JCDecaux

Appendix JCD 4

London Borough of Camden

Communication HUB Proposals

Hub Unit Detail

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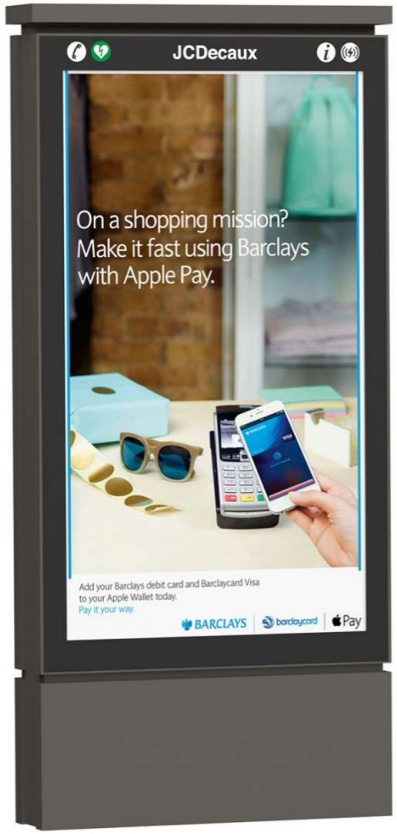
Communication Hub

Smart City Unit



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IEMA Sustainability Impact Awards 2020

Inspiration | Innovation | Transformation

SHORTLISTED

COMMUNITY HEARTBEAT

The Community HeartBeat Trust

Communication Hub

Unit Functionality

The rise in mobile phone use has corresponded with the decline in the use of the traditional public payphone. The role of the public phone box also needs to adapt to modern life and the needs of the public to stay connected when out of home. The JCDecaux Hub unit redefines the role and function of the traditional payphone to a multipurpose Communication Hub that provides the means for people to engage with each other and public bodies.

The Hub offers a range of services that include free ultrafast Wi-Fi, free phone calls to landlines and charities, defibrillator, wayfinding, device charging, rapid connection to emergency services, public messaging capabilities, and a platform for other technologies to monitor environmental conditions, CCTV and record key data. These innovations are implemented against the backdrop of energy savings to help meet the climate emergency, with all units powered by green electricity and lit using high-capacity batteries, powered by solar energy.

Currently under development is voice activation, which will be particularly helpful for those with disabilities but also, in a post Covid 19 World, will ultimately enable calls to be made and browsers to be opened by voice command without touching a screen or the use of a handset.

Each unit will stand at 2.6m in height and 1.3m wide, equal to the standard 6 sheet size unit, and occupy a site area of less than 0.50m^2. The unit has undergone rigorous testing in extreme conditions and can boast 13.5mm thick antivandal toughened safety laminated glass on all glazed surfaces. The other external elements have been treated with a nanotech surface treatment to enable easy removal of stickers and/or sprayed paint to the external surfaces to maintain the look and condition of the apparatus.

Communication Hub

Unit Functionality

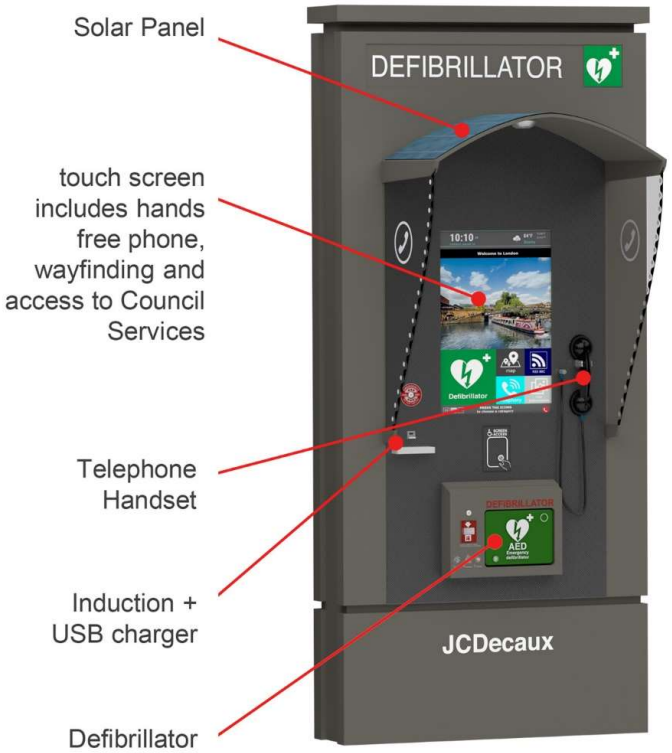
Colour

Metal Chain Grey

JCD 7002

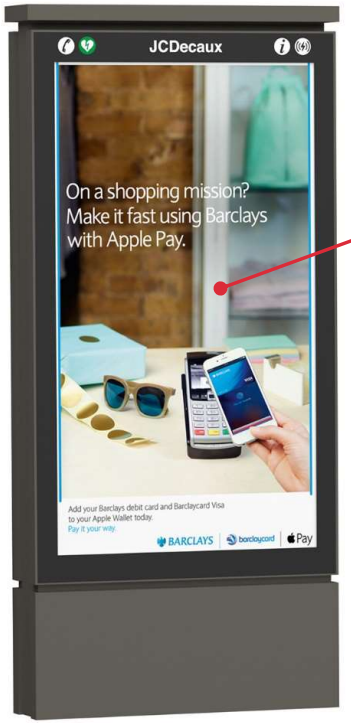
An integrated touch screen designed for public phone use, and a range of other android compatible functions to enable users to access the internet and Council webpages and wayfinding around the City

The unit can also incorporate a range of sensors for the Smart City to monitor and report on environmental conditions and other key data



Front Façade

Phone and Live Touch



Rear Façade

Advertised Side

Communication Hub

Livetouch Interactive Screen

INTERACTIVITY

Interactive touchscreen with localised services and applications

PLACES

Location based services

LIVE FEED

Events, news, transport and weather

SOCIAL

City recommendations including cultural, retailing and on the best restaurants in the area

TRANSPORT

Information including maps of the local area and beyond, bus timetables and transport and safety updates

ENHANCING THE SMART CITY EXPERIENCE

- JCDecaux LiveTouch screens connect the city with residents and visitors providing localised updated and information
- The public can access a wide range of information about their area that included real time updates on transport, the latest news items, weather forecasts and other recommendations on places to visit
- The system runs on an android operating system, LiveTouch can support an unlimited number of applications making the possibilities endless

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Communication Hub

Optional Functions and Sensory Parametres


Defibrillator


Climate: UV / Pressure / Temperature


Environment: Air Quality / Noise


Pedestrian Flow and Volume


NFC Static / Dynamic


Beacons


Wifi and Small Cell


Presence Detection


Voice Recognition *


Collision Detection


Security Camera


Built in Speaker *

* Currently under development

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Communication Hub

Technical Specification

Overview

A payphone kiosk and interactive communication apparatus contains an interactive display screen and outdoor advertising panel.

Designed and developed by JCDecaux

Characteristics

Structural outer casing fixed to 2 structural legs clad with metal skirts.

- Touch Screen - An integrated space with metal housing set within the face of the unit.

- Display Screen – the LCD screen is housed behind a protected glazed face also forming an integral part of the unit.

Digital

The display screen features an Ultra HD resolution at 3840 x 2160 pixels displaying static contents that can be automatically and remotely changed. The Live touch screen features a Full HD resolution at 1920x1080 pixels.
The technology used to display the images screen is designed to be visible outdoor in direct sunlight.
The unit also features an auto-dim function so adjust the screen luminance to harmonise with to surroundings.

Visible area

Display Screen	1.6m² (935mm x 1670mm)
Touch Pad	0.24m² (400mm x 600mm)

Telecom equipment and Touch screen

Public phone.
Customized Council home page - an Android based application with an interactive screen for dialling numbers.
Secure Android applications featuring location-based services.
A touch pad is available under the screen to users with mobility impairment.

Accessibility

Furniture easily acknowledged by blind and partially sighted pedestrians.
Height of phone equipment from ground level enables access by wheel chair users.
No sharp edges or profiles are present in the structures design.

Pad touch

Touch screen in compliance with accessibility standards thanks to the pad below the screen at 900mm from ground

USB and wireless charger

Mobile phone charge points via USB and QI wireless charging.

Defibrillator

Automated External Defibrillator with optional theft protection, automated emergency service communication, remote monitoring and geo-locating.

Solar panel

Solar panel on canopy roof.

Foundation and groundwork

Furniture installed on to a concrete base with concealed fixing points.
Separate underground ducting for power, data and earth protection via an earth mat.
All calculated in relation to local requirements

Standards and certification

CE certified and RoHS compliant.
R&D and manufacturing to ISO 9001 and ISO 14001 standards.

Reliability

Internal temperature maintenance control for both hot and cold seasons : ventilation is achieved via a filtered air cooling system that manages the internal temperature of the ad case and increases the life expectancy of components.

- Waterproof (power-hose from any angle)
- Dust resistant
- Rust resistant
- Sun fading resistance

Life expectancy is 5 years with normal usage (24/7) for the touchscreen and 10 years for the display screen.

Communication Hub

Technical Specification

Environmental Considerations

Automatic adjustment of the light intensity according to the location and the ambient light to rationalize as far as possible the energy required to operate the screen

Use of a powder coating without any Volatile Organic Compounds (VOC)

Electrical and electronic equipment recycled according to WEEE regulations

Unit mainly manufactured from sustainable and recyclable materials

Brightness

Maximum daytime brightness level 2000Cd/m² (2000 nits), night time maximum is 600Cd/m² (600 nits) as per ILP recommendations.

Excellent visibility in all conditions, even under direct sunlight.

Brightness levels to respond and adjust to ambient lighting :

- No glare risk
- Minimizing power consumption

Digital Management Software

Web Interface

Management of the display from a specific software platform available on any computer connected to the internet with access rights

Panels are collectively or individually programmable in advance

Intuitive, efficient and easy to use programming interface developed by JCDecaux

Automatic update with no need for human intervention on the computer workstations

Contents Scheduling

Creation of messages and message loops

Setting of the duration and order of messages

Instant transmission between messages being entered and being received by the panel

Consultation in real time of broadcast messages

Possibility of broadcasting a loop to all the panels, to a group of panels or to individual panels

Contents Storage

Periodic local update and storage of the contents (128Gb capacity) to feed the display loop avoiding any rupture of the broadcast in case of connection failure

Display of a neutral message in case of dysfunction

Electrical

Power supply

220 V / 240 V - 50 Hz

Connection to the mains grid

Electric plate located in the foot

Protection

20A RCCB - 30 mA differential circuit breaker

Communication Hub

Operational Limittions

Operating conditions
Temperature: -15 to 45°C
Humidity: 10% / 90%

Digital screens
Technology : LCD
Touch technology of the pad Capacitive
Aspect ratio 16:9
Orientation Portrait

Pad specifications
Resolution Full HD (1920x1080 pixels)
Light technology Edge LED
Brightness Max 2500* Cd/m² (2500nits)

Display Screen specifications
Resolution Ultra HD (3840x2160 pixels)
Light technology Direct LED matrix
Brightness Max 3500* Cd/m² (3500nits)

*Daytime limit level 2000Cd/m² (2000 nits) and night time limit level 600Cd/m² (600nits) as per ILP recommendations.
Automatically adjustable according to ambient light.

Dimensions
Visible area:
- 1.6m² (935mm x 1670mm)
- 0.24m² (400mm x 600mm)

Global:
- 1100mm (W) 2400mm (H) 265 (D) (500mm canopy)

Electricity
Input Voltage: AC 240 V 50/60hz

Max Power: 3,94 kW
Average consumption : 28,1 kWh/day (based on 24h/24 working hours)

Connections
PC included
Data: ADSL/4G/5G
A secure solution to ensure full control of the content broadcast

Certifications : CE

Comments :
Selected best in class screens in term of visibility in full sunshine.
It includes state-of-the-art features to lower TCO :
- Improved reliability and life through expert thermal and solar management design.
- Modular design.
- Replaceable external 4-4-2 (9.2mm) front glass
- Extensive monitoring capability through Digital Image verification that gives immediate feedback about display performance.

Premium product for reliability, monitoring and maintenance features

Communication Hub

Technical Specification

Material	Treatment against corrosion	Defined	Main parts
Steel	Hot dipped galvanizing Centrifugal galvanizing		Foot structure Anchoring rods
Stainless Steel	Passivation		Screwing
Alluminium	**Chromate conversion***	**80µm powder paint**	**Casing – Door – Skirts**
Tempered glass 6mm		Silk Screen Printing	Touch Pad glass
Laminated glass 4-4-2 (9.2mm)		Silk Screen Printing Anti-glare treatment	Display Screen glass
Concrete			**Foundation**

** Environmentally friendly treatment free from hexavalent chromium*

Resistance to Vandalism

Skirts with smooth surfaces for easy cleaning and removal of any illegal stickers

Protection rating against impacts > IK10 (corresponding to a 2-kg mass dropped from a height of one metre)

Front face made of a patterned stainless steel non-scratch material

Electrical circuitry inaccessible to the public

Display screen is protected by a front face in 4-4-2 (13.5mm) thick anti-vandalism hardened laminated glass

Secured casing opening for access to the PC and other equipment by a double locking system (Special keys plus Van Lock).

No exposed screws

Unit made from non-flammable materials

All painted metal surfaces are coated with a high performance paint that is highly resistant to graffiti cleaning products

Data transfers are protected by Firewall and password

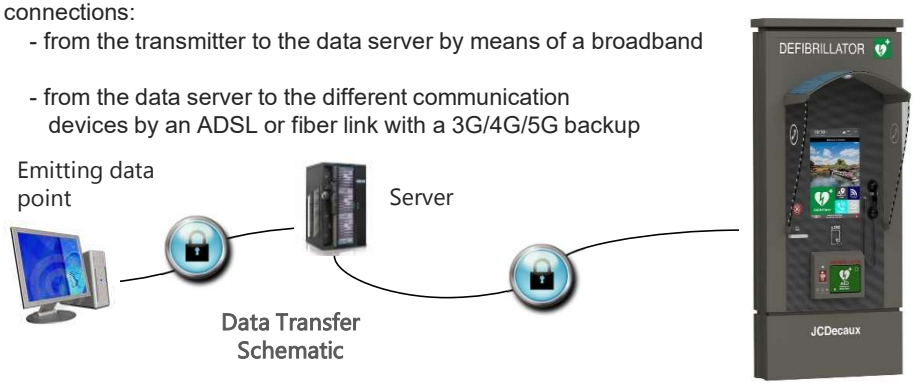
Remote monitoring

Unit fitted with sensors to check its operating status at all times.
Errors are sent automatically over the network to the monitoring centre in the event of a malfunction

Data Transmission

Set of secure connections:

- from the transmitter to the data server by means of a broadband link
- from the data server to the different communication devices by an ADSL or fiber link with a 3G/4G/5G backup



Communication Hub

Managing the Use

The unit will feature on one side an advertising screen and on the other a touchpad. The size of the screen is uniform and will be used for commercial and community messaging with the space available to the Local Authority. When not in use the touchpad will default to the Borough map or other wayfinding app to enable people to find their way around the Borough and shortcuts to the most often used apps and links to local services

Use of the Hub Services

The Hub is intended as a free to use facility, however, some units may have a more restricted use policy in known problem areas, whereby free calls will be prohibition other than emergency help lines. By applying more stringent controls in problem areas it is anticipated that the potential for these units to be misused will be minimalized or eliminated entirely. Further management measures are detailed within the Management Plan, which has been prepared in consultation with the Met Police Design Out Crime Officers.

The Company is committed to the proper management of the Hub units and will constantly review and adopt best practice to design out the potential and opportunity for crime. The display screen on the reverse of the Hub unit is not only for commercial advertising, but intended to be a community resource displaying a range of local messages, public announcement, alerts, available helplines and to provide a visible point where assistance is at hand.

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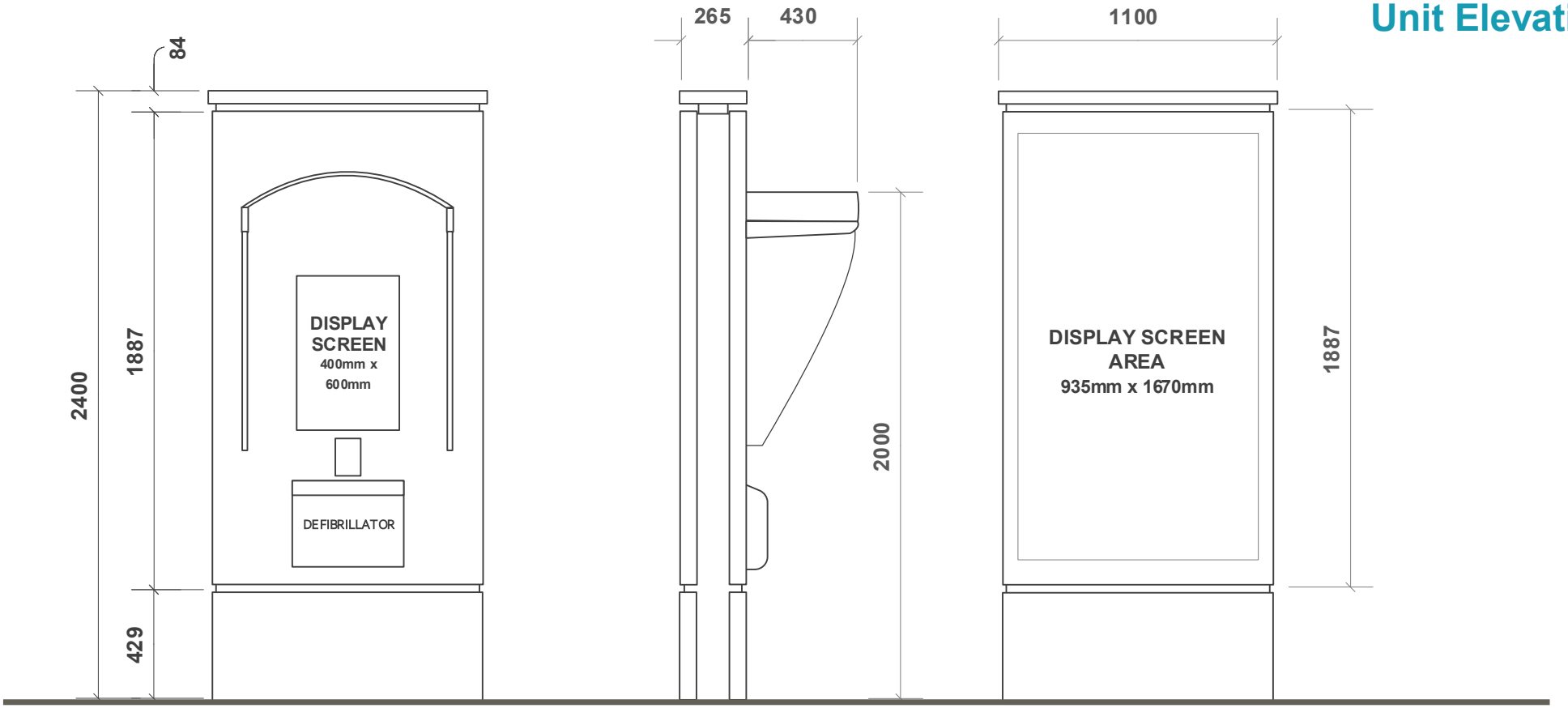
Communication Hub

Unit Elevations



Unit Front | Unit Side | Unit Rear

Elevation Drawings Scale 1:25 @ A4

0m 1m

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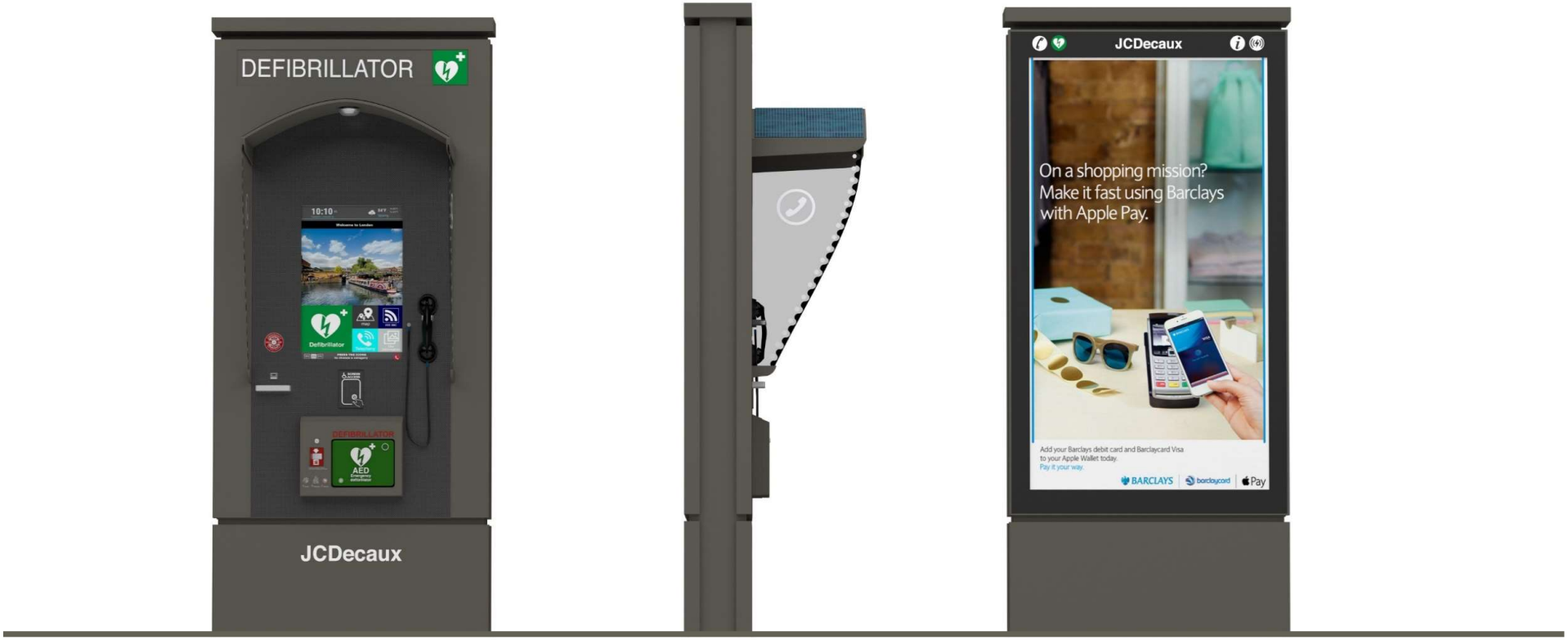
Communication Hub

Unit Imagery



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Structure Upgrade Comparison

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Communication Hub

Photomontage

High Holborn

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Communication Hub

Photomontage

Kingsway