



UNIVERSAL DESTINATIONS & EXPERIENCES UK PROJECT

Former Kempston Hardwick Brickworks
and adjoining land, Bedford

Design Standards

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1.0 ACRONYMS AND DEFINED TERMS

Table 1.1 - Acronyms

Acronym	Description
AGL	Above Ground Level
AOD	Above Ordnance Datum
BESS	Battery Energy Storage System
DCMS	Department for Culture, Media and Sport
DfT	Department for Transport
EEA	Ecological Enhancement Area
ERC	Entertainment Resort Complex
ES	Environmental Statement
EWR	East West Rail
HSE	Health and Safety Executive
ICZ	Inner Core Zone
LNG	Liquefied Natural Gas
MHCLG	Ministry for Housing, Communities and Local Government
MVA	Megavolt Ampere
NPFA	National Fire Protection Association
OSC	Open Sky Component
UDX	Universal Destination & Experiences
UKCP18	UK Climate Change Predictions 2018 dataset

Table 1.2 – Defined Terms

The following definitions shall apply to the terms used in this document:

TERM	DEFINITION
A421 junction	A new road junction on the A421, including a new eastbound off slip into the Site, a new westbound off slip into the Site and a new westbound on slip away from the Site.

Active Travel	Making journeys by physically active means, like walking and cycling.
Attraction Overlay Zone	In the Attraction Overlay Zone, the overall height of a structure may exceed the base height by up to 40m for any non-occupiable or non-habitable features where the destination is difficult to access or inaccessible, such as architectural features of buildings (i.e. cornices, eaves, gutters, towers, spires, monuments, skylights, flagpoles, domes, cupolas and other forms of ornamentation), cranes temporarily mounted on buildings during construction, fire or parapet walls, roof structures for housing elevators, stairways, tanks, ventilating fans, solar energy collectors or similar equipment to operate and maintain the building, or in the case of an amusement ride, tracks or other structural components.
BESS	<p>A 10MVA Battery Energy Storage System (BESS) is being considered to provide emergency response power and/or to help manage peak loads on the Site. The BESS will be sized for some limited emergency power but is not intended to sustain park operations during a total long-term power failure.</p> <p>The BESS will be installed in a dedicated compound, co-located with the primary substation and energy centre.</p>
Compliance Plans	<p>Means plans and/or drawings showing the following for each of the Core Zone Perimeter, East Gateway Zone, Lake Zone or West Gateway Zone or any sub-zone thereof:</p> <ul style="list-style-type: none"> (a) external appearance; (b) means of access; (c) landscaping; (d) layout; (e) lighting; (f) drainage; and (g) scale.
Core Zone Perimeter	Means the perimeter of the Core Zone being 10 metres in width measured from each adjacent existing or proposed public adopted highway boundary and adjacent parcel of land not part of the authorised development.
Core Zone Perimeter Masterplan	Means a master plan for the Core Zone which shall include details of the following:

	<p>(a) the location of any sub-zones within the Core Zone;</p> <p>(b) the areas of the Entertainment Resort Complex to be provided within the Core Zone Perimeter; and</p> <p>(c) the areas for vehicular, pedestrian and any cycle routes within the Core Zone Perimeter</p>
Core Zone Transport Hub	The area shown on Parameter Plan – Core Zone Transport Hub (Document Reference 1.13.0).
Detailed Design Approval	<p>Details of the following in respect of such part (to the extent relevant to such part) of the authorised development:</p> <ul style="list-style-type: none"> • external appearance; • means of access; • landscaping; • layout; • lighting; • drainage; and • scale.
Detailed Landscaping Scheme	A plan showing details of the proposed soft and hard landscaping of all areas external to the buildings to include planting schedules and details of the species, height and maturity of any trees and shrubs, including sections through the planting areas; depth of tree pits, containers and shrub beds; details relating to the access of each building, pedestrian surfaces, materials, kerb details, external steps and seating, street furniture, bins and lighting columns that ensure a safe and convenient environment for blind and partially sighted people.
Entertainment Resort Complex (ERC) Support	Associated services and uses for any operational or administrative functions of the Entertainment Resort Complex, such as office buildings and warehouse/storage facilities.
Entry Plaza	Located in the Core Zone, this restricted access area is outside of the ticketed area but requires visitors to pass a security screening before entry which accommodates primarily themed retail, bars, restaurant and entertainment uses located in conjunction with the primary entrance. It is aimed at encouraging ticketed guests to extend their visit to the Entertainment Resort Complex by arriving earlier than the park's opening time or staying longer after the park's closing time. Whilst these uses are designed primarily for ticketed guests, they could be used by the general public.
ERC Expansion Areas	The areas upon which ERC use may be provided subject to specified limitations to ensure that the proposed impacts of the

	ERC in this location are or can be made acceptable. The ERC Expansion Areas are shown on Parameter Plan – Entertainment Resort Complex Land Use (Document Reference 1.10.0)
Fireworks	Fireworks shall mean those articles within UN 0335 1.3G, as the same may be modified or replaced from time to time and shall not otherwise include pyrotechnics within UN 0431 1.4G both as defined in the United Nations (2023) <i>Transport of Dangerous Goods Model Regulations Volume 1, 23rd revised edition</i> (Available at UN Model Regulations Rev. 23 (2023) UNECE) [Accessed on 7 th June 2025].
Full Buildout	Full Buildout consists of construction of the balance of the ERC, roads, utilities and rail-related development that was not completed during the Primary Phase (assumed to occur over a twenty year period following the Primary Opening Year, completing in 2051) and operation of same thereafter, including the evolution and expansion of the same over time in accordance with the planning permission.
Future finished grade	The finished grade level after any earthworks and levelling have been completed.
Grade separated crossings	Where two or more surface transport routes cross each other at different heights (grades) so that they will not disrupt the traffic flow on other transit routes when they cross each other. This could include a road and a pedestrian bridge, or two roads, or a road and a railway, for example.
Grand Opening	The date on which the Theme Park within the Entertainment Resort Complex officially opens to the general public (excluding its Soft Opening Period, if applicable) with a majority of its attractions operational.
Holidays	Holidays on or around Chinese New Year, 5th November, Diwali, Christmas or New Year's Eve.
Maximum Height (AGL)	The height of any building or structure shall be the vertical distance, in metres, measured from the future finished grade to the highest point of the building or structure or roof structure or parapet wall, whichever is the highest. For the purposes of measuring height, roof structures shall include rooftop equipment, architectural elements and thematic elements, but not communications equipment.
Proposed Development	All elements of the proposed development that will form the basis of any planning permission granted for the planning proposal.

Railway undertakers' operational land	Land used directly for the operation and maintenance of a railway, such as railway lines, signal boxes, and train depots.
Roadways	Public roadways (and associated Active Travel) to be provided within the limits of deviation shown on Parameter Plan - Access and Roadways (Document Reference 1.11.0).
Soft Opening Period	Any period prior to the Grand Opening when some or all of the Theme Park on the Site is open for technical rehearsal to allow employees an opportunity to deliver guest services in a real-time operating mode, but in a controlled environment for training purposes (e.g., limited attendance, limited hours, and/or limited attraction availability).
Site	Means all the land edged red on the Site Location Plan (Document Reference 1.6.0).
Theme Park	<p>Theme park(s), amusement park(s) and/or water park(s) located in the Core Zone consisting of buildings, structures and facilities for tourism and leisure uses comprising theme parks, amusement parks and/or water parks uses, including:</p> <ul style="list-style-type: none"> a) events spaces, rides, attractions, pools, shows, entertainment venues, art and creative imagery, theatres, and cinemas, all or some of which may involve water, special effects (including fire), and/or be enclosed; b) retail, dining and entertainment facilities comprising venues for the sale of food and drink (including indoor and outdoor alcoholic beverage venues), retail venues, music and entertainment venues, dance clubs, nightlife entertainment and related ancillary facilities, support facilities, kitchens, storage, loading, security, servicing and laundry services to support these uses; c) permanent and/or temporary exhibition or multi-use spaces, including seasonal event venues and spaces; d) visitor facilities; e) visitor entrance areas, including ticketing points, turnstile structures, and ancillary commercial uses; f) security plaza, including screening facilities (such as metal detectors and x-ray machines); g) ticketing facilities; h) parades, shows and displays, including use of drones, indoor and outdoor concerts, fireworks, pyrotechnics, laser, light or projection shows, and seasonal events; i) any other similar, related or ancillary use.

Theme Park/Water Park/Amusement Park ticketed area	The area of the Theme park(s), amusement park(s) and/or water park(s) in the Core Zone which requires a ticket to be purchased by paying guests.
Utility Compound	<p>Means the area shown on Parameter Plan – Utility Compound (Document Reference 1.14.0) which may include some or all of the following:</p> <ul style="list-style-type: none"> a) renewable energy generation, including solar panels; b) a battery energy storage system compound, including: <ul style="list-style-type: none"> (i) transformers, inverters and associated switchgear; and (ii) plant and building structures; c) energy centre(s) that serve a defined district heating, cooling, and power network, comprising heat pumps (air, water, or ground geothermal), heat recovery, electric boilers, thermal storage, electric chillers, gas boilers and a system that is ready for connection to off-site generated waste heat sources; d) water collection system and processing plant for the treatment and re-use of harvested non-potable water and underground storage; e) utility metering equipment; and f) other utility uses.
Undertaker(s)	The persons (corporate or otherwise) who are permitted to carry out the Proposed Development (including their contractors and other persons appointed by them in connection with the carrying out of the Proposed Development).
Zonal Masterplan	A masterplan which shall include details of the location of any sub-zones within the relevant zone, the areas of the ERC to be provided in the relevant zone and the areas for vehicular, pedestrian and cycle routes and, for the East Gateway Zone only, any areas for rail-related development.
Zone	Each of the Core Zone, Lake Zone, West Gateway and East Gateway as shown on Zonal Plan (Document Reference 1.8.0).

2.0 DESIGN STANDARDS - SCALE

Height

- 2.1 The height of development on the Site shall be controlled by the Maximum Heights in **Table MH01** and **Table MH02**.
- 2.2 The following standards (MH01, MH02 and OSC01) are to be applied together to create an overall height strategy for the Site. When a building or structure is proposed anywhere on the Site, the lower of the applicable height reflected in MH01 or MH02 applies. For example, an ERC use in the EEA could have a maximum height of 10m. Once this height is determined, the Open Sky Articulated Skyline standard in OSC01 is then applied.

MH01 - Maximum Height Parameters by Masterplan Component

- 2.3 Maximum Height parameters have been set for different buildings and structures within different masterplan components within the Site. These are set out in the **Table MH01**.

Table MH01 – Maximum Height Parameters for Buildings and Structures

MASTERPLAN COMPONENT	MAXIMUM HEIGHT AGL (m)	LOCATION	MAXIMUM HEIGHT AOD (m)
ERC (unless otherwise defined below)	75	Core Zone	117
		Lake Zone	110.5
		West Gateway Zone	111
Associated services and uses for any operational or administrative functions (Entertainment Resort Complex support)	25	Core Zone	67
		Lake Zone	60.5
		West Gateway Zone	61
Utility Compound	20	Lake Zone	55.5
Rail-related development (other than Transport Hubs)	22	East Gateway Zone	59.5
Transport Hubs	30	Core Zone	66.3
		East Gateway Zone	67.5
Car park (surface)	10	Core Zone	46.3
		Lake Zone	45.5

		West Gateway Zone	47.5
		East Gateway Zone	47.5
Car park (multi-storey)	30	Core Zone	66.3
		Lake Zone	65.5
		West Gateway Zone	67.5
		East Gateway Zone	67.5
Roadways (other than Eastbound off-slip of A421 junction)	15	Core Zone	59.6
		Lake Zone	54
		West Gateway Zone	59.4
		East Gateway Zone	50.3
Ecological Enhancement Area (EEA)	10	Core Zone	45.7
		Lake Zone	39.5
		West Gateway Zone	43.7
Eastbound off-slip of the A421 junction	25	West Gateway Zone	68
Fences and any integral gates	5.4	Core Zone	59.5
		Lake Zone	54
		West Gateway Zone	59.4
		East Gateway Zone	50.3

MH02 - Maximum Height by Land Area

- 2.4 Maximum Height limits are also proposed across the Site by specific location. These are controlled by Table MH02 below.
- 2.5 Both Table MH01 and MH02 should be used when setting the maximum allowable height for development. The lowest applicable height for any specified masterplan component in any given land area applies in each case.

Table MH02 – Maximum Height by Land Area

RULE NO.	ZONE OR 'RULE'	LOCATION	MAXIMUM HEIGHT AGL (M)	MAXIMUM HEIGHT AOD (M)
1	ERC Expansion Areas	Core Zone	10	45.7
		Lake Zone	10	39.5
2	EEA	Core Zone	10	45.7
		Lake Zone	10	39.5
		West Gateway Zone	10	43.7
3	Within 20m of the boundary of the EEA except for where adjacent to Roadways where this rule shall apply within 7m of the EEA. This rule does not apply for grade separated crossings (see defined terms) or where adjacent to watercourses (although other limitations may apply).	Lake Zone	10	44
4	Within 20m of both sides of the proposed adopted boundary of all Roadways (including the northern edge of the proposed adopted boundary of Manor Road) except where adjacent to the EEA where this rule will apply within 7m of a Roadway. This rule does not apply to grade separated crossings (see defined terms) and along Broadmead Road.	Lake Zone	10	39.5
		West Gateway Zone	10	43.7
		East Gateway Zone	10	47.5
5	Within 20m of both sides of the proposed adopted boundary of Roadways in the Core Zone, except along Railway undertakers' operational land and grade separated crossings (see defined terms) where MH01 only applies, and the	Core Zone	10	45.7

	southern edge of the proposed adopted boundary of Manor Road where rule 6 applies.			
6	Within 30m of the southern edge of the proposed adopted boundary of Manor Road along the northern edge of the Core Zone, unless the residential properties within the Site on Manor Road are no longer occupied for residential use and have either been demolished or planning permission has been granted and implemented for a change to a non-residential use.	Core Zone	10	45.7
7	Within 20m of all edges of the ERC, excluding Roadways and Railway undertakers' operational land	Core Zone	10	45.7
		Lake Zone	10	39.5
		West Gateway Zone	10	43.7
		East Gateway Zone	10	47.5
8	Within 100m from the southernmost edge of the ERC	Core Zone	10	45.7
9	Development land area located south of the EEA and east of Roadway at the southern part of the Lake Zone	Lake Zone	20	55.3
10	Within 45m of the edge of the height zones established by rules 4, 5 and 6	Core Zone	30	66.3
		Lake Zone	30	65.5
		West Gateway Zone	30	67.5
11	East West Rail Safeguarded Land	West Gateway Zone	30	67.5
12	Attraction Overlay Zone (see definitions) - +40m in height in areas subject to a 75m height	Core Zone	115	157

	limit in the Core Zone pursuant to Table MH01			
13	Attraction Overlay Zone Limit of Deviation Manor Road – +40m in height in the area 45m north of the area subject to a 75m height limit in the Core Zone pursuant to Table MH01, unless the residential properties in ERC expansion areas A-C are no longer occupied for residential use and have either been demolished or planning permission has been granted and implemented for a change to a non-residential use. The area 45m north to which this rule applies is within the area covered by the 30m height limit in the Core Zone pursuant to rule 10 in this Table MH02.	Core Zone	70	106.3
14	Attraction Overlay Zone Limit of Deviation Broadmead Road – +40m in height in areas 45m south of those areas subject to a 75m height limit in the Core Zone pursuant to Table MH01, unless the residential property in ERC expansion area D is no longer occupied for residential use and has been demolished, or planning permission has been granted and implemented for a change to a non-residential use. The area 45m south to which this rule applies is within the area covered by the 30m height limit in the Core Zone pursuant to rule 10 in this Table MH02.	Core Zone	70	106.3

OSC01 - Open Sky Concept Articulated Skyline Principles

2.6 The final component of the overall height strategy is an Open Sky Concept Articulated Skyline standard, as described below:

- 1) **Variety in building and structure heights:** Differentiating building heights as defined below.
- 2) **Urban design & architectural features:** Incorporating diverse architectural elements such as varied forms, spacing, and setbacks. These features break up the mass of buildings and provide focal points within the urban landscape. Buildings on the Site will consist of a variety of architectural styles, materials and treatments, creating a varied skyline. Building massing will vary, and architectural focal points will punctuate the skyline, providing a degree of variety and interest.

Definitions

2.7 In no circumstance will the tallest part of any building or structure exceed the relevant Maximum Height AOD as allowed by Tables MH01 and MH02.

- Low Components: buildings or structures with a Maximum Height up to and including 10 metres.
- Medium Components: buildings or structures with a Maximum Height over 10 metres up to and including 20 metres.
- Tall Components: buildings or structures with a Maximum Height over 20 metres up to and including 75 metres.
- Maximum Height Structures: any non-occupiable or non-habitable features where the destination is difficult to access or inaccessible with a Maximum Height of between 75 metres and 115 metres.

Variety in building and structure heights

2.8 The Proposed Development will implement an articulated skyline with varying heights throughout the Site as follows:

Core Zone

- 2.9 Development will be limited to Low Components, except:
- 2.10 Up to 30% of the land area within the Core Zone as identified in Table OSC2 may have components that are higher than Low Components, with up to 10% of the land area (within the Core Zone as identified in Table OSC2) being Tall Components and the remainder being Medium Components.

- 2.11 Up to 3% of the land area within the Core Zone as identified in Table OSC2 may have Maximum Height structures (up to 115m).
- 2.12 The height of the Maximum Height structure(s), which may be independent or extended up from the roof of another building, will vary depending on the structure and no more than 0.2 hectares of each structure may extend beyond 75m.
- 2.13 Each Maximum Height structure will be a minimum of 20m from any other Maximum Height structure.

Lake Zone

- 2.14 Development will be limited to Low Components, except
- 2.15 Up to 40% of the land area within the Lake Zone as identified in **Table OSC2** may have components that are higher than Low Components, with up to 15% being Tall Components and the remainder being Medium Components.

West Gateway Zone

- 2.16 Development will be limited to Low Components, except:
- 2.17 Up to 40% of the land area within the West Gateway Zone as identified in **Table OSC2** may have components that are higher than Low Components, with up to 15% being Tall Components and the remainder being Medium Components.

East Gateway Zone

- 2.18 Development will be limited to Low Components, except:
- 2.19 Up to 20% of the land area within the East Gateway Zone as identified in **Table OSC2** may have Medium Components.

Land Areas for Articulated Skyline Calculations

- 2.20 The land areas in Table OSC02 will be used for the purposes of calculating the percentages of the land area in OSC01, although the final applicable land areas will be approved at the time of approval of the applicable Zonal Masterplan or Core Zone Perimeter Masterplan.

Table OSC02 – Land Areas for Articulated Skyline Calculations

ZONE	APPLICABLE LAND AREA (SQM)
Core Zone (excluding Roadways and EEA)	835,155
Lake Zone (excluding Roadways and EEA)	457,325
West Gateway Zone (excluding Roadways)	179,700
East Gateway Zone (excluding Roadways)	62,903

3.0 DESIGN STANDARDS - LAYOUT

Amount including Floorspace Limitations

- 3.1 Floorspace restrictions by certain land use classifications and the amount of fuel and pumps allowed in the Highway Service Area are controlled by Table MF01 below. This table is not intended to be interpreted or used as a cumulative allowable development floorspace.

Table MF01 – Maximum Amount

ZONE	USE	MAXIMUM AMOUNT
Lake Zone	Retail within Class E(a) of the Town and Country Planning (Use Classes) Order 1987 (as amended) (excluding concessions in visitor accommodation, indoor and outdoor entertainment venues, indoor and outdoor sport and recreation, leisure and spa facilities, venues with conference and/or convention spaces and indoor and outdoor cultural facilities)	11,000 sqm GEA
	Venues with conference and/or convention spaces (not located in any visitor accommodation)	55,000 sqm GEA
	Individual retail unit size within Class E(a) of the Town and Country Planning (Use Classes) Order 1987 (as amended)	1,100 sqm GEA
West Gateway Zone	Retail within Class E(a) of the Town and Country Planning (Use Classes) Order 1987 (as amended) (excluding concessions in visitor accommodation, indoor and outdoor entertainment venues, indoor and outdoor sport and recreation, leisure and spa facilities, venues with conference and/or convention spaces and indoor and outdoor cultural facilities, and Highway Service Area)	7,700 sqm GEA
	Highway Service Area	16 petrol and/or diesel pumps with associated retail Hydrogen refuelling: below 2 tonnes LPG storage: below 25 tonnes Trips associated with any EV charging

		stations to be controlled through the Monitor and Manage Plan.
	Individual retail unit size within Class E(a) of the Town and Country Planning (Use Classes) Order 1987 (as amended)	1,100 sqm GEA

Drainage

DESIGN STANDARD ID	DESIGN STANDARD
West Gateway	
WG1.1	<p>The drainage system in the West Gateway Zone for the proposed Highway Service Area will include the following in accordance with the Association for Petroleum and Explosives Administration and Energy Institute (2018) <i>Design, construction, modification, maintenance and decommissioning of filling stations (4th edition) (as may be revised from time to time)</i>.</p> <ul style="list-style-type: none"> • separate underground drainage systems with corrosion protection, discharging to the foul water network via an oil separator tank in accordance with British Standards Institution (2003) BS EN 858-2:2003 – <i>Separator systems for light liquids (e.g. oil and petrol) - Selection of nominal size, installation, operation and maintenance (as may be revised from time to time)</i>; • the fuelling dispensing area will be covered with a roof and include a continuous spillage intercepting channel around edge; • the wash bay will drain via an oil separator to the foul system; • impermeable areas not at risk from fuel contamination (e.g., parking areas, kiosk building roof) will drain to the surface water system via a by-pass separator; • isolator shut off valves will be included in the event of emergency spills, fire, vandalism, to lock the drainage system until clean-up has been completed; • the underground separators will be inspected and maintained in accordance with British Standards Institution (2003) BS EN 858-2:2003 – <i>Separator systems for light liquids (e.g. oil and petrol) - Selection of nominal size, installation, operation and maintenance (as may be revised from time to time)</i>; • all dispensers will be fitted with a leak proof drip tray or membrane arrangement ensuring no leaks can be diverted to the surface water system;

	<ul style="list-style-type: none"> underground storage tanks to comply with PPG27¹ Installation, decommissioning and removal of underground storage tanks; and selection and use of an appropriate leak detection system.
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Safety

DESIGN STANDARD ID	DESIGN STANDARD
Site-wide	
SW2.1	Any hazardous substances stored on the Site will be below the thresholds specified in Schedule 1 of The Planning (Hazardous Substances) Regulations 2015 (as amended).
Core Zone	
CZ2.1	No more than 10 Fireworks shows are permitted each year, at least five of which would take place on or around the events of Chinese New Year, 5th November, Diwali or New Year's Eve which may be after 11pm.
CZ2.2	The pyrotechnics stored on Site will be of Hazard Type 4 as defined by HM Government (2014) <i>The Explosives Regulations 2014</i> Available at: https://www.legislation.gov.uk/uksi/2014/1638 and meet approximately one month's requirement for typical daily use of the products within the theme park. The quantity of explosives stored will be no more than 4000 kg (though may be less from time to time) and will be subject to an HSE license.
Lake Zone	
LZ2.1	The type, size and intensity of buildings in the Lake Zone will comply with the Health and Safety Executive's (HSE's) Land Use Planning Methodology (following engagement with HSE) to ensure that the risks associated with the existing Liquefied Natural Gas (LNG) facility at Asda, Marsh Leys Cottages, Farm Woburn Rd, Kempston, Bedford MK43 9AB is appropriately considered. Any Compliance Plans or Detailed Design Approval falling

¹ Environment Agency (2004) *Installation, Decommissioning and removal of Underground Storage Tanks: PPG27* (Note that PPG27 has now been withdrawn but not replaced. UDX has therefore committed to complying with PPG27 as there is no alternative policy guidance available).

	within the HSE consultation zones will be accompanied by confirmation of HSE's Land Use Planning advice.
LZ2.2	<p>Unless the hazardous substance consent is revoked, or there is a change in the HSE Land Use Planning Methodology which suggests otherwise, notwithstanding the above, the following uses shall not be permitted within the consultation zones of the existing LNG storage facility at the adjacent ASDA chilled distribution centre:</p> <ul style="list-style-type: none"> • No Sensitivity Level 2, 3 or 4 development as defined within the HSE Land Use Planning Methodology should be located within the inner consultation zone; • No Sensitivity Level 3 or 4 development as defined within the HSE Land Use Planning Methodology should be located within the middle consultation zone; and • No Sensitivity Level 4 development as defined within the HSE Land Use Planning Methodology should be located within the outer consultation zone. <p>Prior to the preparation of Compliance Plans or Detailed Design Approval for development in the Lake Zone, the Undertaker would seek land use planning advice from HSE to ensure that any development in the consultation zones is appropriate.</p>
LZ2.3	<p>If a Battery Energy Storage System (BESS) is proposed it will:</p> <ol style="list-style-type: none"> a. be located within the Utility Compound in the Lake Zone; b. not have a capacity of more than 10 Megavolt Ampere (MVA); c. comply with the National Fire Protection Association (NFPA) standards relevant at the time, including NA 885:Standard for the Installation of Stationary Energy Storage Systems which requires 30.5m from other buildings not associated with electrical infrastructure. d. Not have vegetation within a 10m clearance zone of any BESS.

4.0 DESIGN STANDARDS - SUSTAINABILITY

Climate Resilience

DESIGN STANDARD ID	DESIGN STANDARD
Site-wide	
SW4.1	There will be a variety of covered outdoor elements, walkways and shelters provided, to ensure guests have appropriate access to shade and shelter throughout the Site.
SW4.2	Parking and hardscape materials will be specified with a high solar reflectance index (SRI) to help reduce the heat island effect, except in Theme Park themed hardscape areas.
SW4.3	All new power and telecommunications cables within the Site will be installed below ground.
SW4.4	During the design of buildings and structures, including utilities and services (with the exception of the elements covered by CZ4.1), due regard will be given to the temperatures, heavy rain fall events, and wind speeds projected for the local area by UK Climate Projections (UKCP)18 data for projections over land.
Core Zone	
CZ4.1	<p>When undertaking design review of the applicable Entertainment Resort Complex components in accordance with the Health and Safety Executive (2017) <i>Fairgrounds and amusement parks: Guidance on safe practice (Third edition) (as may be revised from time to time)</i> Available at https://www.hse.gov.uk/pubns/books/hsg175.htm, UDX will also include in its:</p> <ul style="list-style-type: none"> (i) design calculations - consideration of wind speeds and temperatures for the local area as projected in UKCP18; (ii) design risk assessment - consideration of materials that are suitably resilient to high temperatures and high winds of the type projected for the local area in UKCP18; and; (iii) operating instructions to be used during operations of the particular component - consideration of component fatigue, life and weather restrictions suitable for the local area climate projections in UKCP18.

Lake Zone	
LZ4.1	<p>The energy centre will be all electric.</p> <p>In case of delays in provision of an electrical connection with adequate power for electricity, heating and hot water needs, heating and hot water demand could be provided by gas boilers and/or back-up diesel generators for not more than twelve months following Grand Opening.</p>
LZ4.2	<p>On-Site sources of odour including foul water pumping stations, commercial kitchens and waste holding areas will be designed to incorporate odour abatement measures.</p>
West Gateway Zone	
WG4.1	<p>The A421 works will be carried out in accordance with the National Highways (2023) <i>National Highways Environmental Sustainability Strategy</i> Available at nh-environmental-sustainability-strategy_final_020523.pdf.</p>
East Gateway Zone	
EG4.1	<p>The Wixams rail station and track works will be carried out in accordance with the Network Rail (2025) <i>Greener Rail Strategy: Our Environment and Sustainability Strategy 2025-50</i> Available at Greener-Railway-Strategy_May-2025.pdf.</p>
EG4.2	<p>The statutory undertaker for the Wixams Rail Station and track works will undertake a climate change impact assessment and develop a risk report using the following Network Rail guidance notes: Network Rail (2021) <i>NR/GN/ESD11 Weather Resilience and Climate Change Adaptation Impact Assessment</i> and Network Rail (2021) <i>NR/GN/ESD23 Climate Change Projections</i>.</p>

5.0 DESIGN STANDARDS - LIGHTING

Lighting Compliance Plans will be provided prior to the installation of any permanent lighting and will comply with the following Design Standards.

DESIGN STANDARD ID	DESIGN STANDARD
Site Wide	
SW5.1	Exterior lighting for the ERC will be controlled by lighting control system(s) which control the exterior lighting so that no luminaires are operational during daylight hours or when they are not required. The system will utilise programmable photocell and astronomical timeclock units. Luminaires will form groups based on their location and functionality, these groups will be allocated to lighting scenes and will be independently switched on/off or dimmed. This standard does not apply to the Theme Park, which requires a separate dedicated lighting control system with different parameters due to safety and security.
SW5.2	Exterior utilitarian lights outside of the Theme Park and the restricted access area that requires visitors to pass a security screening before entry will have a Blacklight, Uplight and Glare (BUG) rating of U0 (as per Illuminating Engineering Society (2013) <i>IES TM-15-11, Luminaire Classification Systems for Outdoor Luminaires</i> , or latest applicable version at the time of compliance submission) to prevent uplight effects that cause "skyglow".
SW5.3	Exterior lighting for the ERC outside of the Theme Park and the restricted access area that requires visitors to pass a security screening before entry will have a BUG Glare rating maximum of G2, preferably G1 (as per Illuminating Engineering Society (2013) <i>IES TM-15-11, Luminaire Classification Systems for Outdoor Luminaires</i> , or latest applicable version at the time of compliance submission) to minimize glare effects to ground level receptors.
SW5.4	For the ERC outside of the Theme Park and the restricted access area that requires visitors to pass a security screening before entry, only luminaires with a negligible or zero Upward Light Ratio (ULR) and with good optical control will be considered (as per Institute of Lighting Professionals (2021) <i>LP GN01-21, Guidance Note for the Reduction of Obtrusive Light</i> or latest applicable version at the time of compliance submission).
SW5.5	For the ERC outside of the Theme Park and the restricted access area that requires visitors to pass a security screening before entry:

	<ul style="list-style-type: none"> column mounted luminaires will be selected with narrow optics to direct light into the task area where needed (as per Institute of Lighting Professionals (2023) Guidance Note <i>GN08-23, Bats and Artificial Lighting at Night</i>) or latest applicable version at the time of compliance submission; light column heights will be designed to give efficient light distribution whilst avoiding unnecessarily tall columns, striking a balance between the height and number of columns but also be in keeping with the landscape; column heights will be in the range of 3 - 8 metres, unless there is a need to be taller due to safety and security, but within the Maximum Heights set out in Design Standard MH01 and MH02; and taller columns will be avoided, if possible, to reduce the visual impact on neighbouring towns and heritage assets.
Core Zone	
CZ5.1	Artificial lighting in the Core Zone will be designed to illuminate the Ecological Enhancement Areas within the Core Zone to a maximum of one lux, with the exception of necessary security and safety lighting. Exterior security lighting should be set on motion sensors and set to as short as possible timer as the risk assessment will allow. For most purposes, 1- or 2-minutes time is likely to be appropriate. Security luminaires to comply with Institute of Lighting Professionals (2023) Guidance Note <i>GN08-23, Bats and Artificial Lighting at Night</i> or latest applicable version at the time of compliance submission. Artificial lighting will utilise systems designed to be triggered by human activity, to reduce lighting being undesirably activated by passing wildlife.
Lake Zone	
LZ5.1	Exterior security lighting on the eastern side of the lake should be set on motion sensors and set to as short as possible timer as the risk assessment will allow. For most purposes, 1 or 2-minutes time is likely to be appropriate. Security luminaires to comply with Institute of Lighting Professionals (2023) Guidance Note <i>GN08-23, Bats and Artificial Lighting at Night</i> or latest applicable version at the time of compliance submission. Artificial lighting will utilise systems designed to be triggered by human activity, to reduce lighting being undesirably activated by passing wildlife.
LZ5.2	There will be no installation of light or lighting features in/on the lake for leisure, amenity or ornamental purposes.

LZ5.3	Lighting installed along the western edge of the lake should be sensitively designed so that when measured at 30m from the lake shoreline eastward into the lake the light levels should be a maximum increase of no more than 1 lux above existing baseline conditions. Beyond the 30m point continuing eastwards across the lake, the light levels must decline.
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6.0 DESIGN STANDARDS – LANDSCAPING

Landscape

DESIGN STANDARD ID	DESIGN STANDARD
Site-wide	
SW6.1	Roadways within the Proposed Development and adopted by Bedford BC will include native planting within the central reservation and/or grass verges either side, as applicable, to create a sense of arrival to the ERC.
SW6.2	Detailed landscaping schemes will include topographical mounds and tree and buffer planting around the edge of the Site, and at suitable points within it, to help to reduce wind velocity around the Site.
Core Zone	
CZ6.1	Landscaping, including tree planting, will be included in the areas adjacent to the transport hubs.
East Gateway Zone	
EG6.1	Landscaping, including tree planting, will be included as part of the areas adjacent to the transport hubs.

7.0 DESIGN STANDARDS – ECOLOGY

Ecology

DESIGN STANDARD ID	DESIGN STANDARD
Site wide	
SW7.1	Drone show locations will have a minimum horizontal clearance of 50 metres from any EEAs within which no drone shows will take place and will only take place above UDX owned property.
Core Zone	
CZ7.1	Firework (see defined terms) locations will have a minimum horizontal clearance of 50 metres from any Ecological Enhancement Areas within which no Fireworks will be launched/detonated. Fireworks launch locations will be positioned so that the fallout zone does not overlap with Ecological Enhancement Areas and is positioned on UDX owned property.
West Gateway Zone	
WG7.1	The proposed road crossing located in West Gateway Zone over Elstow Brook will consist of a clear span bridge set a minimum 600mm higher than the 1 in 100 year plus climate change modelled river level. The bridge abutments will be set back a minimum 10m from the top of bank with detailed design informed by riparian habitat, bank stability and ecological importance to reduce impacts.

8.0 DESIGN STANDARDS – ACCESS

Car Parking

- 8.1 Car parking spaces will be provided in accordance with the minimum and maximum spaces set out in Tables CP01 and CP02.

Table CP01 – Car Parking Spaces and Coach Bays

LOCATION/ELEMENT	MINIMUM SPACES AT GRAND OPENING	MAXIMUM SPACES AT FULL BUILDOUT
Site-wide Non-Rail Car Parking	7,106	16,661
Coach parking	100 bays	200 bays

Table CP02 – Electric Vehicle Provision

LOCATION/ELEMENT	MINIMUM ACTIVE PROVISION	MINIMUM PASSIVE ² PROVISION
Car parks exceeding 10 car parking spaces	3% of total car parking spaces	See line below
All car parking in the ERC at any given time (taken cumulatively and not to be applied to each individual car park)	5% of total car parking spaces	An additional 5% of total car parking spaces

Cycle parking

- 8.2 Cycle parking will be provided in accordance with the minimum standards in Table CP03 and may be consolidated to meet the needs of multiple land uses.

Table CP03 - Cycle Parking Provision

	SHORT STAY	LONG STAY
Minimum spaces at Grand Opening to serve the Theme Park, Entry Plaza, ERC Support and 500 hotel bedrooms	100 spaces	150 spaces

² Passive provision means cabling fully provided to allow a future connection but no charger in place.

Highways and Access

DESIGN STANDARD ID	DESIGN STANDARD
Site-wide	
SW8.1	New footways/cycleways will be a minimum of 2m wide and new Active Travel corridors with segregated provision for pedestrians and cyclists will be a minimum of 3m wide.

9.0 DESIGN STANDARDS – OPERATIONAL

9.1 The Promoter will ensure that it operates the Site in accordance with the following Design Standards.

DESIGN STANDARD ID	DESIGN STANDARD
Site-wide	
SW9.1	During the design of plant rooms within hotels, where the guidance provided in CIBSE (2016) <i>Guide B4 Noise and vibration control for building services systems</i> indicates that vibration isolation is required, then the guidance will be followed unless the hotel operator has its own design code which includes internal noise limits for plant rooms that are more stringent than the guidance.
SW9.2	Hotels will be designed to achieve the guideline internal noise levels referenced in BS 8233:2014 <i>Guidance on sound insulation and noise reduction for buildings</i> . Available at: https://knowledge.bsigroup.com/products/guidance-on-sound-insulation-and-noise-reduction-for-buildings , unless the hotel operator has its own design code which includes internal noise limits for bedrooms.
Core Zone	
CZ9.1	<p>The Theme Park/Water Park/Amusement Park ticketed area may only be open to the public during periods within the following hours:</p> <ul style="list-style-type: none"> • Normal hours: Monday to Sunday including bank holidays: 07:00 to 23:00; • Seasonal events (such as Halloween Horror Nights): Monday to Sunday including bank holidays: 07:00 to 02:00 up to 60 times in any calendar year; • Holidays: Monday to Sunday including bank holidays: 07:00 to 01:00 up to 5 times in a calendar year on or around Chinese New Year, 5th November, Diwali, Christmas or New Year's Eve; and • Special events (including private events): Monday to Sunday including bank holidays: 07:00 to 01:00 up to 30 times in a calendar year.
CZ9.2	Outdoor amplified music permitted within the Theme Park/Water Park/Amusement Park ticketed area will finish no later than 23:00 except that during Halloween Horror Nights, and Special events referenced in CZ9.1 such music may extend up to 00:30.
CZ9.3	Not used

CZ9.4	Not used
CZ9.5	Not used
CZ9.6	Day-to-day pyrotechnic effects will operate in brief, intermittent bursts and will be heavily controlled.