

advancing sustainable aviation policy
on behalf of local communities

WEBINAR

**Advanced Air Mobility:
Important Briefing for Local Authorities**



0207 193 4231
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Drone and Advanced Air Mobility Survey for All Local Authorities

REMINDER

Please complete our essential questionnaire
for Local Authorities

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ADVANCED AIR MOBILITY WEBINAR

GEBLERTOOTH

FOR LOCAL AUTHORITIES



Droneports and Vertiports
Design and Development

David Tooth
05.12.2024

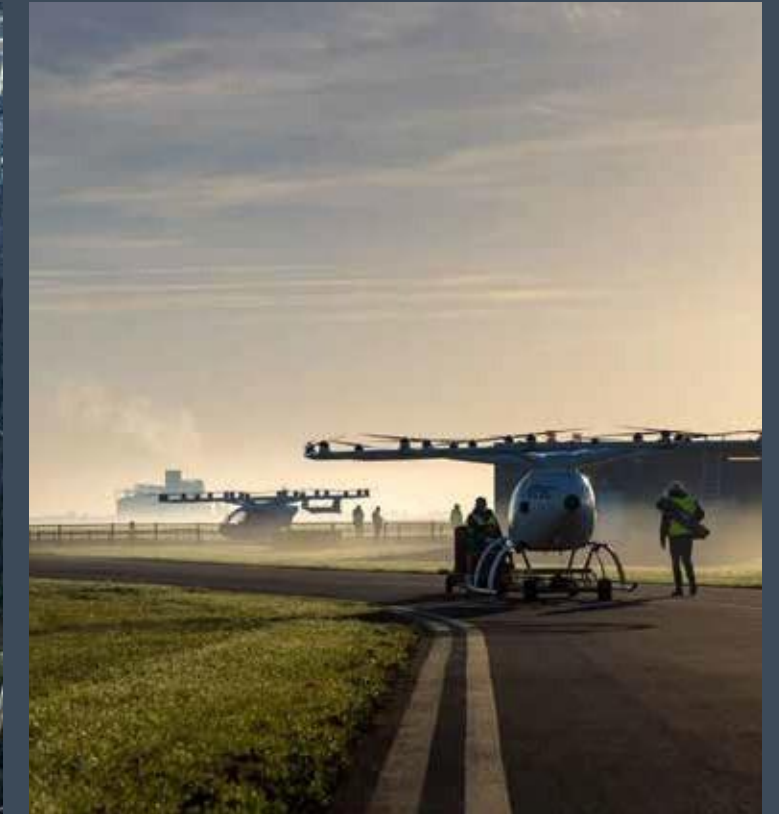
KEY FACTORS

1. REGULATORY AND LEGAL

2. INFRASTRUCTURE

3. ENVIRONMENTAL IMPACT

4. PUBLIC SAFETY AND SECURITY



REGULATORY AND LEGAL:

- What are the current Civil Aviation Authority (CAA) regulations governing drone deliveries and vertiports, and how do they impact local planning?

INFRASTRUCTURE:

- Where are the most suitable locations for vertiports, considering safety, proximity to delivery hubs, and public acceptance?

ENVIRONMENTAL IMPACT:

- What will be the environmental impact of vertiports and drone deliveries, including noise pollution and effects on wildlife?

PUBLIC SAFETY AND SECURITY:

- What safety measures and protocols need to be in place to prevent collisions and manage risks?
- What emergency response plans do we need in case of accidents or drone malfunctions?



DENSITY & CONNECTIVITY

HEATHROW TO CITY OF LONDON



- ROAD
- RAIL
- HELICOPTER



USE CASES

SUPER-RURAL

RURAL

SUB-URBAN

URBAN

SUPER-URBAN

PAX

TYPE

COMMUTERS

COMMUTERS

COMMUTERS
EVENT GOERS
TAXI DELIVERY

COMMUTERS
EVENT GOERS
TAXI DELIVERY

MODE

SPOKE

SPOKE

HUB & SPOKE

HUB & SPOKE

HUB & SPOKE

FREQUENCY

LOW

MID

MID

HIGH

VERY HIGH

OTHER

TYPE

MAIL
PHARMA
FRESH FOOD
SMALLS
GENERAL FREIGHT
SURVEYS
MONITORING

MAIL
PHARMA
FRESH FOOD
SMALLS
GENERAL FREIGHT
LOGISTICS LINK
SURVEYS
MONITORING

MAIL
PHARMA
FRESH FOOD
SMALLS
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SECURE LOGISTICS
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MAIL
FRESH FOOD
PHARMA
SURVEYS
MONITORING

MODE

SPOKE

SPOKE

HUB & SPOKE

HUB & SPOKE

SPOKE

FREQUENCY

LOW

MID

HIGH

HIGH

MID

SUPER-RURAL

RURAL

SUB-URBAN

URBAN

SUPER-URBAN





CONSTRAINTS

	SUPER-RURAL	RURAL	SUB-URBAN	URBAN	SUPER-URBAN
POPULATION DENSITY	VERY LOW	LOW	MODERATE	HIGH	VERY HIGH
ECOLOGY RATING	VERY HIGH	VERY HIGH	MODERATE	LOW	VERY LOW
LIGHT & SOUND POLLUTION	VERY LOW	LOW	MODERATE	HIGH	VERY HIGH
WEATHER EXPOSURE	VERY HIGH	HIGH	MODERATE	MODERATE	HIGH
THREAT TO LIFE SAFETY	VERY LOW	LOW	MODERATE	HIGH	VERY HIGH
SURFACE ACCESS	VERY LOW	LOW	MODERATE	HIGH	VERY HIGH
FURTHER DEVELOPMENT IMPACT	VERY LOW	LOW	HIGH	VERY HIGH	HIGH
UTILITY PROVISION	VERY LOW	LOW	VERY HIGH	VERY HIGH	HIGH

*Scale describes nature of provision, not degree of impact

CASE STUDIES



RURAL

SMALL AIRFIELD

USE CASE:

- Mail, parcel and medical deliveries
- Chilled food shipments
- Pax movements

FREQUENCY:

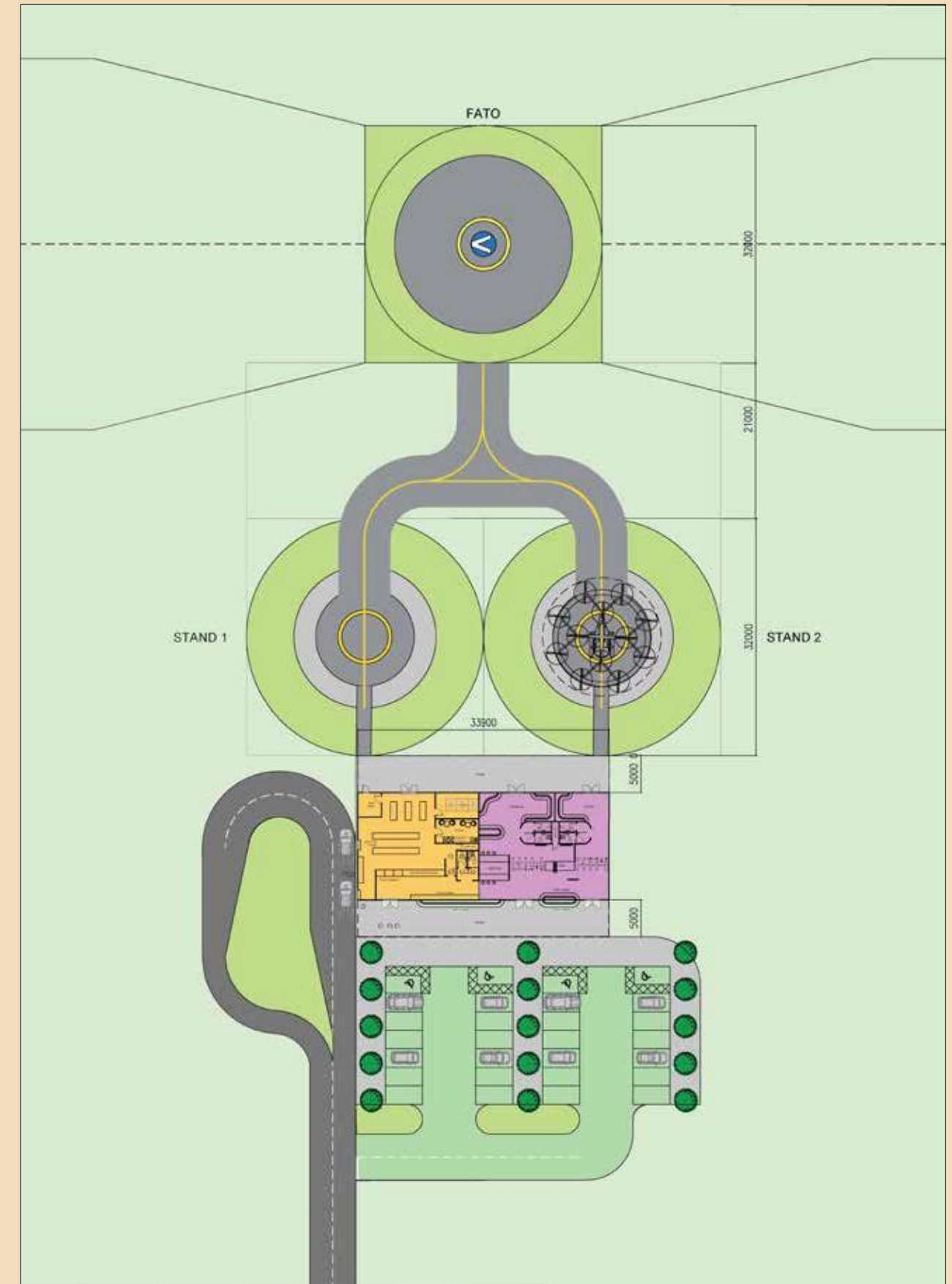
- Limited /unscheduled / infrequent

INFRASTRUCTURE REQUIREMENTS:

- FATO and clearance zones
- Aircraft stands and taxiway areas
- Aircraft refuelling
- Aircraft storage and maintenance
- Airfield equipment
- Consignment storage and shipping
- Operations and management suites
- Pax suites
- Fire support
- Surface access
- Landscaping
- Utilities

CONSTRAINTS:

- Weather exposure
- Prevailing wind
- Noise and light pollution
- Ecology
- Proximity to surface access
- Availability of utilities



ROYAL MAIL X SKYPORTS



SURVEYS



SKYPORTS - EUROPEAN VERTIPORT TERMINAL TESTBED



SKYPORTS - EUROPEAN VERTIPORT TERMINAL TESTBED

SUB-URBAN

INDUSTRIAL PARK, BROWN FIELD CAR PARK, RETAIL PARK

USE CASE:

- Mail, parcel and medical deliveries
- Chilled food deliveries
- Final mile logistics link
- Pax movements

INFRASTRUCTURE REQUIREMENTS:

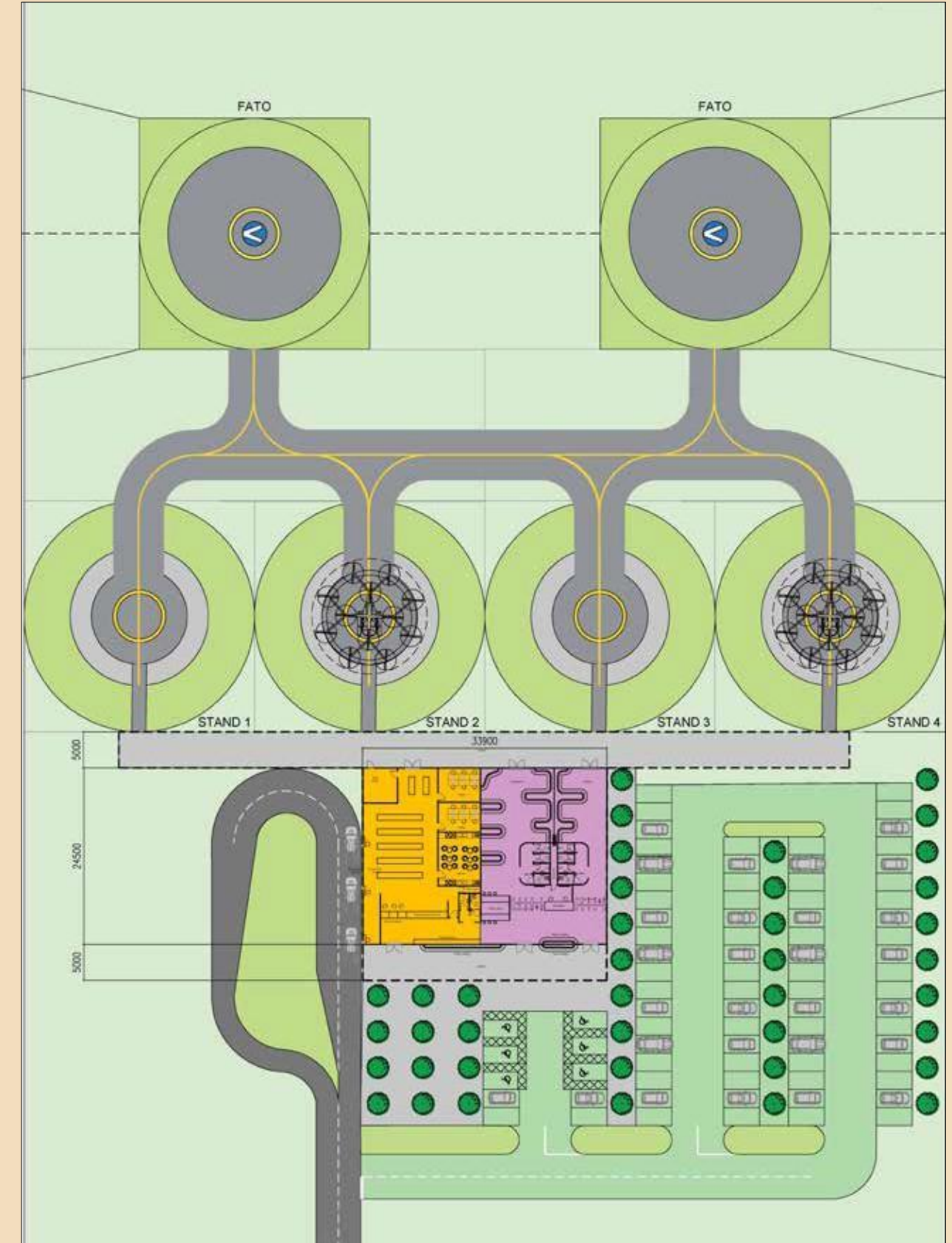
- Multi FATO and clearance zones
- Aircraft stands and taxiway areas
- Aircraft refuelling
- Aircraft storage and maintenance
- Airfield equipment
- Consignment storage and shipping
- Operations and management suites
- Fire support
- Surface access
- Landscaping
- Utilities

FREQUENCY:

- Cargo: Frequent /unscheduled
- Pax: Infrequent

CONSTRAINTS:

- Prevailing wind
- Noise and light pollution
- Proximity to surface access
- Availability of utilities
- Disruption caused by future growth
- Proximity to significant population





SUPER URBAN

USE CASE:

- Mail, parcel and medical deliveries
- Chilled food shipments
- Pax movements

INFRASTRUCTURE REQUIREMENTS:

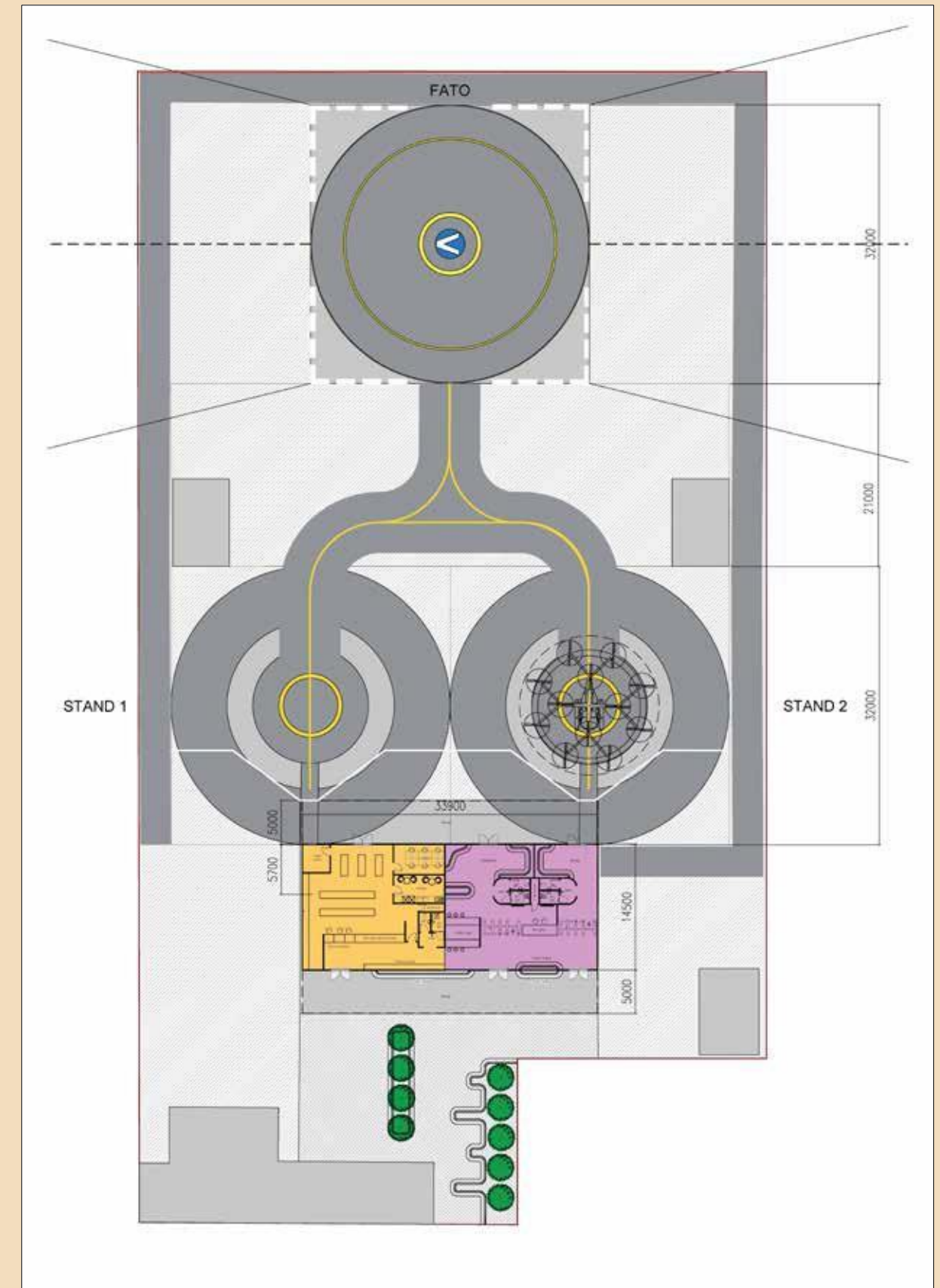
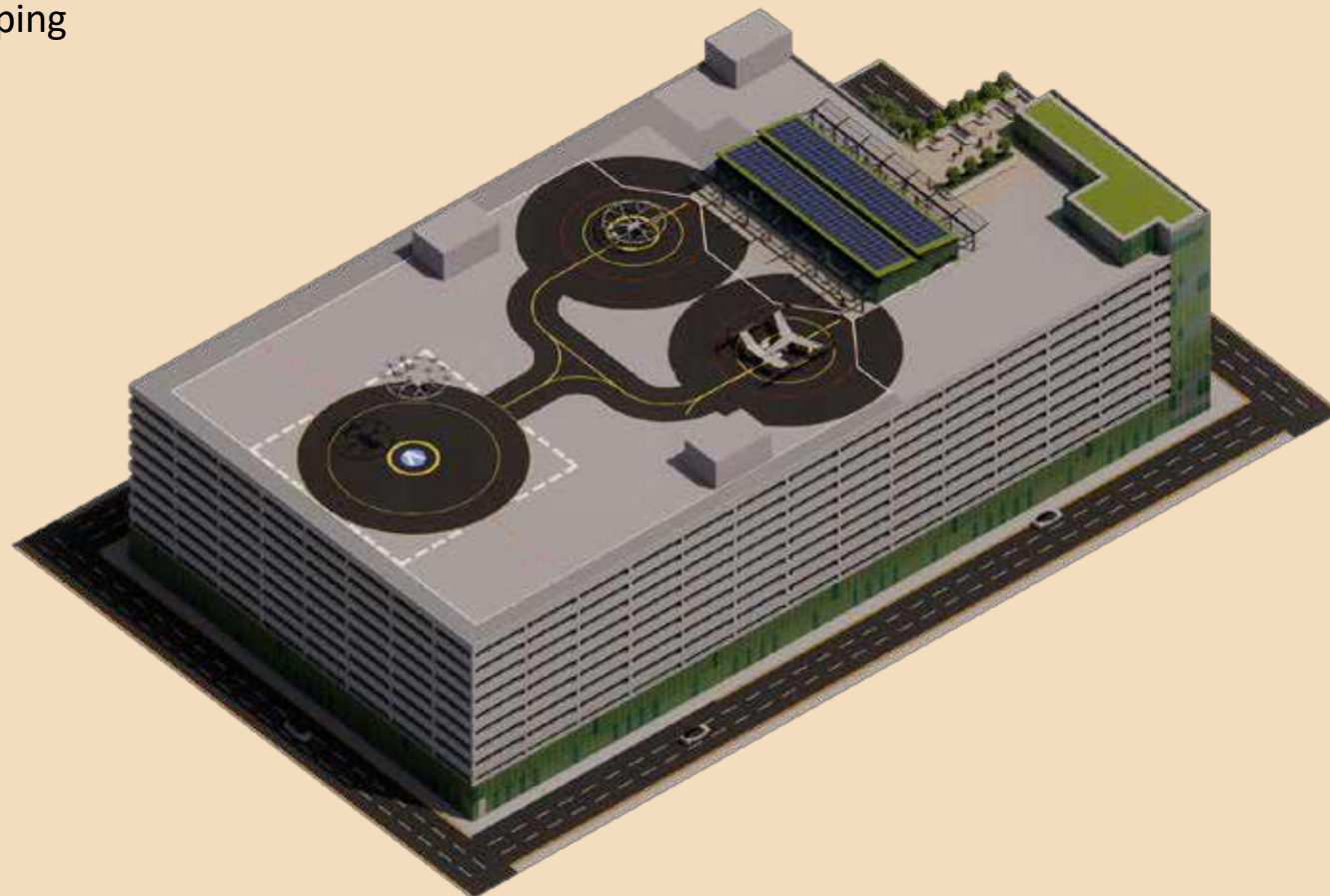
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- Utilities

FREQUENCY:

- Cargo - Frequent/Unscheduled
- PAX - Frequent

CONSTRAINTS:

- Weather exposure
- Prevailing wind
- Noise and light pollution
- Surface access modes and quantum
- Availability of utilities
- Fire Suppression
- Proximity to significant population
- Intensity of use
- Disruptions caused by future growth





WHAT YOU NEED TO CONSIDER

When councils are considering droneports and vertiports in the UK, the following key factors need to be taken into account.

1. REGULATORY AND LEGAL FRAMEWORK:

- Civil Aviation Authority (CAA) Regulations
- Planning and Land Use Permissions
- Air Traffic Management

2. INFRASTRUCTURE REQUIREMENTS:

- Vertiport Location
- Facilities Design and Standards
- Integration with Existing Transport Systems

3. ENVIRONMENTAL IMPACT:

- Noise Pollution
- Carbon Footprint
- Wildlife and Ecosystems

4. SAFETY AND SECURITY:

- Collision and Risk Management
- Data and Cybersecurity
- Emergency Response Planning

5. COMMUNITY IMPACT:

- Job Displacement vs. Creation
- Accessibility



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