

THE FUTURE FLIGHT CHALLENGE SKYBUS PROJECT

THE INFRASTRUCTURE SOLUTION FOR A LARGE EVTOL CONCEPT

Agenda

- **The Skybus Proposition**
- **Use Case and Network**
- **Site Selection Criteria**
- **Airfield Configuration**
- **Terminal Arrangement**
- **The Passenger Journey**
- **Security Screening**
- **Forecourt Provision**
- **Sustainable Design Integration**
- **Skybus Boarding**

The Skybus Proposition



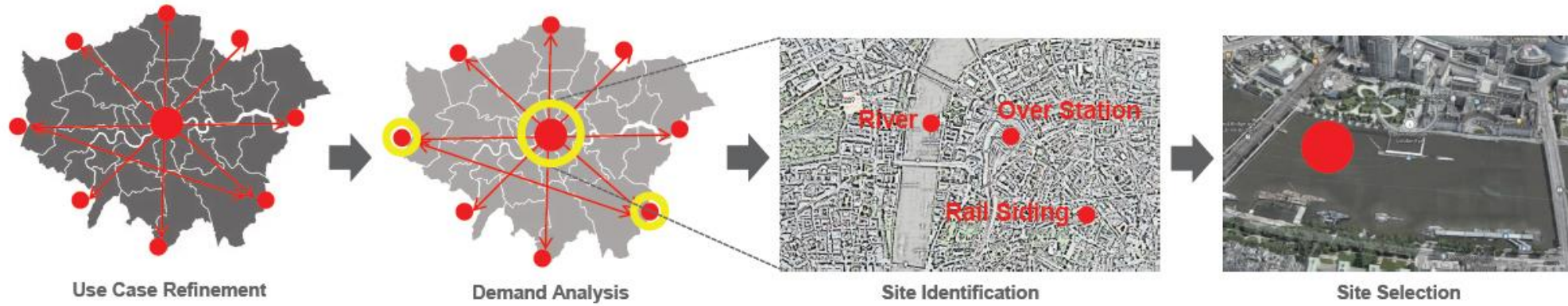
Skybus Vehicle

- Large tilt-rotor fully electric concept aircraft
- Carrying up to 30 persons
- 22m max vehicle dimension (rotor tip to rotor tip)
- Multiple c.25 mile intra-city trips



Central London Hub

Use Case and Network



Site Selection Process

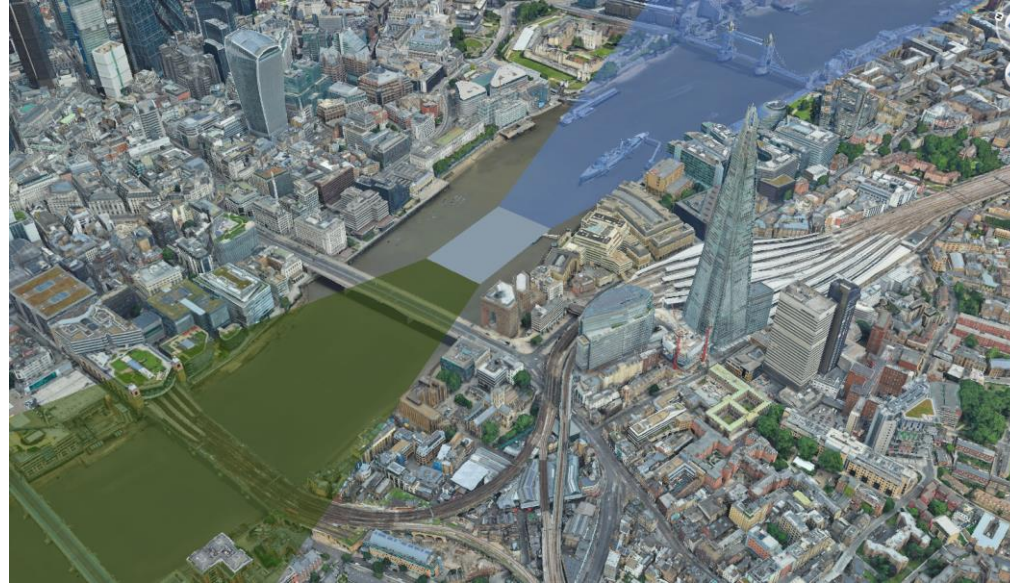


Peripheral London Vertiports

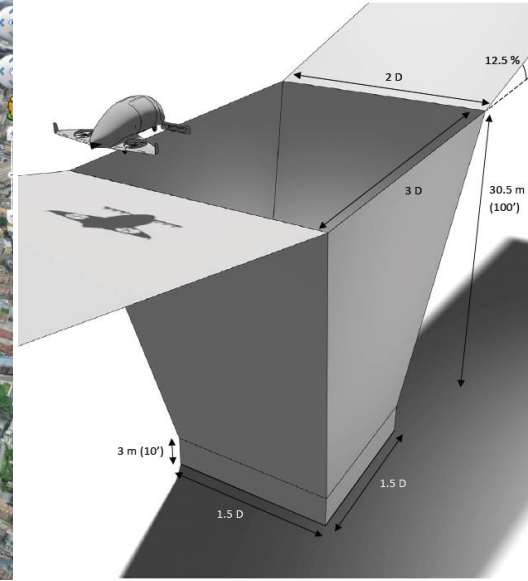
- 'M25' use case flying into central London from peripheral sites
- 'Mind the Gap' identifying gaps in existing transport infrastructure and plugging with the Skybus service

Site Selection Criteria

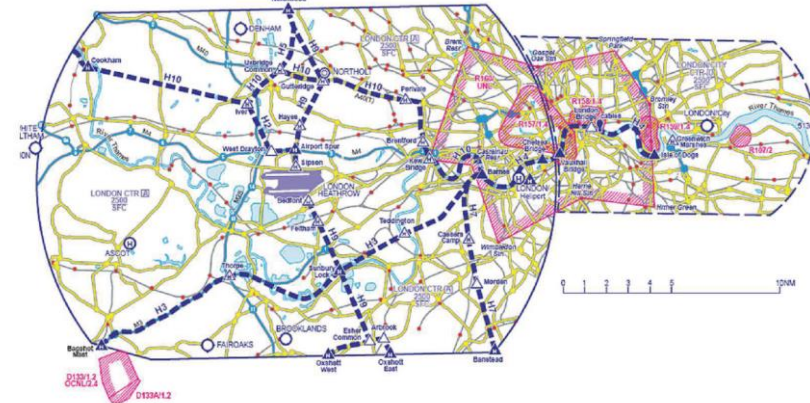
- Noise impact
- Built environment/ OLS
- Compatibility with airspace/ corridors/ restricted air zone
- Transport Connectivity
- Proximity to\ passenger end destinations
- Sensitivity around planning
- Pedestrian access
- Proximity to leisure areas
- Buildability
- Current site use/ Building ownership
- Future site use



Air Infrastructure Compatibility



MOC-2 SC-VTOL showing consideration for vertical take off

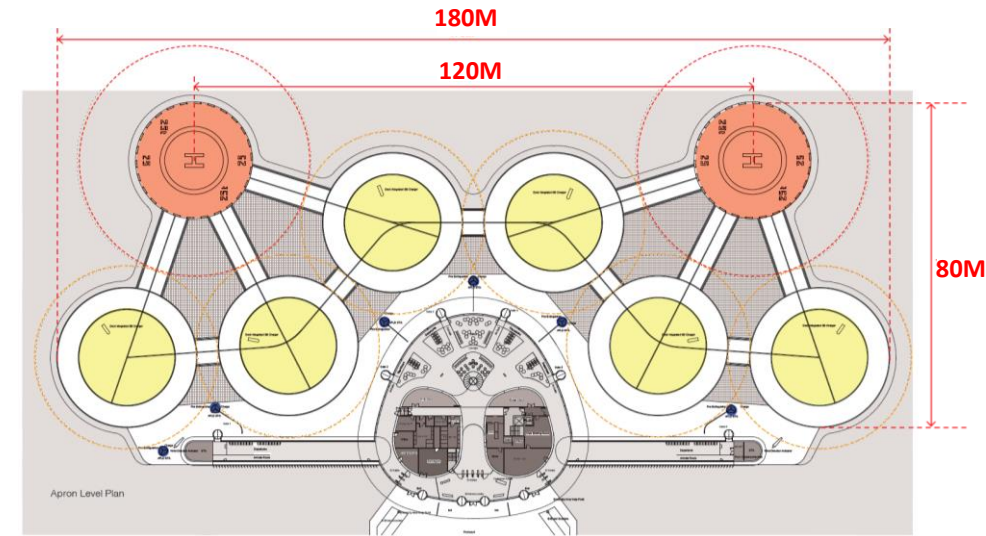


Existing Helicopter Flight Corridor

Airfield Configuration



Aerial View

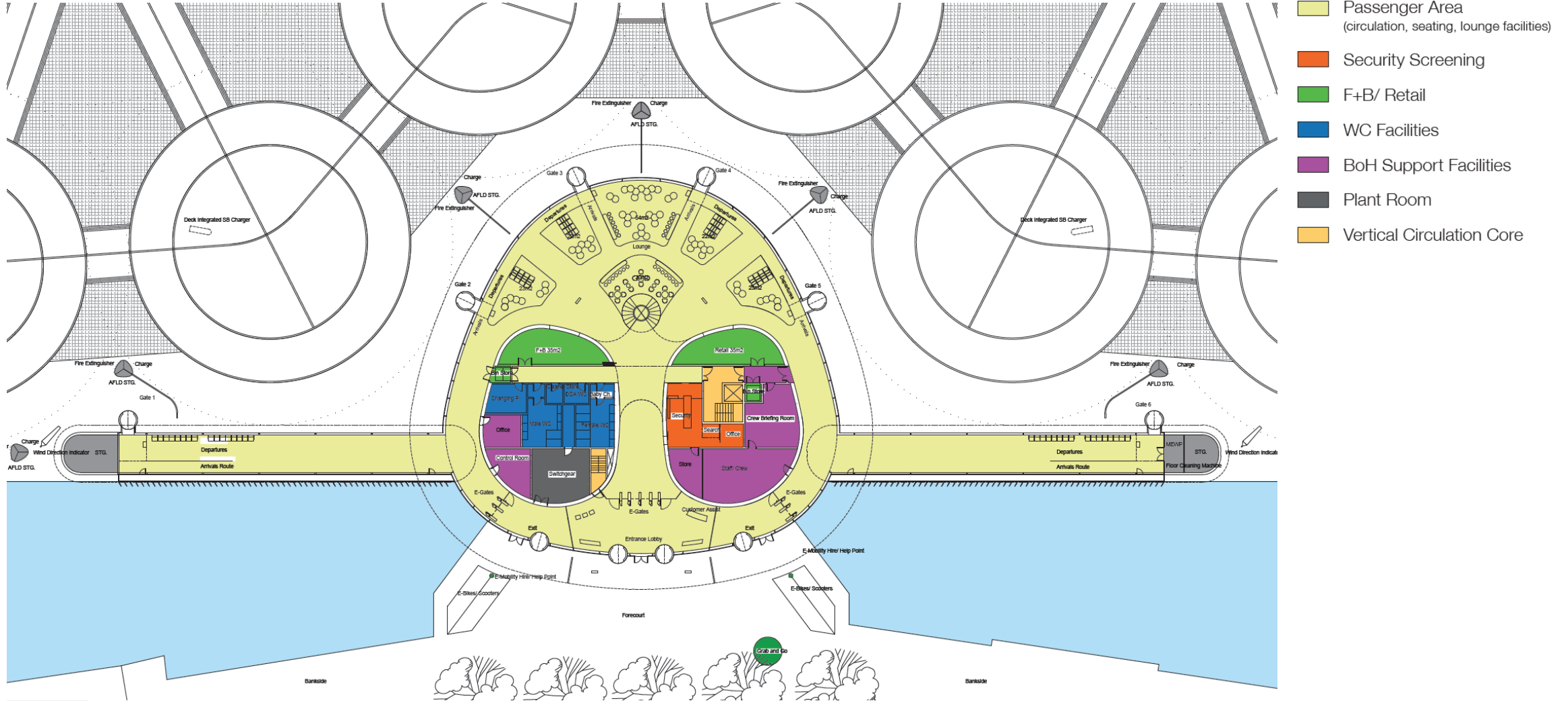


Airfield Layout

KEY:

- TLOF
- Safety Area
- Stand
- Protection Zone
- Stand Cabinets

Terminal Arrangement



Ground Level

Terminal Arrangement

Stand Charge/ Fire Extinguisher/ Airfield STG

Mezzanine Access Lift/ Stair

F+B

Pax/ Staff WC + Changing Places, Baby Change, Cleaners Store

Office

Gate Corridor

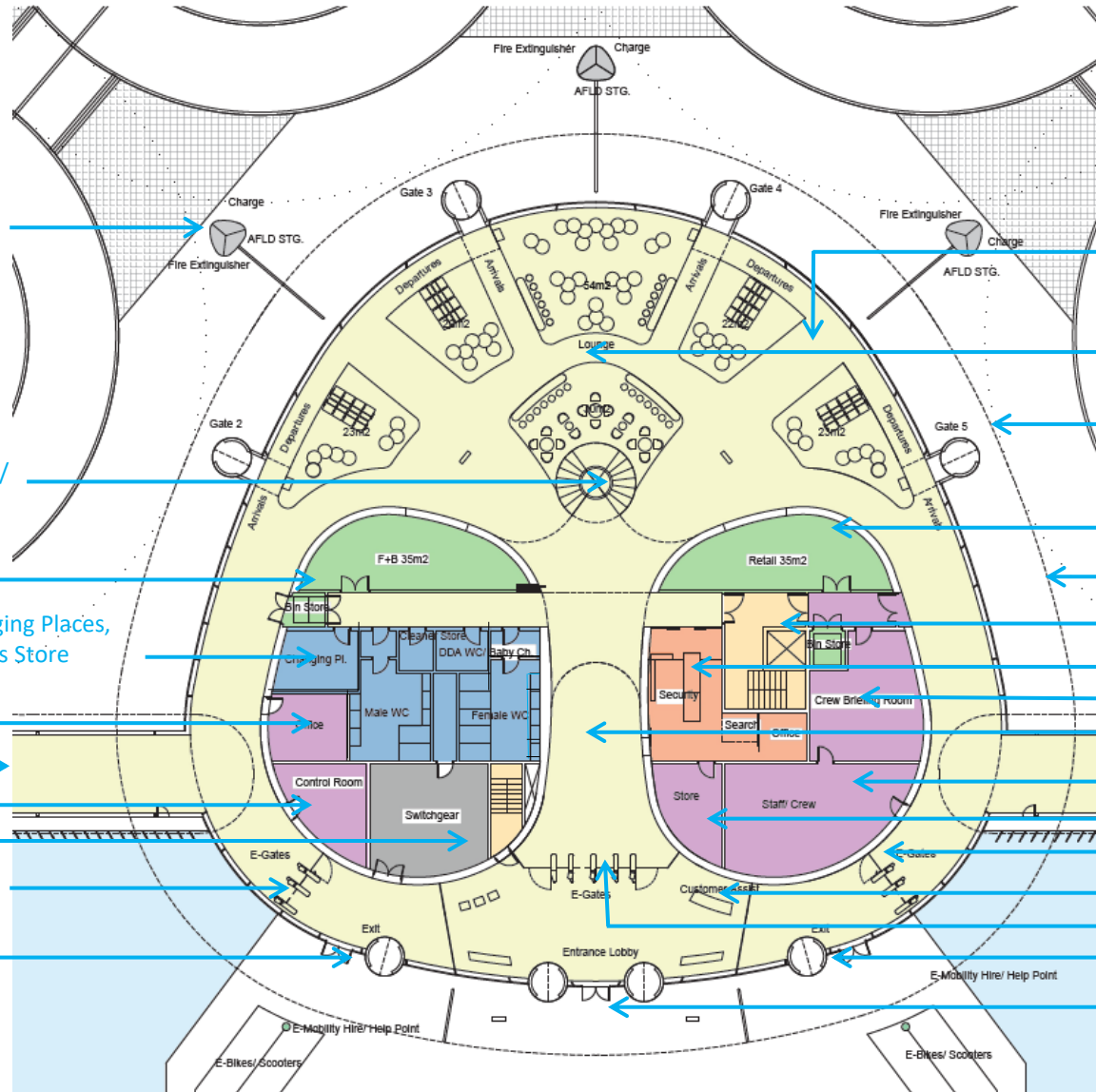
Control Room

Switchgear

Arrivals E-Gates

Arrivals Exit

Ground Level



Departures queueing

Lounge mixed seating beam/ touch down/ F+B

Valve Lobby Door Arrivals + Departures

Retail

Canopy above

BoH/ Secondary Core

Search

Crew Briefing Room

Security Tunnel

Crew Room

Store

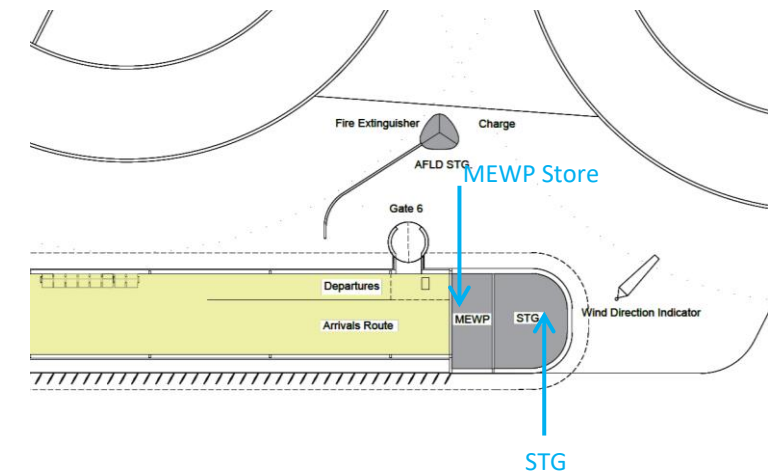
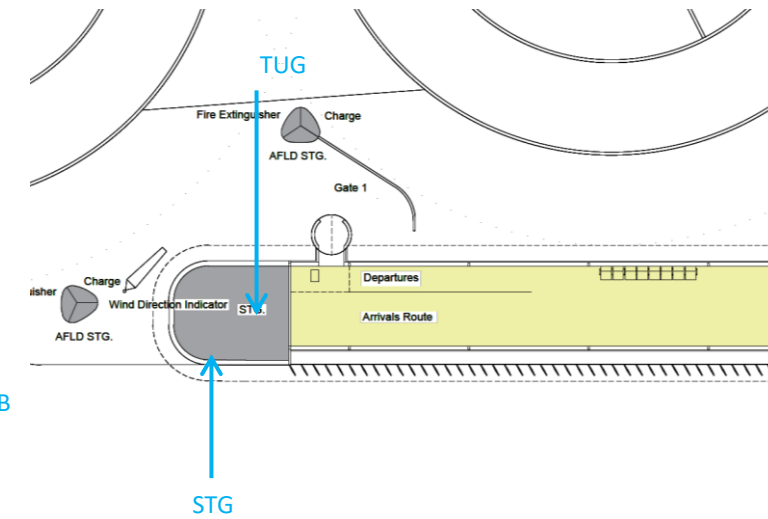
Arrivals E-Gates

Help Desk

Departures E-Gates

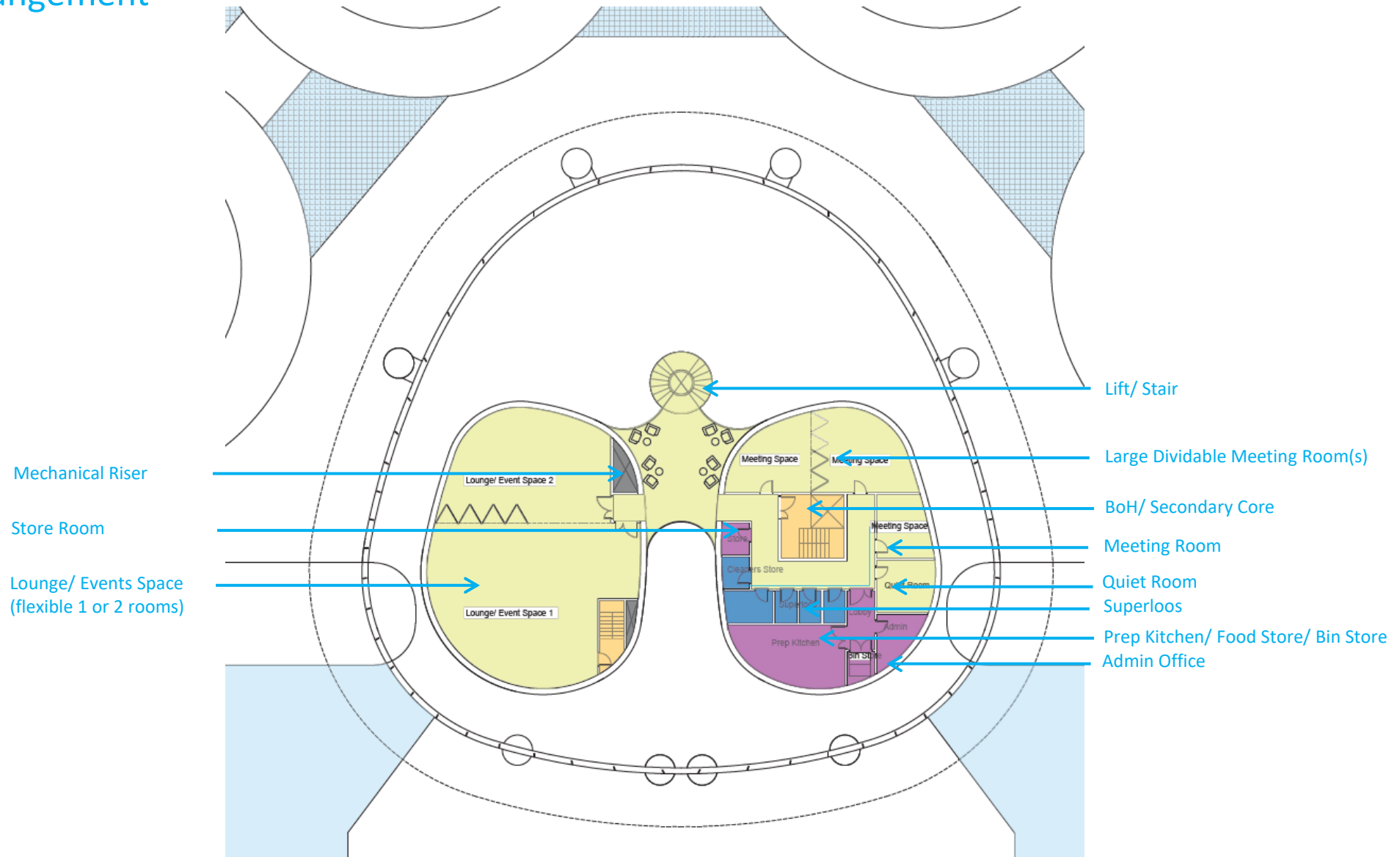
Arrivals Exit

Entrance



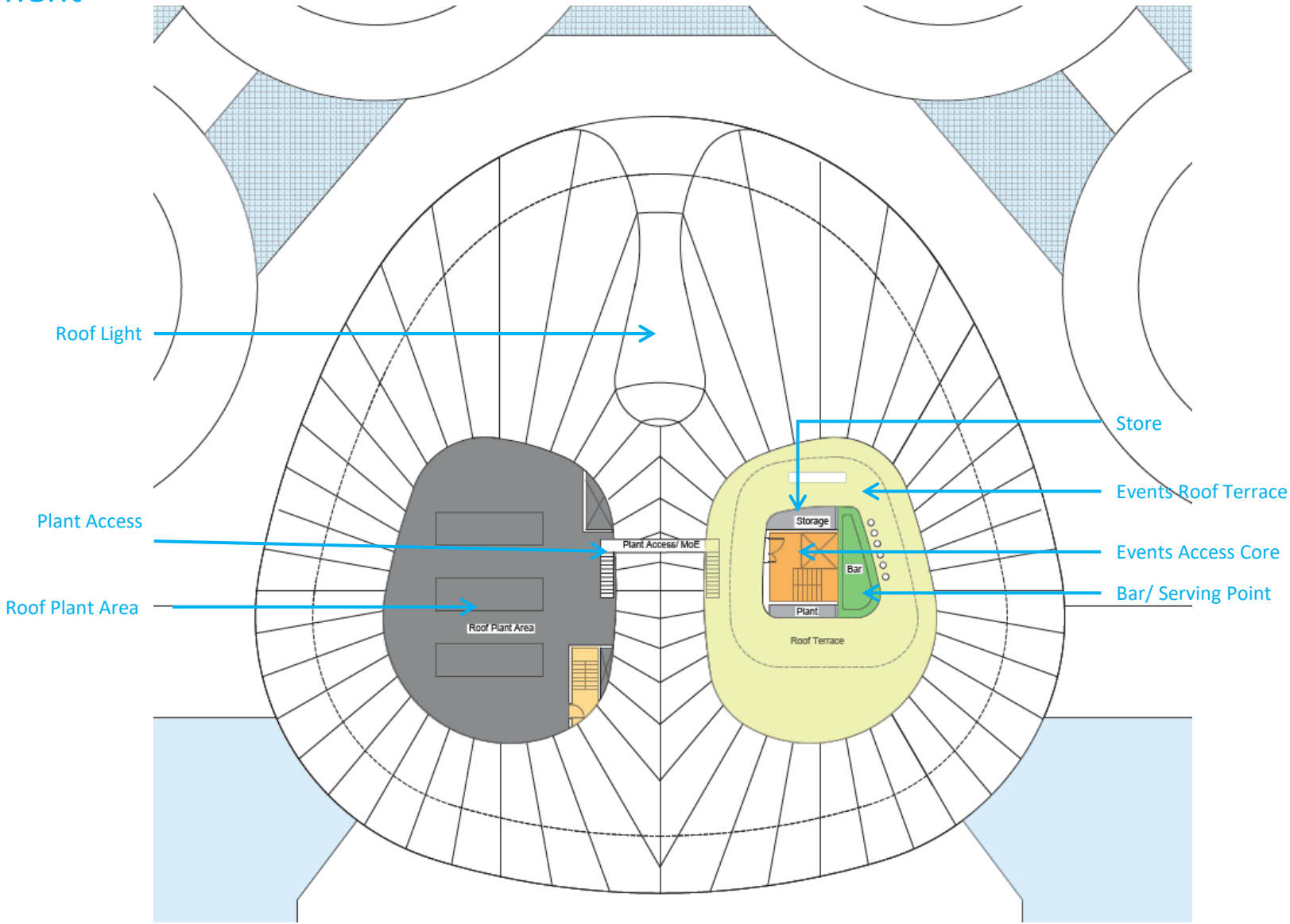
Ground Level – Pier Tips

Terminal Arrangement



Mezzanine Level

Terminal Arrangement

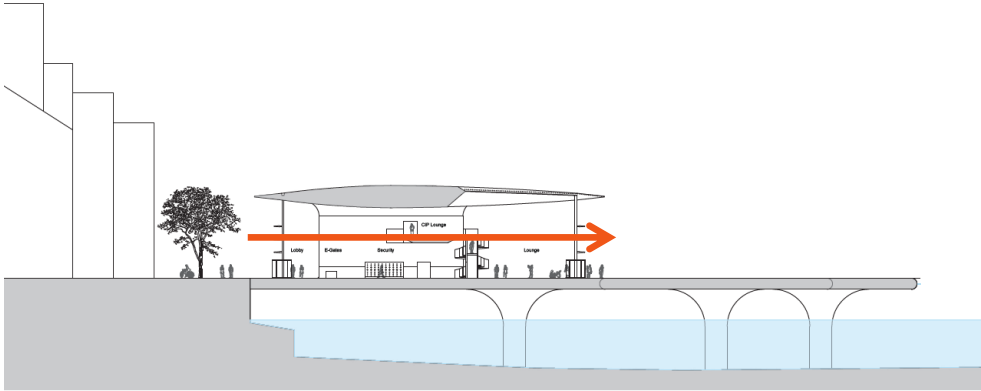


Roof Level

The Passenger Journey

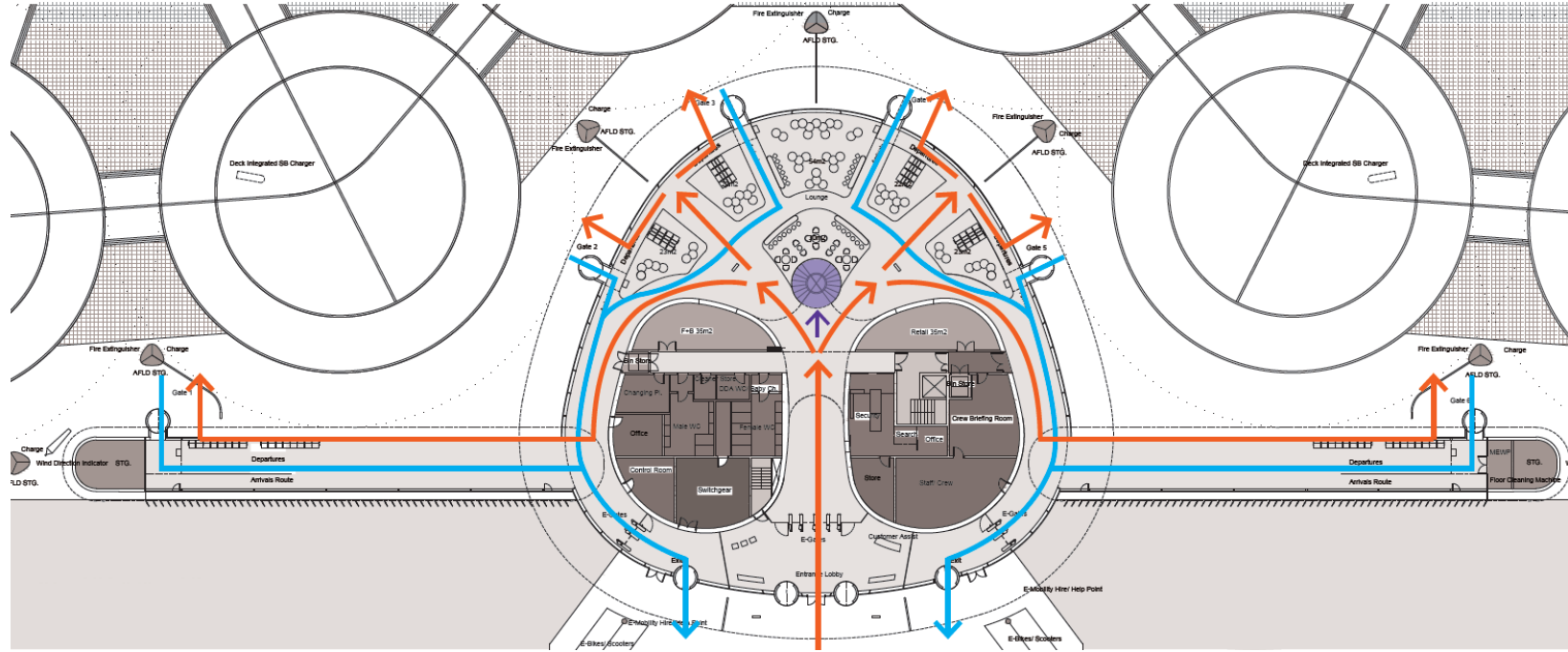


Bankside Entrance View



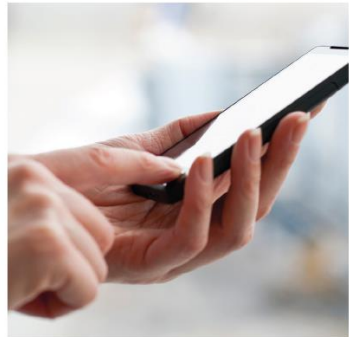
→ Departure Passenger Flows

The Passenger Journey



- Departure Passenger Flows
- Arrivals Passenger Flows
- Lounge + Events Access
- - - Events Access

Passenger Flows



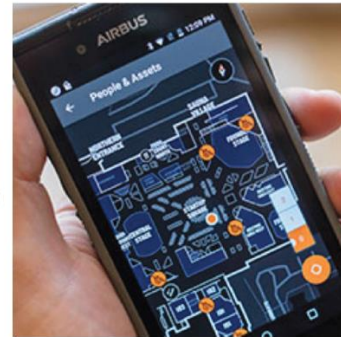
Online check-in and notifications



E-Gates for ID and ticket validation

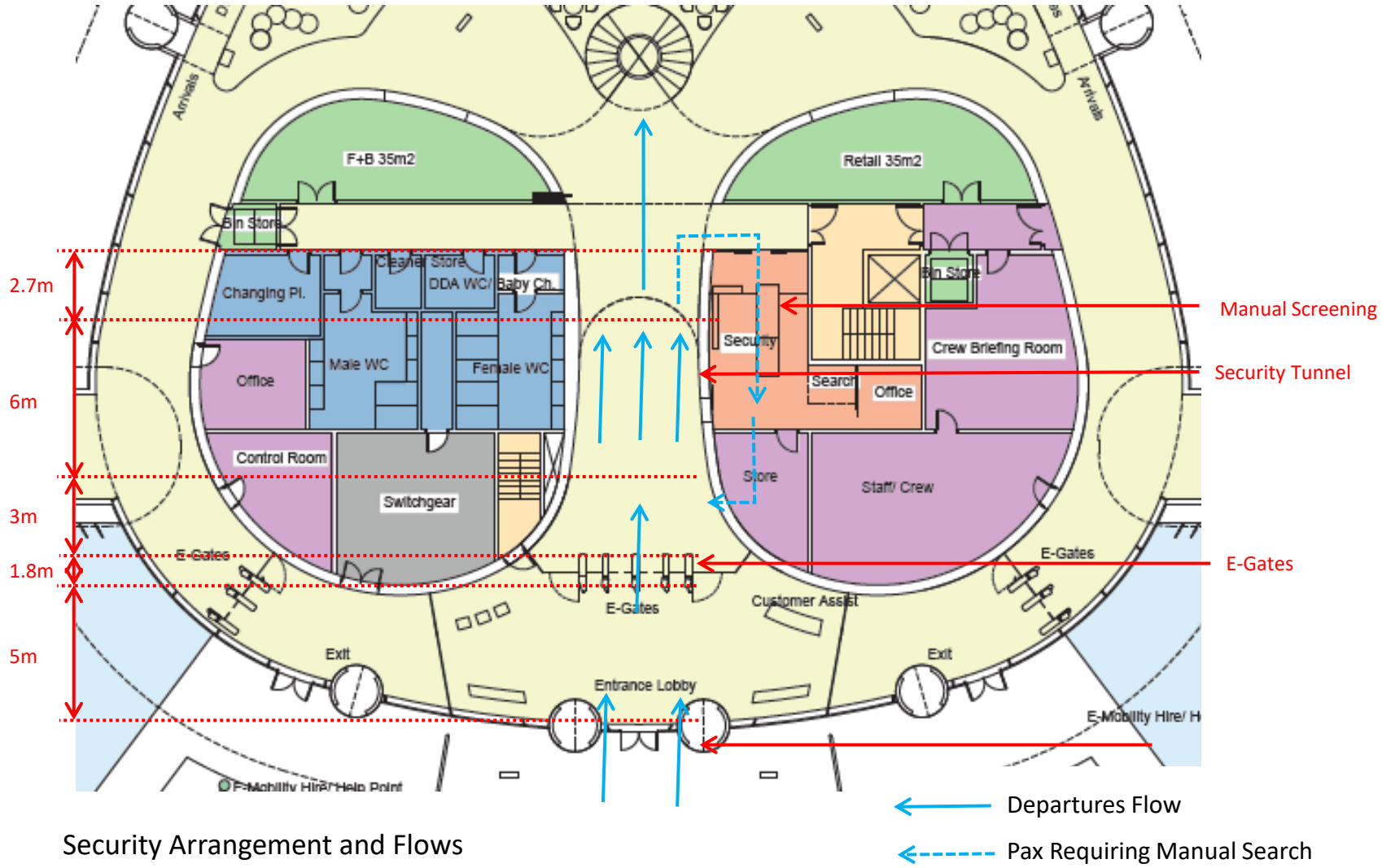


IATA checkpoint of the future



Smartphone guidance throughout processing

Security Screening



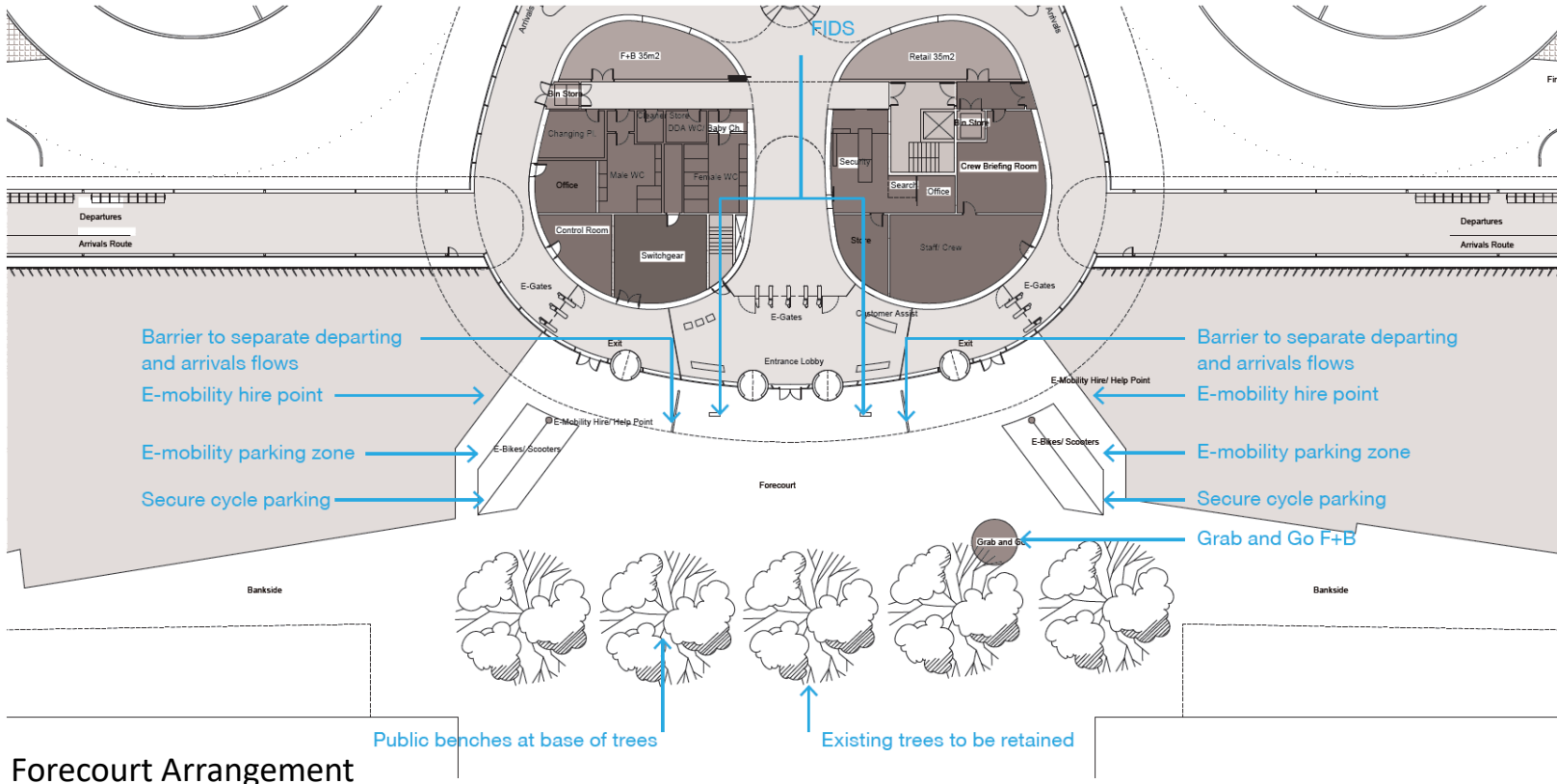
IATA Checkpoint of the Future



CT Body Scanner

Security Arrangement and Flows

Forecourt Provision



Forecourt Arrangement

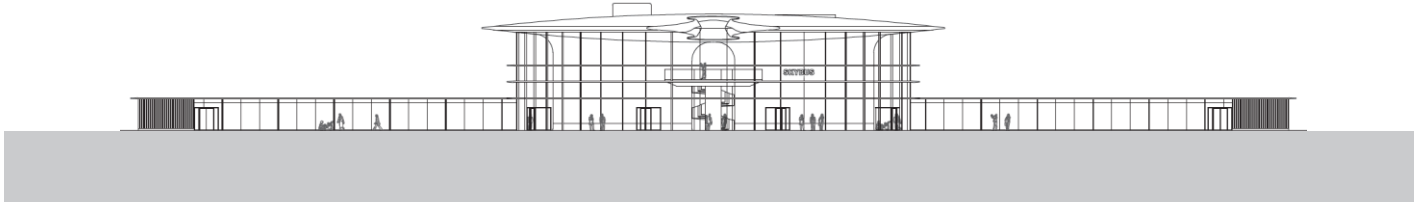


Electric Micromobility

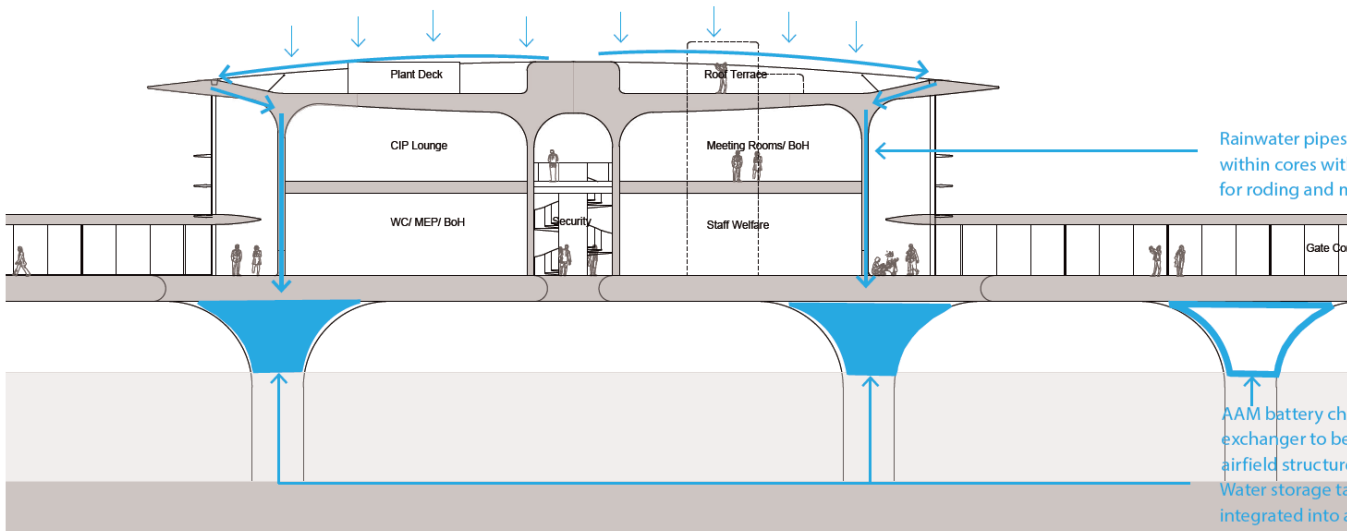


Pop-up Grab and Go/ External FIDs/ Furniture/ Glazed Balustrades

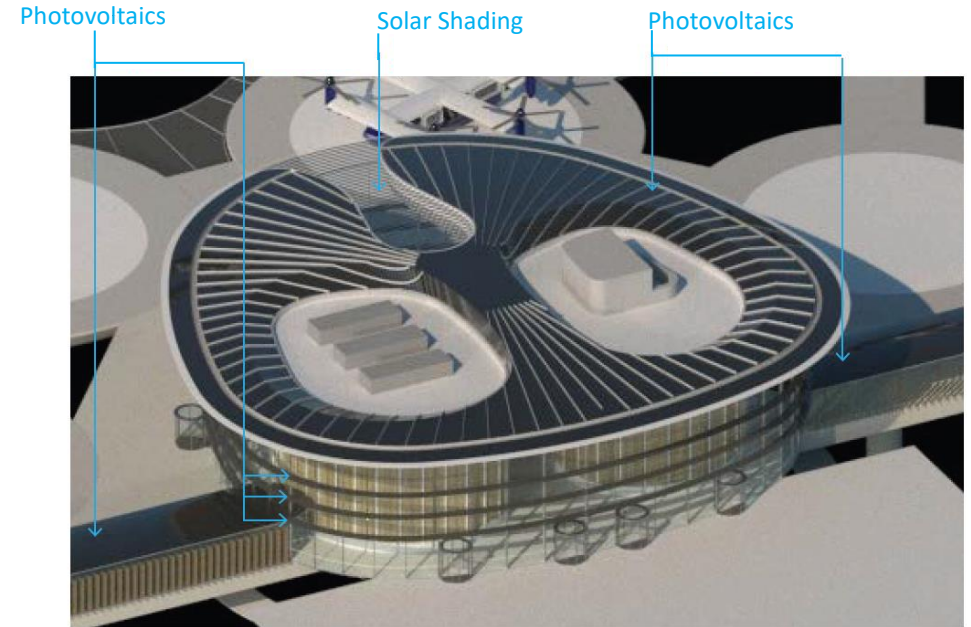
Sustainable Design Integration



North Elevation to Airfield



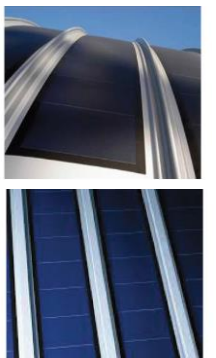
Section through Terminal



Aerial View of Roof



Geothermal Piles



Photovoltaics Integrated into Roof

Sustainable Design Integration



Sustainability sourced timber batten wall lining

Glulam timber ribs

Floor to ceiling façades to maximise daylight and views

PVs integrated with brise soleil

Durable tiled plinth to heavily trafficked areas



Glulam Timber Ribs



Bolted/ Doweled Connections

Structural Timber Core

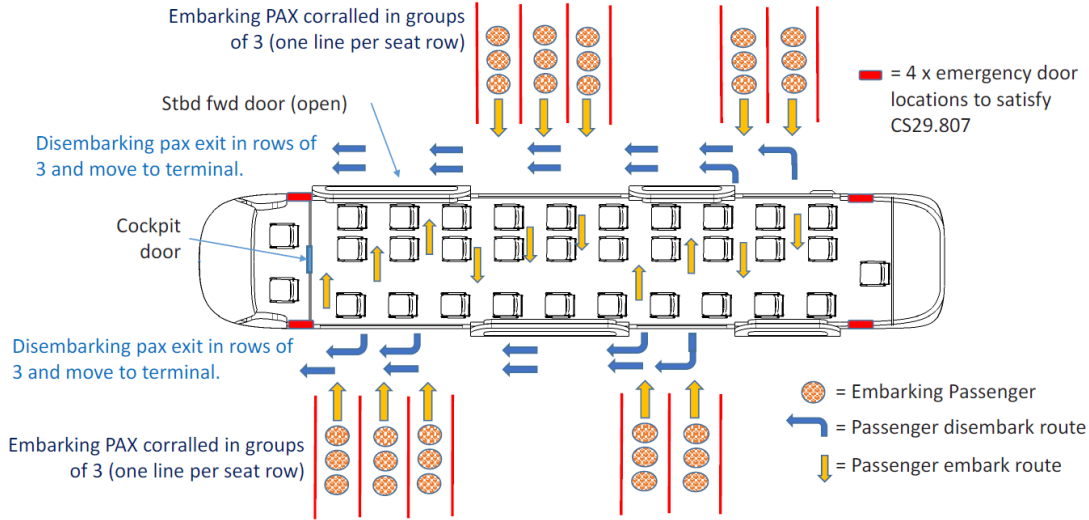
Visualisation from Airfield



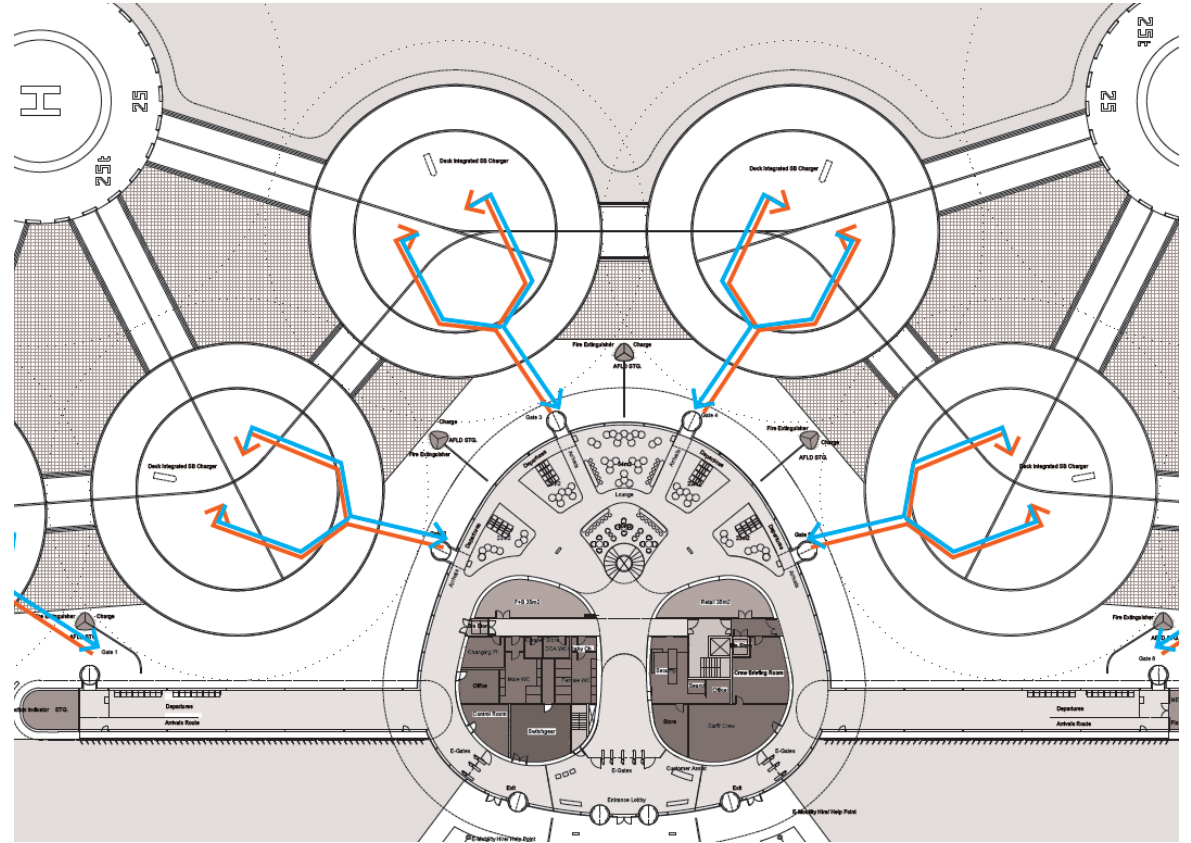
Skybus Boarding



Skybus Vehicle on Stand



Boarding Context



Passenger Flows on Stands

→ Departure Passenger Flows
 → Arrivals Passenger Flows

Internal View from Mezzanine





Global
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Summit
2-3 March 2022

SHAPING THE FUTURE OF AIR TRAVEL

PASCALL
+WATSON

SWANSON
AVIATION
CONSULTANCY



GKN AEROSPACE

CATAPULT
Connected Places

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