

## City Airport Development Programme (CADP1)

### Condition 40: Crime Prevention Strategy



# Contents

1.0	Introduction .....	4
2.0	Background.....	5
3.0	Risks Addressed by CADP1 .....	6
4.0	Crime Prevention Considerations .....	8
5.0	Conclusions.....	14
6.0	Appendix 1: Approved Terminal Plans.....	15
7.0	Appendix 2: Supporting Visualisations.....	17

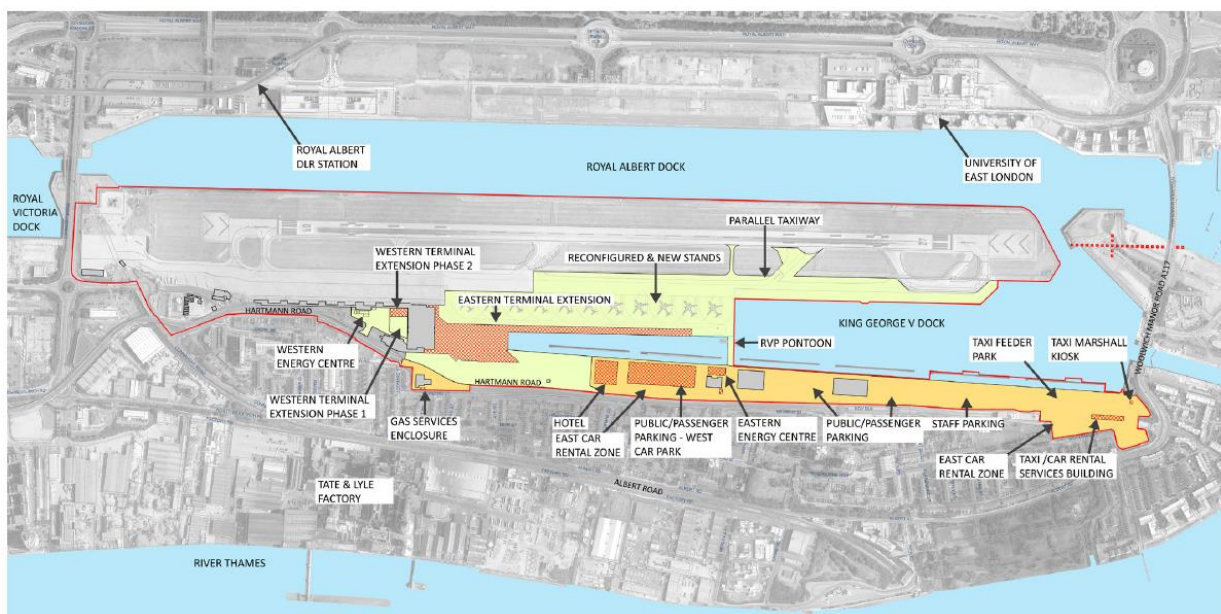


Figure 1.0.1 – Site plan illustrating the components of the City Airport Development Programme.



## 1.0 Introduction

1.1 The City Airport Development Programme (CADP1) planning application (13/01228/FUL) was granted planning permission by the Secretaries of State for Communities and Local Government and Transport in July 2016 following an appeal and public inquiry which was held in March/April 2016.

1.2 This document has been prepared to discharge Condition 40 of CADP1 permission. Condition 40 states that:

*'No relevant Phase of the Development shall Commence until a certificate demonstrating compliance of that relevant Phase with the Secured by Design award scheme, indicating how the principles and practices of that scheme are to be incorporated in the relevant Phase of the Development, has been submitted to and approved by the Local Planning Authority.*

*Each relevant Phase shall be constructed and retained in accordance with its relevant approved scheme.*

*Such a scheme shall be implemented as approved and thereafter the Airport shall be operated in accordance with the approved scheme.*

*Reason: In the interest of amenity and creating safer, sustainable communities and with regard to Policy 7.13 of the London Plan (consolidated with alterations since 2011 and published March 2015) and Policy SP3 of the Newham Core Strategy (adopted 26 January 2012).'*

1.3 It is proposed to build out CADP1 as a single uninterrupted period of construction over 5 years with construction split into two distinct phases; the Interim Works and the Completed Works. The Interim Works will be delivered first and will be immediately followed by the Completed Works.

1.4 This report provides details of design for crime prevention with respect to the Interim Works (as required by the above condition) and also applies to the Completed Works. As such this report satisfies the requirements for both phases and a further submission is not proposed.

1.5 On 05 January 2017, the London Borough of Newham (LBN) approved some minor non-material design changes to the appearance of the western and southern elevations of the Western Terminal Extension (WTE). The approved minor amendments have been considered in the preparation of this report.

1.6 A 'Secure by Design' (SBD) accreditation cannot be provided prior to any stage of the development commencing. Accreditation is only available subsequent to the build phase and prior to occupation of the new development. To satisfy the requirements of condition 40 the Airport has agreed with the London Borough of Newham to liaise directly with the Met Police. At a meeting between the Airport and the Met Police on 1<sup>st</sup> February 2017 the process outlined below was agreed with respect to satisfying the requirements of condition 40 of the CADP1 permission:

A draft report setting out how Secure by Design principles have been incorporated into CADP1 will be shared with the Met Police's Counter Terrorism Security Advisor (CTSA) and Design Out Crime Officer (DOCO) for review. Once satisfied with the information provided, the DOCO/CTSA will confirm that:

- a. SBD accreditation cannot be awarded until a development is built out;
- b. Following review of the necessary information, CADP1 complies with the necessary criteria (in principle) to secure a SBD certificate;
- c. The information provided is sufficient to address the requirements of the Met Police and SBD at this time;
- d. Once CADP1 is complete the Airport will apply for the SBD Certificate; and
- e. Once a certificate confirming the award of SBD is issued, a copy will be provided to the London Borough of Newham.

1.7 The Airport subsequently provided the Met Police with a draft of this report and additional information including an Interim ASIAD Report as well as meeting to discuss their content and any further requirements. On 27 February 2017 the Met Police confirmed in writing that CADP1 is on track to satisfy the requirements of Condition 40, having met all requirements at this stage:

*"We would like to clarify that a Secured by Design (SBD) Certificate cannot be officially issued until the end of a site expansion and build process. The SBD scheme requires full details of the final design and security products submissions as well a satisfactory final inspection of the completed works, before a SBD certificate can be issued. At the Pre commencement stage of a build, we are only able to issue an interim cover letter which can confirm that we are satisfied that development has demonstrated an intent to undertake the required SBD security measures, compliant with the risks identified and established through the relevant assessments and appropriate security reports. Once all submissions have been submitted and a final SBD inspection has been completed, the SBD certificate can be issued."*<sup>1</sup>

1.8 To fully satisfy the requirements of condition 40 at this stage, the following report briefly sets out the undertakings in designing a compliant scheme that incorporates the principles and practices to achieve 'Secure by Design' accreditation once CADP1 is built.

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<sup>1</sup> A copy of this letter was shared with Officers at LBN but is not suitable for release into the public domain due to the sensitive nature of the information contained

## 2.0 Background

2.1 The Metropolitan Police were previously consulted on the CADP1 proposals in 2014 prior to the London Borough of Newham determining the application. At that stage, the Design Out Crime Officer advised that the design of the development should ensure that a *“sustainable, safe and secure experience for all passengers, visitors and employees, directly and indirectly employed by the Airport... improving the physical security of the site, assisting in reducing the risk from all spectrums of crime and criminal attack”*

2.2 In preparing the CADP1 proposals, the Airport underwent a concept design process, leading to the development of the approved scheme, that incorporates a broad range of considerations with regard to crime prevention and counter-terrorism in accordance with their team’s extensive experience in airport design and the relevant guidelines such as:

- Department for Transport’s (DfT) *Aviation Security in Airport Design* (ASIAD) guidelines;
- UK Government guidance on ‘*Crowded Places*’ and ‘*Secure by Design*’, a Police security initiative;
- Policy 7.13 of the London Plan;
- Other guidance such as *Crime Prevention Through Environmental Design* (CPTED).

These considerations are outlined in this report.

2.3 Being an airport, the criteria for the SBD assessment will be bespoke as there is no established criteria in place for airports to achieve SBD.

## 3.0 Risks Addressed by CADP1

3.1 For the purposes of this report it is assumed that the main crime risks related to the development are as follows:

3.1.1 **Crimes against a person:** These can include harassment, robbery, assault and sexual assault. These types of criminal behaviour could occur within the development against a person in places where:

- Areas have been poorly defined, i.e. there is no obvious private / public segregation. For example, an area outside a building that is not clearly defined as belonging to the building or constituting a public space;
- Little or no natural surveillance is provided, for example poorly lit or unlit pathways, dead-ends;
- Areas where people are made to feel generally unsafe (predominantly due to the reasons given above).

3.1.2 **Crimes against property:** Usually involving burglary or theft. Most crime against property that occurs in commercial areas can be either opportunistic or planned. In both cases these types of crimes could occur within the development in places where:

- There is easy access to high value areas / assets. For example, where there are no access control measures in place to restrict access;
- Little or no natural surveillance is provided, for example poorly lit / unlit pathways between buildings or construction areas where easy access could be gained under the cover of darkness;
- Areas have been poorly defined, i.e. there is no obvious private / public segregation.

3.1.3 **Criminal damage and inappropriate behaviour:** These can occur anywhere within the development. This behaviour can include arson, vandalism, loitering, graffiti and any general behaviour that can cause damage to property or make visitors or workers feel uncomfortable and unsafe. These types of behaviours could occur within the development in places where:

- There is no sense of identity within the area, for example where there is no community use given to a specified area particularly in locations deemed open space;
- Little or no natural surveillance is provided, for example poorly lit or unlit pathways between buildings;
- Areas that have been poorly defined, i.e. there is no obvious private / public segregation. For example an area outside a building that is not clearly defined as belonging to the site or constituting a public space;



- Uncontrolled access to areas is provided. For example communal spaces which could become a target for inappropriate behaviour if access is not controlled during hours of presumed inactivity.

3.1.4 **Terrorist attack:** These are likely to occur prior to staff or, more particularly, passenger security screening. Such attacks can include vehicle-borne improvised explosive devices driven up to the terminal and detonated, package improvised explosive devices (eg. concealed in back-packs, goods or luggage) that are carried onto the forecourt or into the landside concourse inside the terminal and detonated, a vehicle ramming targeting property or building users, gun attack involving a variety of weapon types or knife attack. These types of attacks differ from the others in as much as they are generally pre-planned rather than opportunistic. These types of crimes could occur within the development anywhere landside or potentially airside. The opportunity for successful attack would be reinforced by environments where:

- An unauthorised vehicle can be driven in close proximity with the terminal building;
- Building or other material components of the development are susceptible to being dislodged in the event of an explosion being triggered, thus increasing collateral damage that would not have resulted from the blast itself;
- Concealment of IEDs on the Airport property is possible.



## 4.0 CADP1 Crime Prevention Considerations

4.1 As an infrastructure facility that is particularly sensitive to any criminal or terrorist activity the Airport of course implements its own specific operational crime prevention measures such as robust security screening for public transition from landside to airside, extensive staff access control authorisation processes, highly trained security staff, adherence to DfT or Civil Aviation Authority (CAA) requirements for airport security, and is involved with ongoing liaison with organisations such as the Centre for the Protection of National Infrastructure (CPNI);

4.2 The Airport has also obtained specialist advisors to support the design process and work directly with the CADP design team. These include:

- Aviation counter-terrorism specialists Aibara Associates who have and will continue to review the design with regard to the DfT's ASIAD compliance and who are listed on the Register of Security Engineers and Specialists (RSES) as maintained by CPNI, and therefore certified to serve as the Airport's blast engineer for Met Police CTSA's requirements;
- Security specialist's Atkins who will develop CCTV, access control and other measures in close liaison with the Airport's own internal security team.

4.3 In addition to the above the Airport's design team have considered the following within the design of the development:

- Implementation of ASIAD guidance;
- External space crime prevention measures;
- Terminal building crime prevention measures.

### 4.3.1 Implementation of ASIAD Guidance

4.3.1.1 These considerations include:

- a. 30m stand-off zone between vehicle areas and terminal to enable vehicle-borne improvised explosive devices (VBIED) resistant building facades/structure to be specified;
- b. Provision of certified counter-terrorism bollards (creating the stand-off zone) preventing VBIED approach to terminal to the east of the London City Airport DLR Station;
- c. Forecourt access control with potential for ANPR (automated number plate recognition) for authorised vehicles wherever feasible;
- d. Removal of any attraction for people to gather in the stand-off zone (cafes etc.) and thus reducing potential casualties in an attack;
- e. Provision of external and internal landside terminal treatments that minimise collateral damage in an IED explosion ie. by dislodging/separating from the main building fabric and becoming missiles;

- f. Anti-ram retaining walls and gates (in accordance with ISO IWA 14 P1/P2 2013) to western service yard preventing VBIED approach to terminal to the east of the London City Airport DLR Station.

4.3.1.2 It should be noted that the Terminal has not been designed to provide resilience for 'Large VBIEDs' as the required stand-off zone would be well beyond the constraints of the site and is not a criteria currently applied to other new or existing airport developments.

4.3.1.3 The proximity of the public access road (Hartmann Road) to the existing Terminal Building and DLR station cannot be changed and, as such, the Terminal should not be re-furnished in such a way as to expose a greater static population to a potential VBIED threat, whilst the new parts of the development should adhere to ASIAD guidelines. The Terminal design complies with these principles.

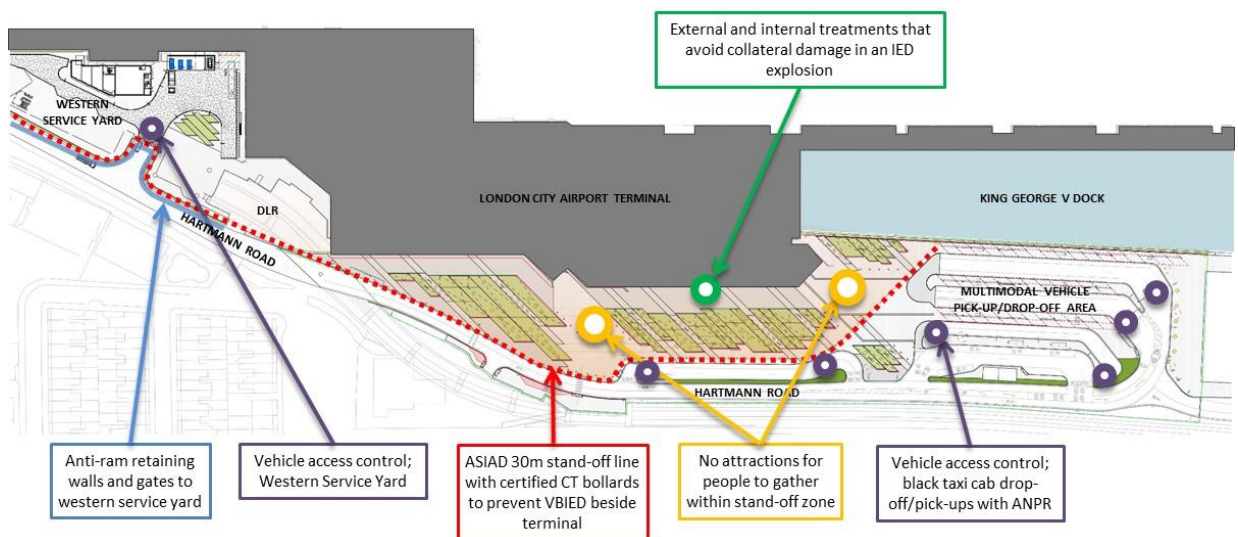


Figure 4.3.1 – Layout of Terminal, Forecourt, Western Service Yard and Western Energy Centre illustrating ASIAD-related considerations.

#### 4.3.2 External Space Crime Prevention Measures

4.3.2.1 These measures apply to the Western Service Yard, Terminal Forecourt and Dockside development.

4.3.2.2 The considerations include:

- CCTV coverage of all external areas surrounding the terminal, including service yard and public forecourt, carparks, taxi-reservoir, car hire loading areas, dockside walkway etc.;
- Avoidance of hiding spaces or unlit spaces (defensible space);

- c. Spaces that promote passive surveillance to public and secure staff areas surrounding the terminal ie. internal active spaces facing onto less populated external spaces;
- d. Forecourt treatments lead visitors to two key public entrances with clear contrast to any secure, external, private access doors;
- e. Good lighting levels to all external public and non-public areas to ensure CCTV recognition and avoid space for concealment;
- f. Provision of planters, seating, weather canopies that discourage vandalism and are easily maintained;
- g. Well defined external areas that have aesthetic continuity to lend a clear sense of ownership by the Airport through the Forecourt and Dockside;
- h. Provision of landscaping species that prevent hiding places ie. for concealment from CCTV vision and for potential IEDs;
- i. Anti-climb fencing (3m high galvanised anti-climb fence such as “358 Securi Fence”) around the entire secure Service Yard area including the area beyond the DLR sub-station compound;
- j. Dedicated Service Yard ‘guard’s house’ for secure western service yard vehicle and personnel access management, including avoidance of tail-gating;
- k. Service Yard vehicle entry through access controlled gates managed via a pre-booking schedule and validation prior to entry to mitigate unauthorised entry by deception.

4.3.2.3 It should be noted that there is a DLR means of escape (MOE) exit stair with an unalarmed door that emerges into the space proposed to be within the Service Yard.

4.3.2.4 In the design of the development the MOE door is proposed to have an alarm contact for signals that would be fed to both the Airport’s service yard guard house adjacent as well as the DLR ticket office. It could also be fed to the Terminal Control Centre that is proposed within the Terminal. For breaches occurring outside of the DLR’s operational hours the Airport’s Service Yard guard would be the main respondent. The guard’s house within the Service Yard is proposed to be manned 24 hours a day and would have direct vision over the DLR MOE door. The individual or group exiting the DLR MOE door would be escorted out of the secure Service Yard area via the main entry gates.

4.3.2.5 Please note that there was previously a fence around this MOE area to separate it from the secure Service Yard, however this security measure was over-ridden by subsequent considerations relating to life-safety and the trapping of those exiting under the DLR viaduct who are away from ‘open space’ and therefore ultimate safety and adjacent to what could be a burning or collapsing station structure.

4.3.2.6 The Dockside development mainly consists of at-grade carparks and some small welfare/ service/ plant buildings. All buildings will be CCTV monitored and designed to avoid places for concealment as well as to discourage vandalism (given their more remote locations).

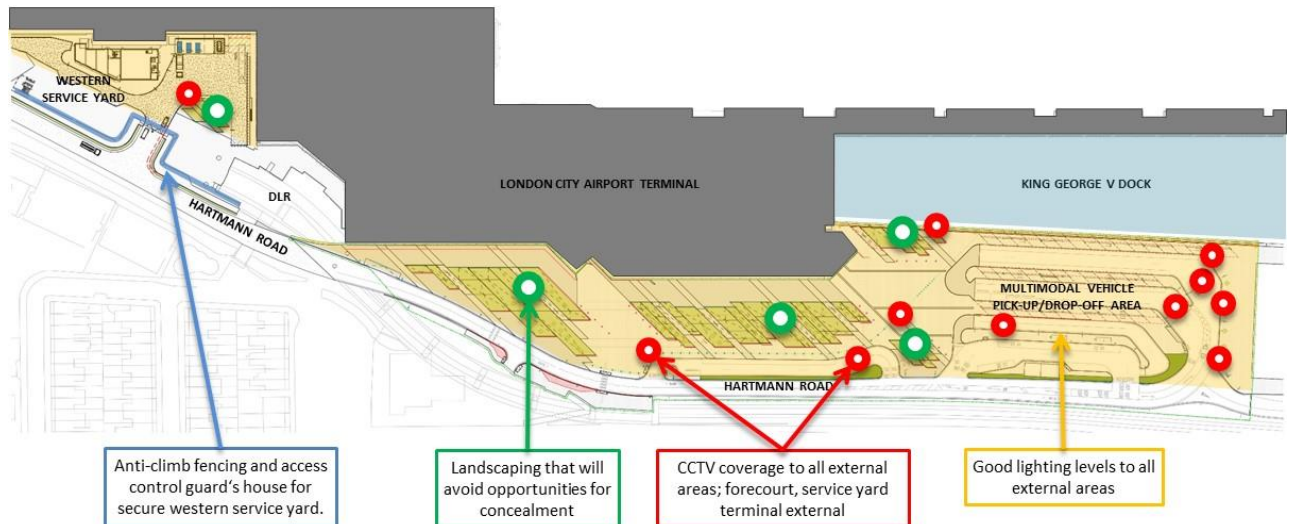


Figure 4.3.2 – Layout of Terminal, Forecourt, Western Service Yard and Western Energy Centre illustrating crime prevention considerations for areas outside the Terminal.

### 4.3.3 Terminal Building Crime Prevention Measures

4.3.3.1 These measures apply to the entire terminal building including the Western and Eastern Terminal Extensions.

4.3.3.2 The considerations include:

- a. Robust landside commercial glazing, doors and cladding systems that prevent easy removal from outside (avoidance of exposed mechanical fixings), and potential for separation from the building in an IED or VBIED explosion;
- b. Comprehensive CCTV coverage throughout internal areas with particular focus on passenger routes and spaces;
- c. Access control through all doors separating access authorisation zones or facilities with strict access rights managed through the Airport pass authorisation regime;
- d. Adequate provision of accommodation including observation rooms for all control authorities (eg. UKBF, Special Branch, SO18);
- e. Airside-landside segregation measures to all boundary walls and breach doors (compliant metal sheathing or mesh in boundary walls within terminal, audible and remote alarm plus automated CCTV recording at all breach doors where red fire escape breakglass is triggered);
- f. Spaces that promote passive surveillance (front and back-of-house) and avoid hiding places for assailants, concealment of

dangerous items, or opportunity for theft or anti-social activities;

- g. All back-of-house areas shall be access controlled (and staff trained to challenge tail-gating);
- h. The majority of front-of-house passenger areas shall be fully lit at all times during operation eg. landside concourse, airside retail lounge, check-in area, arrivals 'meet and greet' area. Reduced lighting operating with a passive infra-red (PIR) system may apply to the west and east piers where occupancy is intermittent, however the reduced lighting levels shall be sufficient for detection of occupants using CCTV should the PIR system not be activated by movement;
- i. All front-of-house areas will be lit outside of operational hours at reduced levels sufficient for detection of occupants using CCTV should the PIR system not be activated by movement.

4.3.3.3 A comprehensive development of access control and CCTV locations and types will be developed and validated at the next stage of design (RIBA Stage 3: Developed Design) in ongoing liaison with the DOCO and CTSA.

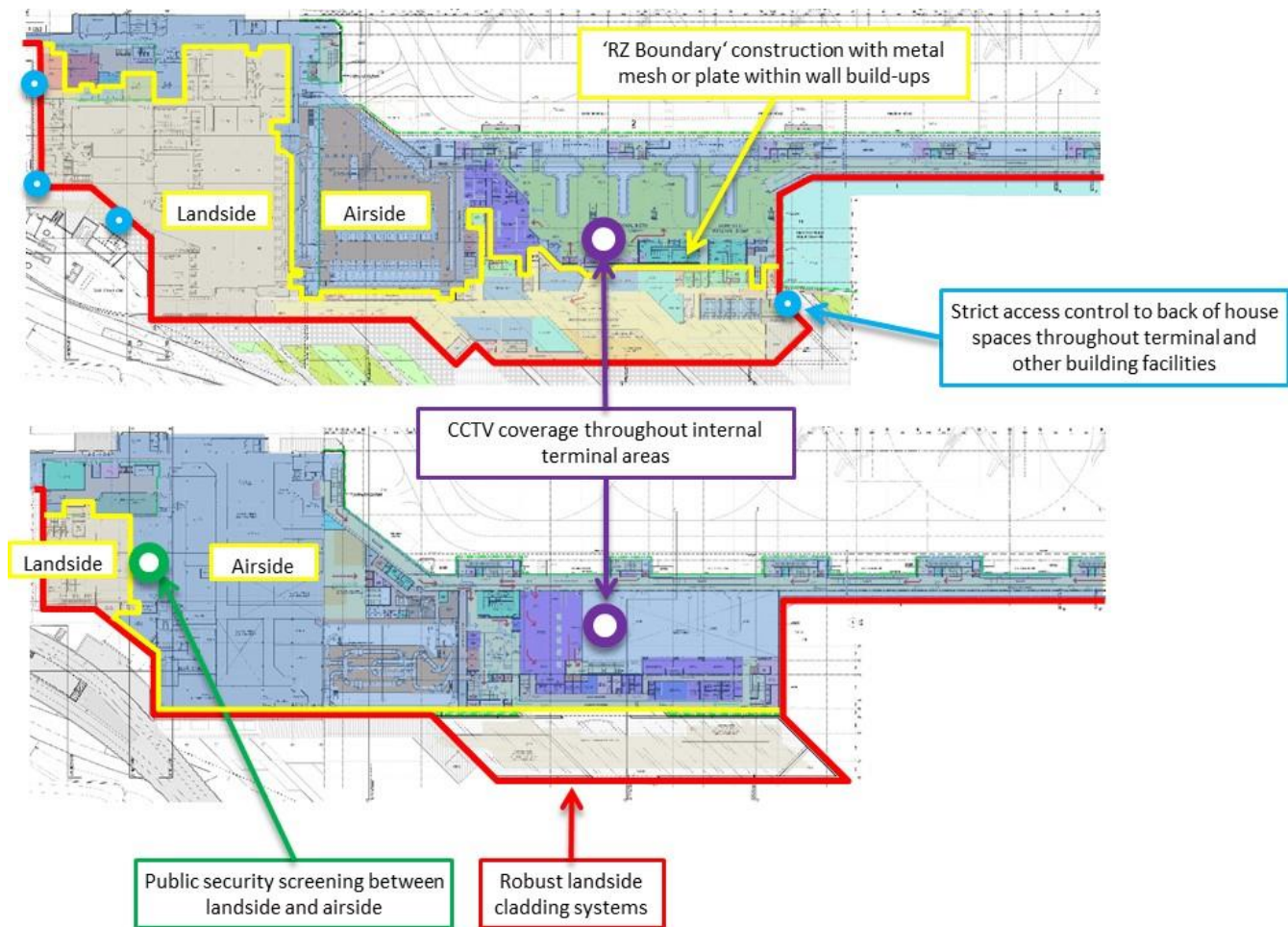


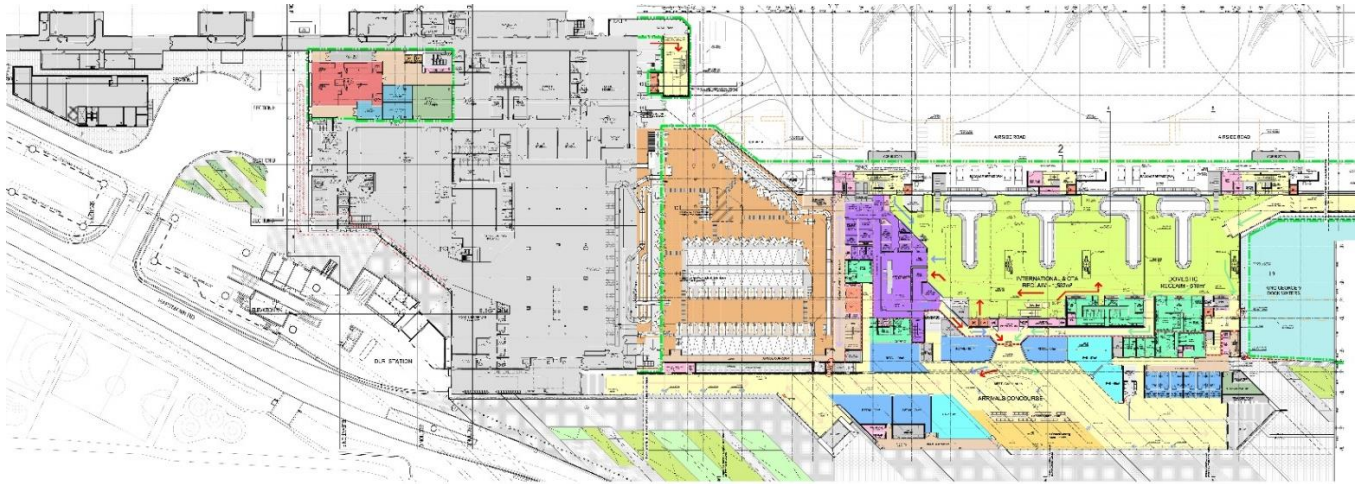
Figure 4.3.3 – Current layout of Terminal Ground Level (above) and First Level (below) illustrating crime prevention considerations for areas inside the Terminal.

## **5.0 Conclusion**

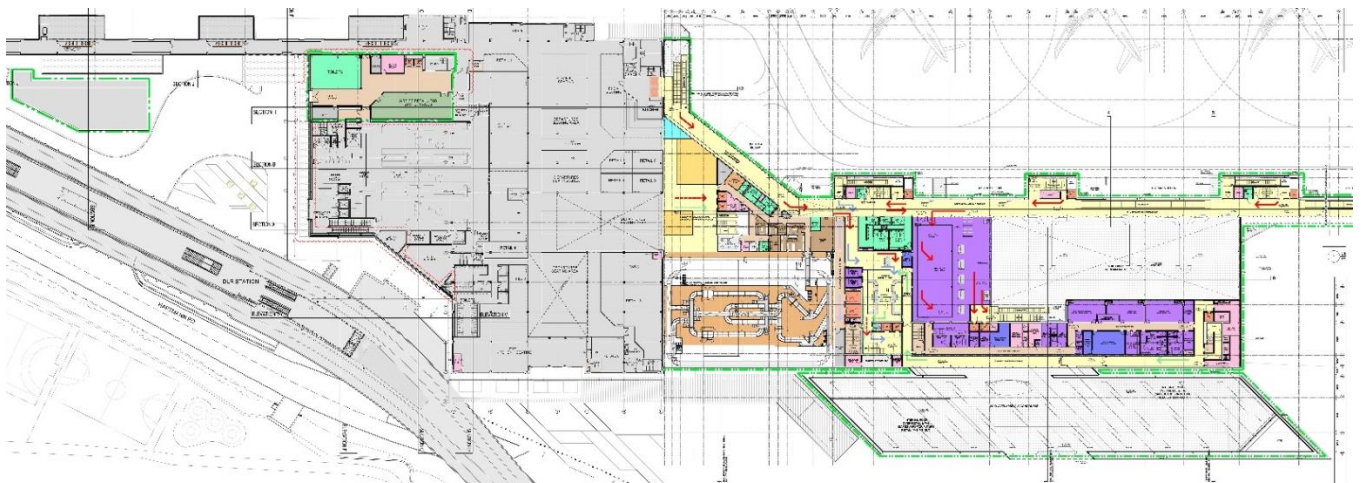
- 5.1 The design of CADP1 has been carefully considered with regard to crime prevention and counter-terrorism. Primary considerations relating to ASIAD have been built into the concept from the beginning of the process, ensuring that a compliant solution can be developed to achieve the Secure by Design award once CADP1 is built out. This has been confirmed by the Met Police (27 February 2017) who note that SBD cannot be awarded prior to a development being built out. The Met Police have also confirmed that the Airport has satisfied the requirements of SBD and condition 40 at this stage.
- 5.2 Further SBD detail will be reviewed with the DOCO and CSTA at the next stage of design (RIBA Stage 3: Developed Design) prior to the CADP1 build.
- 5.3 Once a certificate confirming the award of SBD by the Met Police is issued, a copy will be provided to the London Borough of Newham.



## 6.0 Appendix 1: Approved Terminal Plans

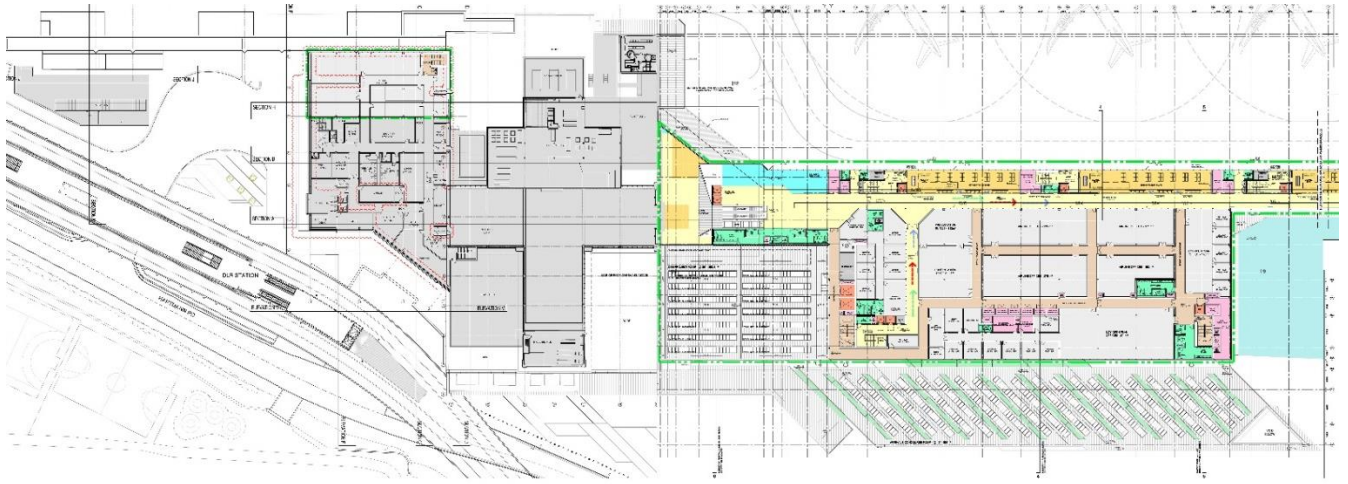


6.0.1 Ground Level Terminal layout.

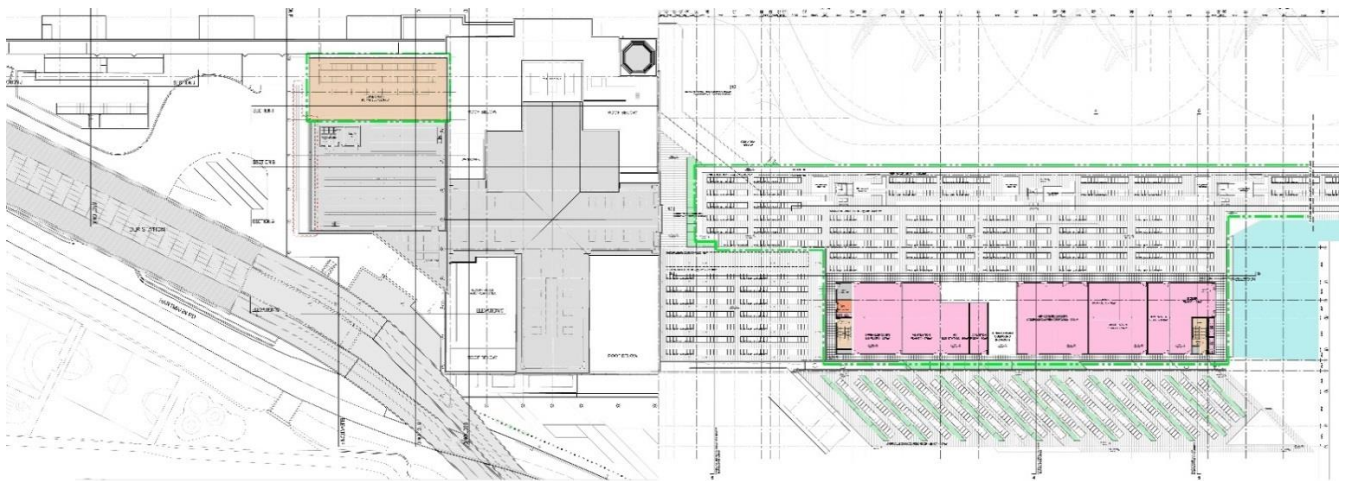


6.0.2 First Level Terminal layout.





6.0.3 Second Level Terminal layout.



6.0.4 Third Level Terminal layout.

## 7.0 Appendix 2: Supporting Visualisations



Figure 7.0.1 - Visualisation of the main entry to the Landside Building (from the south-east).



Figure 7.0.2 - Visualisation of the Terminal Forecourt (from the south-east).





*Figure 7.0.3 - Visualisation of the Eastern Terminal Extension and East Pier (from the south-west).*



*Figure 7.0.4 - Visualisation of the Service Yard and Western Terminal Extension (from the south-west).*





*Figure 7.0.5 - Visualisation of the entry to the approved Western Service Yard (from the south).*



*Figure 7.0.6 - Visualisation of the approved Western Energy Centre (from the south-east).*