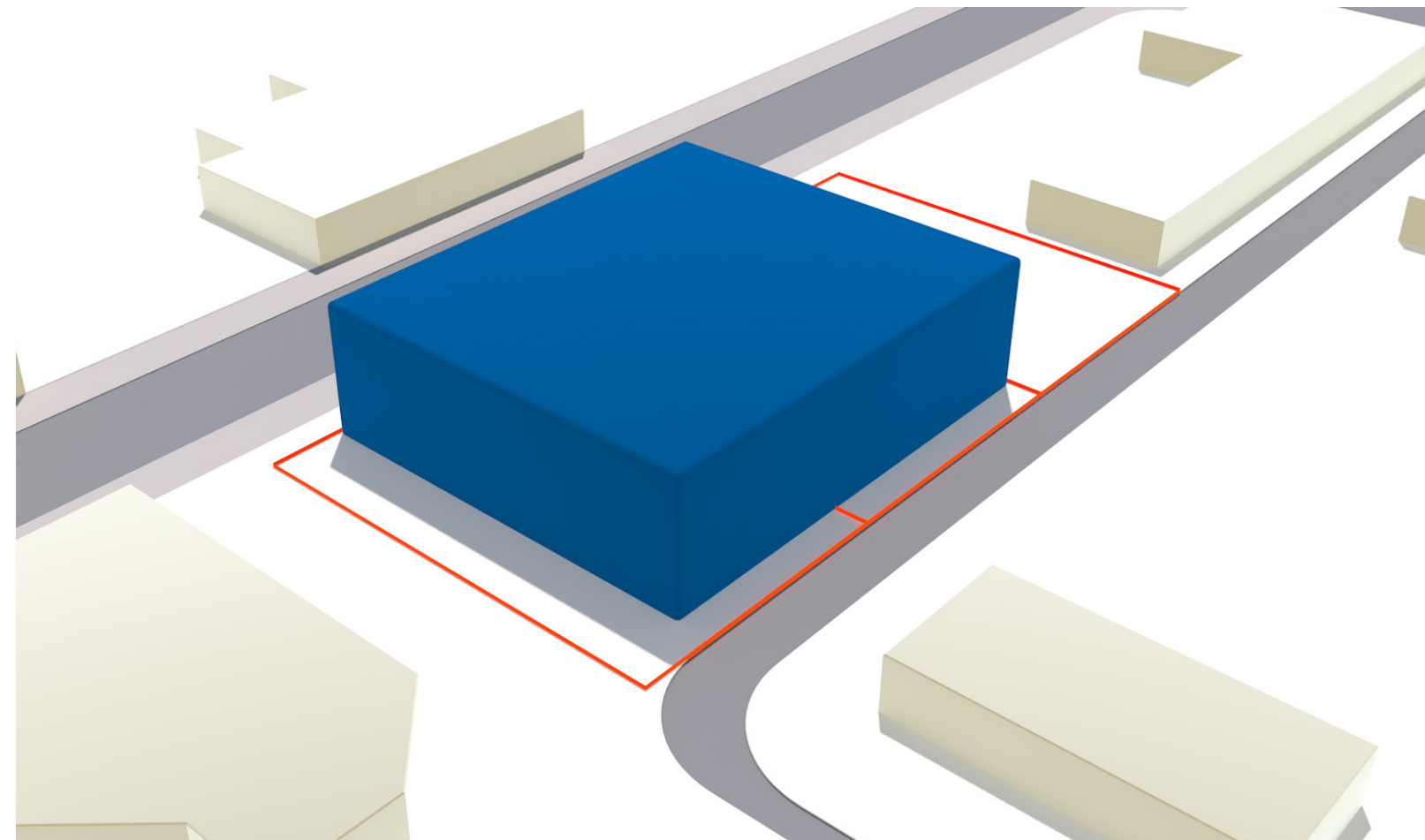
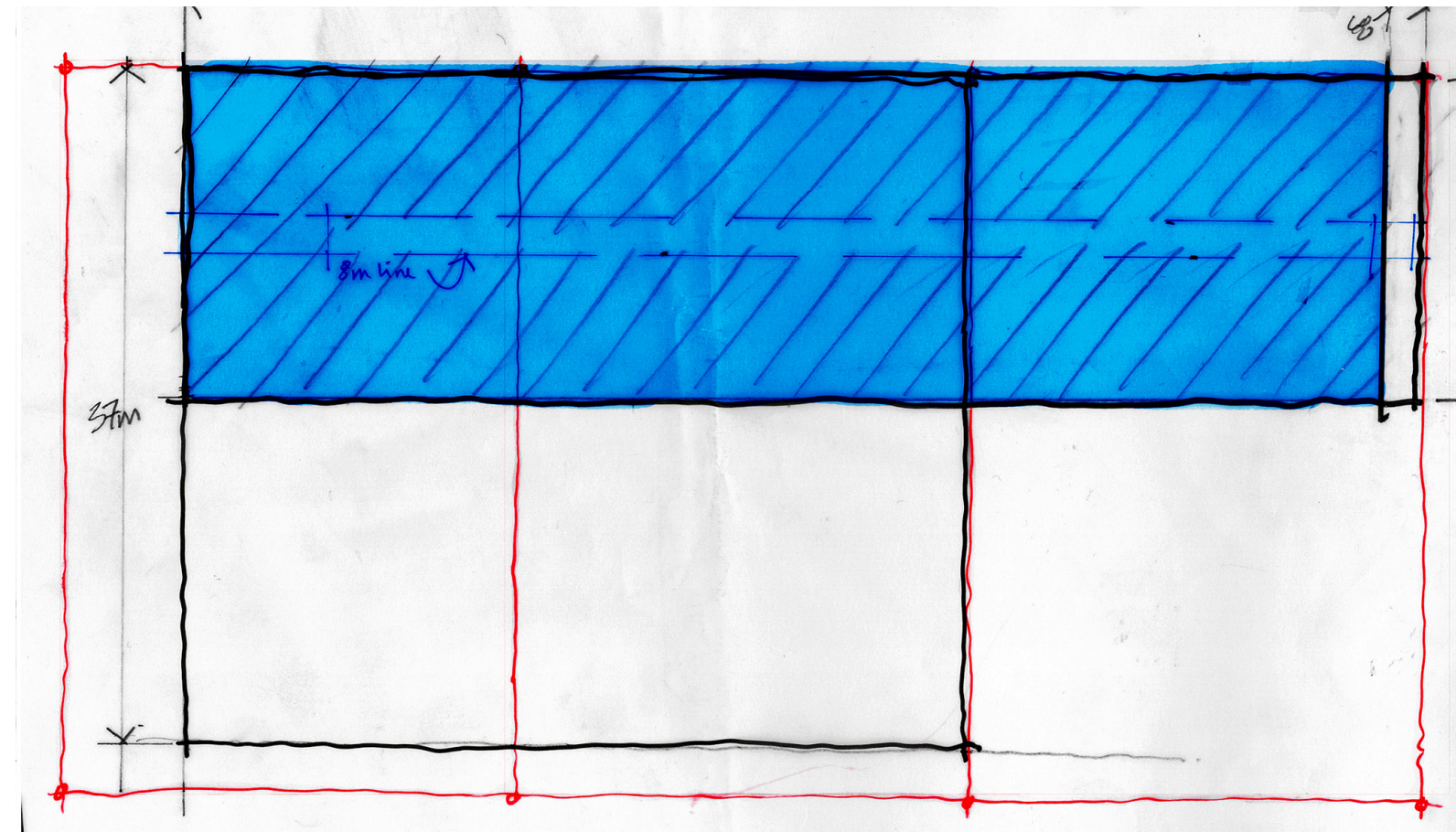
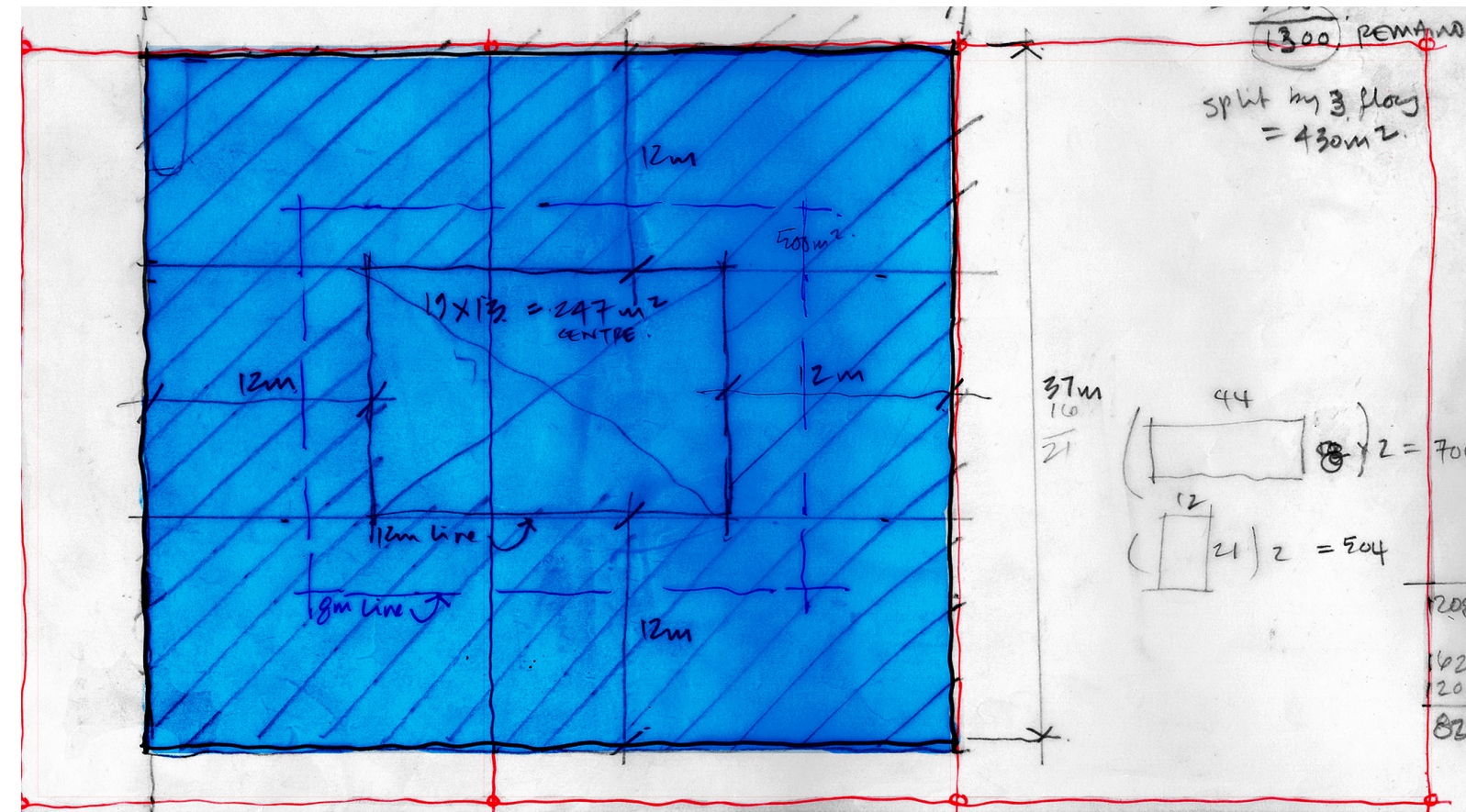


The Site

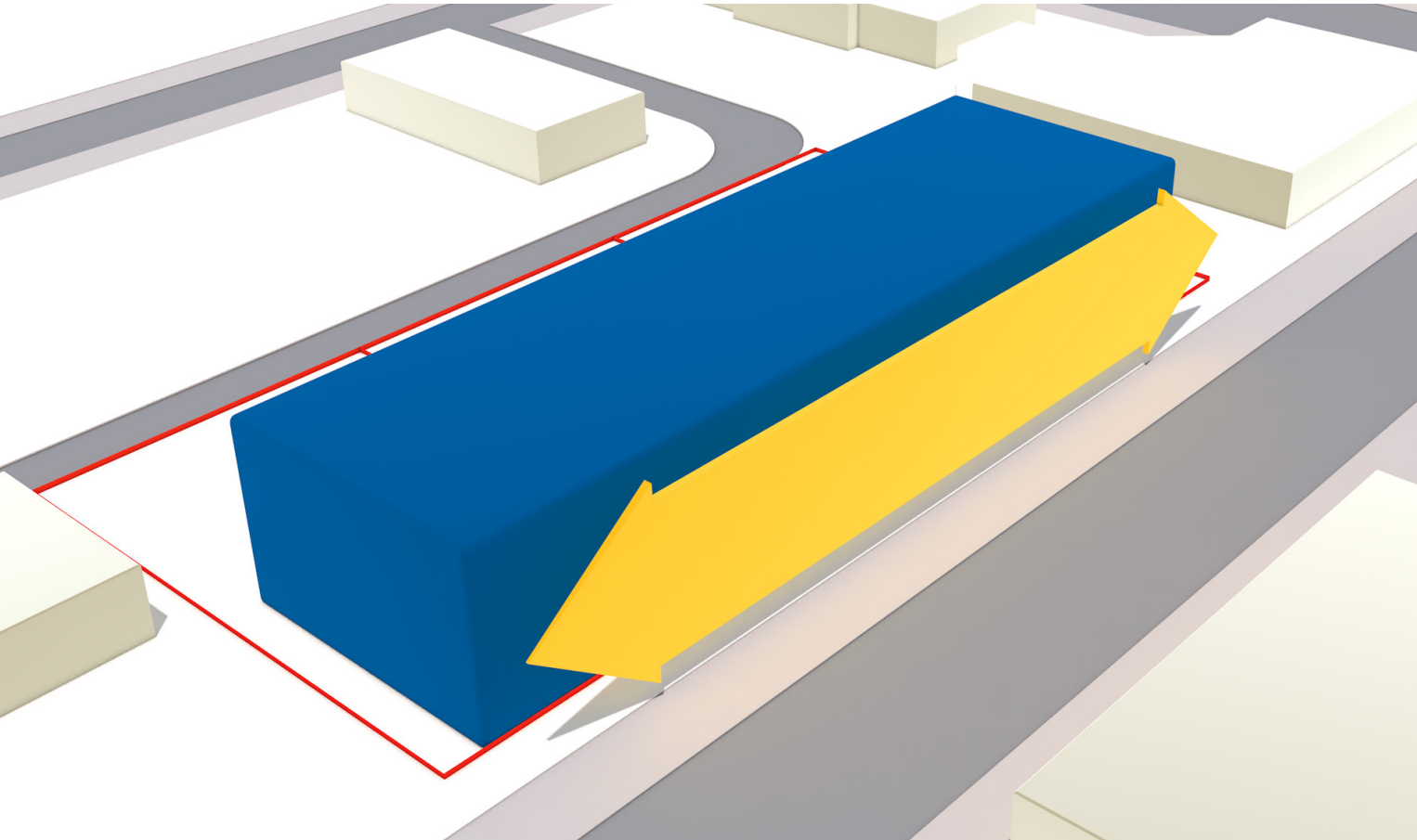


Square vs. Rectangular

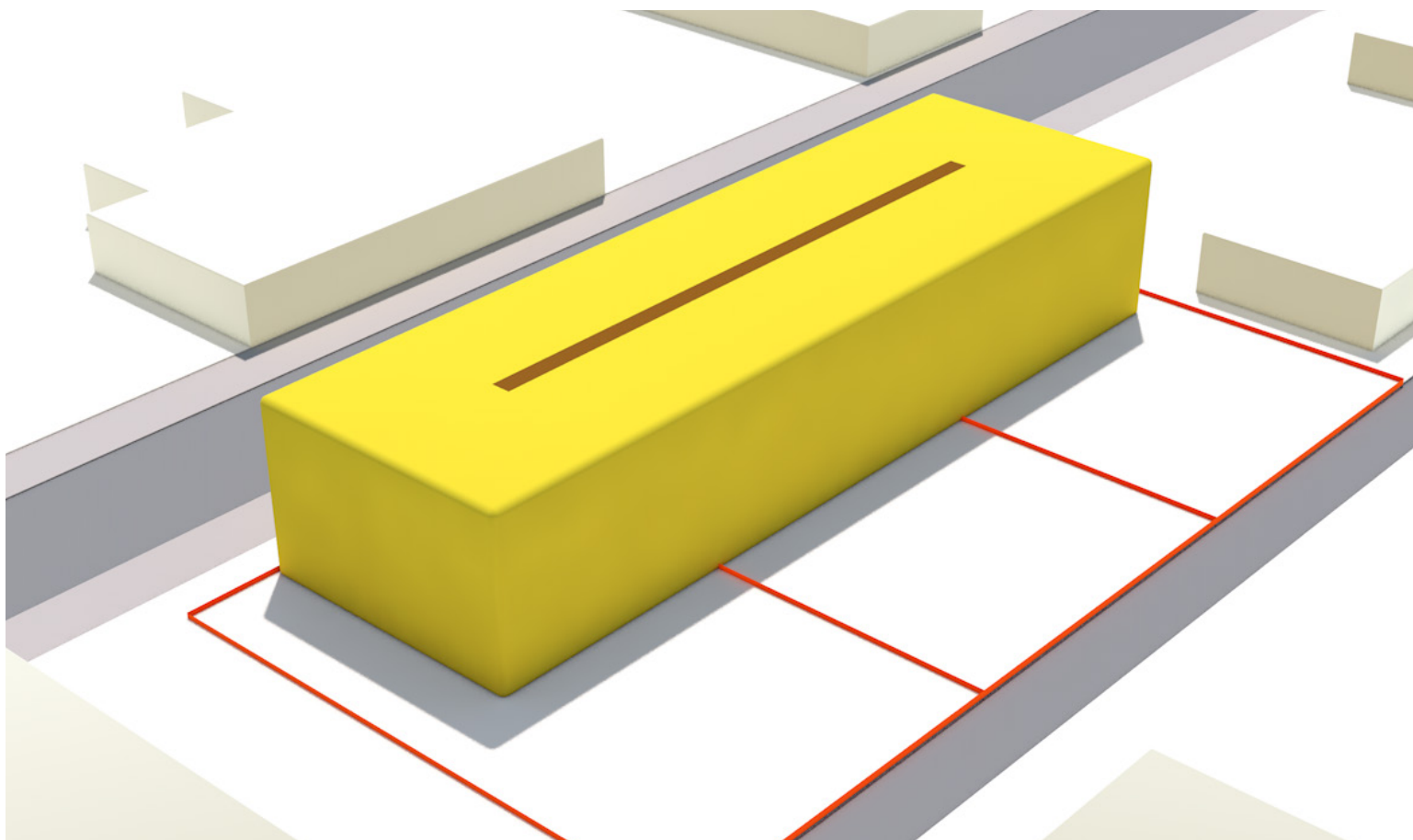
Massing Comparison



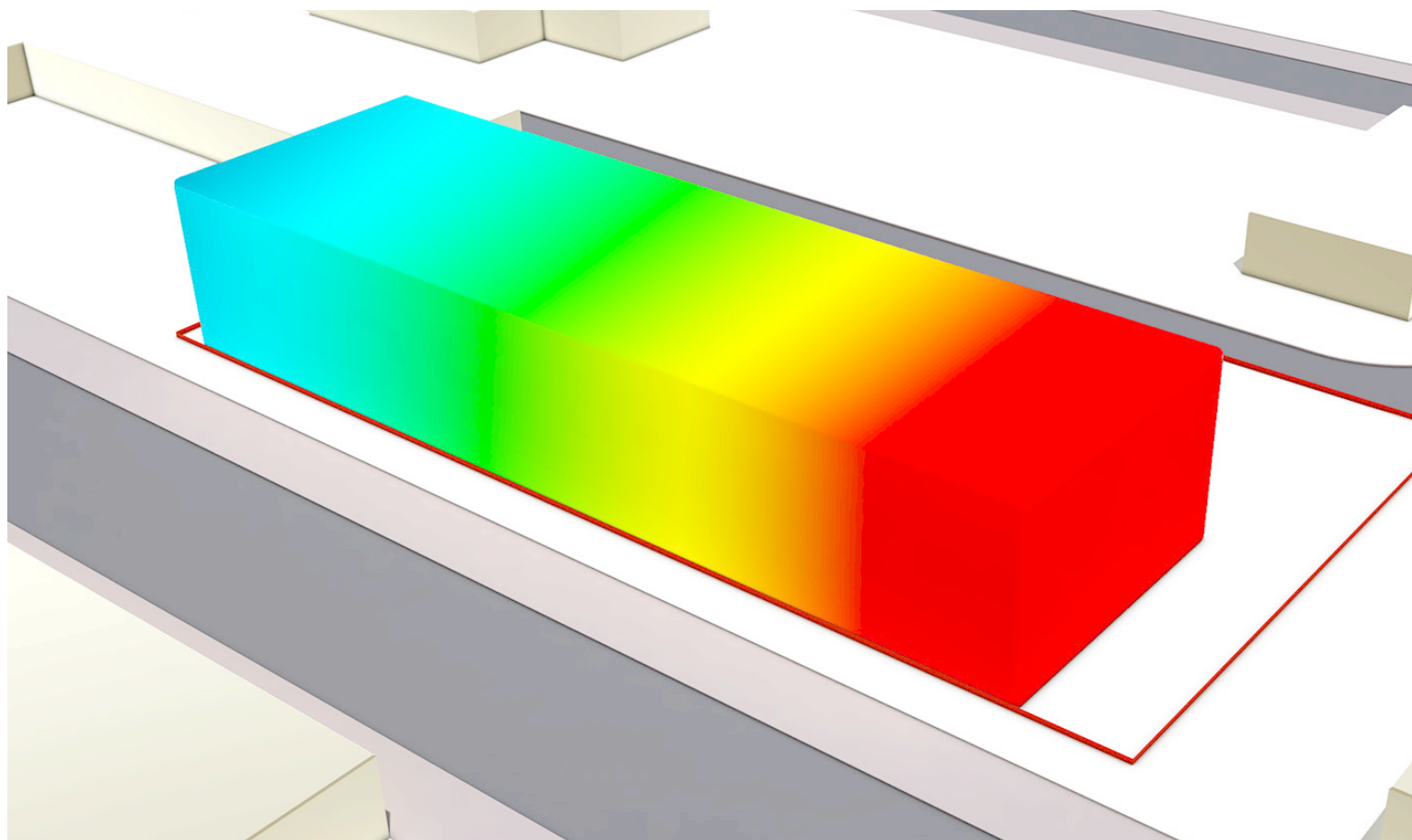
Rectangular Scheme Advantages



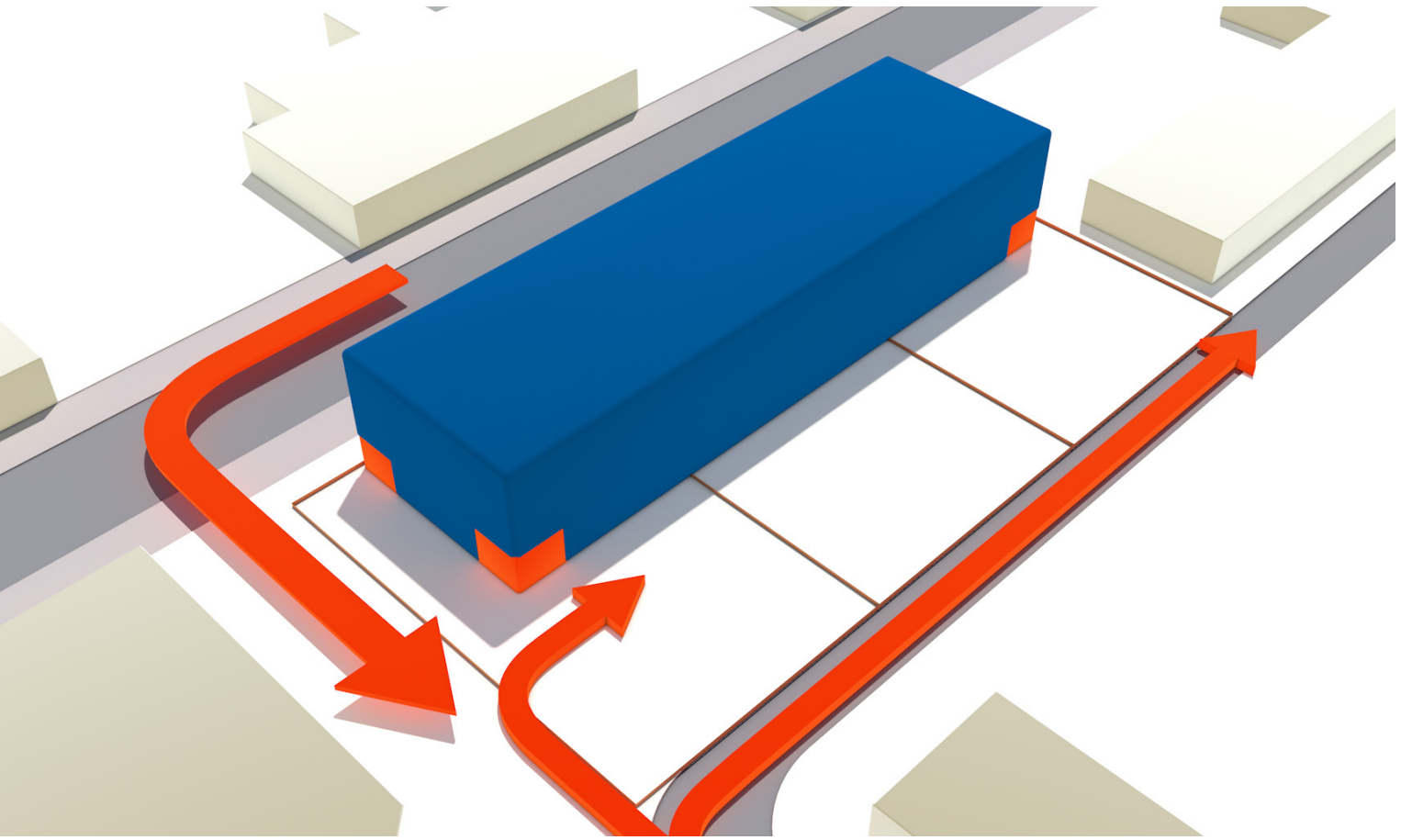
Frontage Study



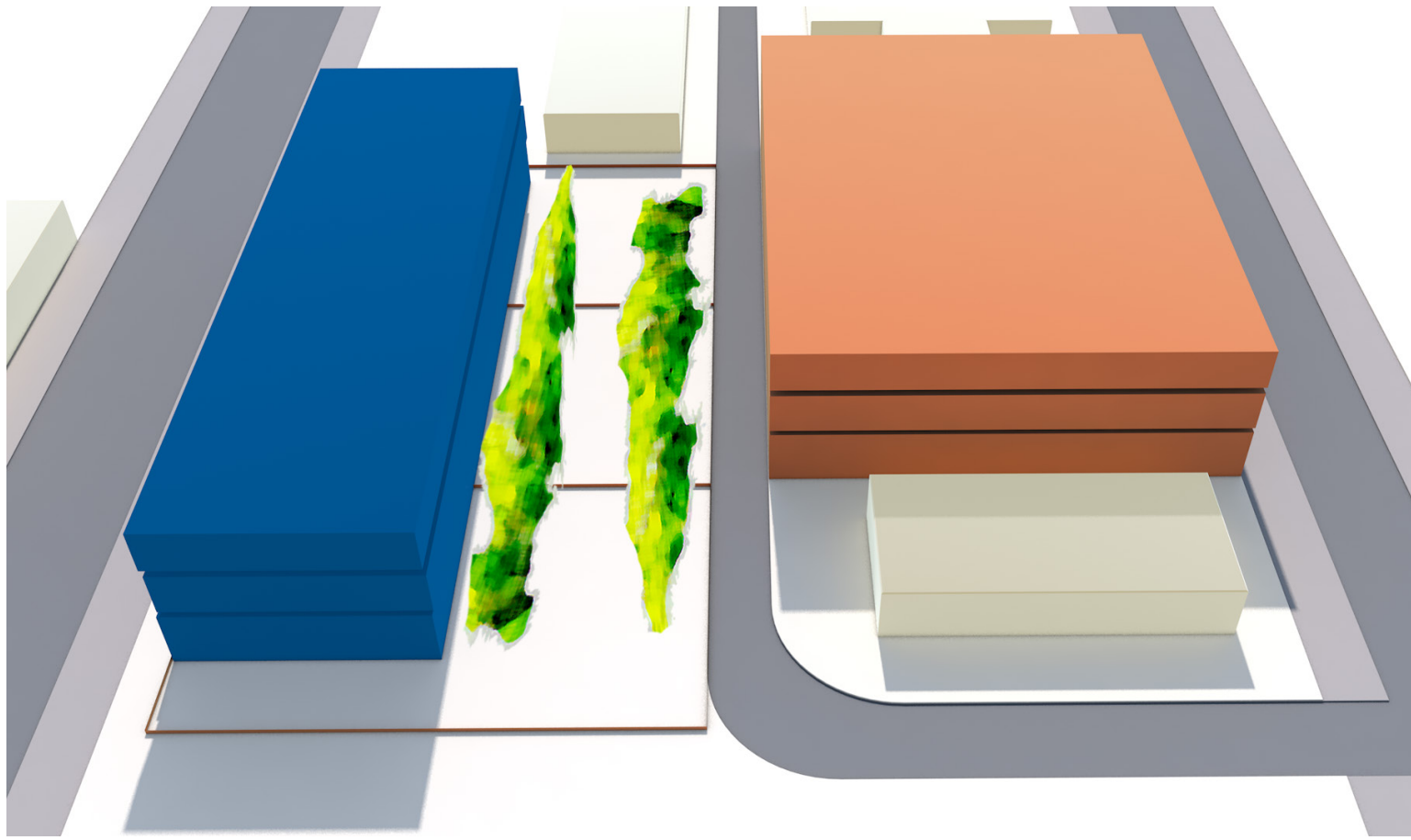
Daylight Access Study



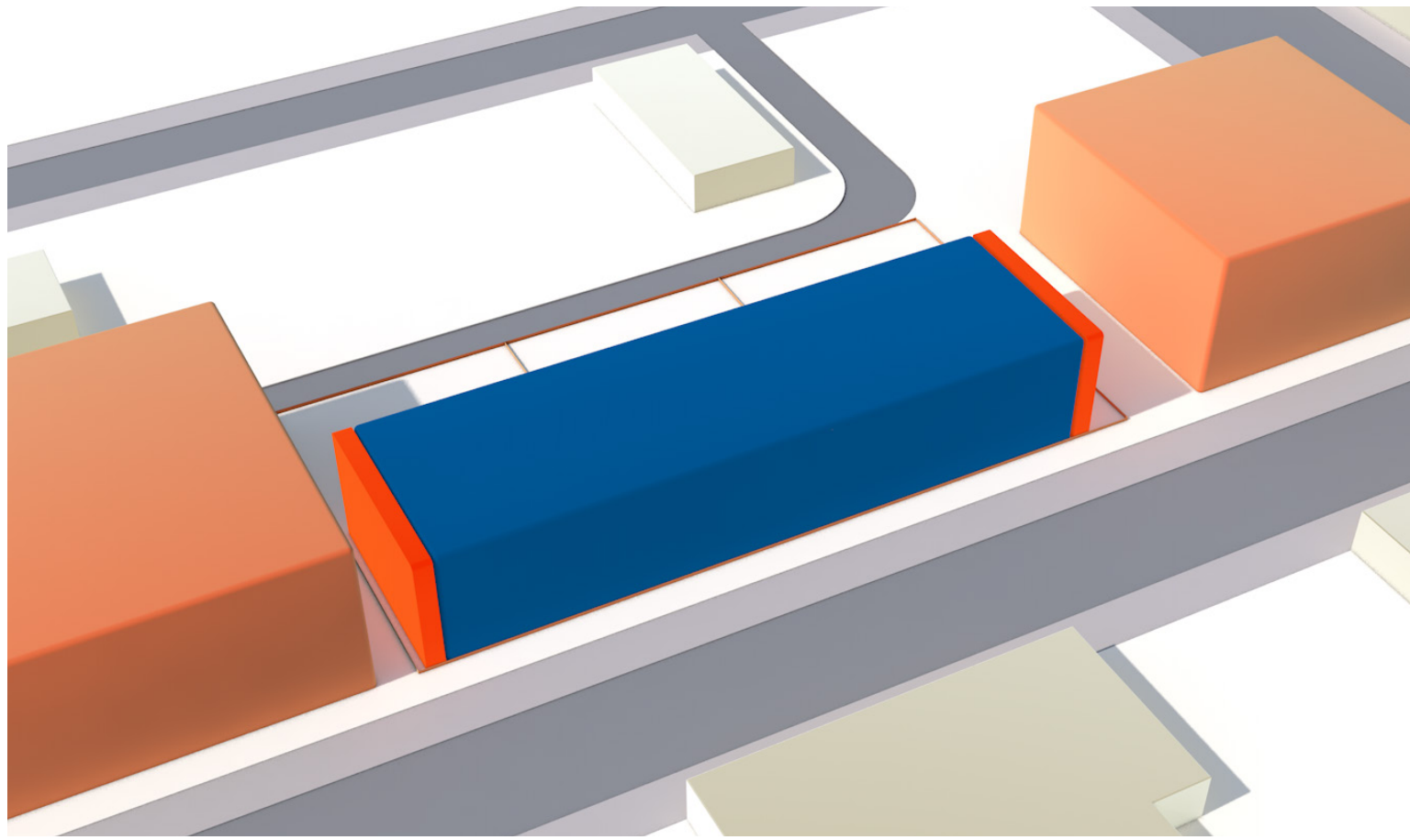
Orientation Study



Traffic Study



Lane Study



Neighbours Study

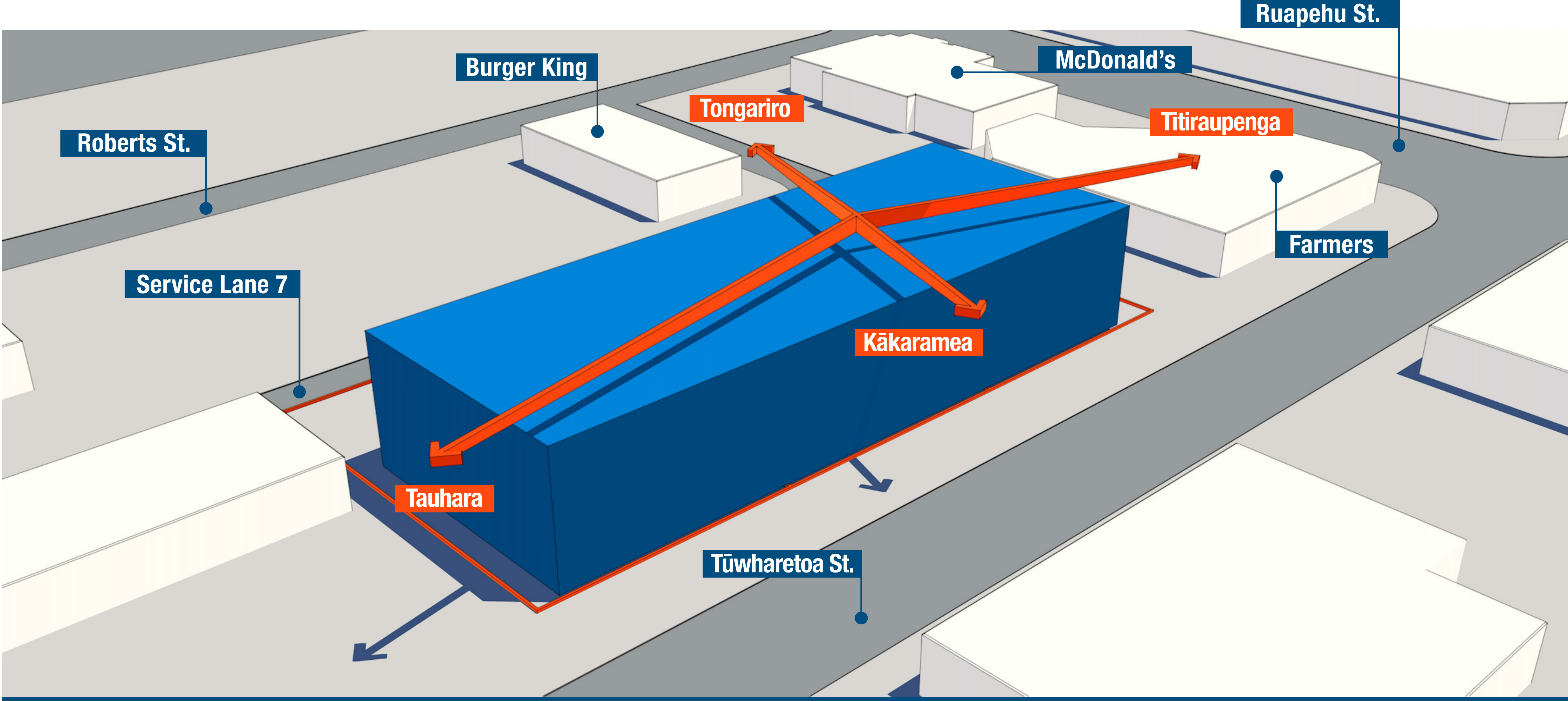


Key Ideas

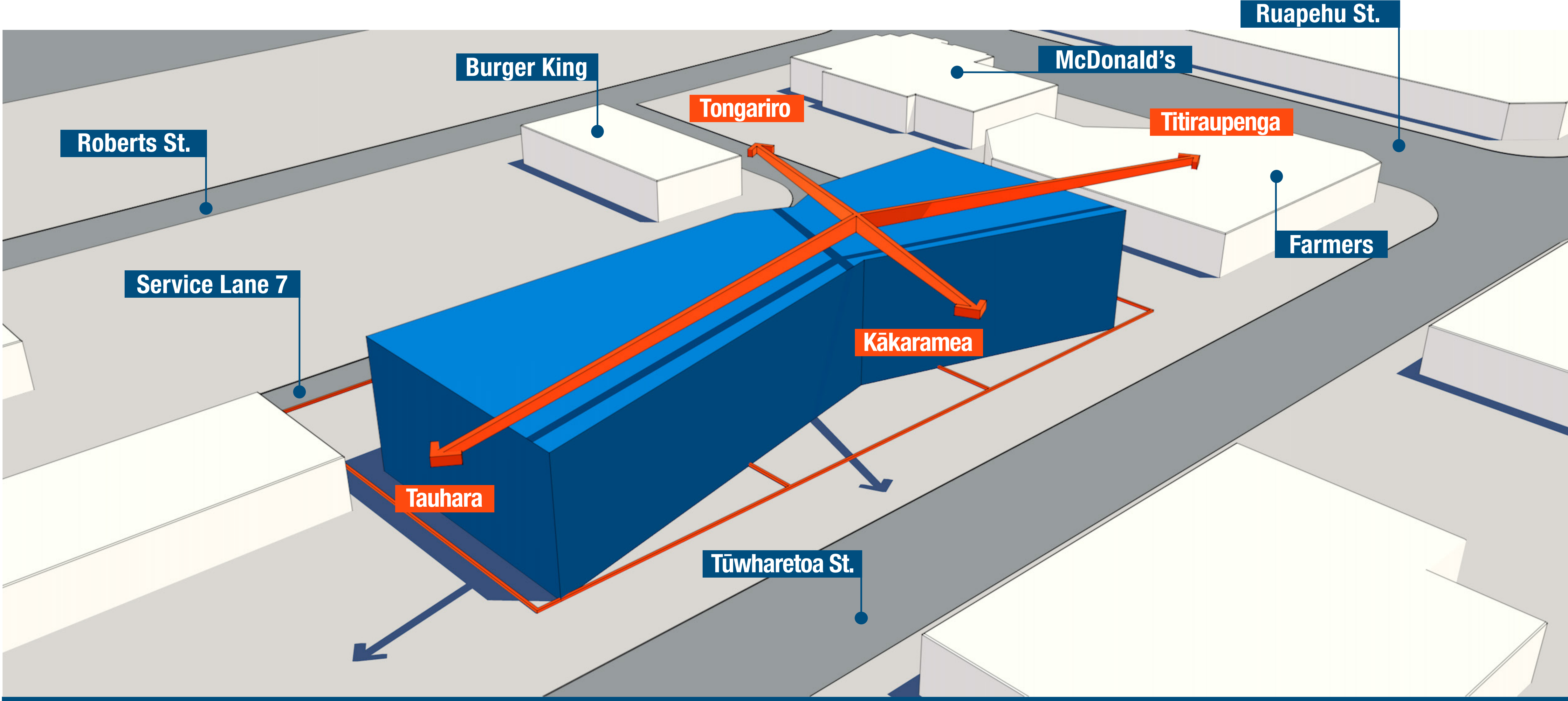
Four Maunga



Four Maunga



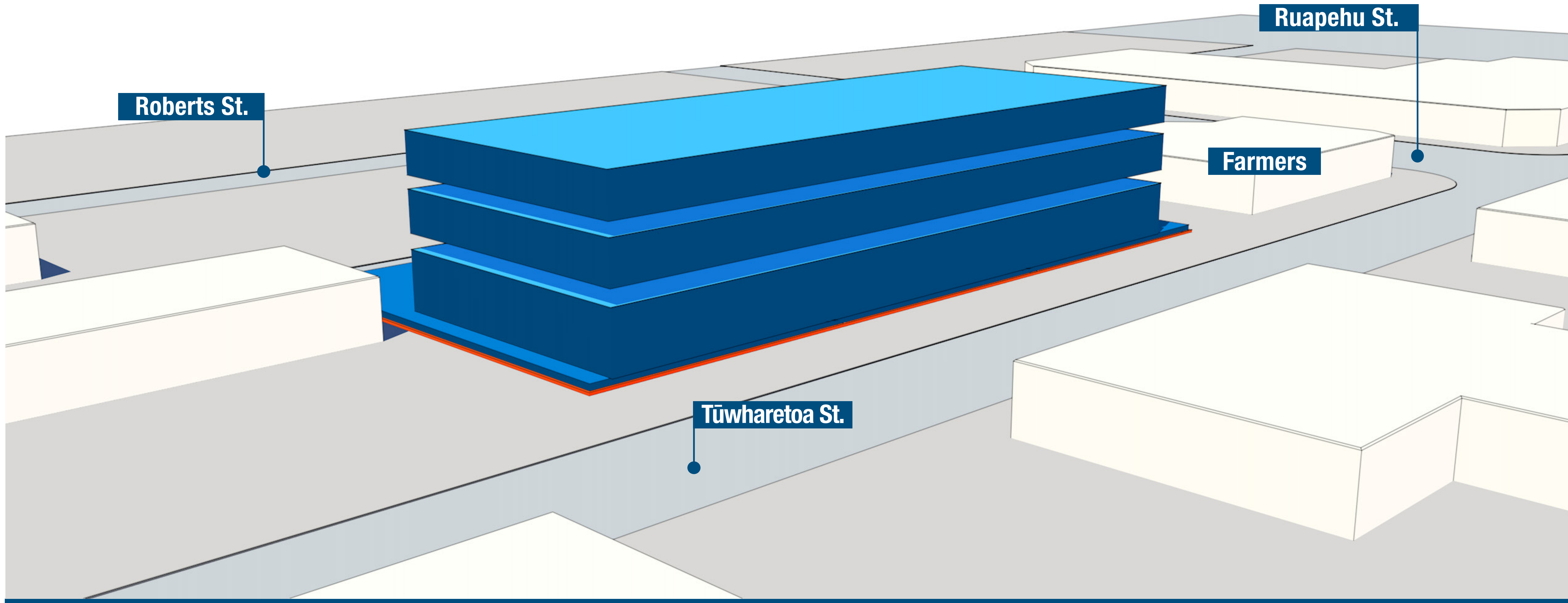
Four Maunga



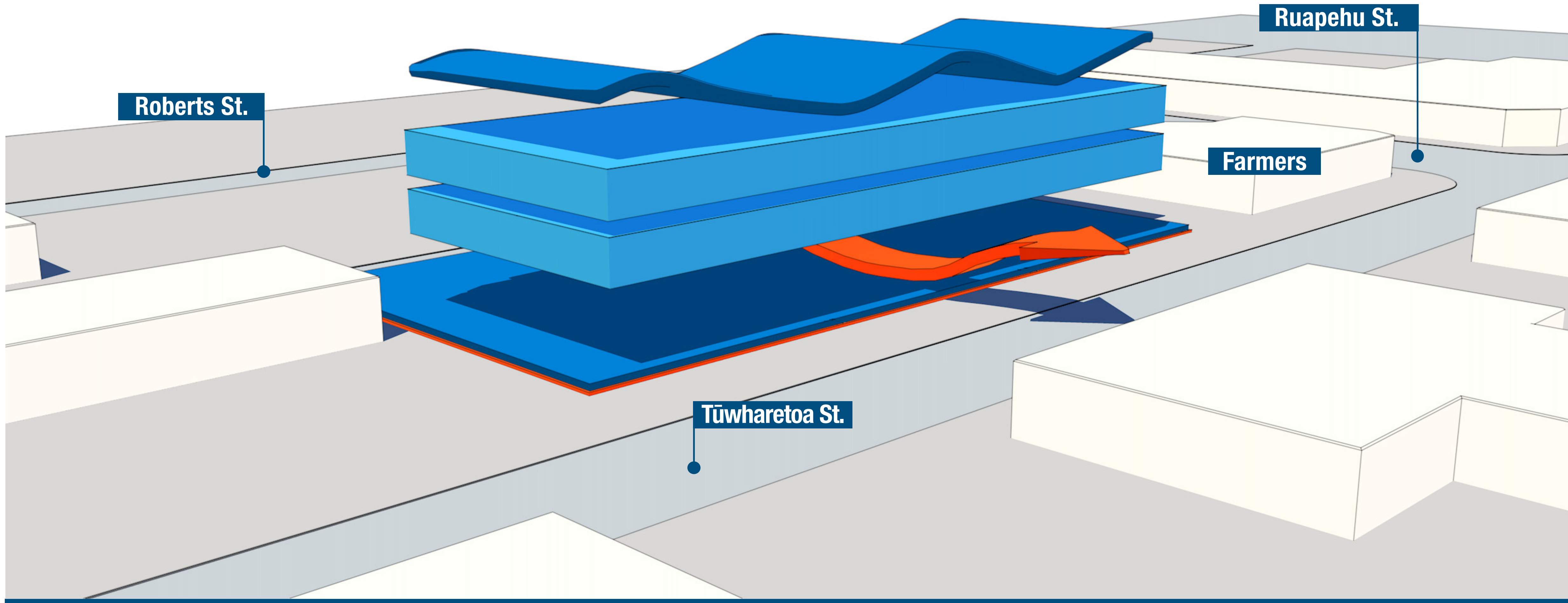
Earth & Sky



Earth & Sky



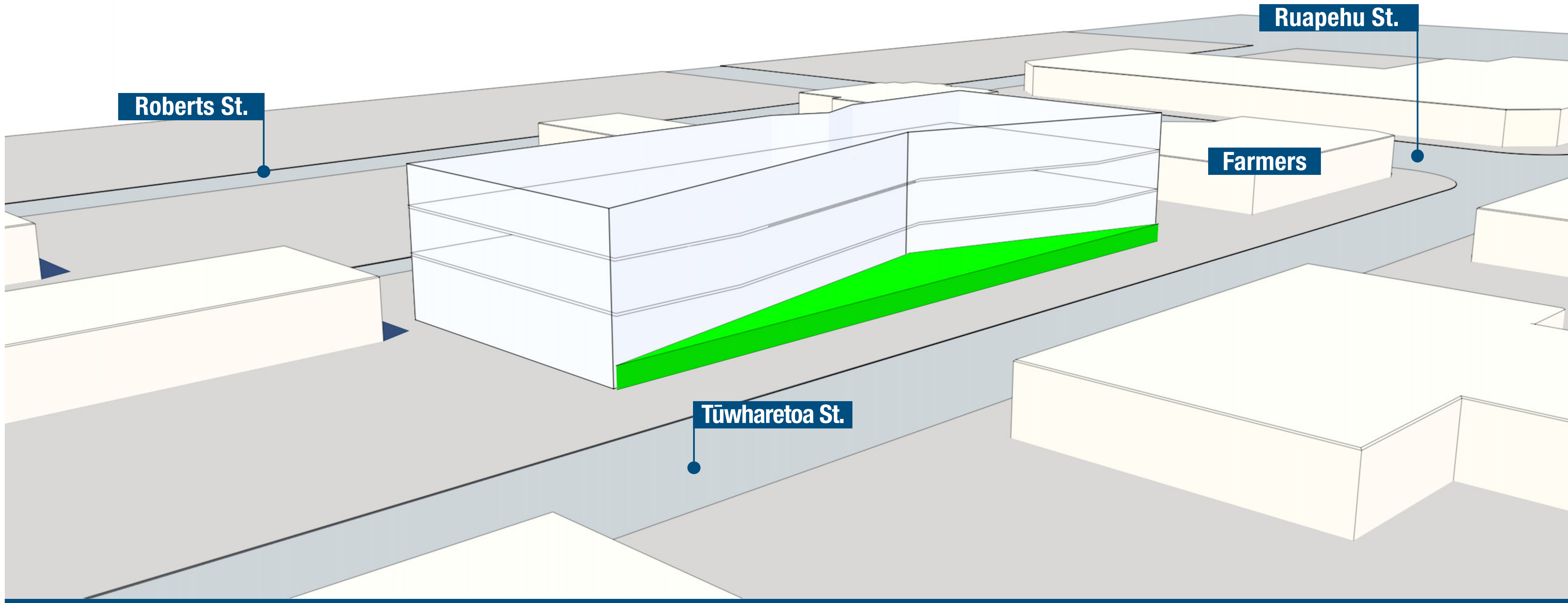
Earth & Sky



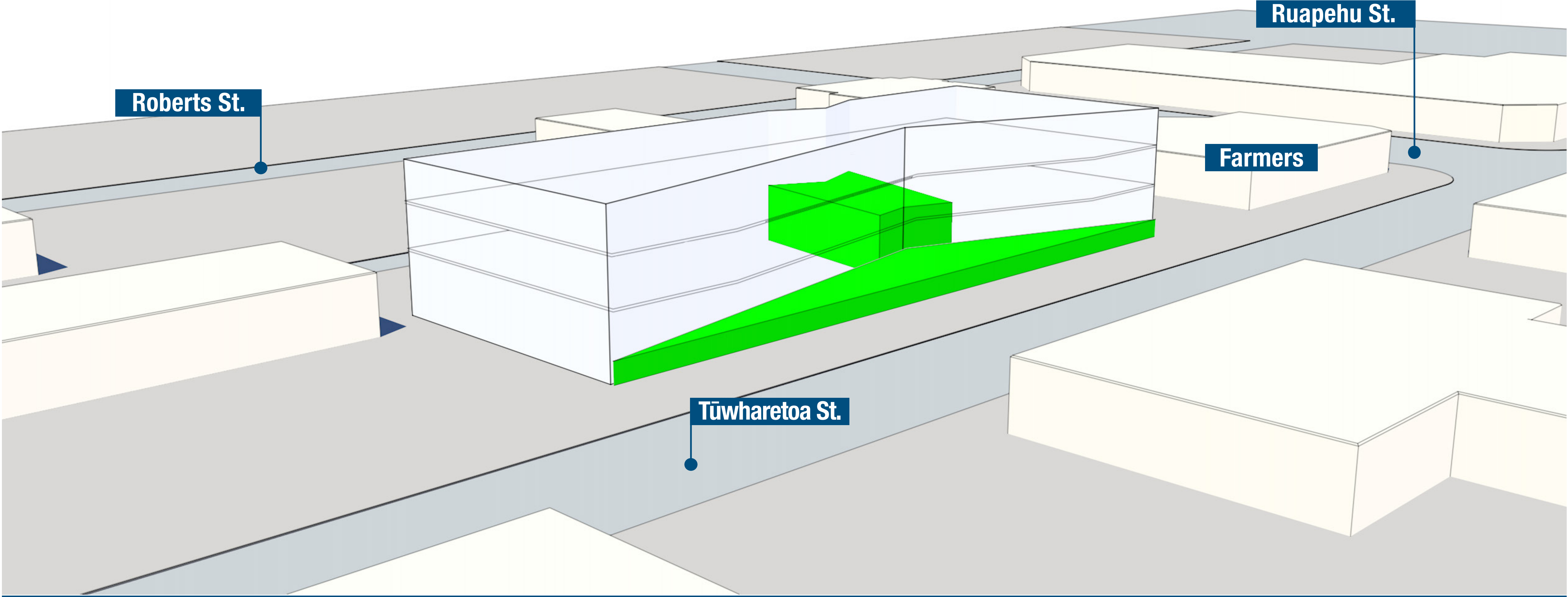
Natural World



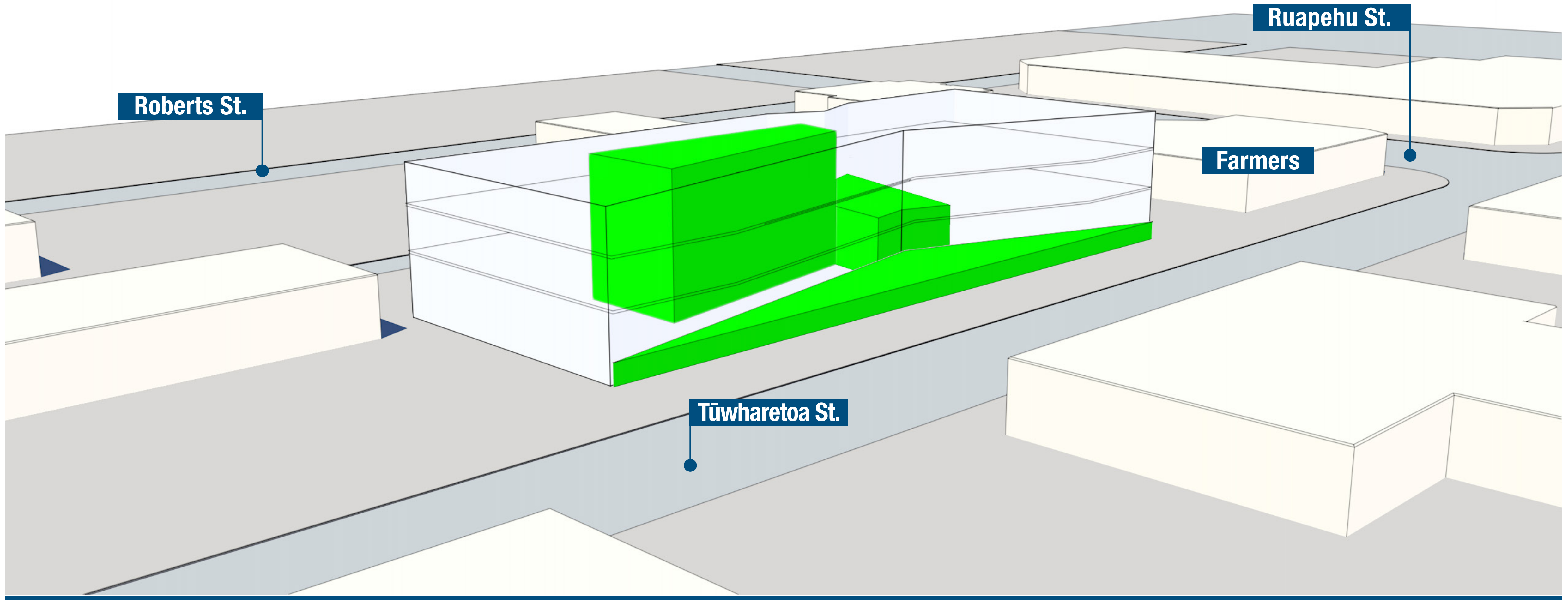
Entry Plaza



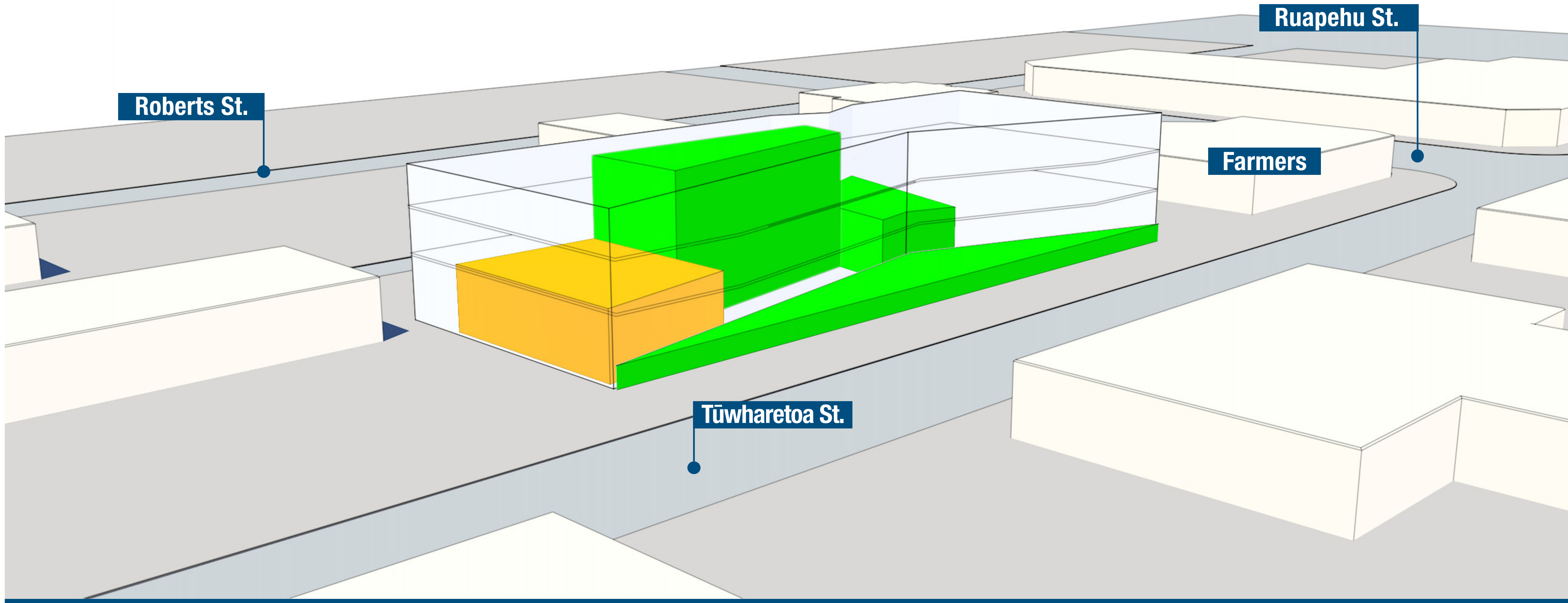
Entrance



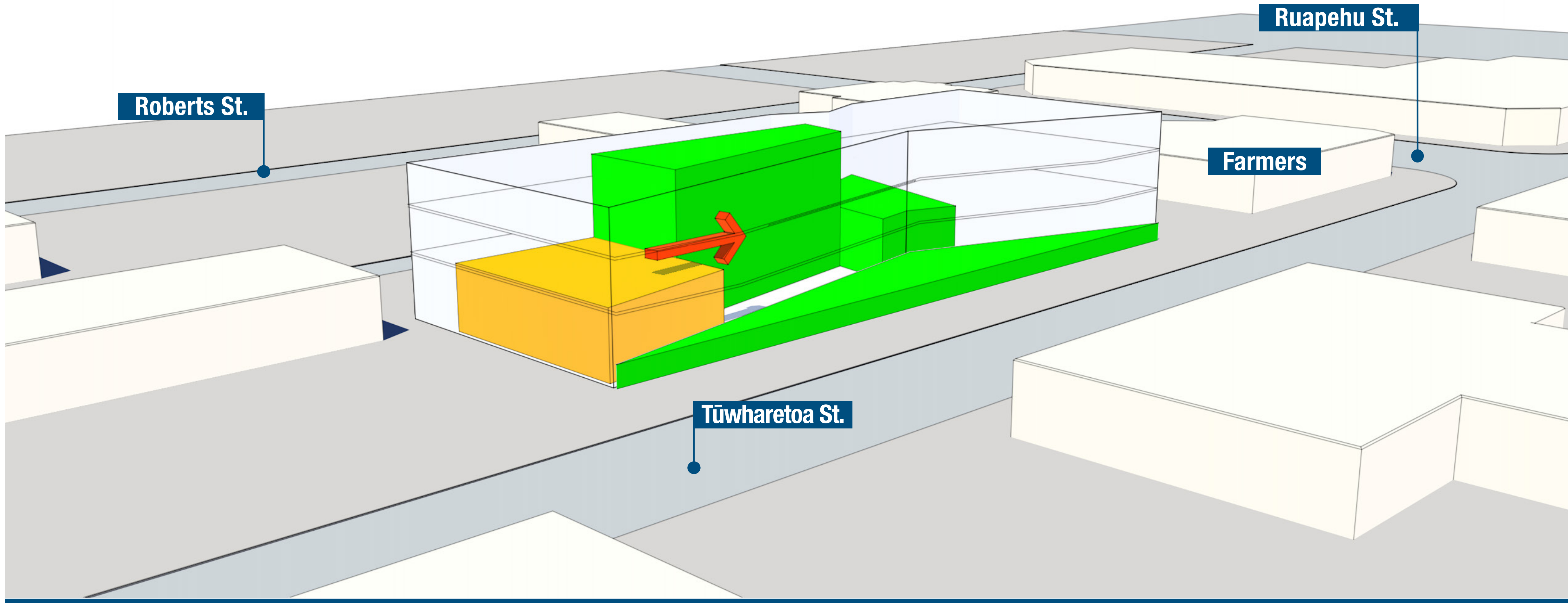
Atrium



Chambers



Chambers & Atrium



Ideas Summary - Moemoeā



Ideas Summary - Moemoeā

1 Four Maunga

Main orientation of building elements points to four major maunga in Taupō rohe.
Four winds.
Four compass points.
Four industries.

2 Atrium/Patio

The landscape of Taupo brought inside the building.
Trees from Taupo area.
Life giving.
Natural light and ventilation.

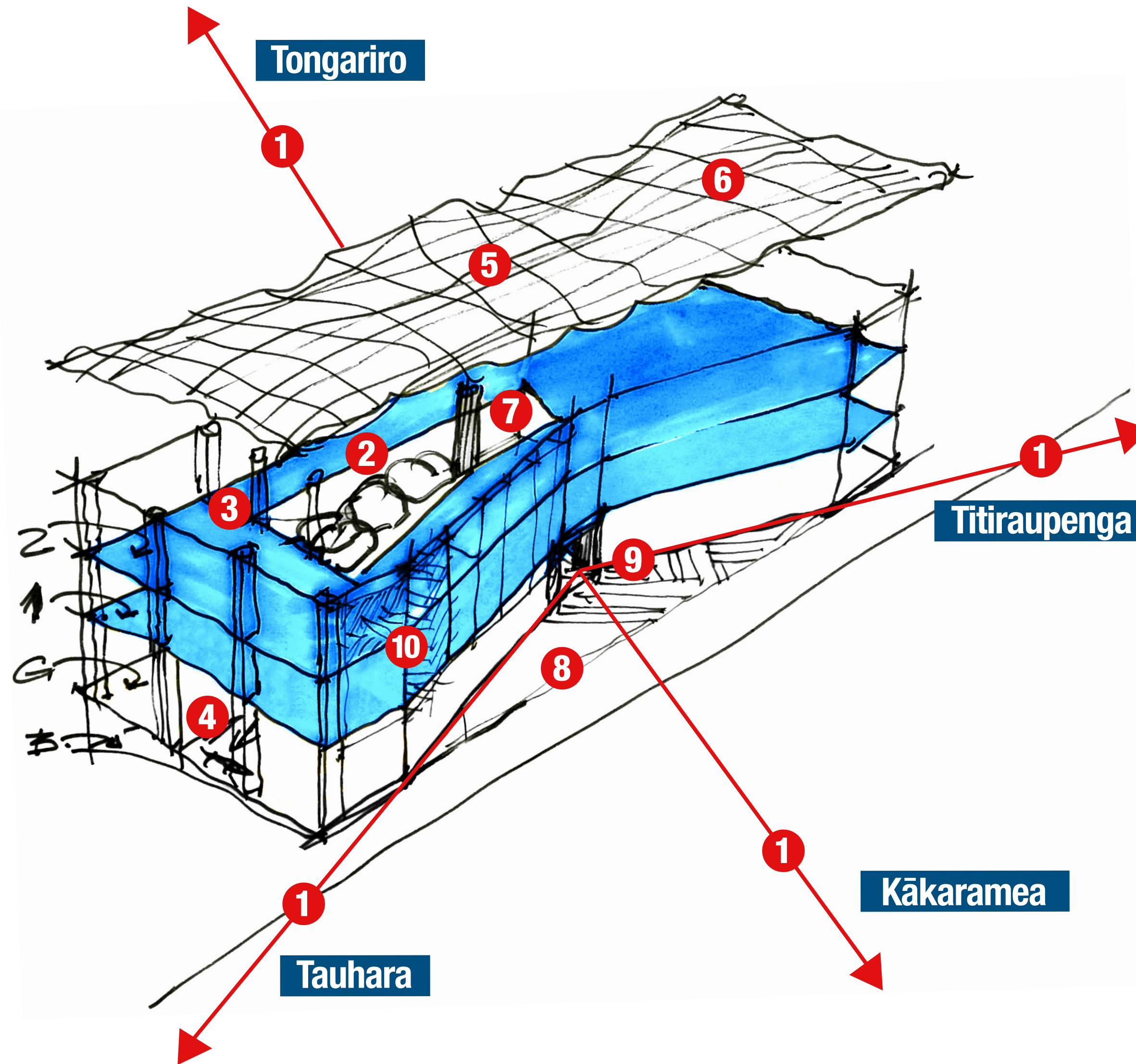
3 Forest

Timber columns and beams make the structure visible.

4 Main public access to Council Chambers is through the atrium.

All are walking towards Tauhara.

Mayor sits with back to Tauhara symbolically with the mountain behind him/her as in protection and defense of it.



5 Roof

Sky & clouds above us.
Forest canopy.
Water of lake Taupo viewed from below.

6 Threads of Koroway

Building edge sculptured to reflect direction to maunga, Waikato riverbank and Taupo Lake edge.

7 Pou

(Hopefully structural)
Actual number and position uncertain.
Tauhara

8 Entry Plaza

Earth & pattern of the earth continues into the building.

9 Waharda

Building threshold.
Foyer inside connects to sky/forest/water above.

10 Building Screen

Undecided.
Korowaki to cloack the building.

Kaitiakitanga

Maunga

Four mountains
Four main industries
Four winds
Four compass points

Sky/Canopy

Forest canopy
Sky and clouds above us
Taupō lake from below
Roof as threads of korowai

Earth

Strong base/Plinth
Open, democratic, welcoming
Flow from outside to inside
Vibrant, interactive

Natural World

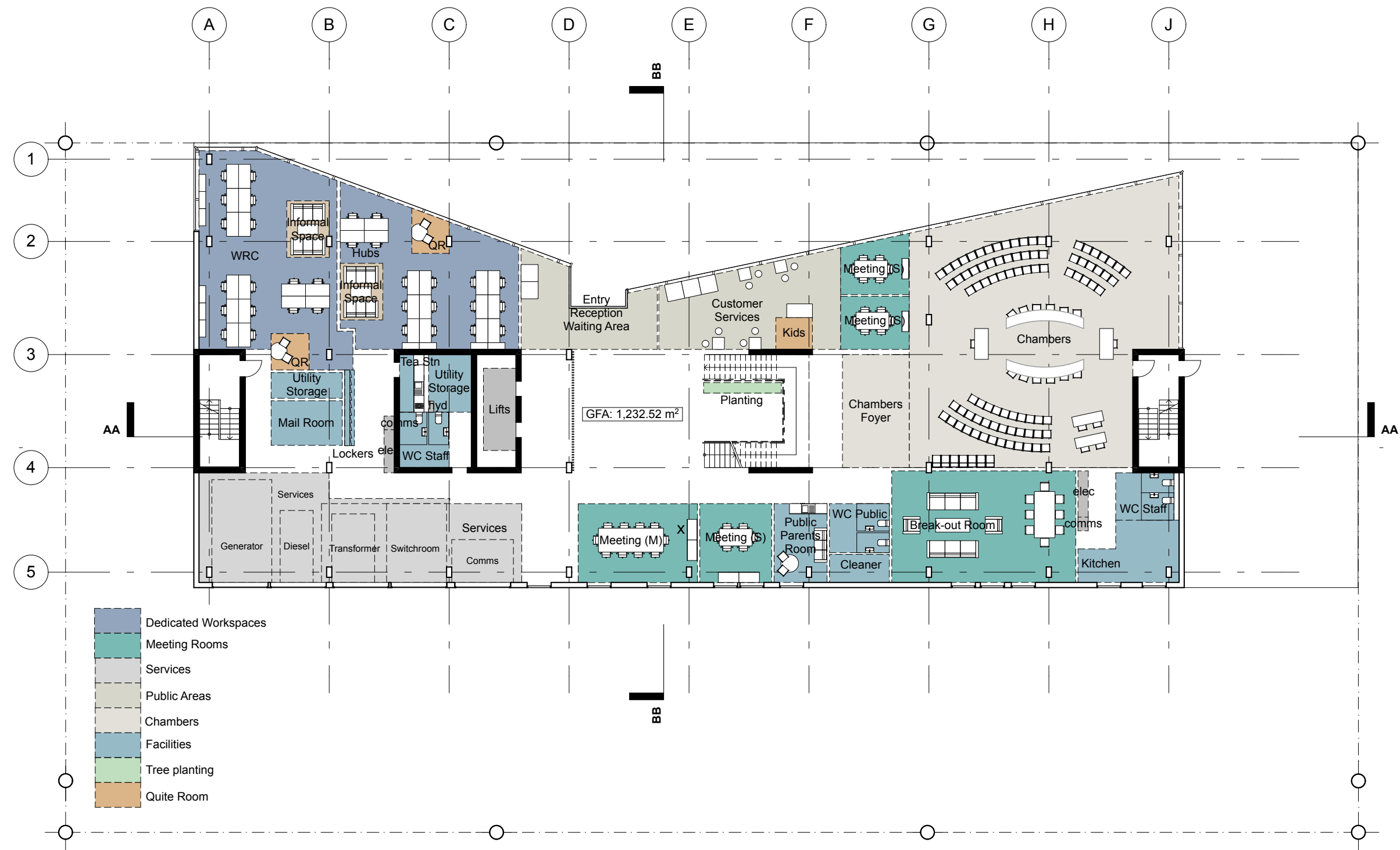
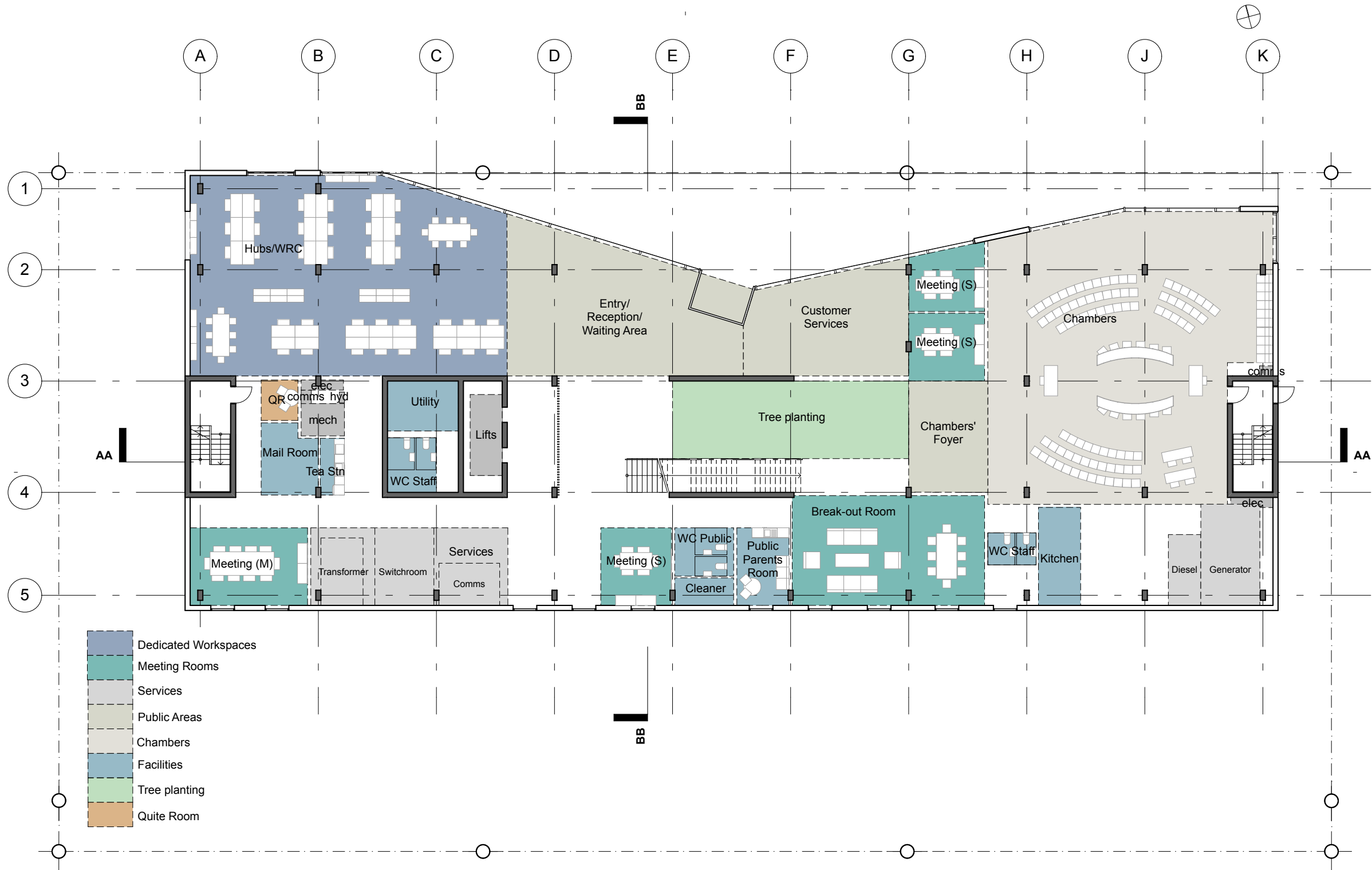
Entry Plaza
Atrium/patio
Taupō landscape brought inside
Timber columns and beams
Natural light and ventilation
Timber roof
Pou



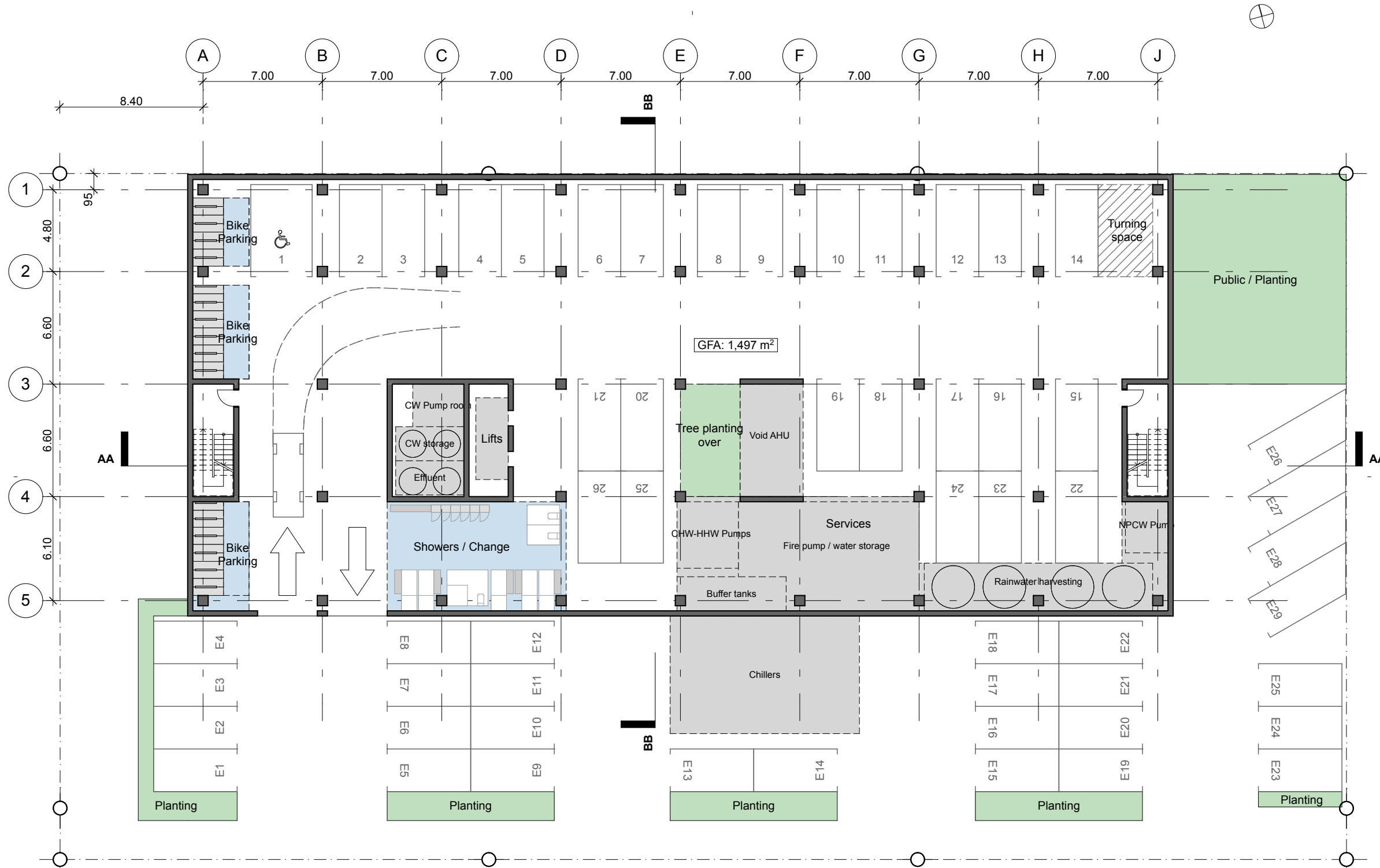
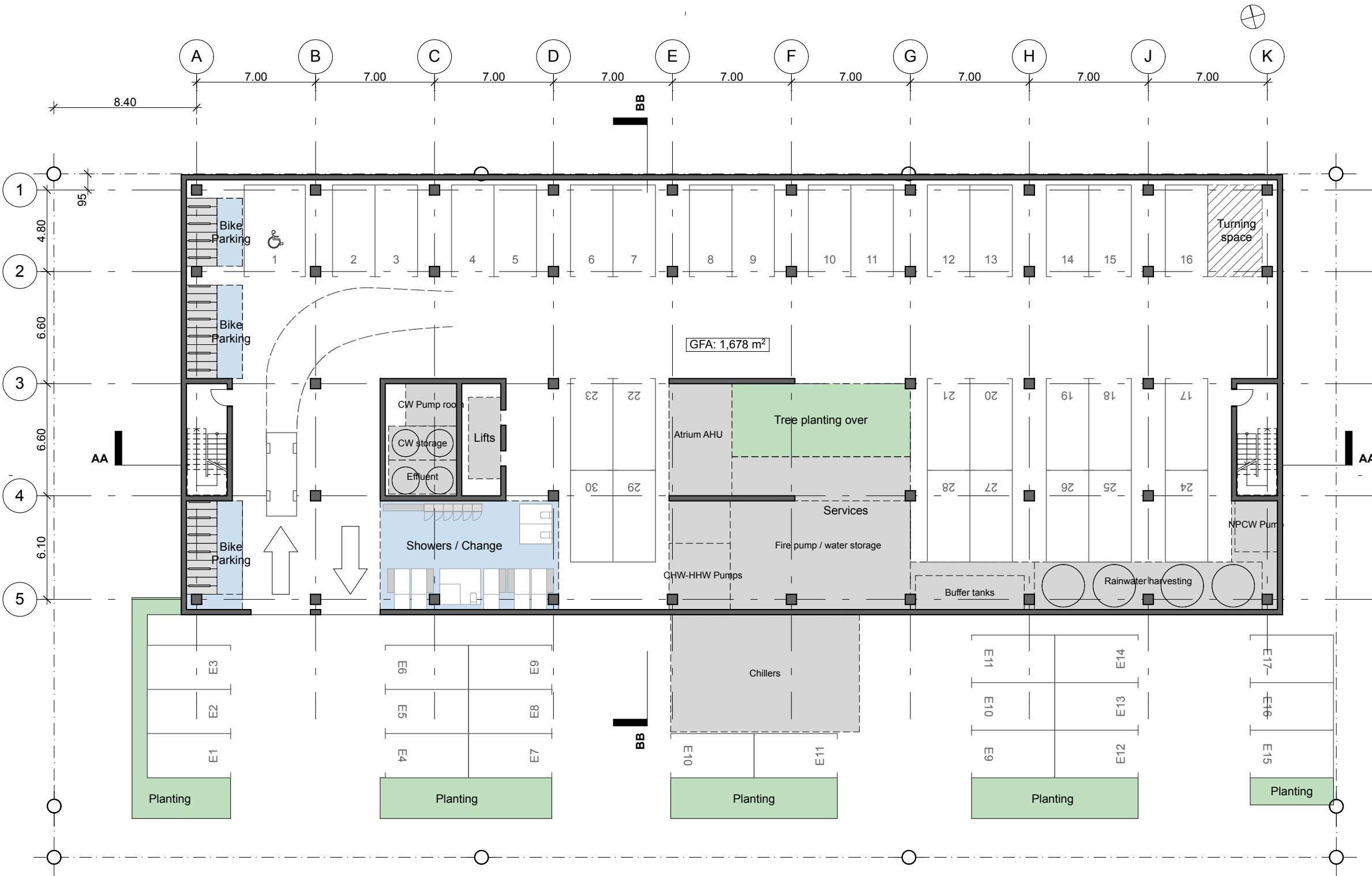
Functional Plans



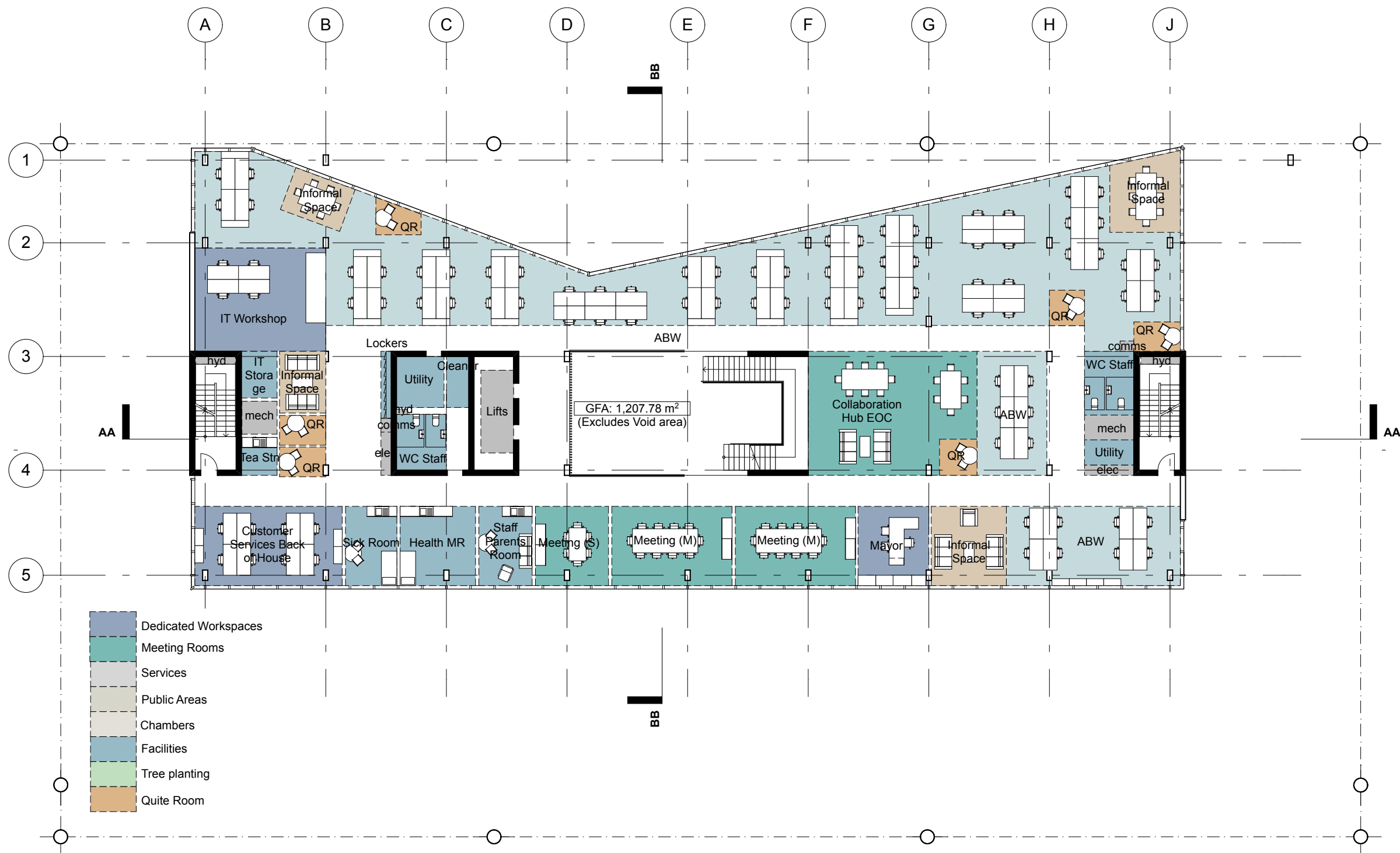
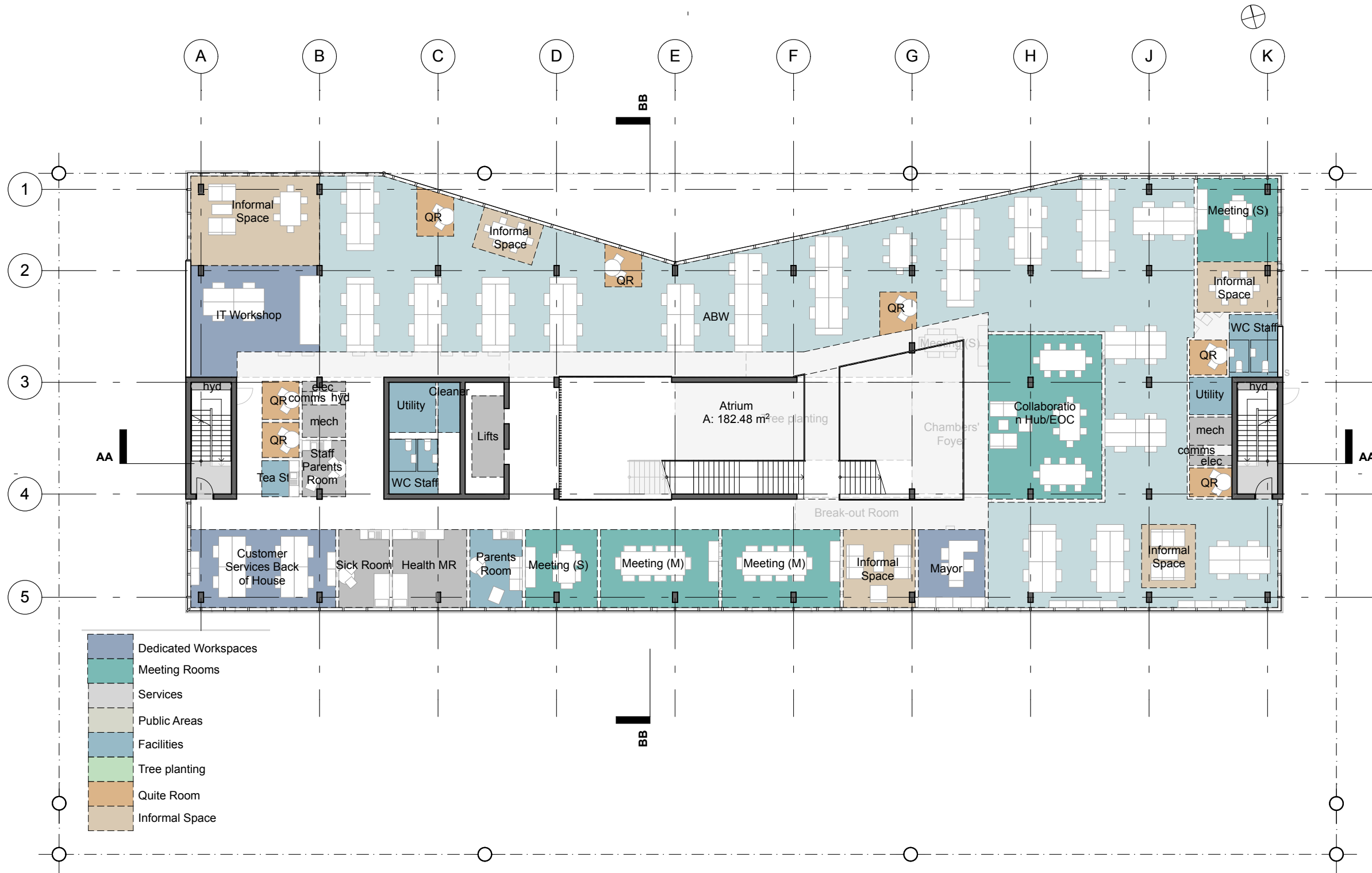
Ground Floor



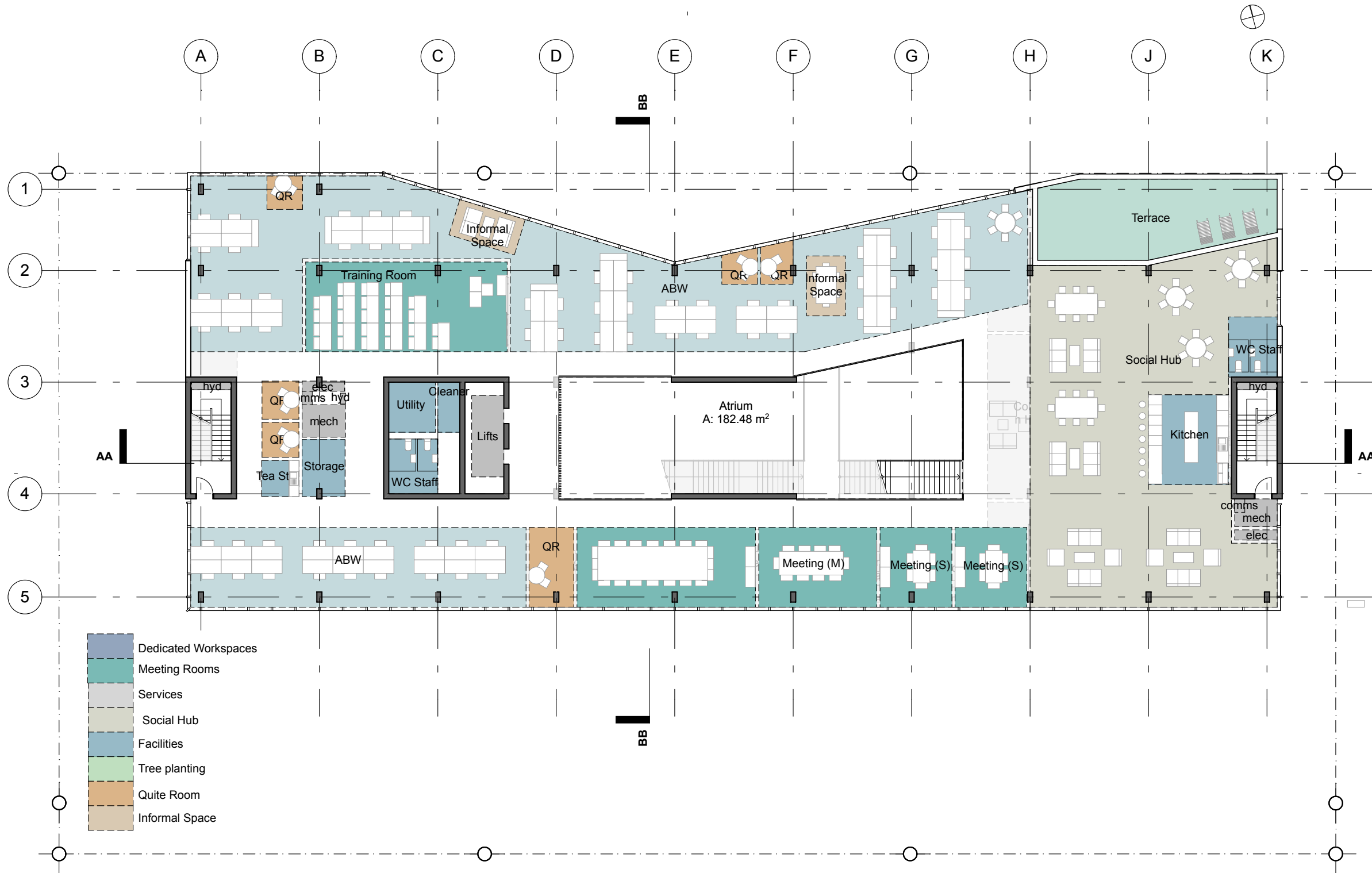
Basement



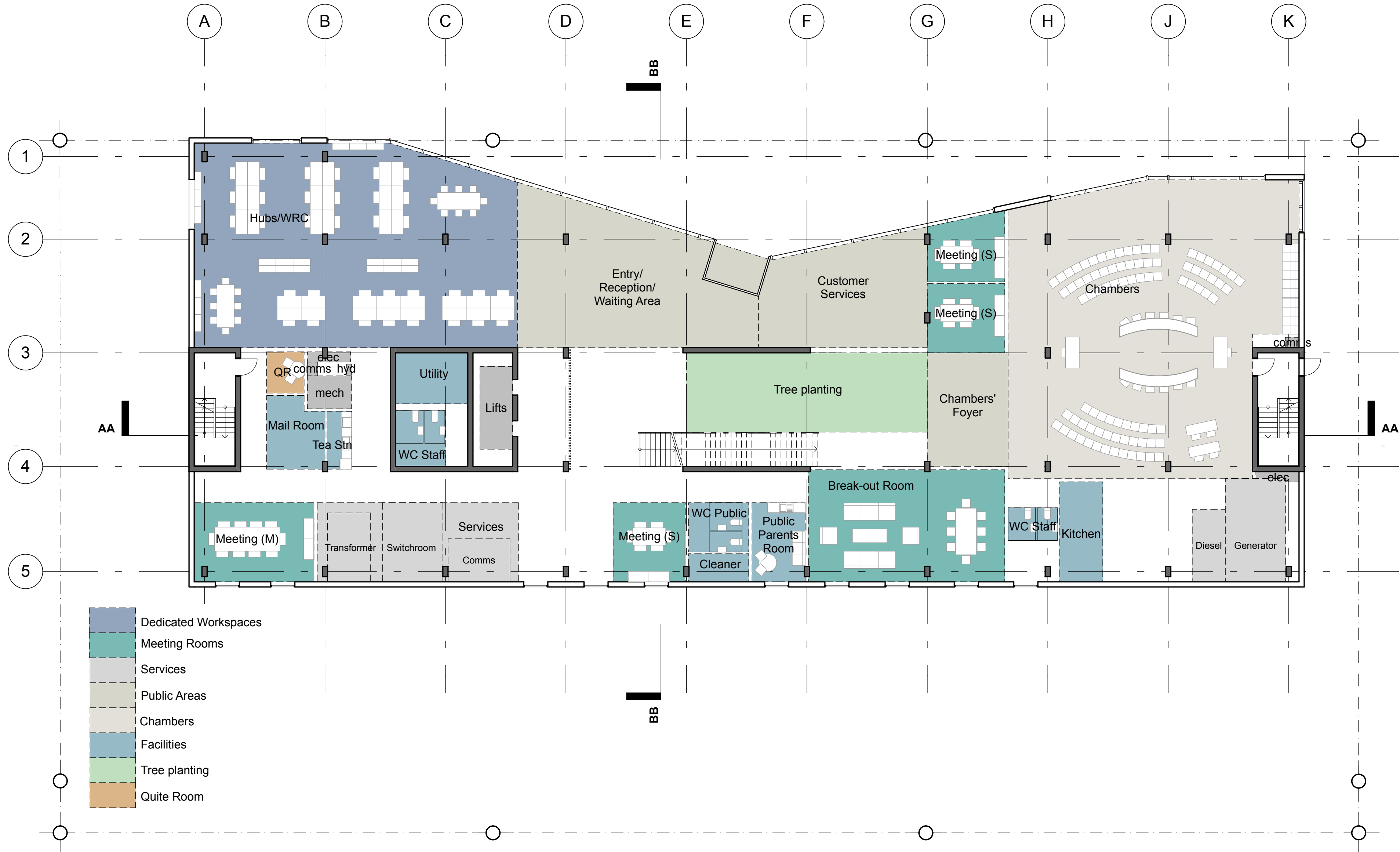
Level 01



Level 02



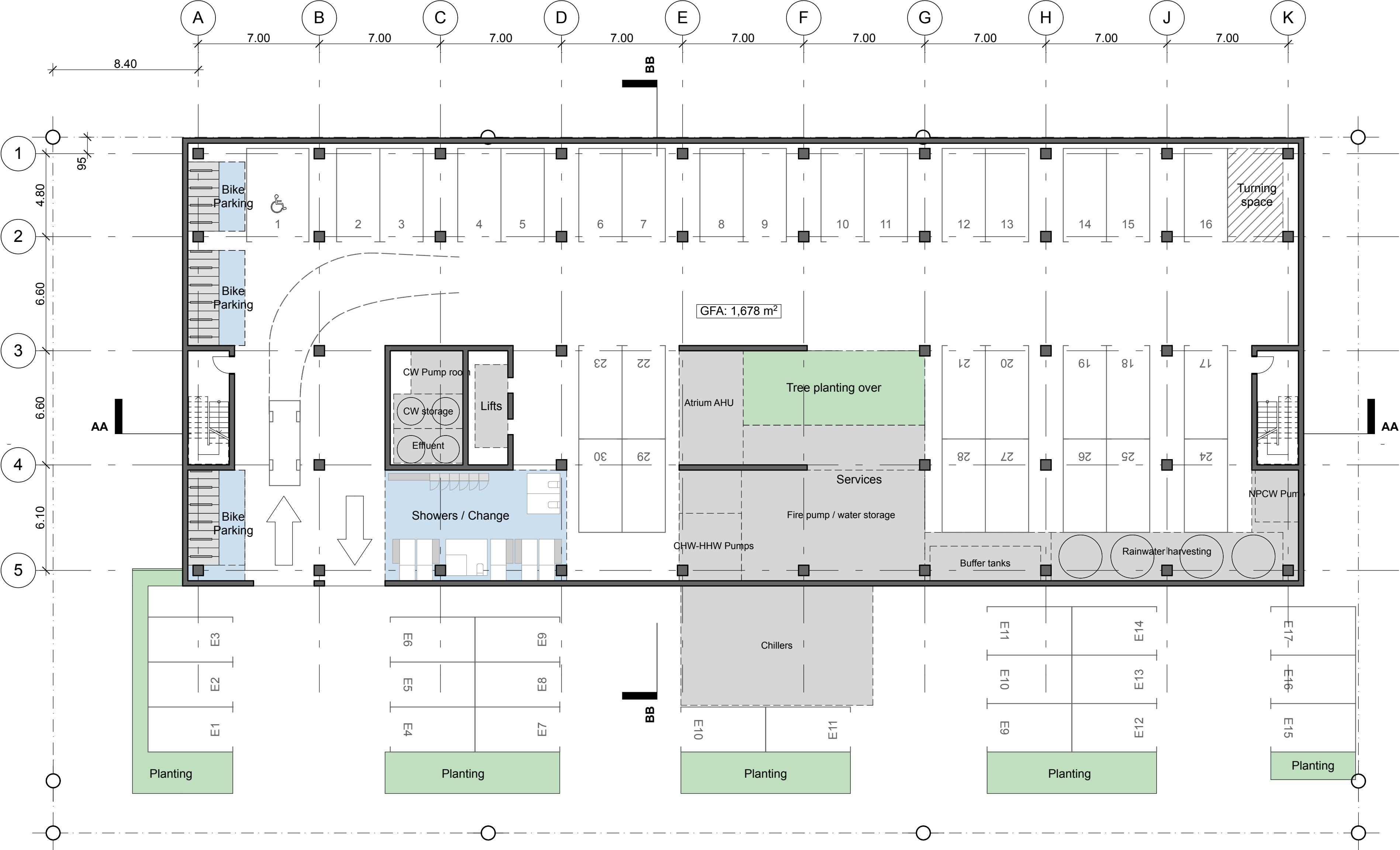
Ground Floor



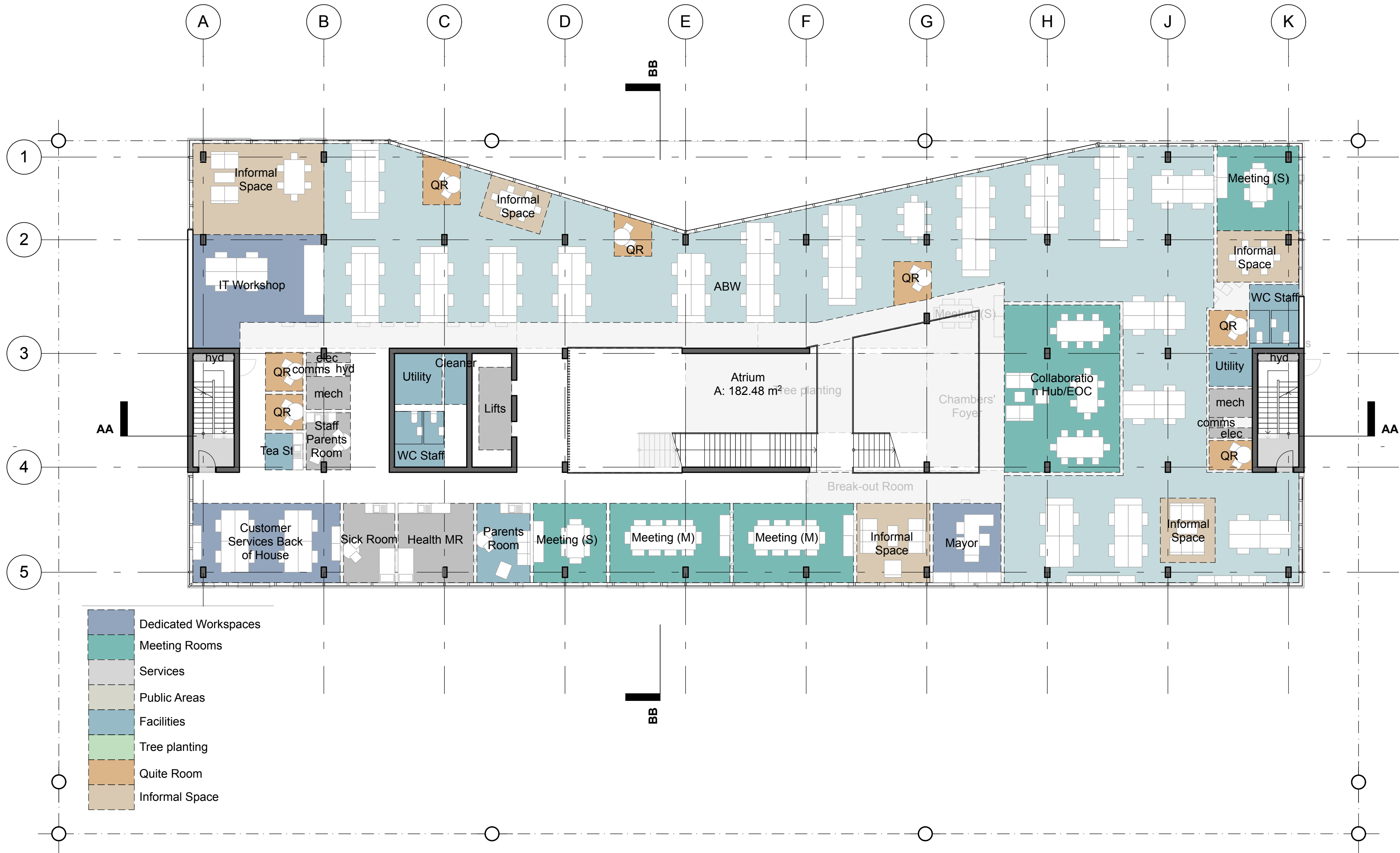
- Dedicated Workspaces
- Meeting Rooms
- Services
- Public Areas
- Chambers
- Facilities
- Tree planting
- Quiet Room



Basement



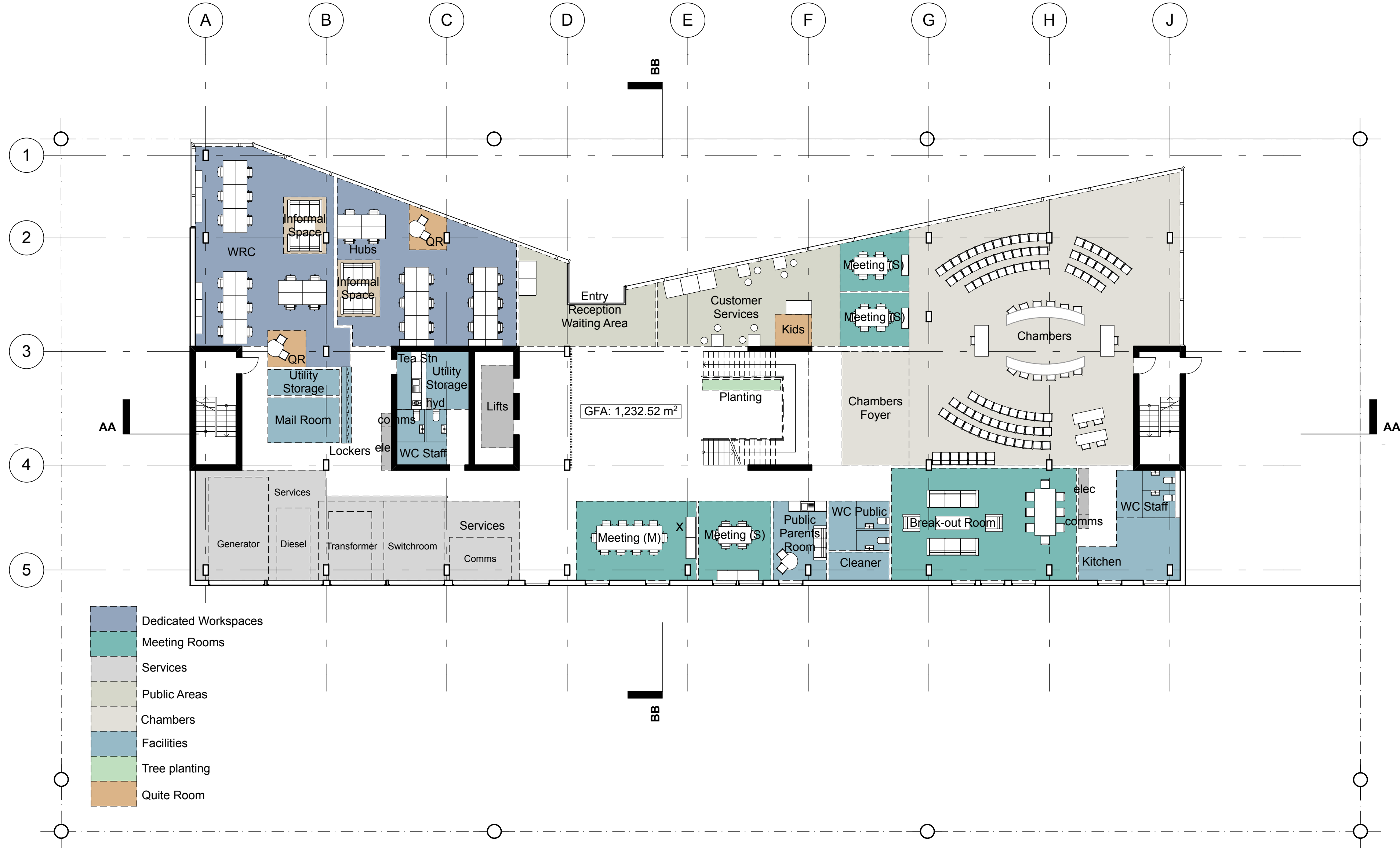
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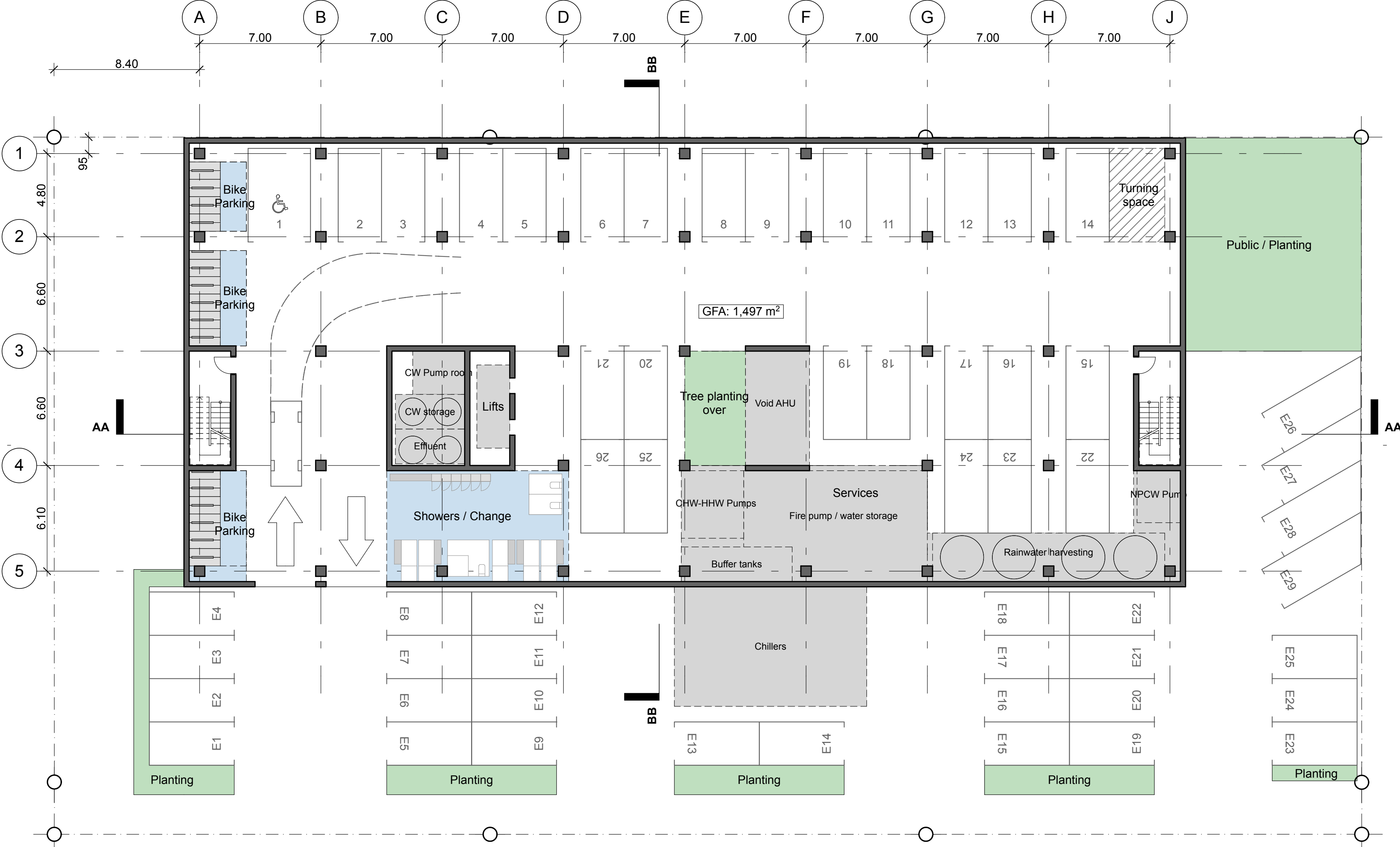
Level 02



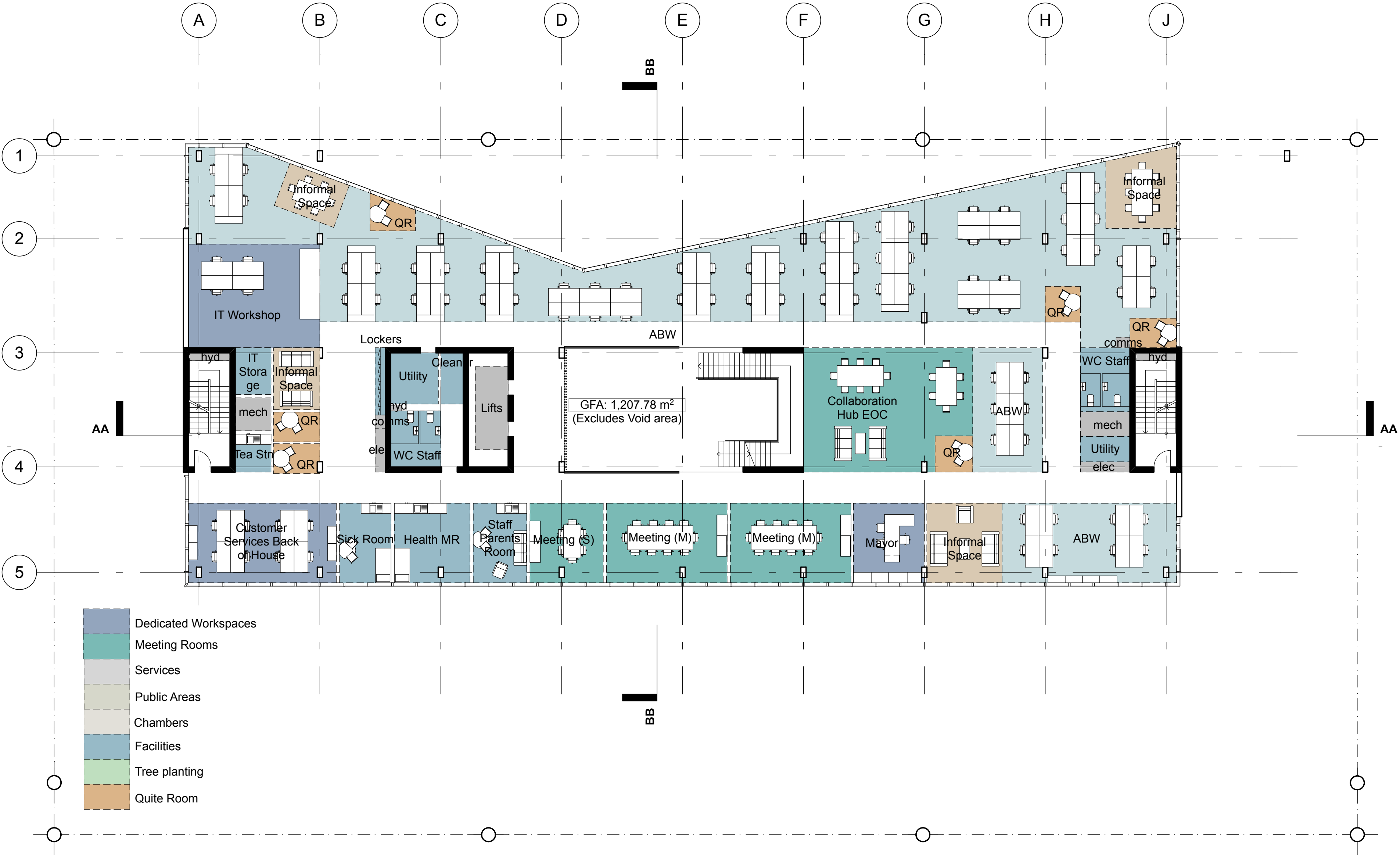
Ground Floor



Basement



Level 01



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Level 02



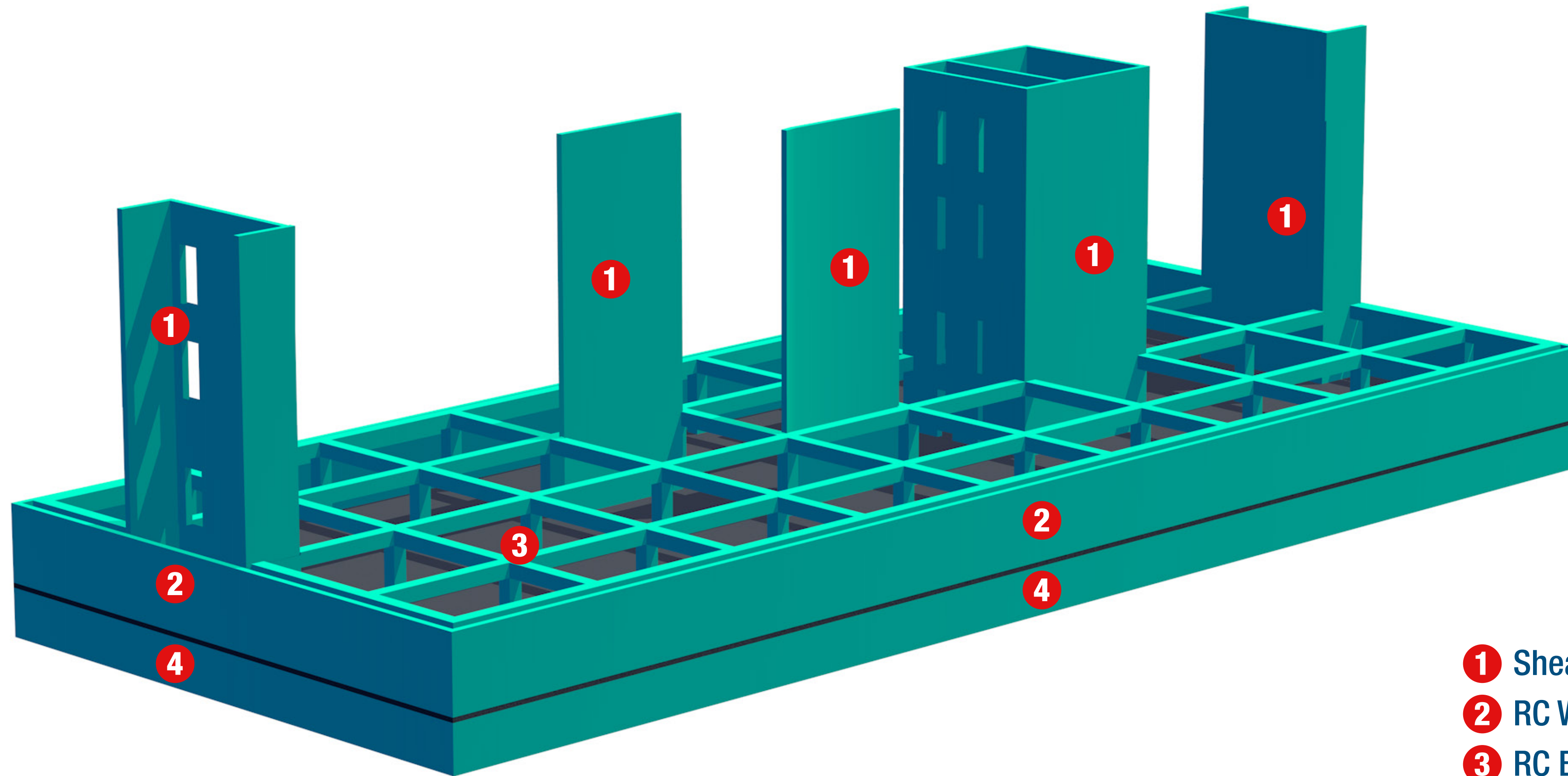
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Consultants Strategies

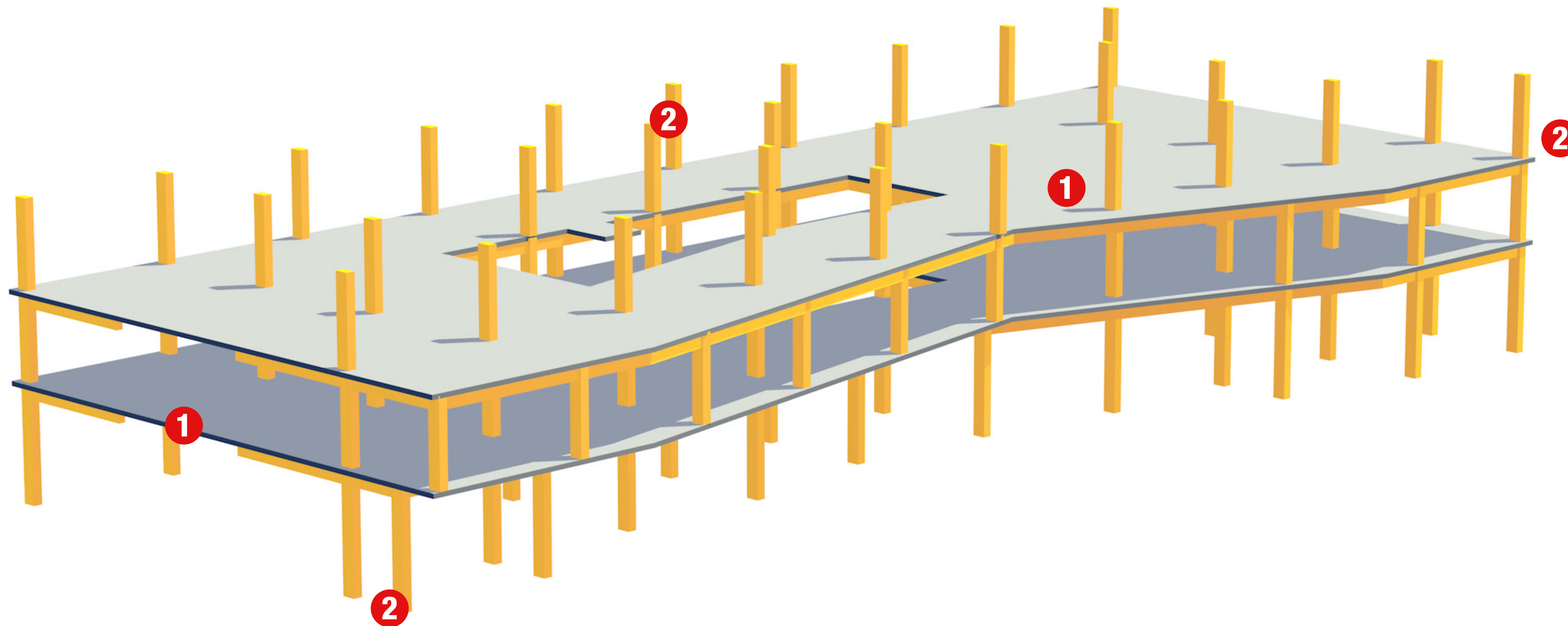


Structure - Concrete - Seismic



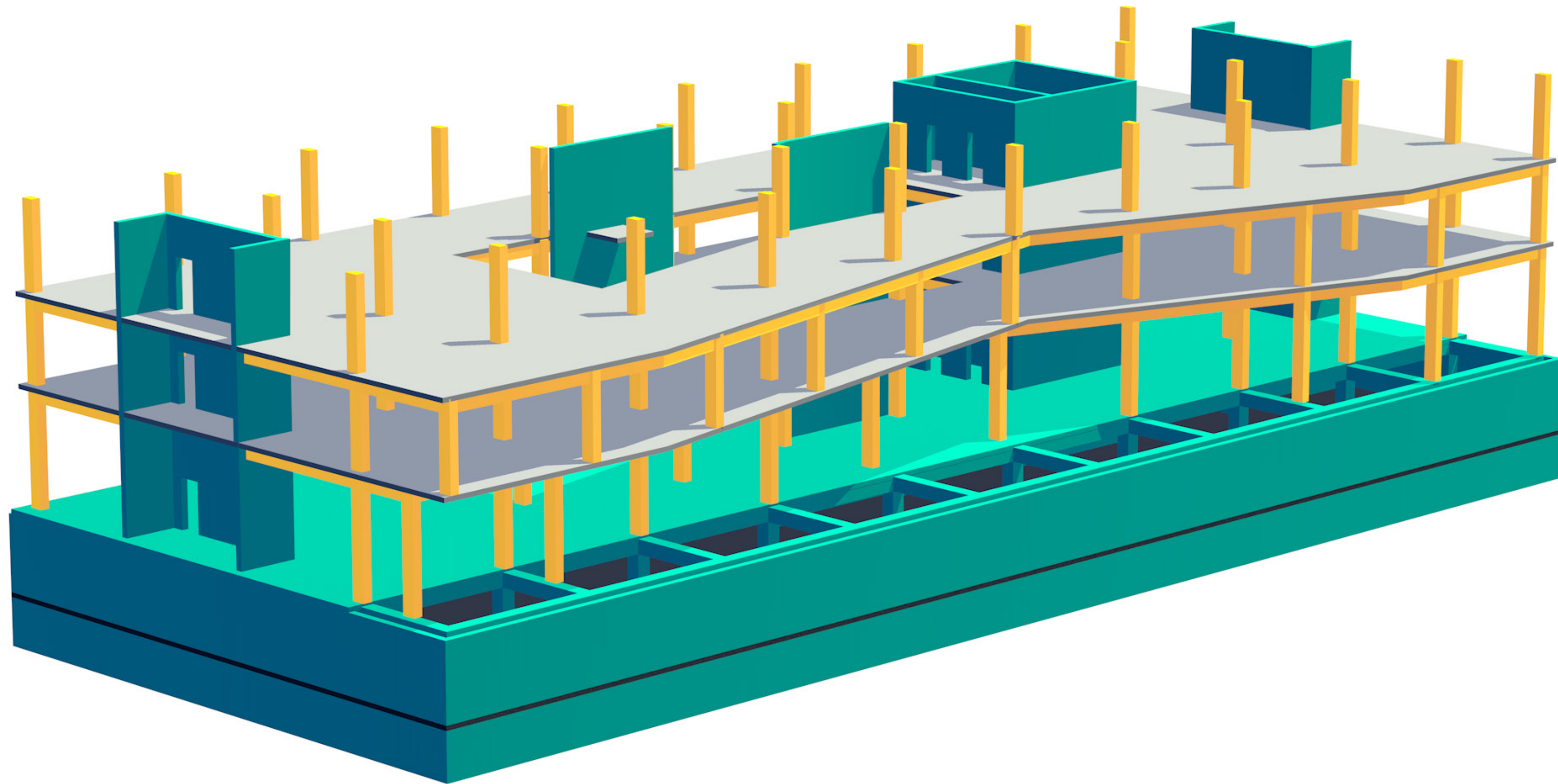
- 1 Shear Walls
- 2 RC Walls
- 3 RC Beams & Columns
- 4 Raft Slab

Structure - Timber - Gravity



- 1 Timber/Concrete Slabs
- 2 Timber Beams & Columns

Structure - All



Services

Mechanical

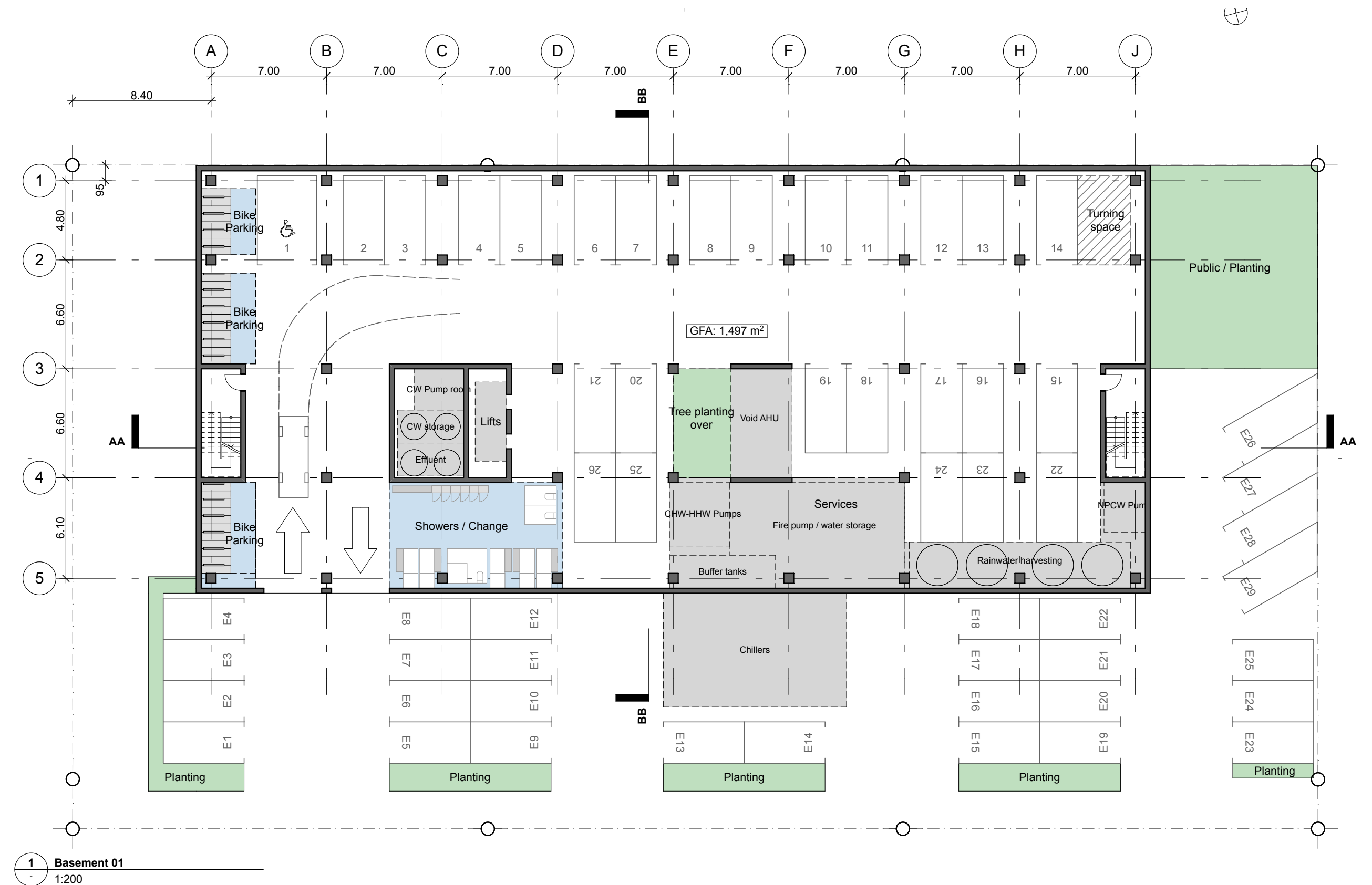
- Mix HVAC and natural ventilation systems
- Smoke exhaust fans in Atrium
- Under floor heated + cooled air distribution in Atrium
- EOC rooms with independent HVAC system
- No provision for geothermal system

Electrical

- Transformer
- Generator and diesel fuel tank to serve 5 days, 30 people, 100% of the building (TBC)
- No Photovoltaic provision

Comms

- MATV Equipment as per existing
- One server room (TDC, hub agencies and WRC)
- Dual independant supply to building



Services

Vertical Transportation

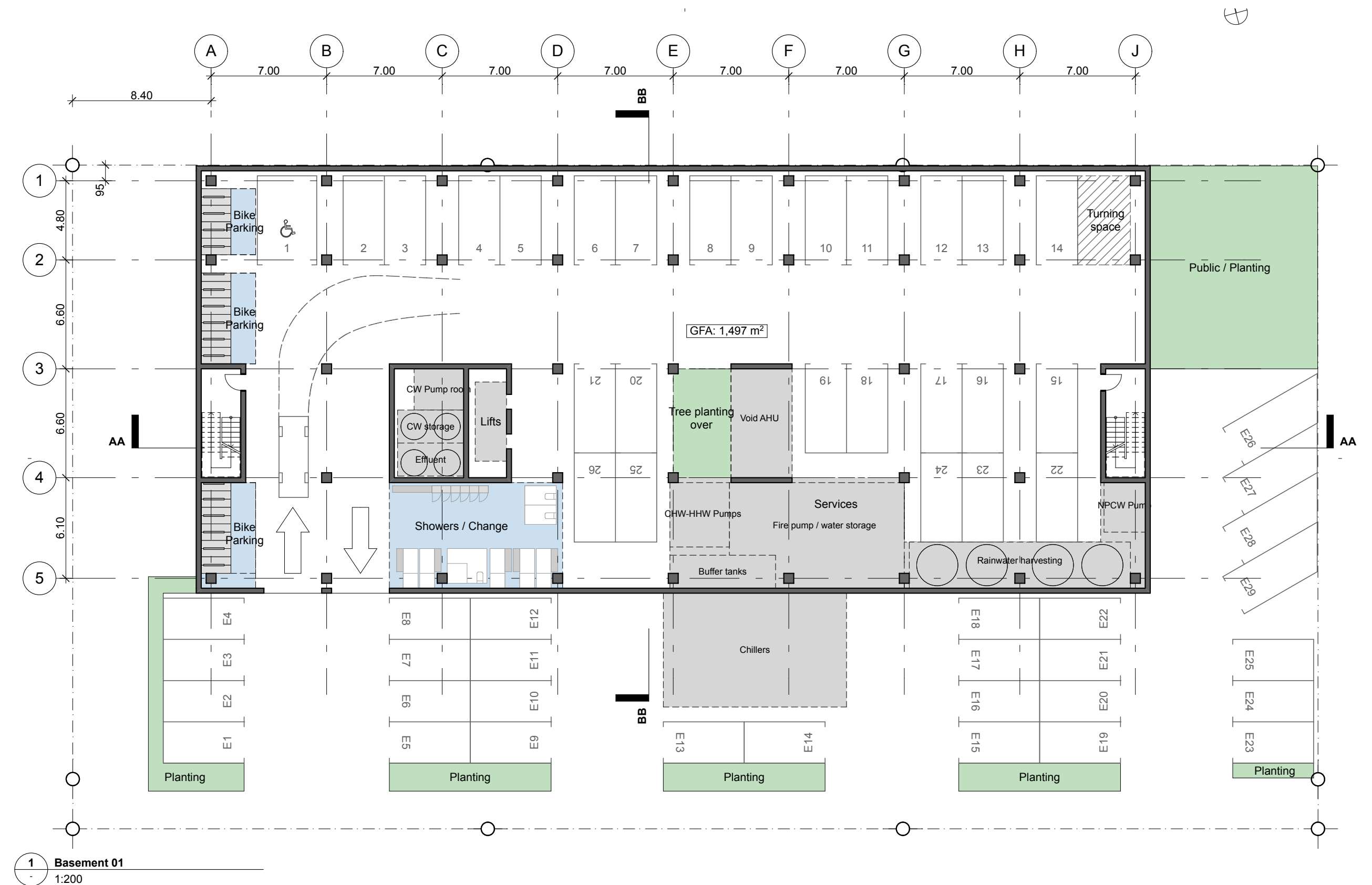
- 2 lifts, car size of 1.6m wide by 1.4m deep, 1000kg/13 persons capacity

Hydraulics

- Centralized hot water system, non fossil fuel dependant
- Emergency water storage tank, 5 days, 30 people
- Effluent storage tank, 5 days, 30 people
- Rainwater harvesting tank as per Green Star

Fire Protection

- Sprinkler system, 100% of the building
- Sprinkler water storage tank (independant of rainwater harvesting)



Environmental Sustainable Design

Management

- Rebecca Page (Green Star Accredited Profesional)
- Earhtwake resilient building (IL4)
- Environmental building performance to be metered and monitored

Indoor Environmental Quality

- High indoor air quality
- Acoustic, light and visual comfort
- Low indoor air pollutants finishes, paint and furniture

Energy

- Reduction of greenhouse gas emissions
- Non-fuel dependant service systems
- No on site energy generation

Transport

- Showers, lockers and bike parking
- Low emission vehicles charging points

Water

- Water efficient sanitary fixtures
- Rainwater reused for toilets flushing and landscape irrigation (greywater recycling)

Materials

- Minimization of concrete
- Gravity timber structure
- Timber roof structure
- Life Cycle Assesment
- Sustainable product specifications
- Reduction in construction waste



Environmental Sustainable Design

Land Use & Ecology

- Reuse of existing urban site
- Addition of ecological value through landscape design

Emissions

- Stormwater pollution and peak discharge treatment
- Light pollution minimized
- Low global warming potential (GWP) refrigerants shall be used in HVAC.

Innovation

- IL4
- Timber
- Inclusion of Te Reo Maori

Next Presentation



Next Presentation

Architectural Preliminary Design

- Look & Feel
- Plans
- Sections
- Elevations
- ABW Plans
- Interior Render
- Exterior Render
- Design Report

Consultants

- Structural Preliminary Design
- Services Preliminary Design
- Green Star Targeted Credits



Tūwharetoa



Tūwharetoa

- Kaitiakitanga
- Whakataukī
- Maunga
- Sky/canopy
- Earth
- Pou
- Atrium planting
- Artistic representation



Tūwharetoa



Derek Lardelli • Gisborne Airport

Jacob Scott • Creative Arts, Massey University



Delani Brown • Taupo Golf Club



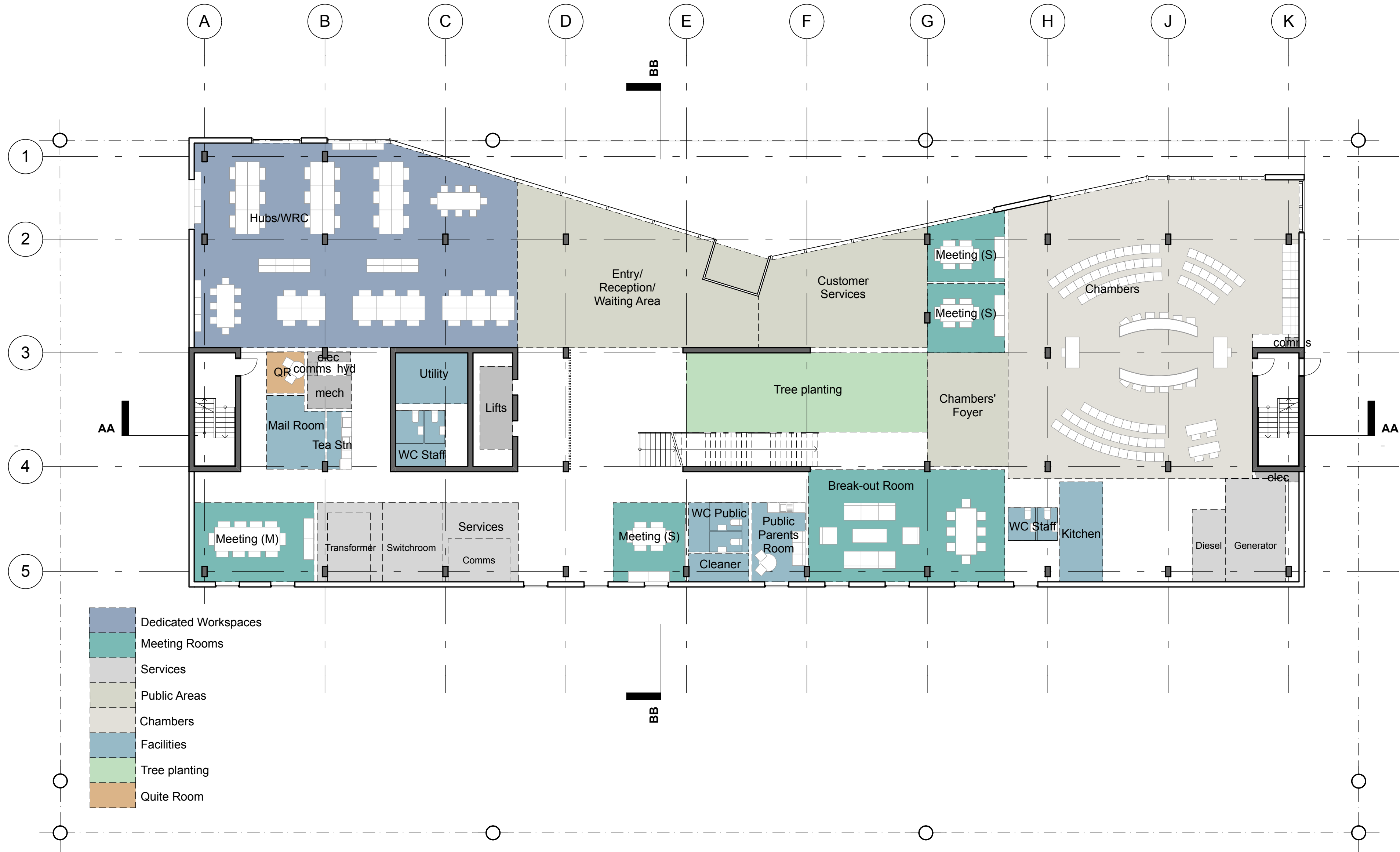
• Auckland Engineering Uni



Tūwharetoa



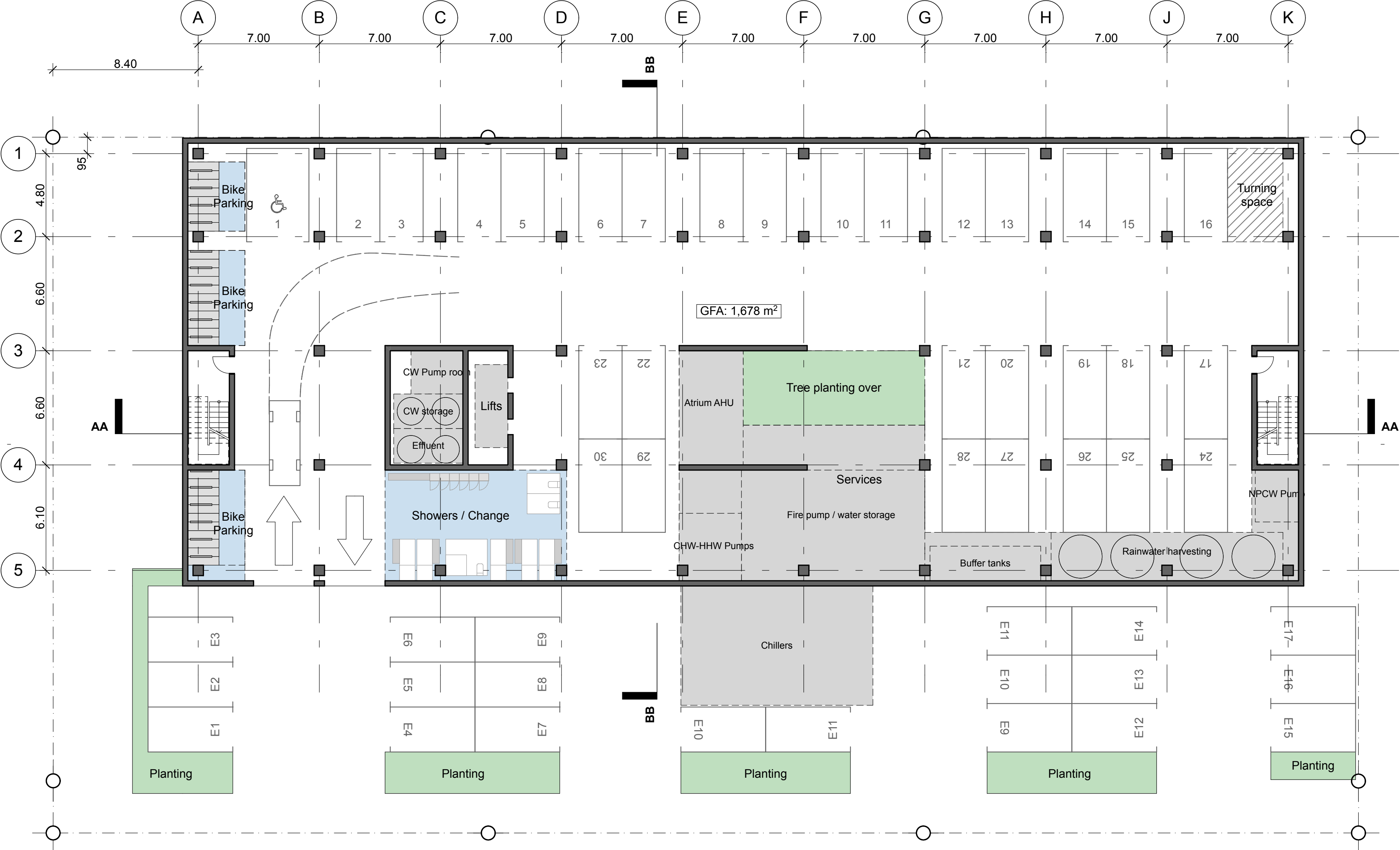
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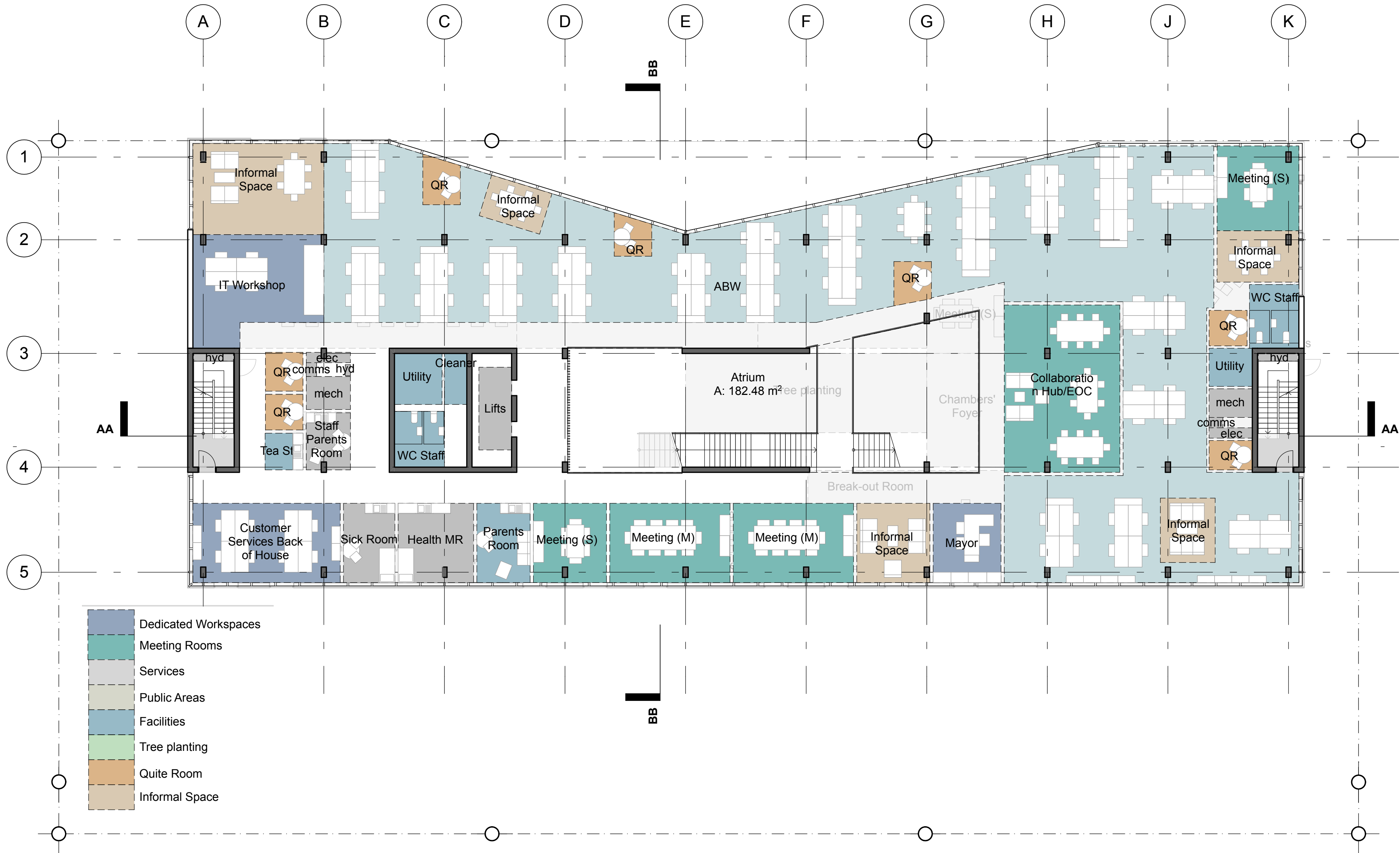
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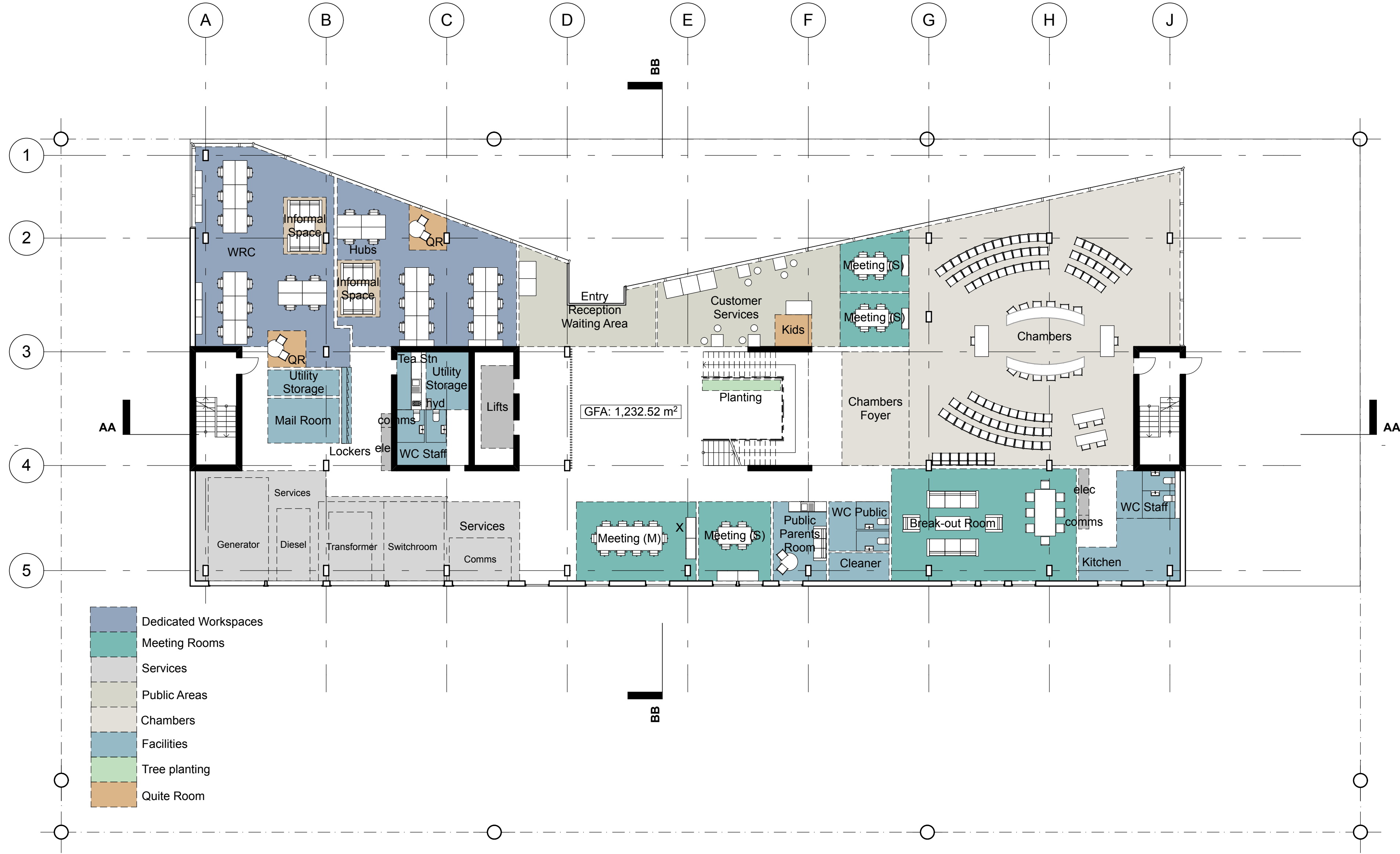
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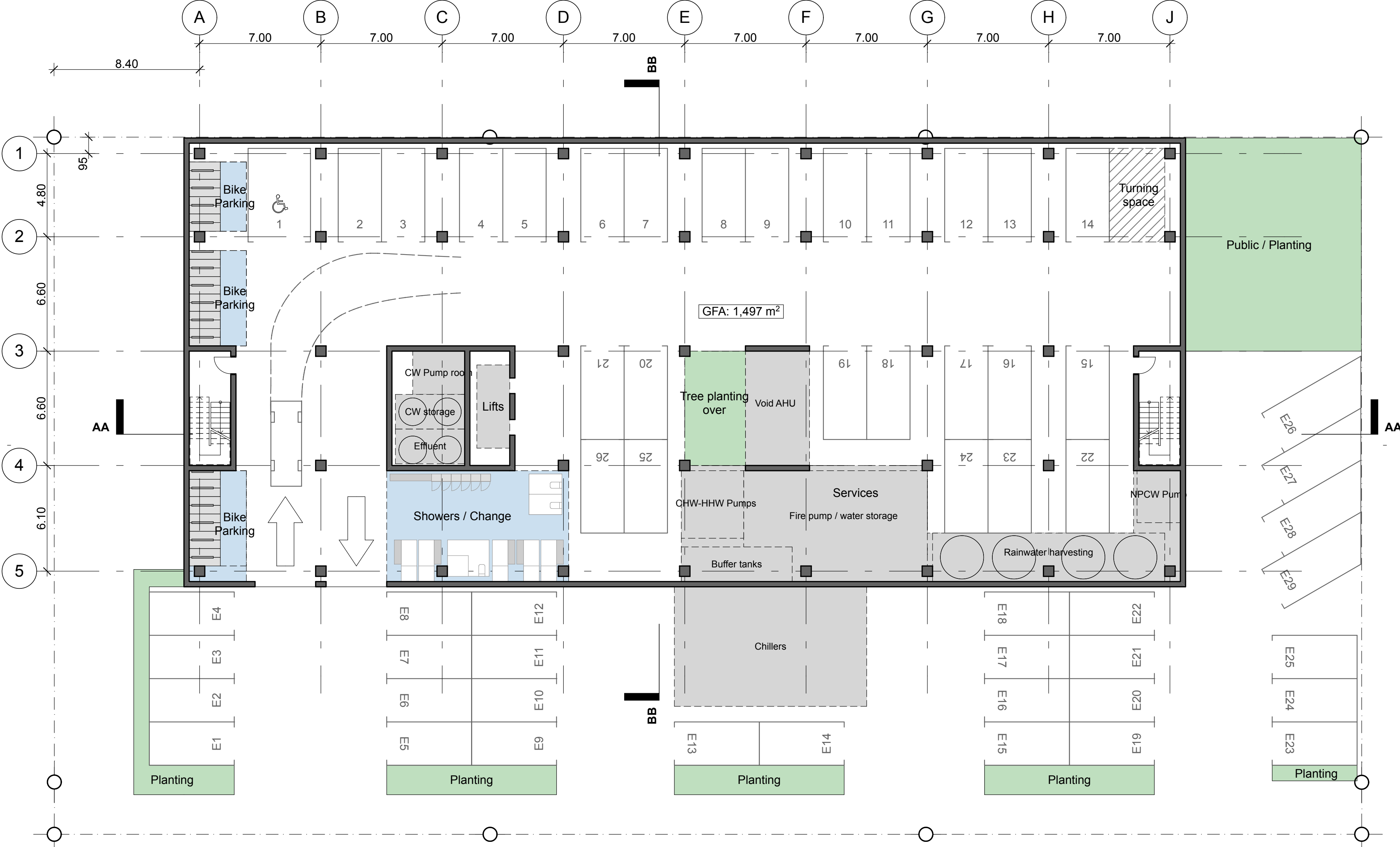
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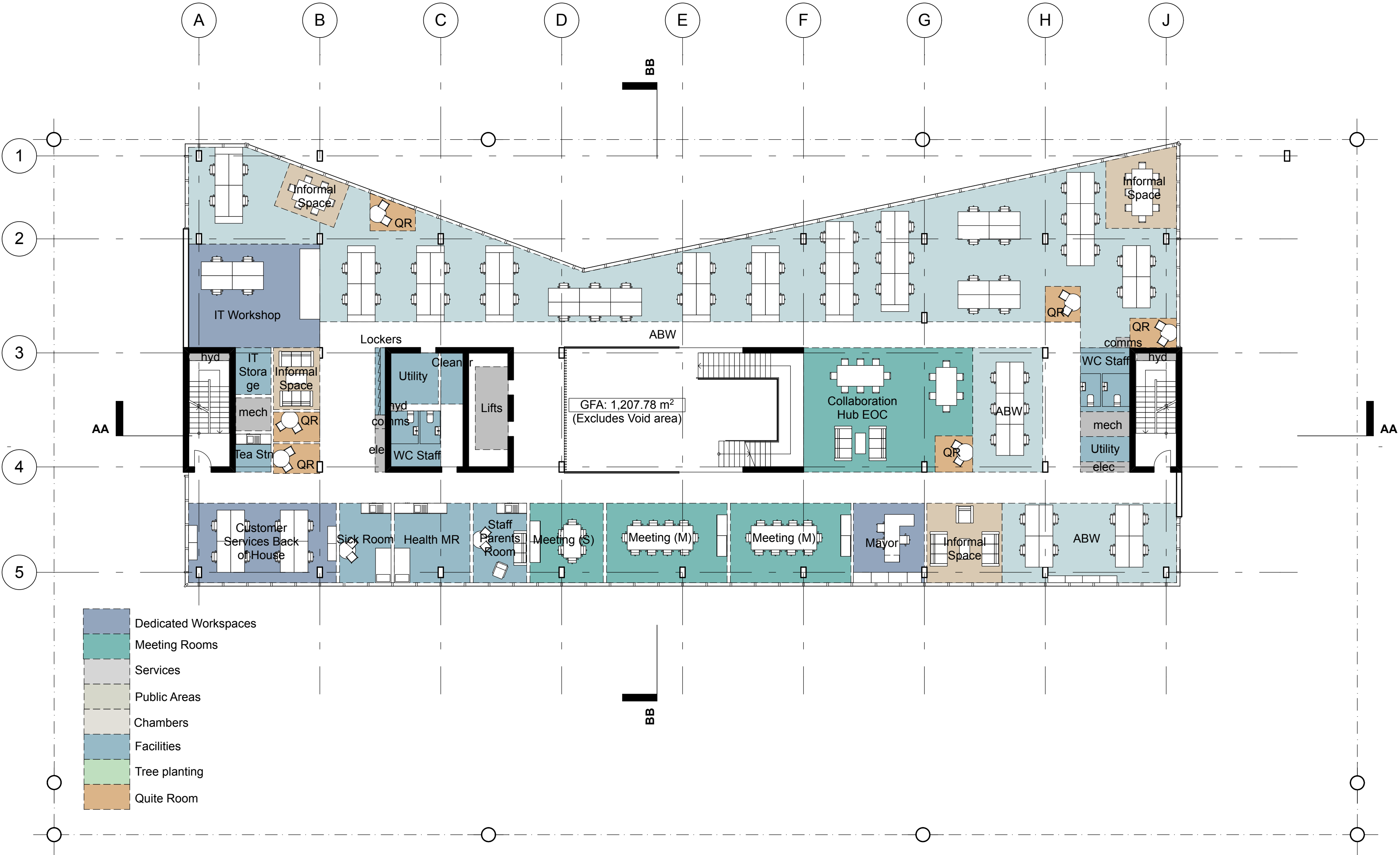
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