

Cavendish III & Shared Facilities Hub

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West Cambridge Site, Madingley Road, Cambridge

Cavendish III and Shared Facilities Hub



Why Now?

- Cavendish III and Shared Facilities Hub (SFH) applications submitted as ‘Full’ applications ahead of the Outline application being determined.
- Autumn Statement 2015 – the Chancellor commits £75 million to the transformation of the Cavendish Laboratory. 17/1896/FUL
- Spend must occur
 - £5M by April 2018
 - + £35M by April 2019
 - + £35M by April 2020
- In order to spend £40M by April 2019, ‘design certainty’ (i.e. planning approval) needs to be in place early 2018. 17/1799/FUL
- SFH brings complementary facilities and would be part of the same contract.



Cavendish II

- Limited space-conversion of offices into Lab space.
- Storage and workspace in corridors.
- Poor state of repair.
- Poor working conditions with some offices having no natural light.
- >20 external entrances creates security issues and limits collaboration.
- Exceeded design life.



Cavendish II - East view



Cavendish II - Mort Building



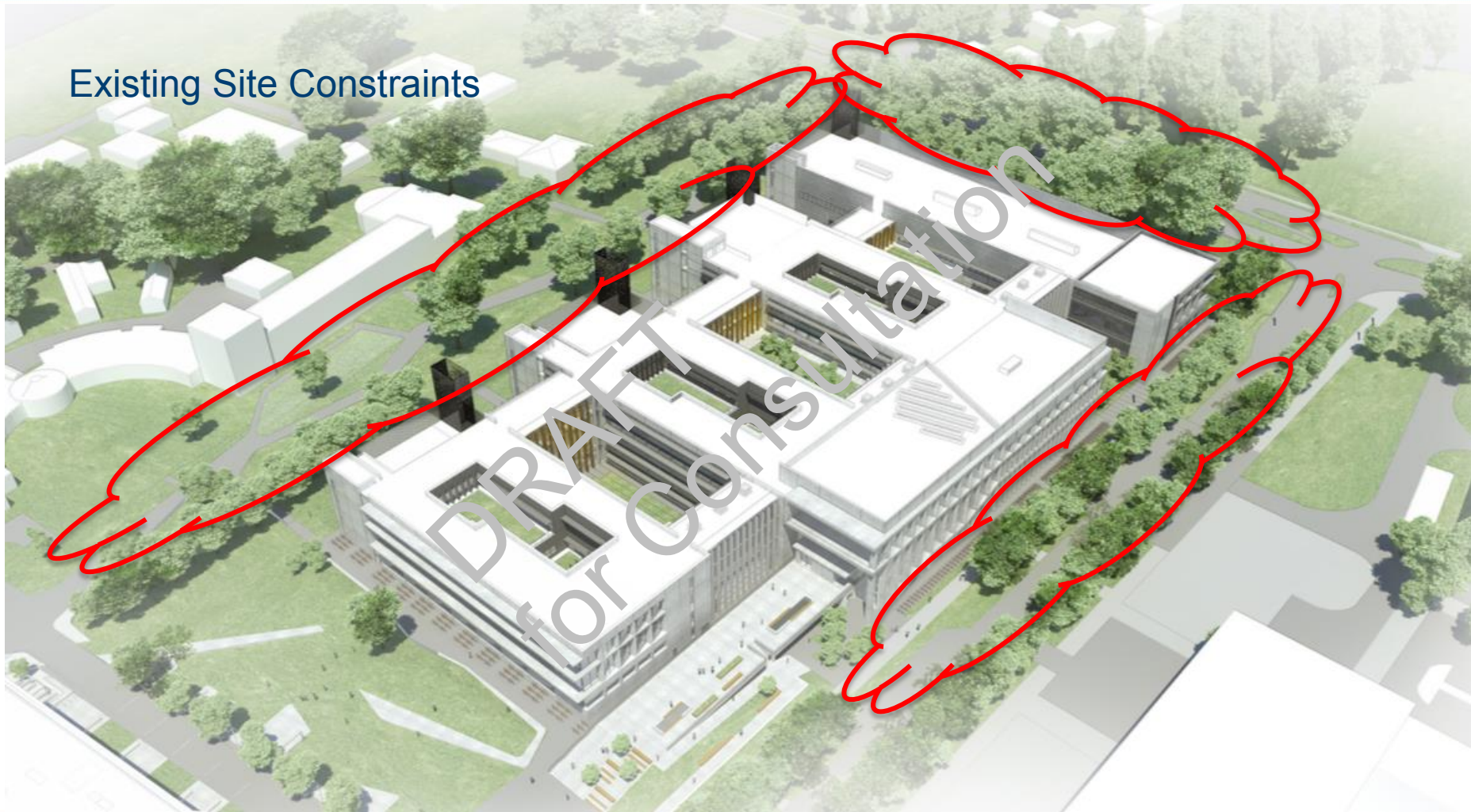
Cavendish II - View West across the pond



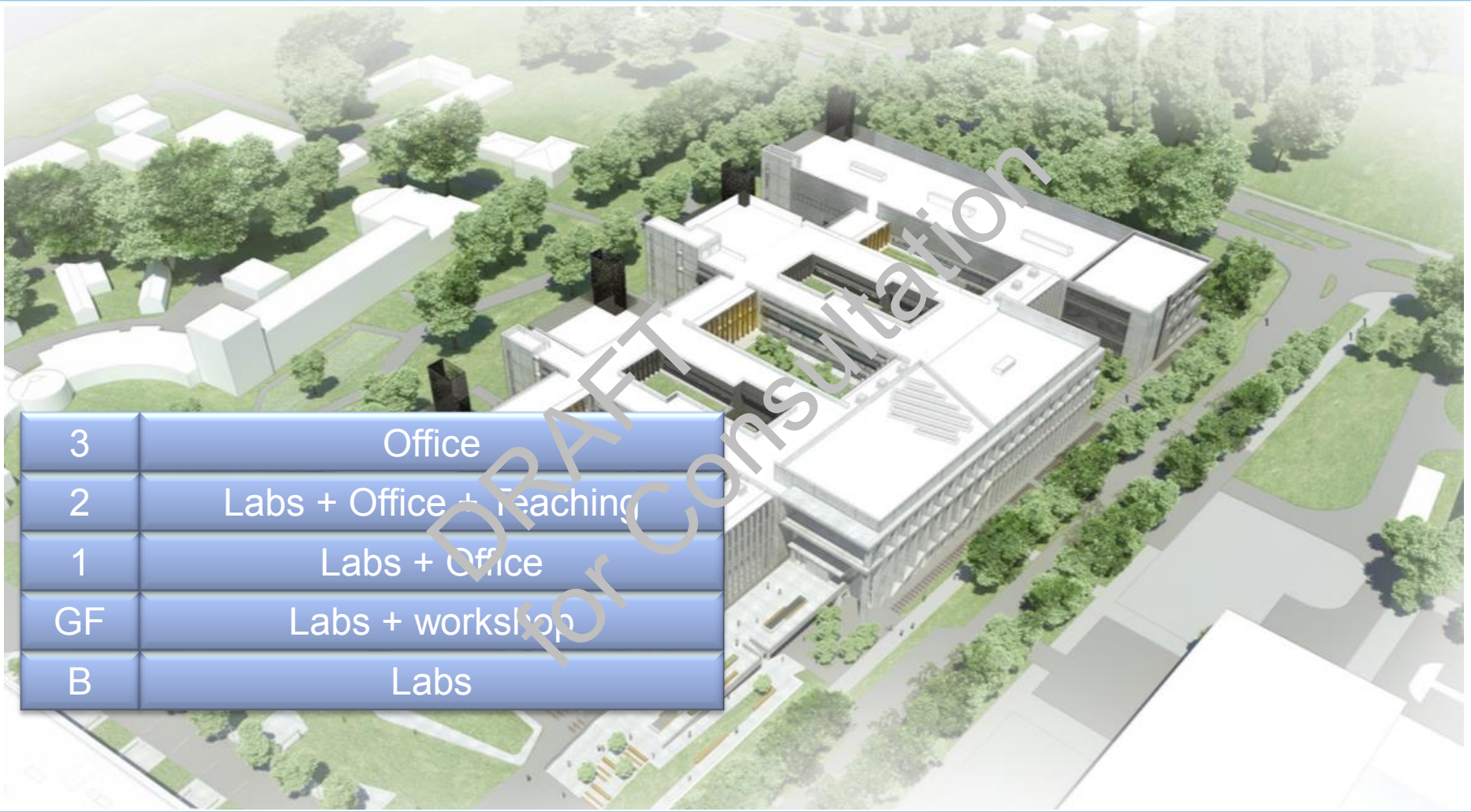
Cavendish II - Bragg Building Main Entrance

Cavendish III Proposed Design

Existing Site Constraints

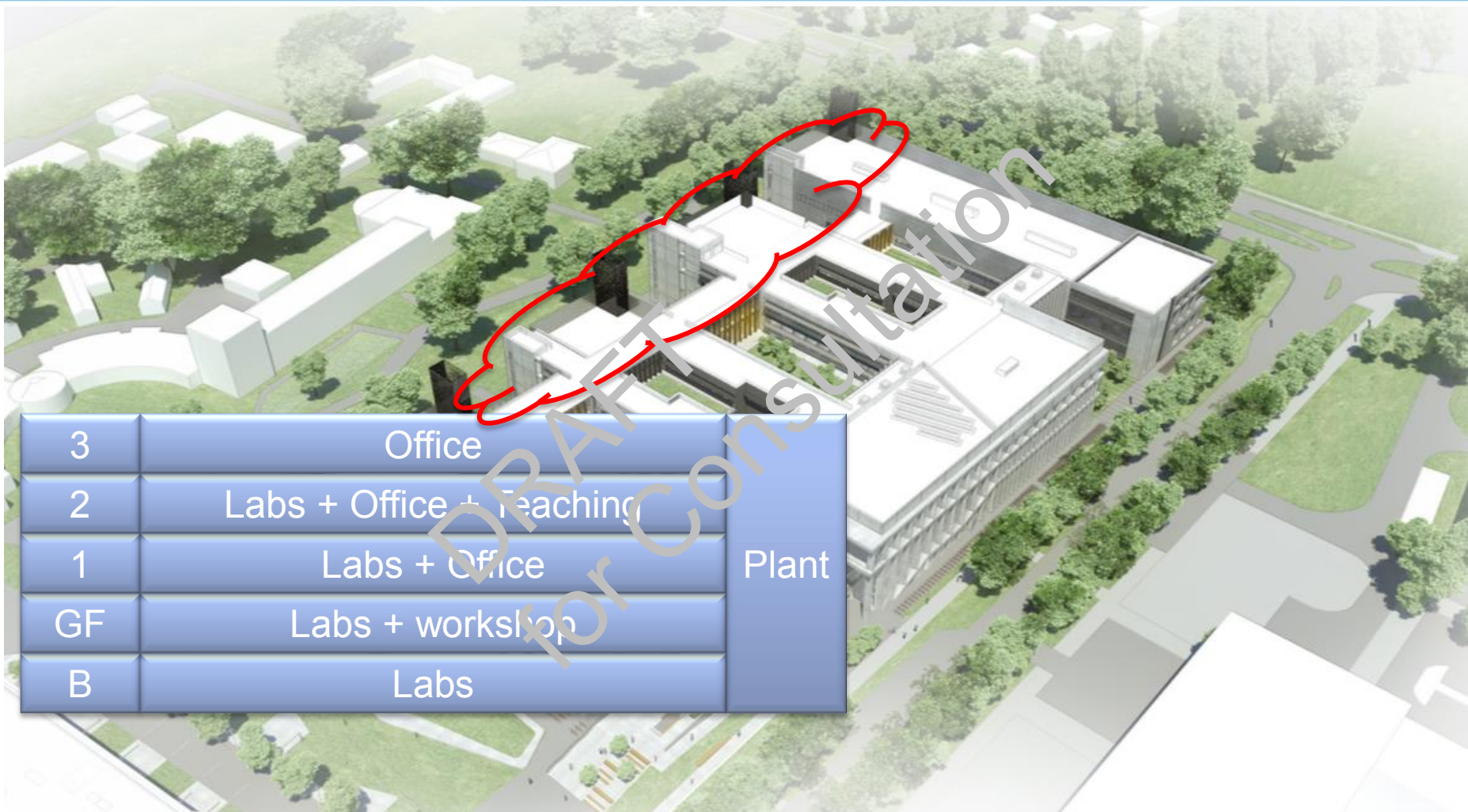


Cavendish III Proposed Design



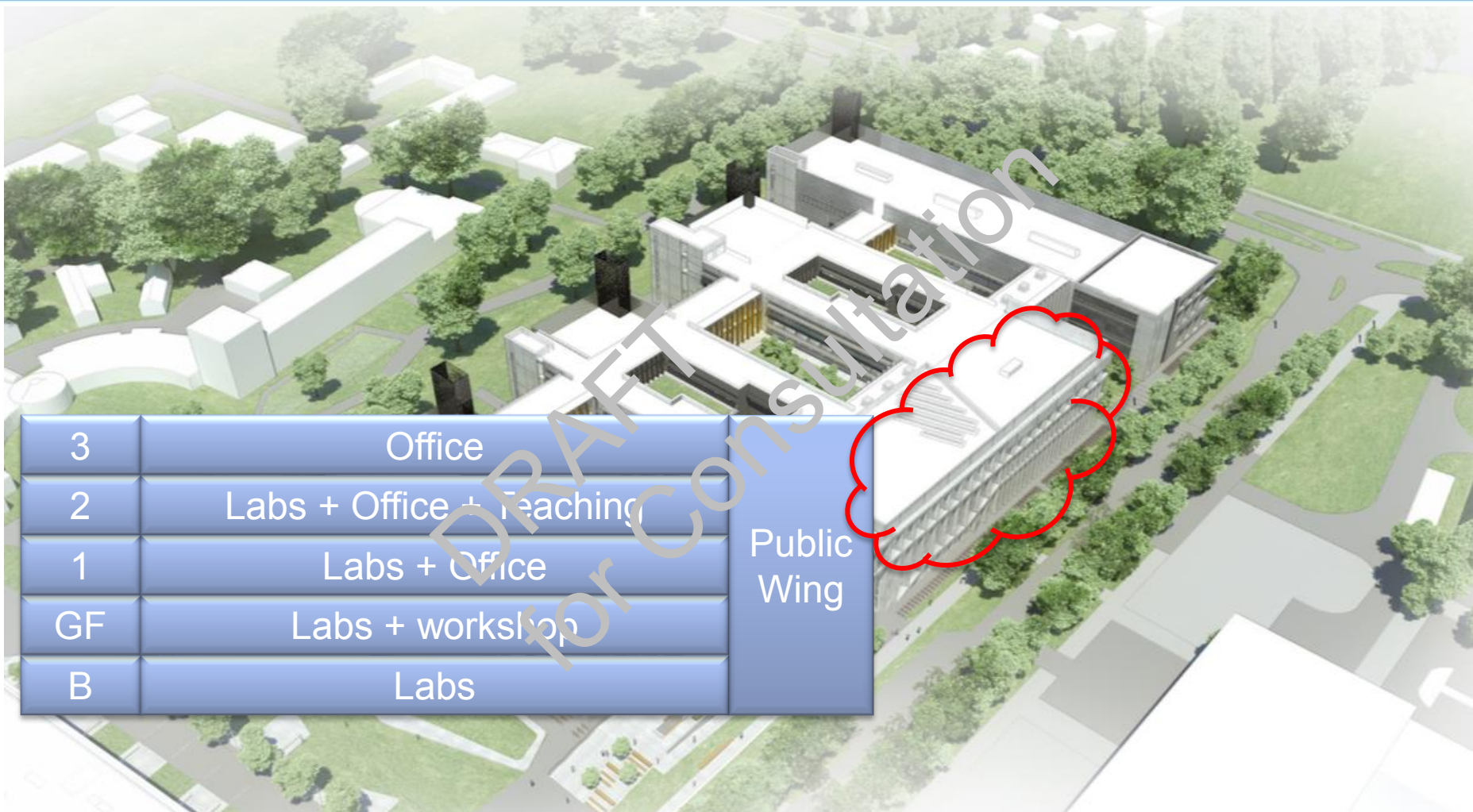
3	Office
2	Labs + Office + Teaching
1	Labs + Office
GF	Labs + workshop
B	Labs

Cavendish III Proposed Design



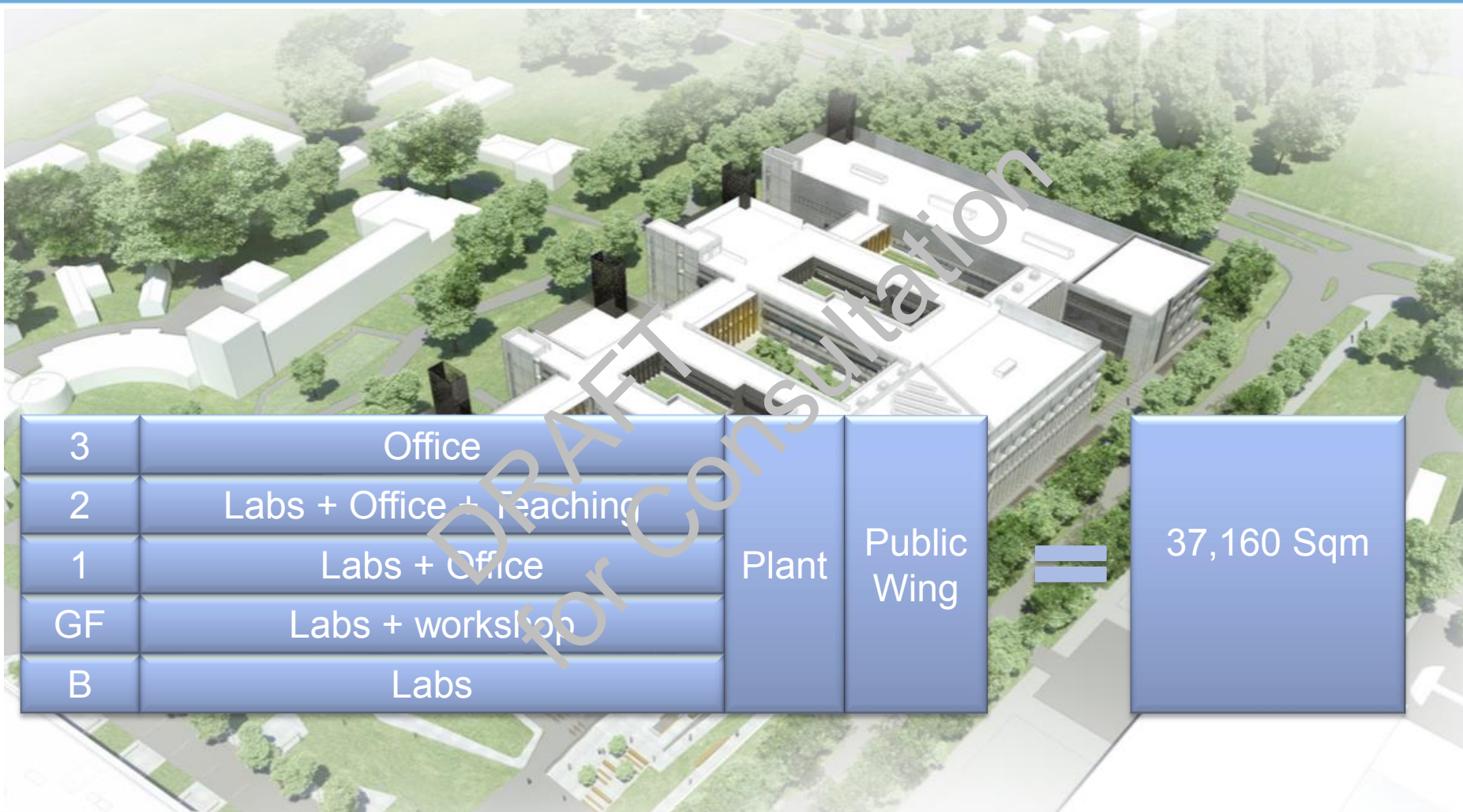
3	Office	Plant
2	Labs + Office + Teaching	
1	Labs + Office	
GF	Labs + workshop	
B	Labs	

Cavendish III Proposed Design



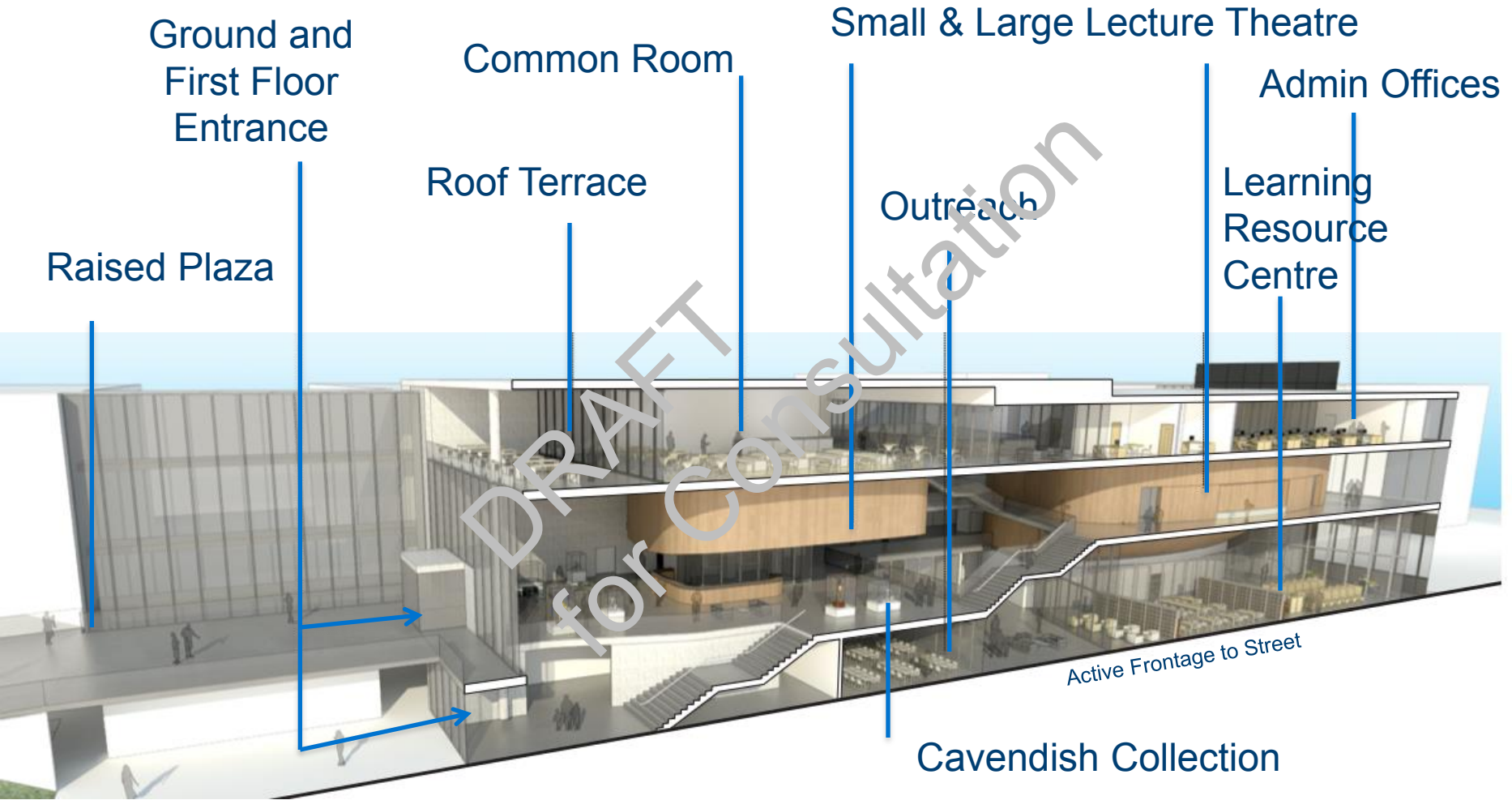
3	Office	Public Wing
2	Labs + Office + Teaching	
1	Labs + Office	
GF	Labs + workshop	
B	Labs	

Cavendish III Proposed Design



3	Office	Plant	Public Wing	=	37,160 Sqm
2	Labs + Office + Teaching				
1	Labs + Office				
GF	Labs + workshop				
B	Labs				

Cavendish III Proposed Design – Public Wing



Cavendish III Proposed Design – Active Frontages



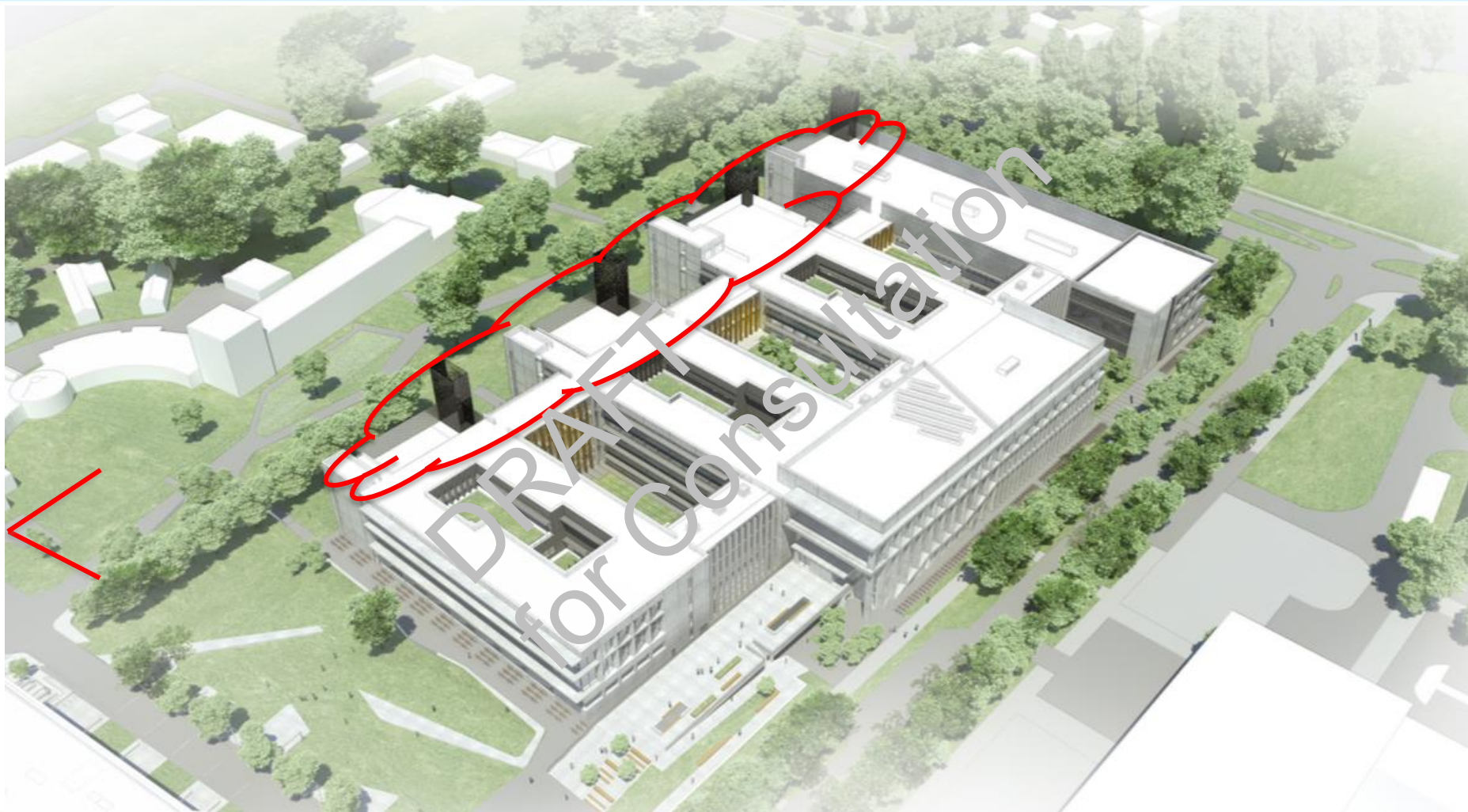
Cavendish III Proposed Design



View From Madingley Road



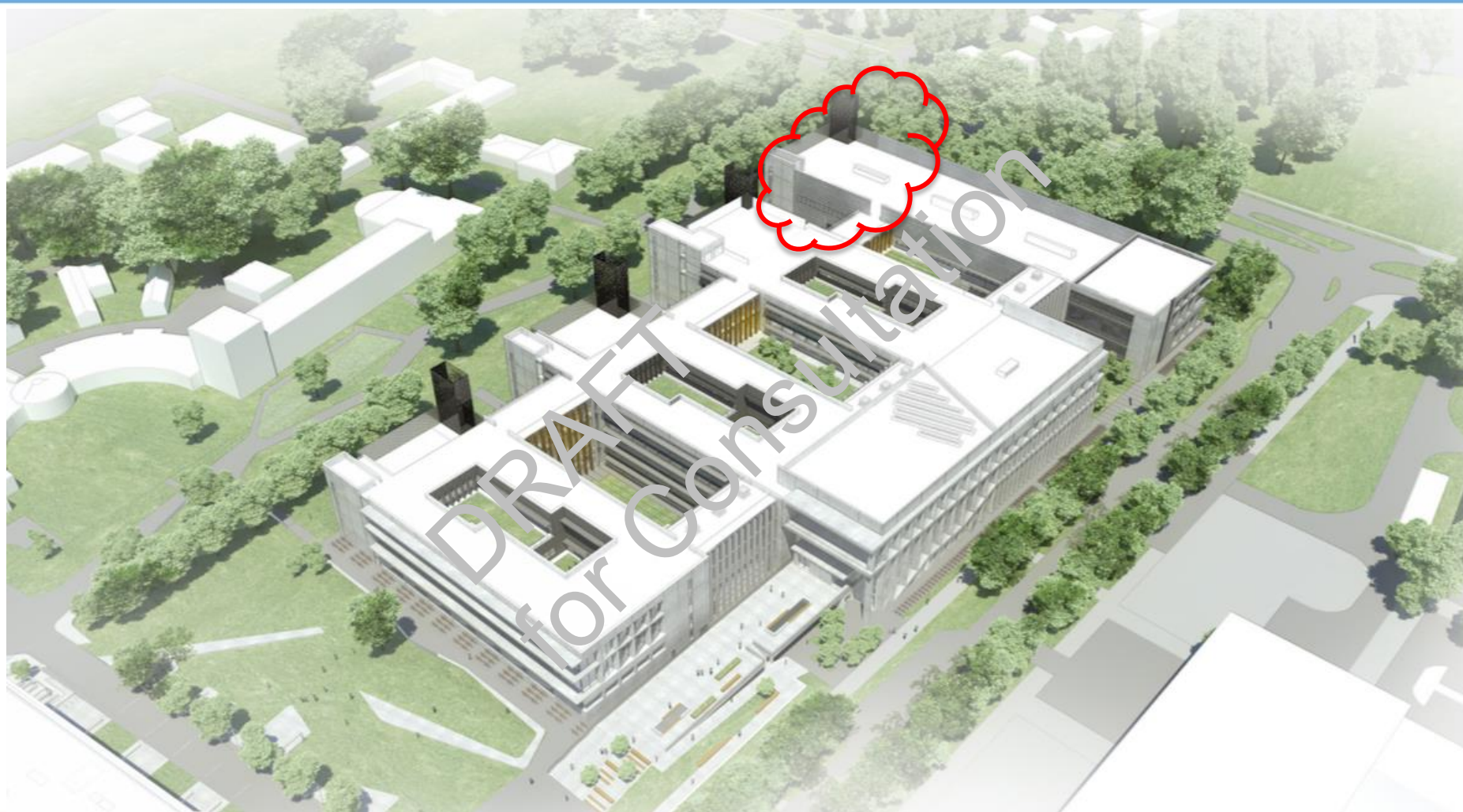
Cavendish III Proposed Design



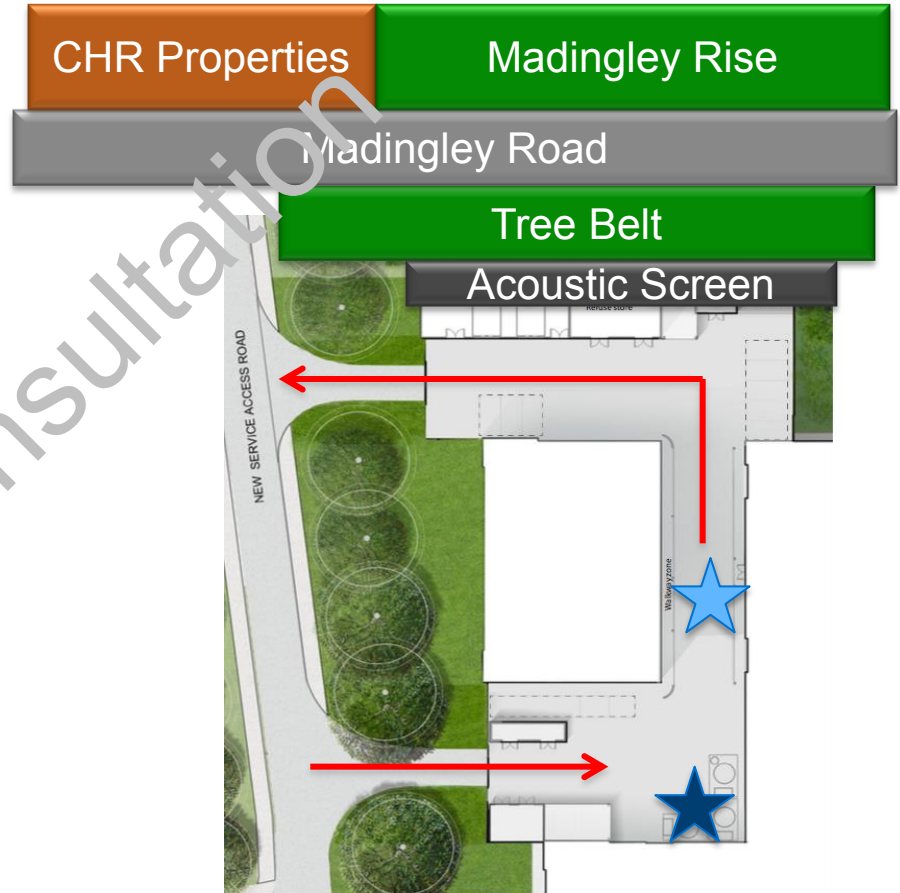
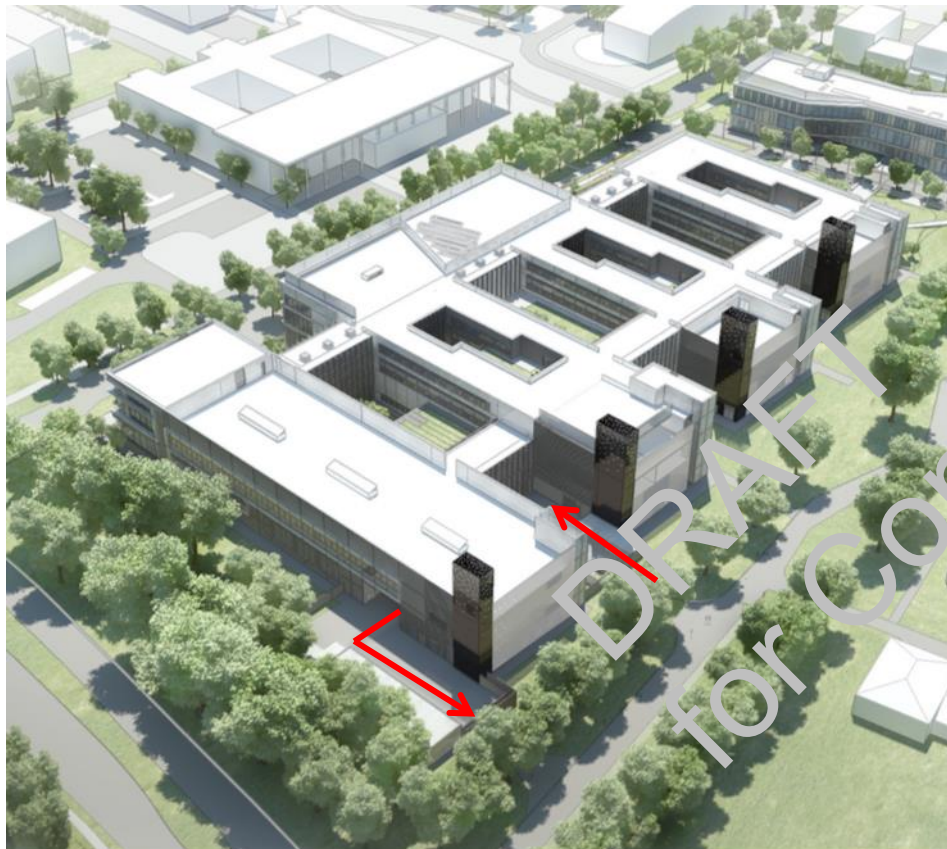
Southern and Western Elevation



Service Yard

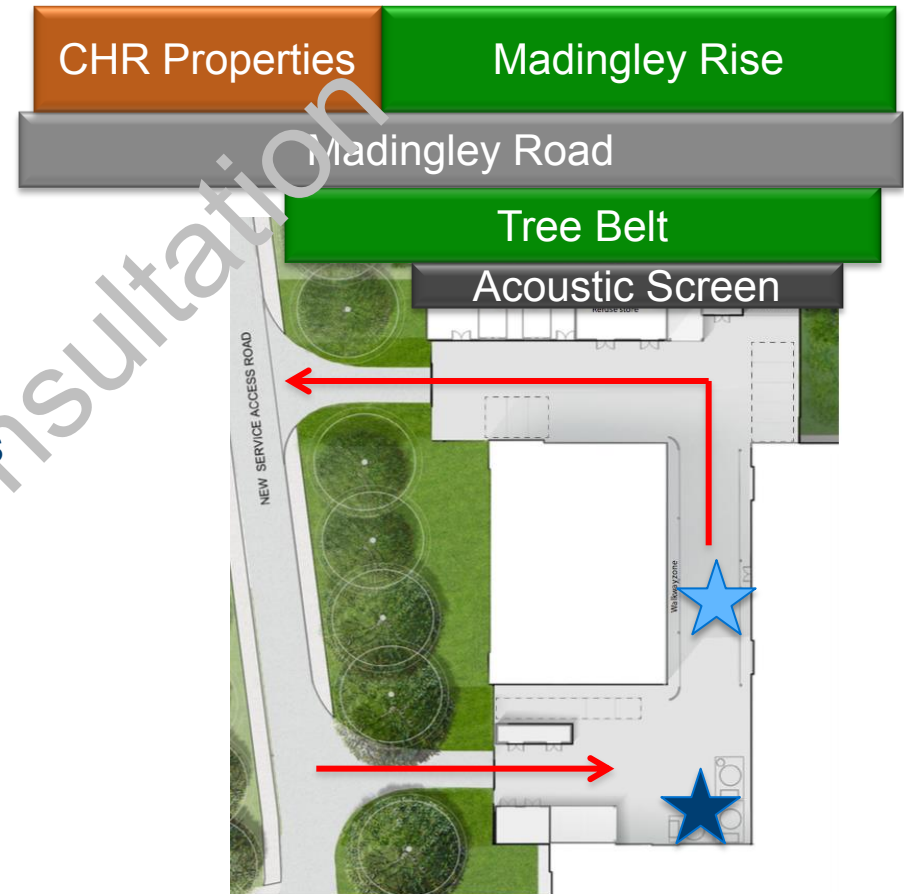


Service Yard



Service Yard

- No deliveries outside of daytime hours (all deliveries between 7am & 7pm).
- Over a 12 hour period
 - 2 deliveries per hour
 - Around 75% of deliveries will be with a small van or light good vehicle
 - Average 1 large lorry every 4 hours
 - One HGV a week for LN₂
- All deliveries in daytime hours are predicted to be below the current background level.
- Left in, left out arrangement from Maddingley Road.

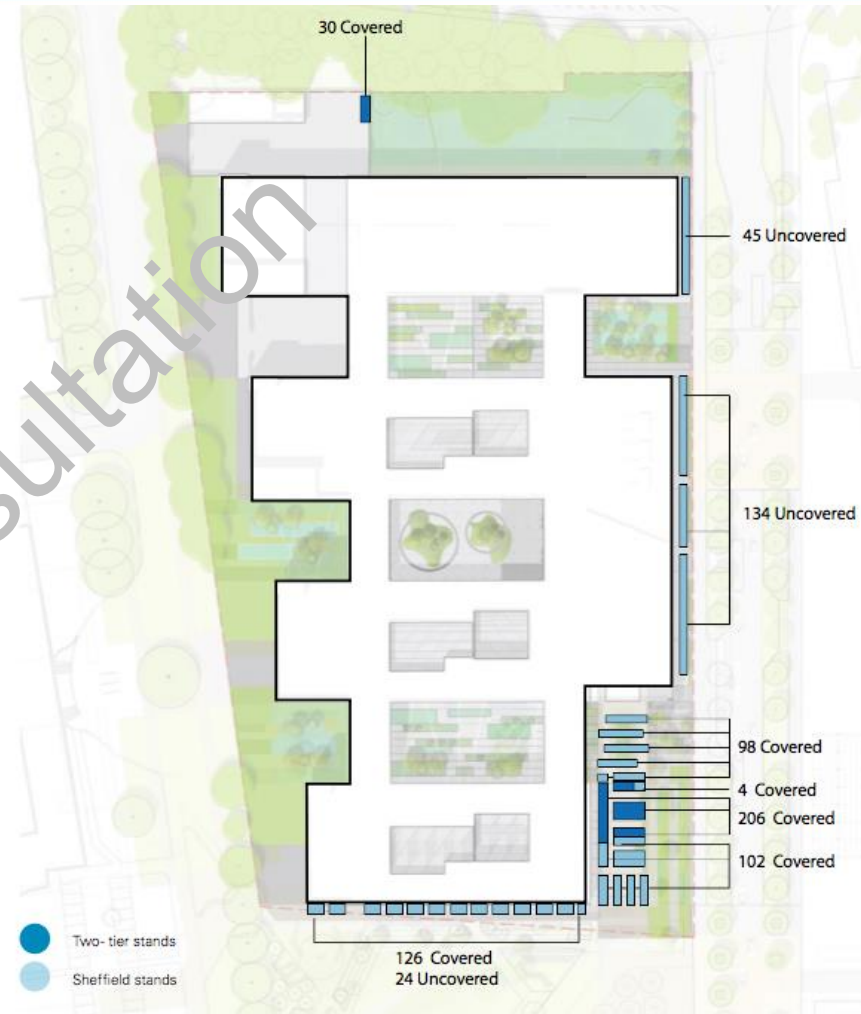


View From Bell Mouth of Conduit Head Road



Cycle Parking

- 769 Spaces
- 74% Covered
- Majority of spaces located under the raised plaza.
- Staff spaces (long term cycle parking) all covered and behind card activated door
- Students mix of covered and uncovered



Car Parking

- 77 Spaces
- Additional 4 disabled spaces
- Spaces will be located within the existing car parks within the site already built.
- No requirement for these proposals to trigger the need for any multi-storey car parks.



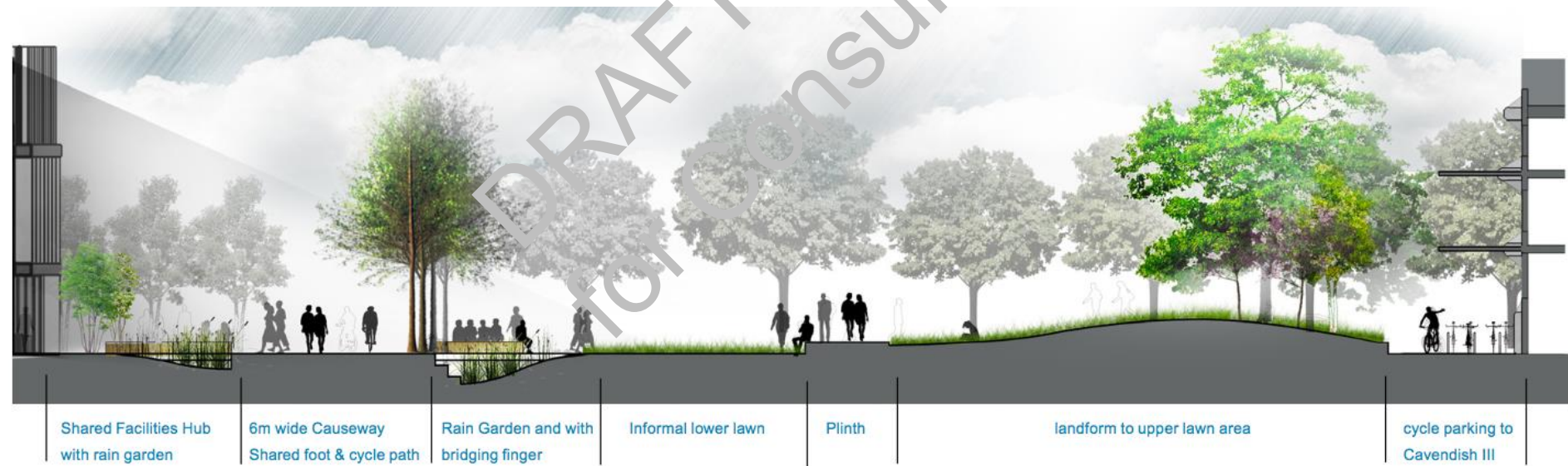
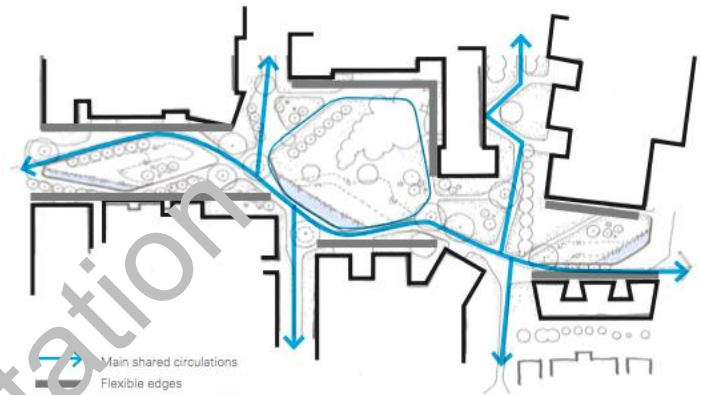
JJ Thomson Gardens

- ① Plinth seating
- ② low wall for a permeable edge
- ③ Informal lawn and flexible use
- ④ Extensions into the landscape with seating
- ⑤ Gateway plaza meeting spot with feature tree
- ⑥ Open space allowing movement and temporary installations (market, food trucks...)
- ⑦ Cavendish III cycle parking
- ⑧ Causeway - main cycle & pedestrian route
- ⑨ Feature Trees



JJ Thomson Gardens

- 6m wide shared pedestrian and cycleway.
- Potential to segregate once later phases, and the link between High Cross and JJ Thomson Avenue is complete.
- Central North/South Green Link included.



JJ Thomson Gardens

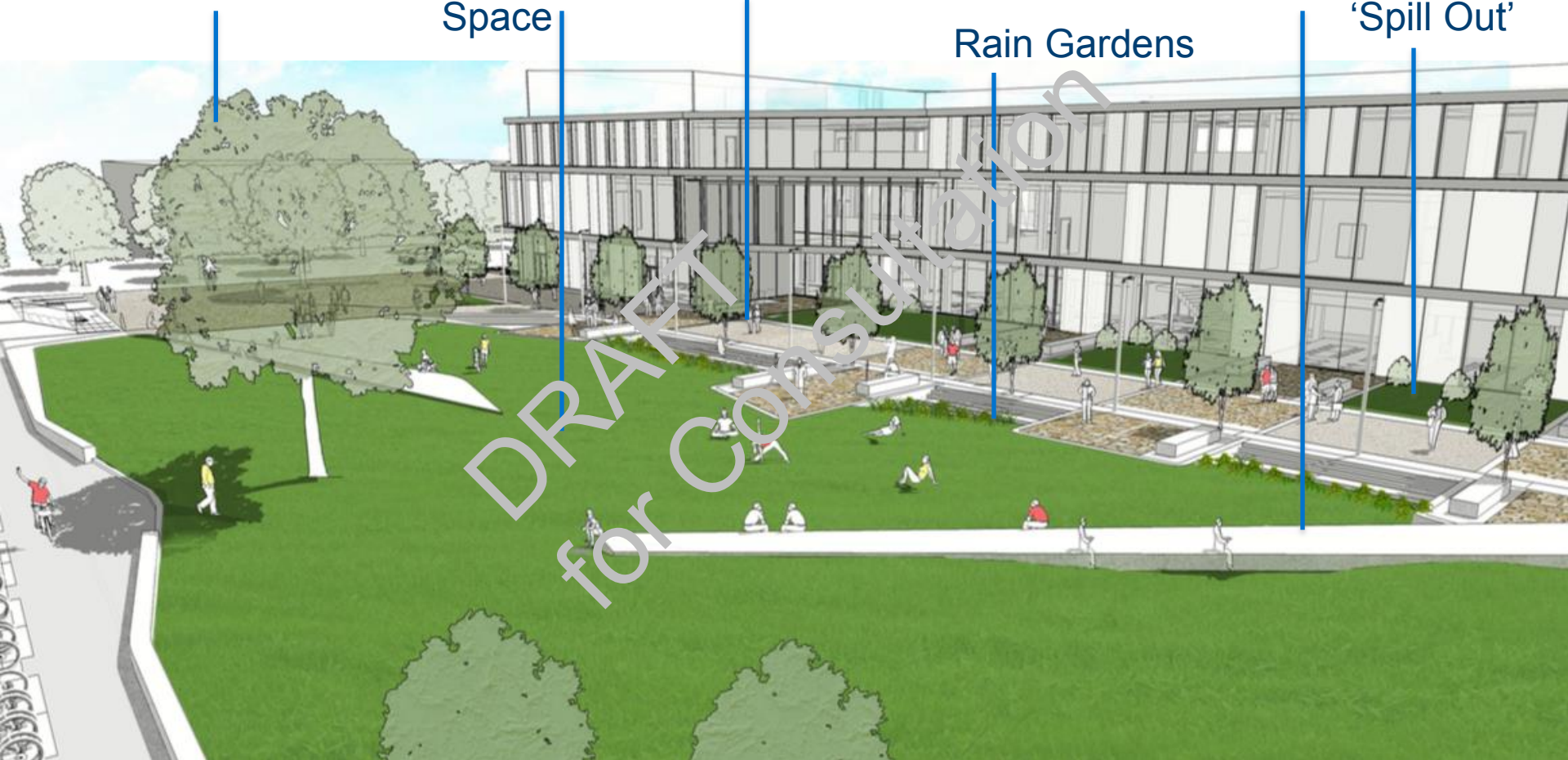
Specimen Tree

Recreation
Space

Cycle & Pedestrian Link

Rain Gardens

Seating and SFH
'Spill Out'



JJ Thomson Gardens

Cavendish III

Recreation
Space

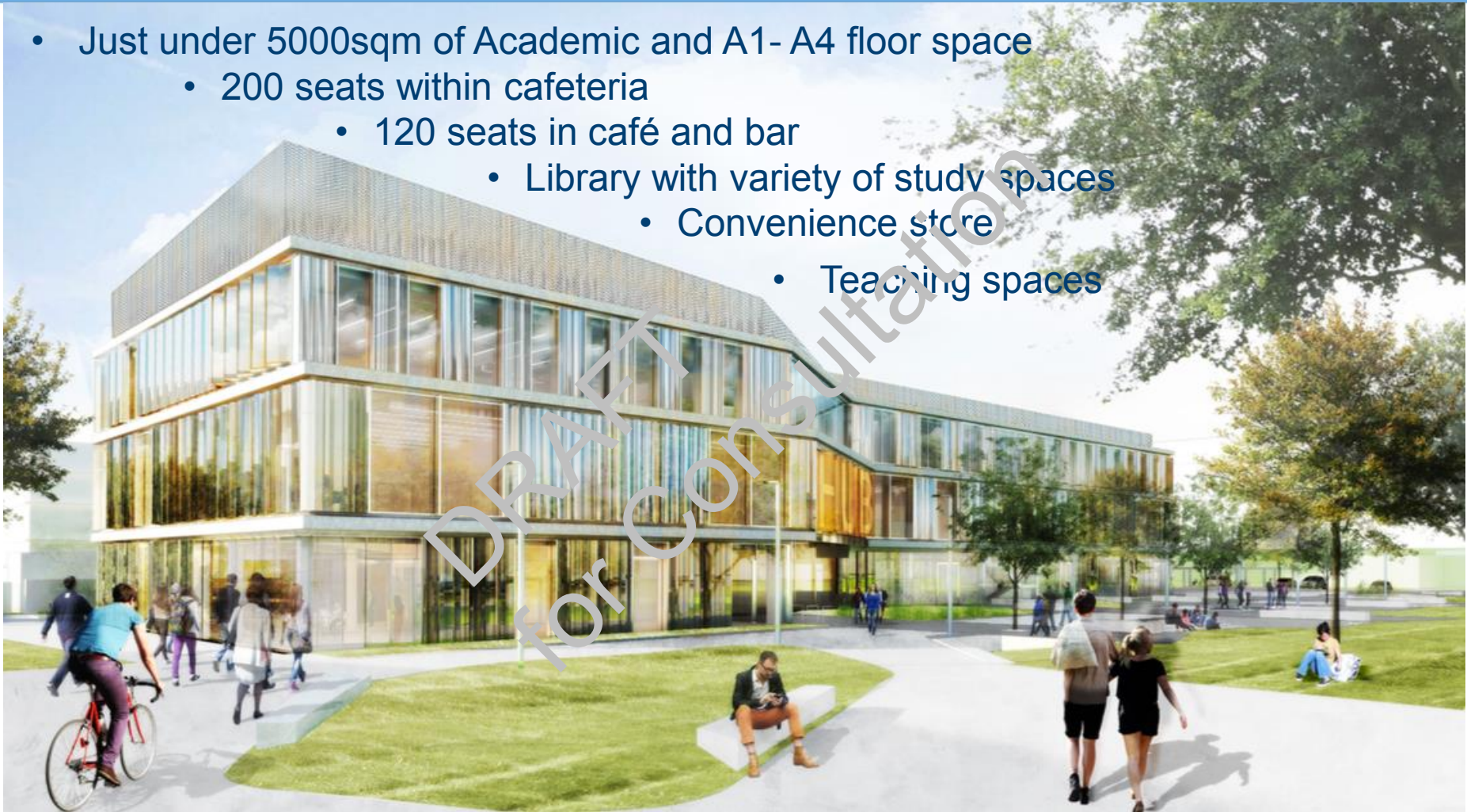
Cycle & Pedestrian Link

SFH 'spill out' and
Productive Landscape



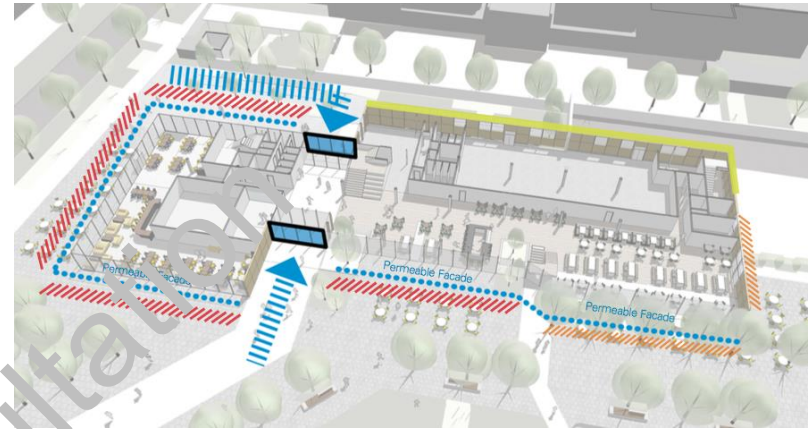
Shared Facilities Hub

- Just under 5000sqm of Academic and A1- A4 floor space
 - 200 seats within cafeteria
 - 120 seats in café and bar
 - Library with variety of study spaces
 - Convenience store
 - Teaching spaces

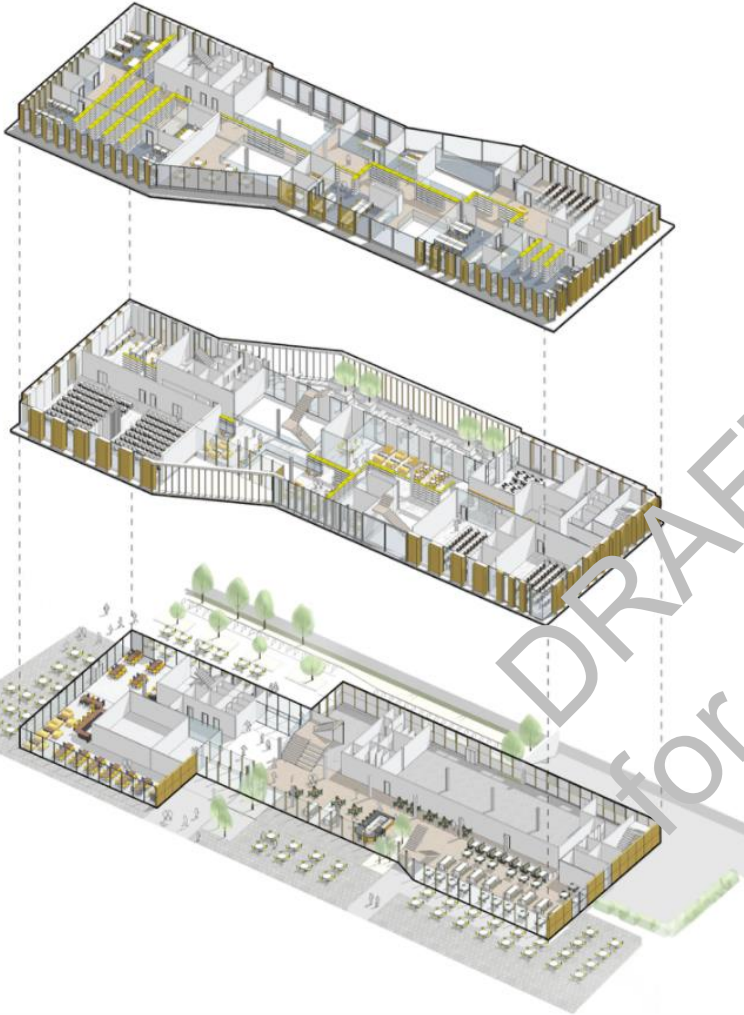


Shared Facilities Hub – Ground Floor

- Two main entrances, one to the southern plaza and one fronting JJ Thomson Gardens.
- Transparent design
- Convenience store
- Range of catering options
- Outdoor Seating around the building
- Back of house/service yard accessed from Charles Babbage Road

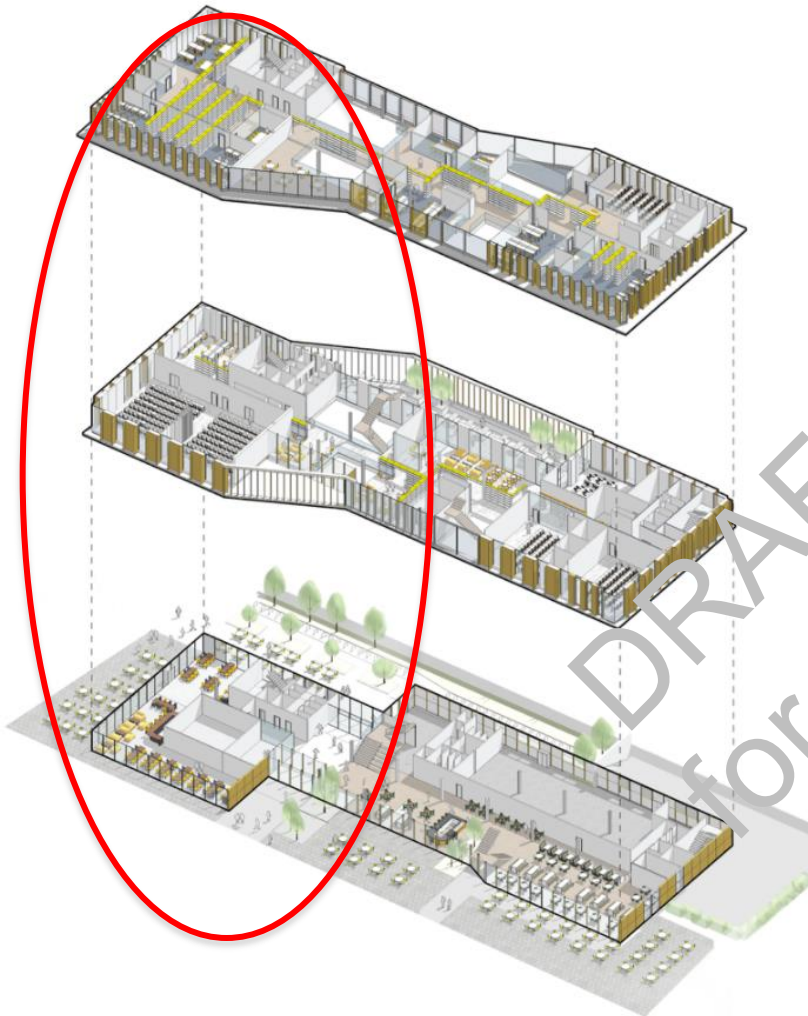


Shared Facilities Hub – First and Second Floor



- Range of flexible teaching rooms, meeting rooms and seminar rooms
- Low, medium and high intensity study areas
- Contemplation space
- First Floor terrace area.

Shared Facilities Hub – Extended hours



- Building is zoned so that part or all of the building can continue to be used into the evening.
- Restaurant/Bar will encourage activity after normal office hours.
- Community use of the flexible teaching spaces for fitness classes or resident's meetings.

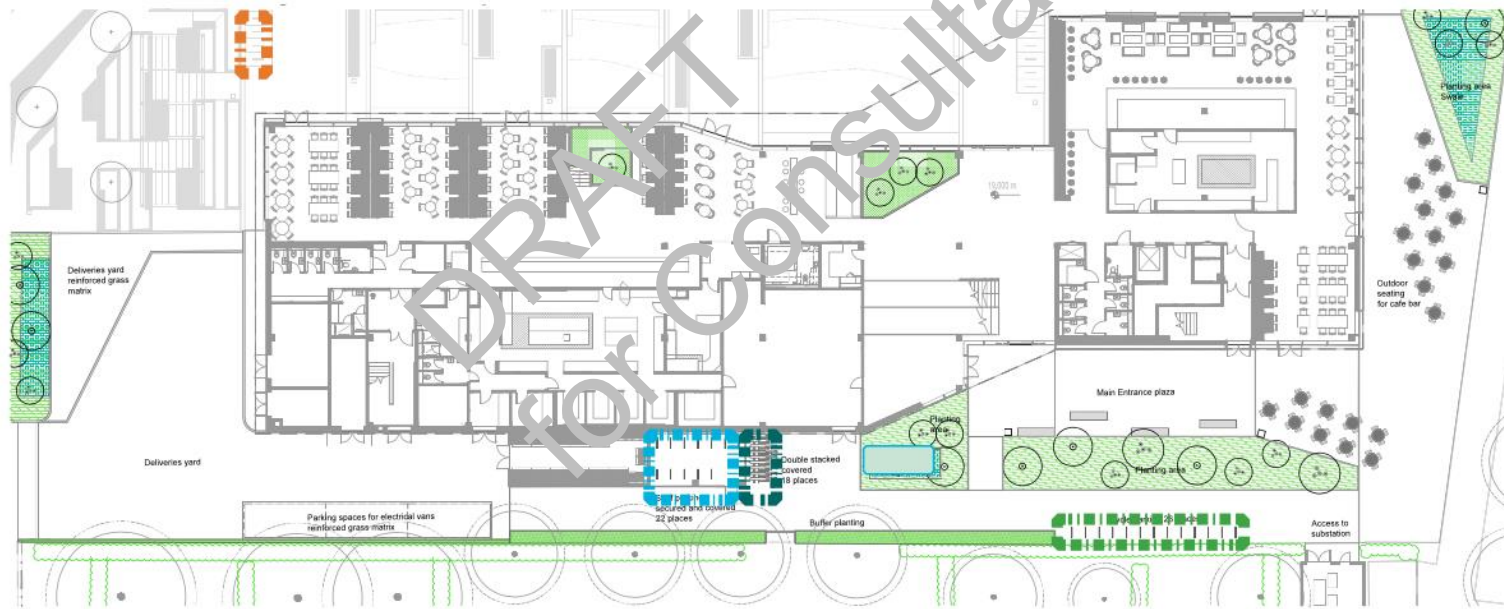


Shared Facilities Hub – Car and Cycle Parking

- Car Parking (24 Spaces) within existing Infrastructure on site
- Two Disabled Spaces close to main entrance

Cycle Parking – 78 Spaces

Cycle Parking Provision - Day 1 78 Spaces

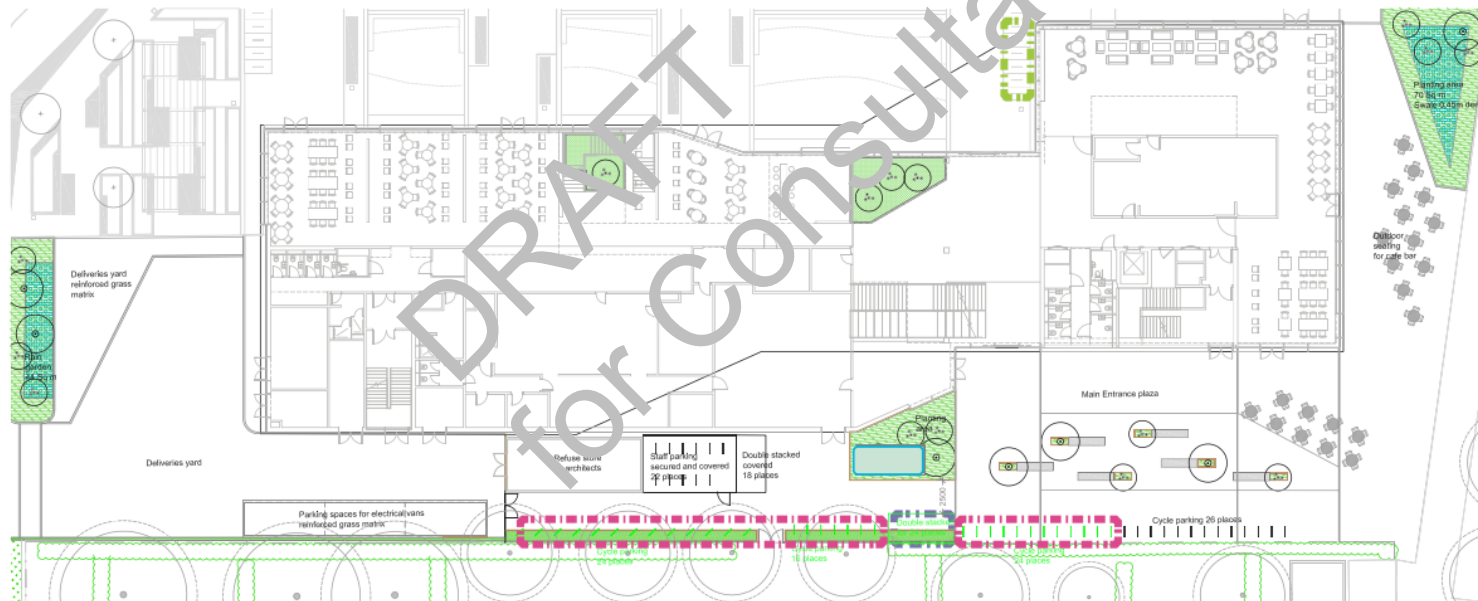


Shared Facilities Hub – Car and Cycle Parking

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Cycle Parking– 176 Spaces

Cycle Parking Provision - Expansion 1 Additional 98 Spaces

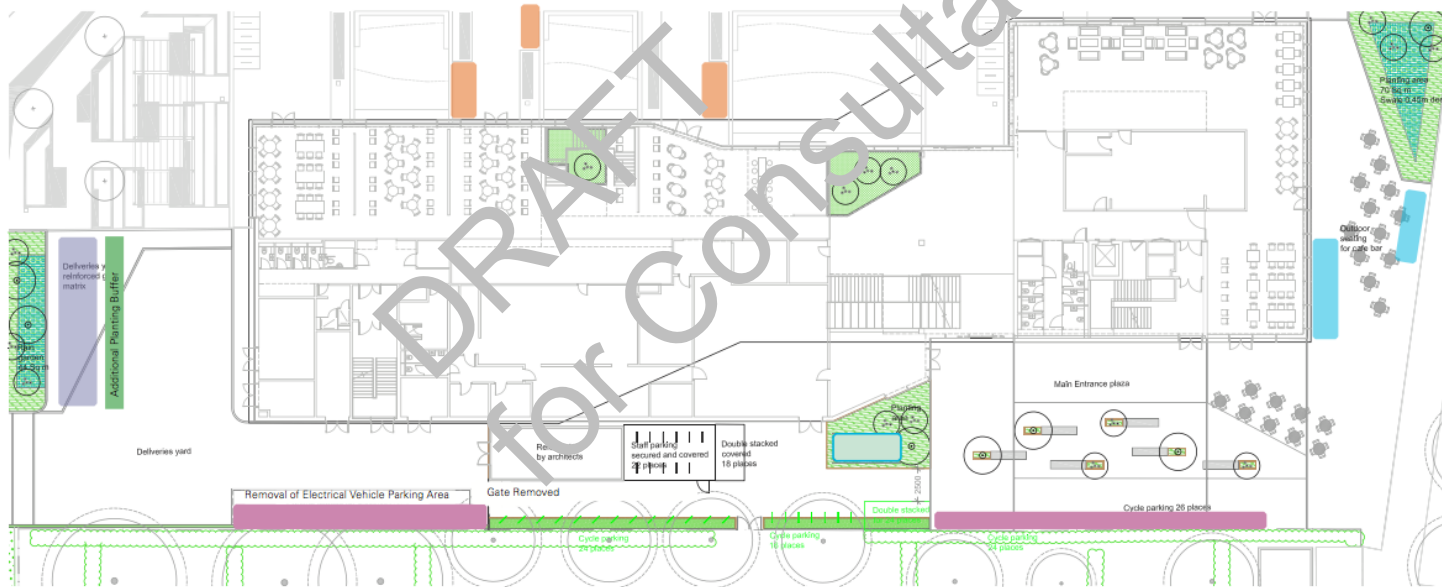


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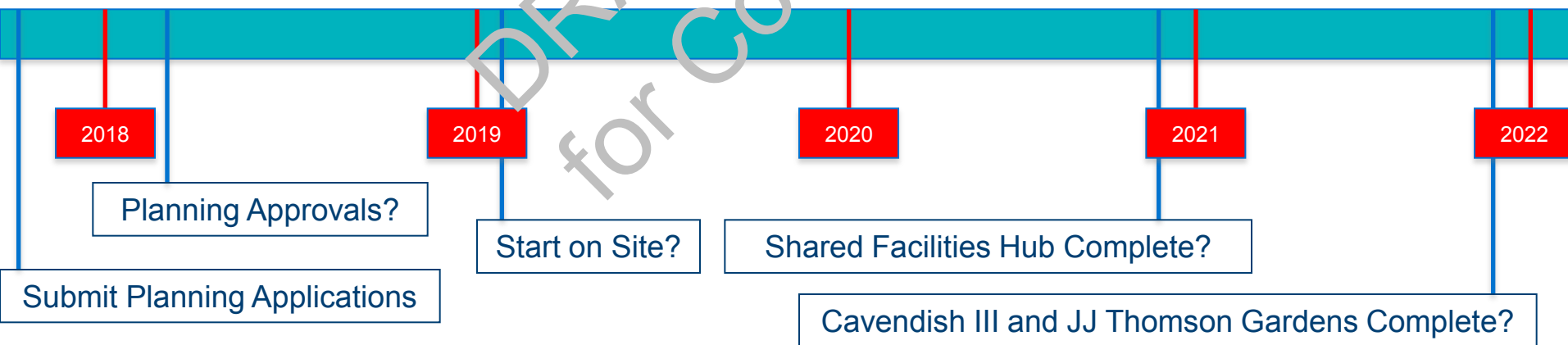
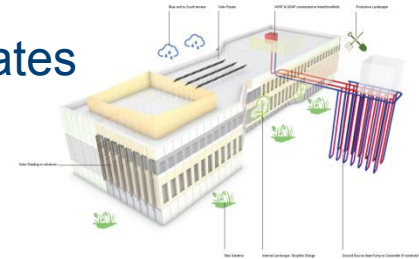
Cycle Parking– 320 Spaces

Cycle Parking Provision - Expansion 2 Additional 144 Spaces



Cavendish III and Shared Facilities Hub

- Both schemes will achieve BREEAM Excellent
- Ground Source Heat Pumps connected between buildings as part of a network
- SuDS incorporated into the designs to achieve required run off rates
- Health and Well Being considered in the designs
- Both schemes designed to reflect the new vision for the West Cambridge Site



Questions

