Digital Totems

Project Name: Digital Dawn
Business Confidential

Regent's Place

Introduction and Context

We have an opportunity to take a dynamic stance and review how British Land chooses to execute occupier / visitor engagement via digital screens. The cost of hardware is decreasing, quality of experience improving and increasingly digital screens, whether personal or public, are seen as a bridge into the rapidly developing virtual world. We have an opportunity to be playful and progressive and cast aside outdated views and preconceptions. The additions to the campus have been considered in the context of the built environment, for the enrichment of campus life.

We propose to install 8 digital totems across the existing Regent's Place neighbourhood, replacing existing static signage, to enhance the user journey and provide a variety of services including better wayfinding and engagement for occupiers, residents and visitors. We have also developed proposals to install a larger 'social screen' which overlooks the plaza, sharing content such as live sport, film, news, weather and travel information.

The totems will have the options to provide further services such as acting as boosting WiFi signal, mobile device charging, and be sympathetic to the environment in which they are placed, remaining true to the brand values of the wider estate in their design and operation. They will work and communicate with other digital developments on the campus, including a customer-focused smartphone application due for release in 2023.

British Land's long-term vision for Regent's Place is to create a vibrant and active, business-led mixed-use campus with a diverse range of occupiers and complimentary uses. Over 37 years, British Land has made significant investments in the public realm, retail and cultural offer and wider environment at Regent's Place, working closely with local partners and the Regent's Park community.

A particular challenge is the need to enhance permeability and sense of place at Regent's Place, by breaking down thresholds and improving connections with the surrounding area. The campus is bounded on all sides by Osnaburgh Street, Euston Road, Hampstead Road, and Drummond Street. Wayfinding and routes through the site can be confusing and feel corporate.

The introduction of new digital infrastructure will respond to these issues and challenges, presenting an opportunity for local residents, workers and visitors to better engage with the campus and surrounding area and to increase activity (particularly during evenings and weekends) through publicising local events and activities, businesses, organisations and community groups.

Camden's Local Plan recognises the need for better digital connectivity, including public WiFi.

We propose to integrate the convenience of the digital world seamlessly into the context of a physical environment, making information and connectivity readily accessible, responsive and relevant.

Community

Having a direct relationship with the local community matters. Creating a smart campus with improved connectivity and digital infrastructure will enable us to engage our own customers and the local community more closely, by making information more engaging and accessible to all.

As well as digital wayfinding, the totems provide an opportunity to work with local partners, Camden and the Knowledge Quarter to enhance engagement, accessibility and the pedestrian experience, including free space for local community groups and charity partners. Digital platforms can also be used to support the public transport network, promote active travel and display digital art – produced by local artists

Initial conversations have taken place with a selection of stakeholders on all three British Land campuses, including Regent's Place. With a considered approach it is feasible that this proposal would be seen as a positive addition, enhancing and accelerating the strategy of creating vibrant and engaging places that people prefer. The digital platforms offer a cost-effective solution from which we can support local community groups, include Camden Council messages, promote inclusion and engagement though interactive technology and support the procurement and display of digital art in public spaces.

In October 2019 British Land commissioned research at Regent's Place. A selection of comments from our occupiers and visitors show that improved wayfinding is required. This proposal seeks to address those comments and futureproof the campus, to adapt to future changes.

Respondent	What do you think Regent's Place could do better/improve upon
Regent's Place Campus Worker, Male, 33	The signage confuses people looking for places and can't find it
Regent's Place Visitor, Male, 28	More signage
Regent's Place Visitor, Female, 20	Better signage
Regent's Place Campus Worker, Male, 26	Better signage and way finding
Regent's Place Visitor, Male, 19	More signage to promote what's here
Regent's Place Visitor, Female, 24	Signage
Regent's Place Campus Worker, Female, 29	Signage
Regent's Place Visitor, Male, 19	A bit more cleanliness and a map for directions
Regent's Place Visitor, Female, 29	Signage

Operational Information

Sound

It is proposed that the totems and associated screens will play out no sound whatsoever. There may be a facility to transmit sound from the screens to a personal Bluetooth enabled device, but there will be no publicly audible content.

Motion & Transition

The proposed locations of each totem have been determined based on their accessibility to pedestrians only. On this basis and for the screens to have maximum benefit for the community, they should have the capacity to show full motion content. The content will be programmed on a loop of 6 ten-second slots. The transition from one slot to the next shall be instantaneous and cause no visual clutter to those who have view of the screen.

Brightness

The brightness of the screens housed within each totem will be scheduled sensitively in the context of the Regent's Place estate, its occupiers and residents. The screens will use 'True Black' technology, which eliminates any glare from an OLED product. The clearer, defined pixels of a true black screen are shown by example in the image to the right.

British Land will commission a lighting survey to determine the correct levels of brightness suitable for such products, and our property management team at Regent's Place will ensure that illuminance is frequently checked and managed.
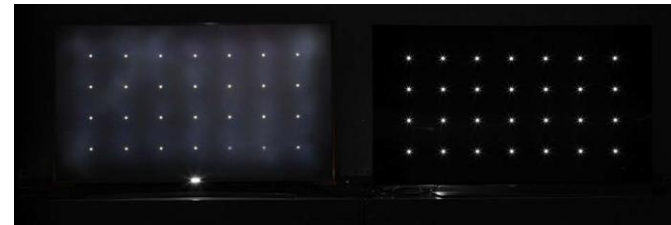

Image showing the clear and defined pixilation of a true black screen

Design Principle

Regent's Place is a pioneering neighbourhood, with its focus on knowledge, inclusion and sustainability.

As we continue to improve the public realm to feature more green and natural elements, there is an opportunity to embed digital infrastructure in the landscape.

Sustainably sourced materials such as sourced timber would be used to frame the totems, reflecting Regent's Place and British Land's commitment to sustainability. The social screen would be supported by a series of steel legs, allowing it to free stand. It will be clad with parametric timber slats from sustainably managed forests and respecting HTE processes.

The hardware discussed in this pack will be procured with sustainability at the core of our decision-making. Digital products that only use minimal energy and optimal efficiency will be acceptable. Those powered by renewable energy will be preferred.
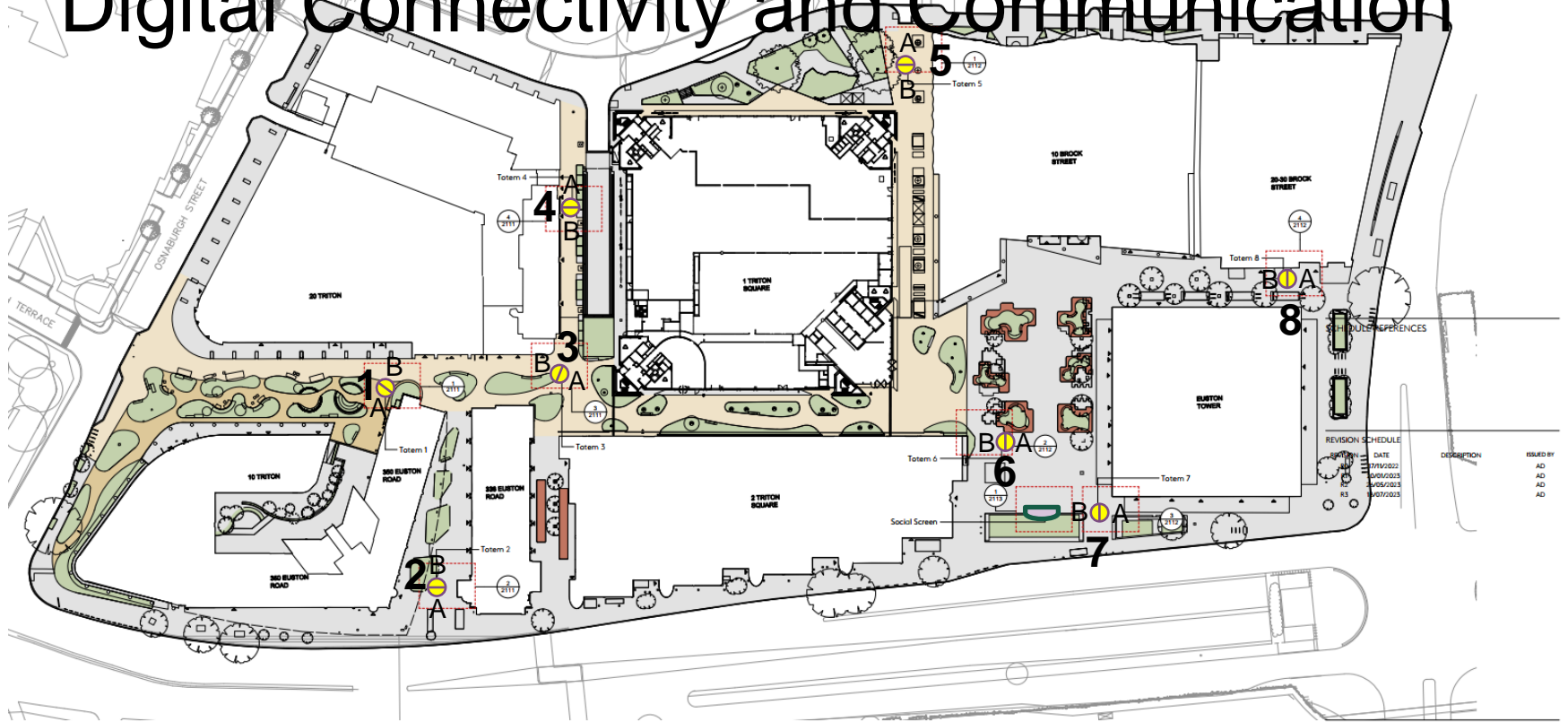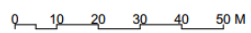
Regent's Place

Locations & Conceptual Design

Digital Connectivity and Communication

Existing Totem & Proposed Upgrade -   **A**: Wayfinding

Social Screen   **B**: Events & Engagement

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Locations – To Be Digitised
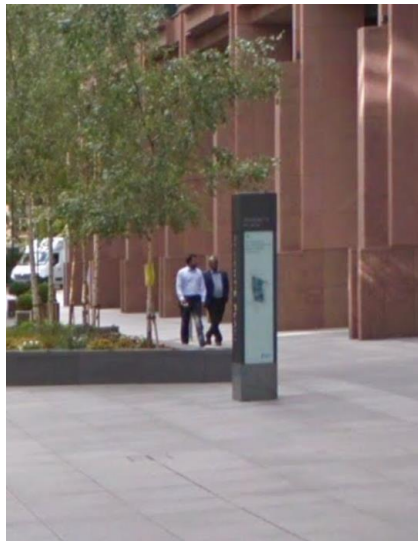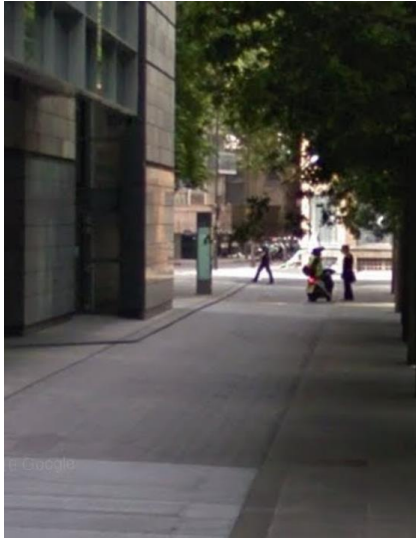
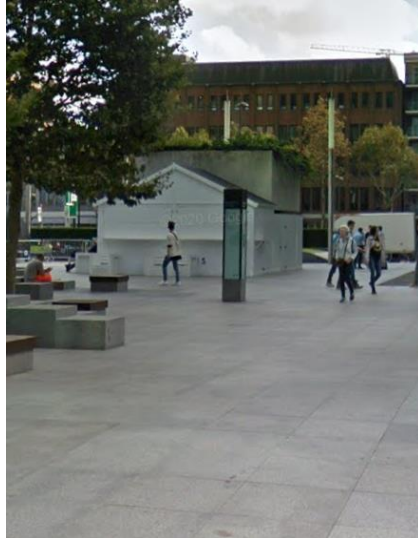# Existing Locations – To Be Digitised

Digital Screens

The nine digital totems would each have two screens.

Five totems would always host wayfinding and/or Regent's Place content, for example, travel information, promoting local partners, charities and events on campus. The other four totems would host a mix of wayfinding, Regent's Place content and advertising content (see proposed split opposite)

Advertising Restrictions

In many advertising agreements held by British Land we specify restricted content which cannot be displayed under any circumstances. These include but are not limited to:

- Religious messages and Political content

- Tobacco, vaping or similar nicotine-based products

- Alcohol advertising will require prior approval

- Any advertisement that contravenes the code set out by the Advertising Standards Authority

These restrictions will be specified in any advertising agreement that British Land enters into in relation to all totems and screens implemented under this proposal.

Screen One
One screen on each of these totems would host advertising content with a minimum of 10 seconds in every 60 seconds used to promote Regent's Place and our local partners, e.g. local charities, Camden and KQ.

Screen Two
The other screen on each of these totems would always host wayfinding and/or Regent's Place content, for example, travel information, promoting local partners, charities and events on campus.

Screen One
If any of the remaining 50 seconds of commercial time in every 60 seconds is unsold, this time would be given back to promote Regent's Place and our local partners

Ratio of wayfinding to advertising content to promoting Regent's Place and its stakeholders on four totems

Digital Totem Design

Double sided screens set into the environment, this addition to Regent's Place is considerate of the green and lush environment in which it sits.

One face of the double sided totem will always be wayfinding. The second face of the double sided will display Regent's Place / British Land content for 10 in every 60 seconds. The remaining 50 seconds will be sold to brands such as Sainsburys, Pret, Visa, Dyson, Virgin Group, GWR, Emirates, Heathrow Airport, etc.

When advertising space has not been sold the screen will show Regent's Place / British Land content, or messages that support wider community groups and organisations. We are committed to offer 10 seconds in each minute to Camden for the promotion of good causes or community services, subject to content, on these screens.

The design is focused on integrating with the public realm, to create a complimentary fixtures that sit seamlessly within the wider environment. The timber slat cladding can be shaped to be 'parametric', creating organic movement and offering an interesting visual aspect to the totems.

The totem design concept is based the ideology from the brand guidelines that Regent's Place is the cross road between 3 neighbourhoods. So we propose to use 3 materials or textures (excluding the digital screen) as a nod to this.

We intend to source sustainable materials to form the cladding and exterior of the totems. Materials can be 'layered' to replicate imagery from the brand guidelines. Tech can be housed within the main body of the totem and can include; wifi, bluetooth, camera for interactive applications (GDPR permitting). 2 x '6 sheet' digital screens on either face.

Timber slat parametric design to both faces with screen cut out.
Brand green mild steel (or other more sustainable substrate)
Steel corten kick plate.

Technical Drawings
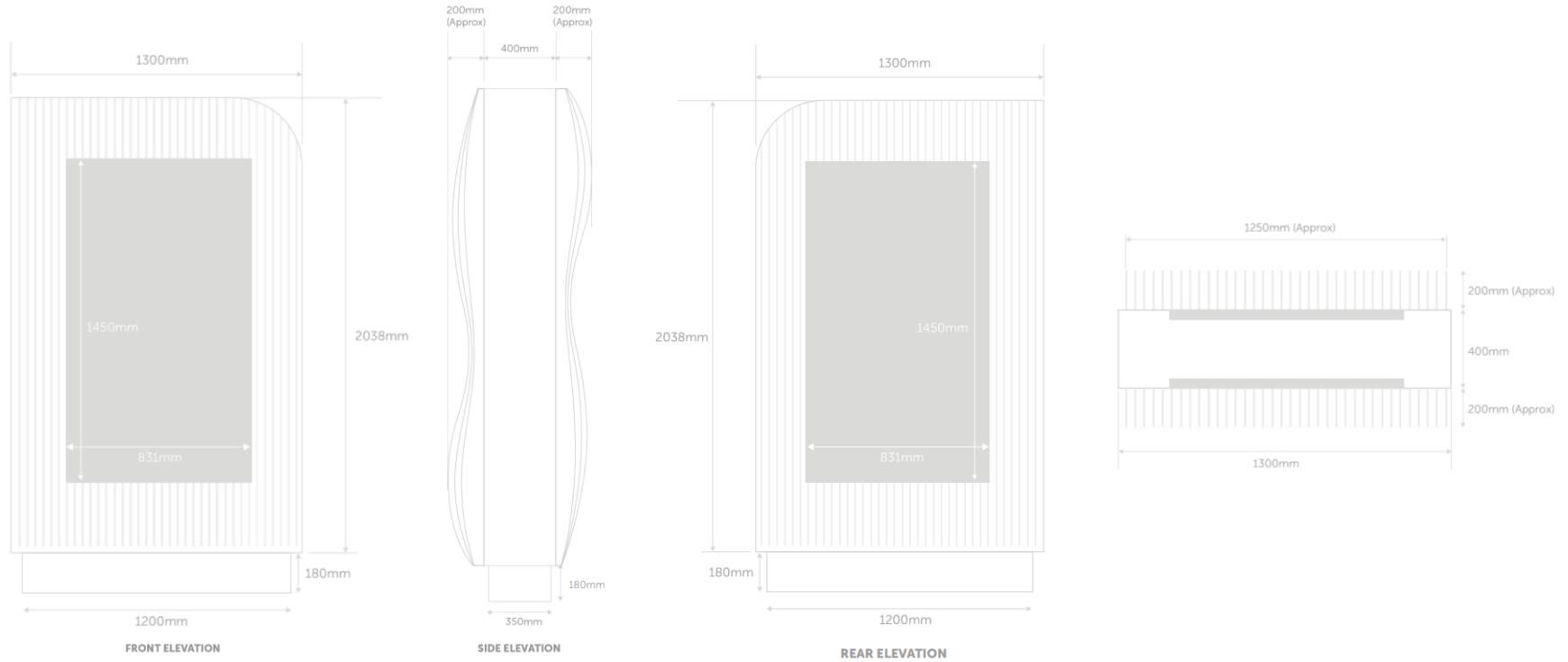
FRONT ELEVATION

SIDE ELEVATION

REAR ELEVATION

Technical Drawings

FRONT ELEVATION   SIDE ELEVATION   REAR ELEVATION

Technical Drawings

Parametric timber slat feature

Specification TBC

Design TBC
Slats visualised here are indicative,
Technical drawings required to
finalise parametric shape and
number of slats required.

6 sheet
digital screen

Curved corner detail

Mild steel contstruction
Powder coated in brand colour

Corten steel base
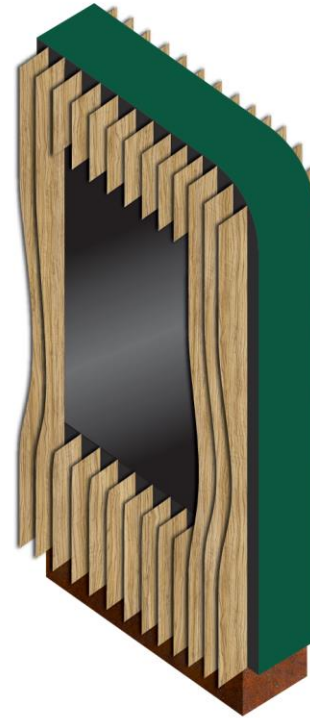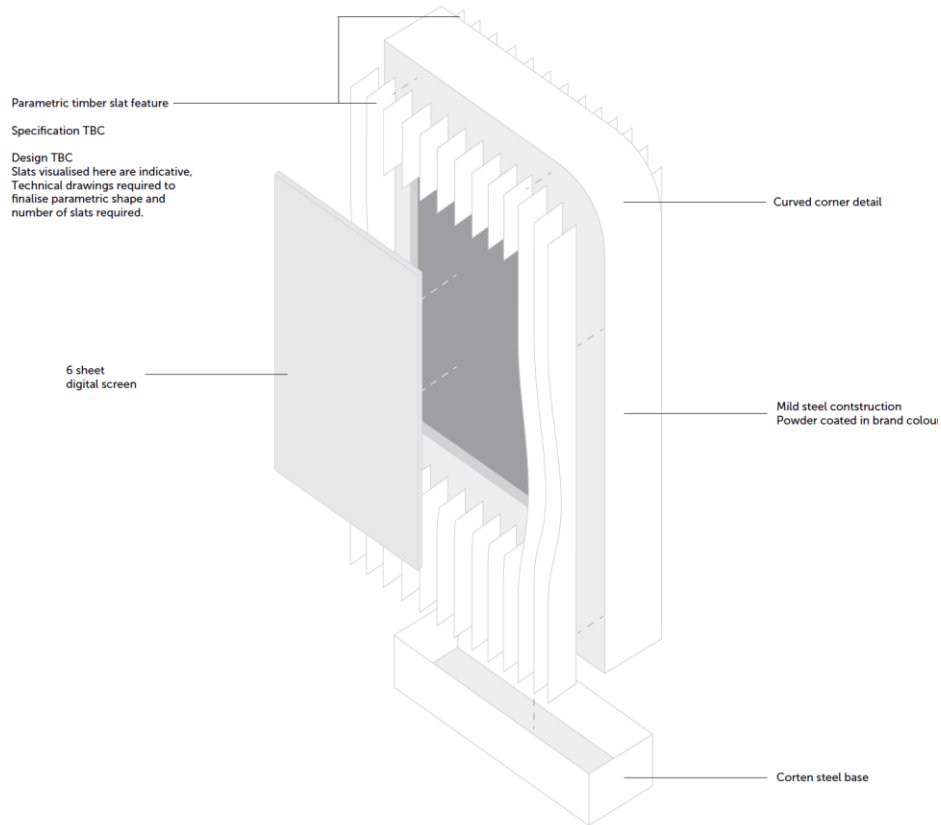
Appendix 1: Advertising Consent

To provide these screens and the variety of services that they offer to our visitors, occupiers and residents, it is necessary to supplement with a reduced amount of advertising space. We envisage that the screen content in full will consist of the following elements:-

Public Service

- News
- Weather
- Travel and Tourism information

Event Content

- Film
- Live Sport

Advertising

- Advertisements
- Event communications

Stakeholder Engagement

- Community groups & organisations
- Charities
- Stakeholder and occupier messages
- Camden content

We have processes and controls in place to ensure only appropriate messages are displayed on screen.

Any advertising and brand partnership activity will be carefully managed, with contractual terms explicit on what is and isn't permissible. Proposed control and management of content is as follows:

- All religious, political, and sexual content, as well as any that contravenes the code set out by the Advertising Standards Authority, is prohibited.
- Alcohol advertising will require prior approval
- The proposed contract will afford us total control to manage / approve all advertising content.
- The screen content will target the office occupiers, residents and visitors.
- Content will be non-competing and will support our retail and other occupier audience sales, as well as local community groups, their activities and cultural events.

Approximate % of time on-screen

30%
25%
20%

- Public Service
- Event Content
- Advertisement
- Stakeholders
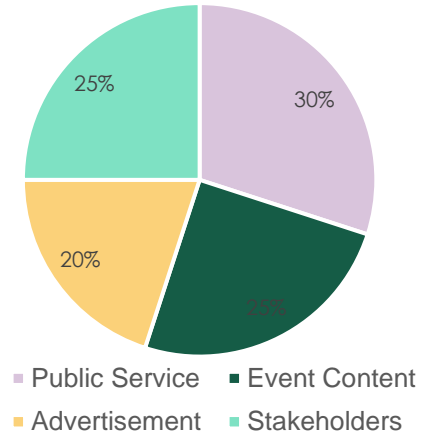
Appendix 2: Technology Specification

By integrating the convenience of the digital world seamlessly into the context of a physical environment, interactive services and touchpoints make information readily accessible, responsive and relevant. Free Wi-Fi, near field communications, navigational information and location-specific content are examples of virtual tools that can be applied to enhance people's physical involvement in a campus. Key features of hardware:

- 'True Black' screen technology – no glare to affect local amenity

- Ultrafast Wi-Fi using your personal device via signal from this source / this booster

- Access maps, directions, and real-time city services from an easy-to-use screen.

- Contact campus services via video link or voice connection at the press of a 'button'

- Realtime public services announcements

- Ability to air high definition video and moving content

- NFC / Bluetooth two-way communication

- Embedded beacon technology – targeted messaging

- Screen interaction via pcap-screen technology (as per iPad / iPhone)

- Enabled for sound via (mobile app) personal headsets or directional sound

- RFID / EPC (Electronic Product Code) to enhance operational effectiveness / reporting

- IoT's (internet of things) sensors such as temp, air quality, limitless...

Social Screen

The 'Social Screen' would overlook the plaza, providing live content and information to workers, residents and visitors to the campus. It would replace the 'Summer Screen', which was granted temporary planning permission on a rolling annual basis.

The social screen would host entertainment, for example, film, sport and news content, for 25% of the time it is live. The screen would typically operate from 8am until 9pm. We are happy to review these timings in the winter to reduce light spill.
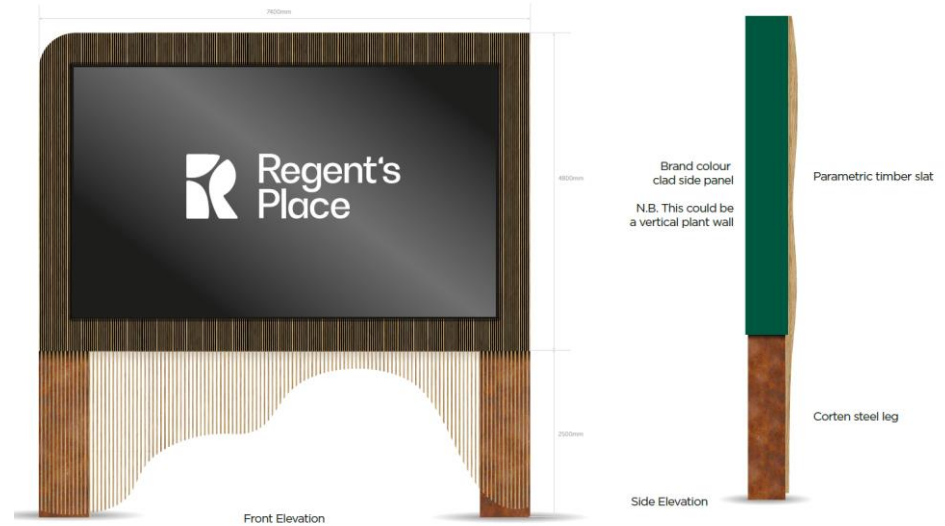
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• Religious messages and Political content

• Tobacco, vaping or similar nicotine-based products

• Alcohol advertising will require prior approval

• Any advertisement that contravenes the code set out by the Advertising Standards Authority

These restrictions will be specified in any advertising agreement that British Land enters into in relation to all totems and screens implemented under this proposal.

A minimum of 25% would be used to promote Regent's Place and our local partners, provide travel information and content from Camden and the Knowledge Quarter.

Front Elevation

Side Elevation

Brand colour clad side panel

N.B. This could be a vertical plant wall

Parametric timber slat

Corten steel leg

The social screen would have in-built speakers and sound would be broadcast in line with restrictions placed on the previous temporary planning permissions. The social screen would also be NFC and Bluetooth enabled, allowing viewers to listen via mobile devices.

Note: final design of the supporting structure is subject to further design development and testing.

Social Screen

Overview of Design

The size of the screen has been determined so as to remain visible and sympathetic to the surrounding environment without being imposing.

Size

The planned size of the screen will be 6.4mx3.8m at a 16:9 aspect ratio.

The screen is made up of LED tiles, housed within cabinets. Each tile size is 320mm x 320mm, forming a standard cabinet size of 1280mm x 960mm. The screen would comprise of a 5x4 cabinet layout.

LED Tile
320mm x 320mm

Cabinet
12 Tiles
1280mm x 960mm
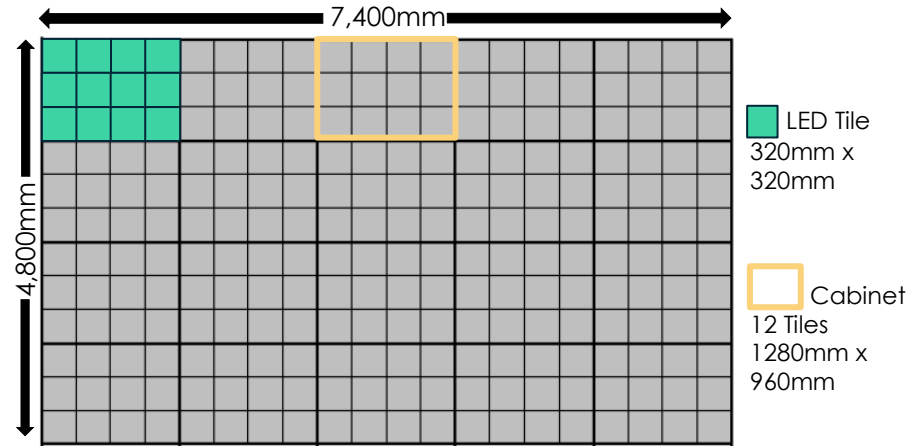
Social Screen

Technical Drawings

Social Screen: Light and Sound Management

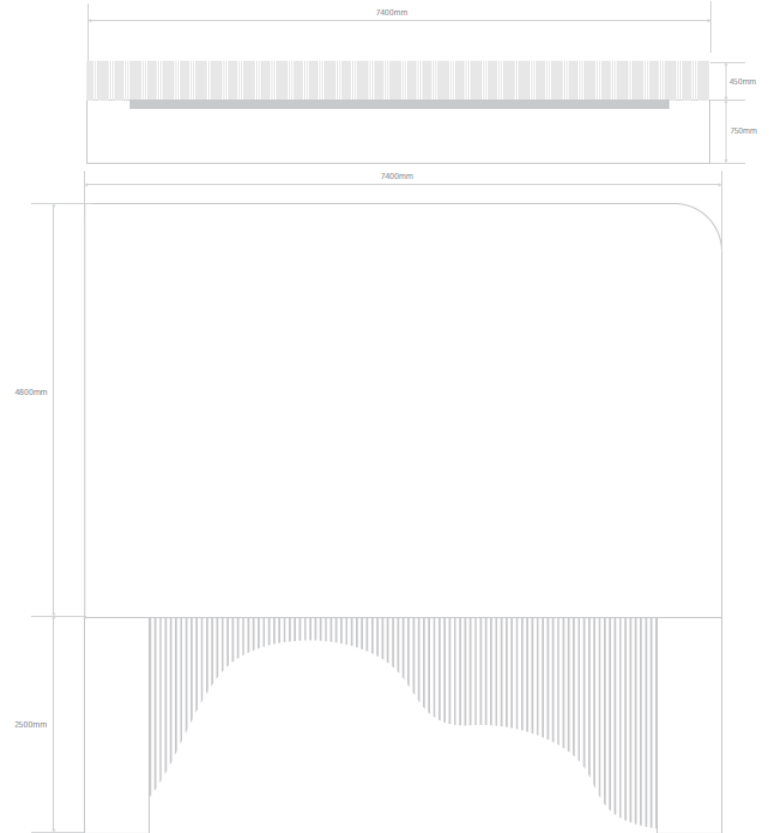Both sound and light have been carefully considered in the environment.

Light guidelines will be set to limit the luminescence of the display. Ambient light sensors are built into the screen which will automatically dim the light levels based on natural light, the screen would also automatically dim in the evening and switch off over night to alleviate residential concerns.

Thought has also been given to additional light dispersion measures. The LED screen is made up of nodes, it is possible to further control the upward spread of light so that it is only visible from lower levels.

In order to effectively control sound, it is possible to use a narrow bandwidth in order to project near field sounds within a certain distance. Small transducer speakers can be integrated within the environment of the Plaza with a limited range, providing directional sound contained within the viewing area. Sound can also be channelled through a dedicated mobile phone app, allowing any willing user to stream the audio and listen through their own headphones – this would result in the speakers being able to be turned off, and only utilised infrequently as a secondary option, for example at larger events. Any external sound will follow the site's already implemented noise management plan. A Noise Impact Assessment has been produced in previous years for the use of the temporary screen, this can be found in the appendix of this document.

Airtime

The conversion of the summer screen into a permanent installation at Regents Place, broadcasting content, sports and events will help bring a sense of community.

Indicative Breakdown of Airtime

Stakeholder Engagement 25%

Public Service 30%

Advertisement 20%
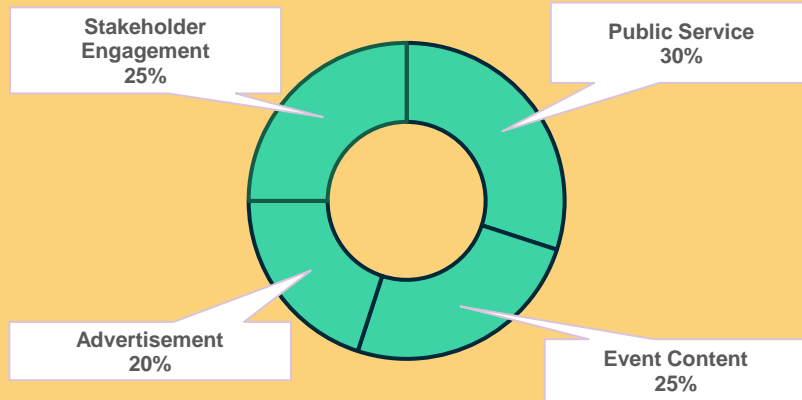
Event Content 25%

Public Service

• News

• Weather

• Travel information

• Tourism information

Event Content

• Film

• Live Sport

Advertising

• Advertisements

• Event communications

Stakeholder Engagement

• Community groups & organisations

• Charities

• Stakeholder and occupier messages

• Camden content – e.g. local news/developments

Content Schedule

Appropriate sporting events would be planned for throughout the year. Measures would be put in place to manage acceptable sound levels and running times.

An indicative content schedule has been drafted. This is based on a previous year which contained a varied programme of sport. A one hour programming example has also been created to depict a time when an event is running.

Due to the nature of event scheduling, sports and events will obviously not be live throughout the entirety of the year. During these times when there are no events on, the airtime will be split between stakeholder engagement, public service and advertisement, with those categories receiving increased airtime.

2023 Programme	
Date	**Event**
3rd July – 16th July	Wimbledon (Tennis)
20th July – 23rd July	The Open (Golf)
1st July – 23rd March	ICC Cricket World Cup
7th July – 9th July	Formula 1
1st July – 23rd July	Tour de France
8th September – 28th October	Rugby World Cup

Event Content Programming
Time
Indicative Hour
9.00am – 9.15am – News & Weather 9.15am – 9.25am – Stakeholder & Community Engagement 9.25am – 9.40am – Tour de France 9.40am – 9.42am – Advertisement 9.42am – 9.45am – Local News 9.45am – 9.50am – Tour de France 9.50am – 9.53am – Travel Information 9.53am – 9.55am – Tourism Information 9.55am – 9.59am – Stakeholder & Community Engagement

Appendix: Light Management

Follow guidelines set out by the Institute of Light Engineers (ILE) in their report for 'The Brightness of Illuminated Advertisements'. The ILE produces recommendations for the brightness of illuminated advertisements in order to provide guidance for local authorities, lighting & signage manufacturers, media agencies and in particular local planning authorities.

A specific concern in setting recommendations for the brightness of illuminated displays is the relationship between brightness, the subjective visual sensation associated with luminance, and the measured luminance of the signage and the impact it has. This was dealt with in the various editions of the ILE Technical Report No.5 - The Brightness of Illuminated Advertisements, by taking many luminance measurements of differing illuminated advertisements in a number of different environments and cross-referencing these with subjective views from different observers, to establish whether the illumination of the advertisement in question was acceptable or not. In this way it was possible to produce recommendations on the luminance of advertisements linked to brightness on an empirical basis. ILE Technical Report No.5 - The Brightness of Illuminated Advertisements has

proved an essential tool in the establishment, application and enforcement of planning guidelines and rules whilst ensuring that illuminated advertisement designers and manufacturers are able to achieve their desired aims. External displays are subsequently manufactured so that the intensity of illumination shall be controlled to levels that are within the recommended limits by the Institution of Lighting Engineers in their latest revision of this publication.

Below is a list of typical Outdoor LED Screen Luminance Operating Levels:

Luminance (candelas/m2)
Bright sun Daytime   2500c/m2 - 4800c/m2
Hazy Day Daytime   1500c/m2 - 3000c/m2
Cloudy Bright Daytime   800c/m2 - 1500c/m2
Cloudy Dull Daytime & Evening Sunset 300c/m2 - 800c/m2
Twilight   300c/m2

There are no recommendations in the aforementioned ILE Technical Report for maximum luminance during the day; Paragraph 9.3 specifically states that readings to check on the luminance of signs should be taken only at night. However, we are keen to also set an appropriate limit to the LED Screens operating brightness during the day, it has been recommended in other studies into levels of brightness that an LED screen should not exceed 4,800cd/sqm during the day. This follows standard protocol for many existing City Centre and Roadside LED screens, and due to ambient light levels from the sky, an LED Screen operating at this level will not appear unduly bright or dazzling.

Although LED Screens contain LED's able to deliver in excess of 6500 cd/m2 at the point of installation, the screen will be calibrated down to 5500cd/m2 and the brightness

control equipment will be set to operate at a level of 4800cd/m2 for maximum brightness during the day and 300cd/m2 during the evening. The screen therefore will never be operating above the recommended level during the day and will operate at 50% less than the ILE recommended level during the evening and at night.

Appendix: Light Management

Learning from previous temporary screen events, operating times would be introduced to ensure that the screen is off during overnight hours so as to minimise impact to nearby residents. We would propose to have the screen operate from 08:00 – 21:00, outside of these hours the screen would be switched off. Ambient light sensors are built into the screen which will automatically dim the light levels based on natural light, the screen would also automatically dim in the evening and switch off over night to alleviate residential concerns.

We are happy to offer the local authority the opportunity to be part of the screen commissioning process and to set the maximum level of brightness for the screen in conjunction with a photometer. This often adds another level of comfort to physically see that the brightness is not overly dominating during operation. The additional use of a brightness sensor to continually regulate the screen brightness in accordance with the natural fluctuations of ambient light throughout the day also helps demonstrate that the screen will always be operating at the optimum level based on the time of day and weather conditions. The planning authority can equally be given the opportunity to then review the performance after a given period, say one month, to then make any adjustments they feel are necessary before signing off the defined levels of brightness.

The screen is comprised of a series of tiles (see picture below), these tiles house multiple LED nodes. Each LED will feature an 'eyebrow louvre', which is a small cover placed over the top of each individual node – this helps to stop light spilling upwards, keeping it directional. This is a design feature that has been implemented in the manufacturing of other large format digital screens, such as New Street in Birmingham and Church Street in Liverpool.

320mm x 320mm LED Tile

Appendix: Power Management

The power requirement for the screen would be a 32amp TP&N supply. This is based on the following screen specs:

6mm LED Product

660W per sqm (Max demand)

260W per sqm (Average Demand)

Maximum demand for the screen would therefore be 70amps. The 32amp TP&N supply would need to be provided as 6 single phase sub circuits from a local distribution board and presented at the screen location in the form of 16amp Ceeform sockets. The supply being based upon the maximum demand is required to ensure that in any event where the screen displays all white content (the hardest colour to produce) and on a very bright day (with brightness turned up to maximum), that the power draw will not overload and trip the breakers.

While this supply is needed for the extreme occurrence, the actual average power requirement is significantly less. This is due to the fact that there will be a mixture of content on screen and lots of it will not drive the LED's to operate at their full capacity. Additionally, as highlighted, an ambient brightness sensor is the best possible way to ensure that the screen performs to its maximum power efficiency whilst still delivering content that is visible to an acceptable level. The screen will be powered off during the night and early morning and, as the intention is to use the speakers as a secondary sound option (i.e. not on all of the time and only used at specific events), both of these factors will help to further improve energy efficiency.

As per the previously mentioned luminosity report, an installed ambient sensor will continually regulate the screen brightness level and therefore power draw, based on the ambient light conditions. Typically an average UK day will see the screen operate at between 35 – 65% of its maximum potential brightness. Of an evening and at night this can go down to as low as 3% of the maximum potential brightness and therefore this will be the time of day when the screen has its lowest power draw. The added benefit in regulating brightness with an ambient sensor is that it prolongs the lifespan of the individual LED's and therefore extends the lifespan of the screen to its maximum potential.

Digital Dawn

Appendix: Area Management Plan

The Regent's Place Management team have already implemented effective area management plans for the area. Having hosted events previously and learnt from past experiences, a robust approach is in place.

Anti-social behaviour may occur from time to time and the handling of anti-social behaviour, which may include attempt to access buildings on the Estate or otherwise disturb the occupiers of those buildings; behaviour which causes offence, nuisance, annoyance or distress to occupiers, residents or visitors to the Estate; behaviour which is likely to result in damage or any threat of damage to the Estate; behaviour which risks injury to any person on the Estate, or themselves, is an important role of the security team.

The Regents Place security team provide physical presence in buildings and across the public realm 24/7/365. A combination of manned guarding and electronic security systems enables the team to actively monitor and provide early response to any signs of anti-social behaviour developing.

Whenever possible first stage intervention is to approach in a non-intimidating, polite and pleasant manner to ask the behaviour to stop, noting that the attitude demonstrated by the team during these exchanges can strongly influence the outcome.

Each situation is dynamically assessed and co-ordinated by the most senior security person on site. Ensuring a minimum of two officers are deployed, they must wear high-visibility vests, have radio communication and be wearing a bodycam, as a minimum. Most situations are handled at site level however they must never place themselves in danger and should such a situation arise call the police immediately.

The campus has a number of CCTV cameras providing 100% coverage of all public realm. Recorded data is stored for up to 30 days.

Health & Safety

A suitable and appropriate risk assessment is in place and reviewed annually or at such a time as a significant change occurs, whether design or use.

- Our security team are either first aid at work trained or qualified first aiders. Shift managers are trained to deliver advanced trauma response. We are a defib accredited site and provide the team waterside safety training.

- The site-based security team are well trained in conflict management

Appendix: Screen Specifications

Key features of hardware:

- Digital Screen Size: 24.5m2 – 6,400mm wide x 3,840mm high

- Tile size – 320mm x 320mm

- Cabinet (x12 Tiles) Size – 1280mm x 96mm

- 20 cabinets (5x4)

- 6mm Pixel Pitch Screen – 1066 pixels (h) x 640 pixels (w) = 682,240 pixels / 2,046,720 LED's.

- LED Nodes to include 'eyebrow' louvre to restrict height of light dispersion

- Screen sits on steel frame with exoskeleton around it, this can be clad in any material or spray painted to any pantone colour allowing it to incorporate existing design elements so that it is in keeping with the rest of the environment.

- Total width x height including frame: 8,000mm x 7,650mm

- The frame can curve around the existing landscape to further embed it as an integrated feature.

- Depth of frame – 90-120mm.

- Audio signage application, allowing users to stream the audio through a mobile phone application.

- Integrated transducer speakers, providing near field sound dispersion as a secondary sound option for certain events.

- Power requirement for the screen would be a 32amp TP&N supply.

- 6mm LED Product , 660W per sqm (Max demand), 260W per sqm (Average Demand). Max demand for the proposed Paddington screen would therefore be 70amps.

Digital Dawn

Regent's Place