**Invitation to Tender**

**Appendix A – Specification Description**

**For the supply, installation, and maintenance of a Mobility Hubs solution**

**Project REF: DN651617**

**Issue date: 14 February 2023**

**Contract term: 24 months + 12-month optional extension**

**Procedure: Open**

**Tender submission deadline: 03 April 2023**

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# Background information

## 1.1 About the Future Transport Zone programme

The West of England Combined Authority (WECA) Future Transport Zone (FTZ) is a £28m innovation programme funded by the Department for Transport which aims to improve the integration of public transport across the West of England and is one of only four local authority areas in the country to receive such funding. This specification focusses on the Mobility Hubs project, which is part of the FTZ programme.

## 1.2 Mobility hubs definition

Mobility hubs are modern multi-modal, multi-functional, flexible, and inclusive interchanges and destinations. They are places that integrate established and new forms of travel (personal and freight) with infrastructure, traveller facilities and information, urban realm, and community and commercial activities. Operating as a network, hubs have a consistent and recognisable design and appearance but are individually tailored in scale, form, and delivery to meet local community and business needs.

Mobility hubs are a relatively new concept, and they are rapidly gaining traction in the transport and urban planning sectors because they help to:

1. raise the profile of and access to shared and sustainable mobility services;
2. reduce reliance on private car use and ownership, and;
3. provide opportunities to improve the public realm.

CoMoUK is one of the leading organisations developing guidance and best practice on mobility hubs and further information about mobility hubs can be accessed via their dedicated webpages: <https://www.como.org.uk/mobility-hubs/overview-and-benefits>

1.3 Project vision  
The West of England Combined Authority’s Mobility Hubs project vision is to collaboratively deliver modern multi-modal, multi-functional, flexible, and inclusive interchanges and destinations (hubs). These will:

1. Trial the development and operation of hubs, formulating a blueprint for sustainable delivery, sharing learning, and setting a forward programme for the West of England.
2. Integrate established forms of transport with new forms of travel, providing traveller facilities and information, improved public realm, and community and commercial activities.
3. Be tailored in scale, form, and delivery to meet local community, and business needs.
4. Operate as a network, with a consistent and recognisable design and appearance.
5. Be inclusive and safe, making lives easier and more enjoyable.
6. Increase local activity and provide greater choice when travelling further.
7. Reduce the negative impacts of travel and support the drive for net zero.

## 1.4 Project objectives

The project objectives are:

1. Trial the development and operation of a network of hubs covering a range of scales and formats.
2. Provide the exemplar and blueprint for the development of a consistent mobility hub  
   network across the West of England and beyond while enabling hubs to be tailored to local needs.
3. Develop a commercially, financially, and operationally sustainable model for the delivery of hubs.
4. Demonstrate the benefits of mobility hubs across different places and scales and  
   share learning widely.
5. Generate an increase in the use of publicly available and decarbonised transport and a reduction in private car use, embedding behaviour change for the long term.
6. Provide stronger links between places, to benefit communities and the economy, and increase the quality of the public realm.
7. Provide integration between established and new mobility modes and services and  
   wider opportunities to provide locally important community and commercial functions.
8. Provide inclusive, convenient, enjoyable, safe, and high-quality customer experiences.
9. Engage with communities and stakeholders, enhancing wider policies, programmes, and projects.

1.5 Further details about the Mobility Hubs project

More details on the project can be found at <https://www.westofengland-ca.gov.uk/what-we-do/transport/future-transport-zone/mobility-hubs/> including a short video explaining the concept which can be viewed at <https://youtu.be/UxLQtZ4t_HI>

1.6 Mobility Hub Design Principles

The technical requirements regarding the functionality and usability of the Mobility Hubs are:

#### The hub has been designed to cater to the needs of all, including the most vulnerable

1. The hub supports all users including those with visible and hidden disabilities.
2. The hub has step-free, level access throughout.
3. Modes are segregated within the hub to avoid conflict and maximise safety.
4. Complementary transit services are closely or co-located.
5. Key routes through and to the hub are fully accessible to users with reduced mobility.
6. The hub is safe and secure by design by providing natural and formal surveillance and no hidden areas.
7. The hub provides space that is well-lit and sheltered from the elements.
8. Seating space is plentiful, pleasant and within view of mass transit routes.
9. The hub provides outdoor waiting space and seating to provide opportunities to those wishing to limit close contact with others.

#### The hub is distinctive, attractive, and recognisable whilst complementing local character

1. The hub forms part of a unified network, linked by strong mass transit or first mile/last mile connections.
2. The hub exploits a modern, unified, and recognisable network-wide identity that is adaptable to individual sites.
3. The hub identity reflects the place it serves to create a sense of local ownership (local variation of design elements).
4. The hub enhances placemaking, is a pleasant place to spend time, reflects local character, whilst retaining its network unity.

#### The hub is modular, compact, flexible, and adaptable

1. The hub comprises of a set of modular components, standardised where possible across the network, to provide consistency of provision and enhance hubs as recognisable places, with modules applied depending on local needs.
2. The hub has a compact form centred around key anchor modules.
3. The hub is a combination of fixed and moveable modular components; the latter can be interchanged and reused across the network as the mobility ecosystem and local demand changes.
4. The hub area is designed to accommodate additional and future components.
5. The hub has flexible space which can be adapted to perform a variety of functions as demand changes over time (by hour, day, week or season).
6. Where the hub is formed of two or more locations (e.g. two bus stops), they are closely located, within two minutes’ walk and signed from each other. One site may act as the primary location with a wider range of components, depending on local needs.

#### Travel through the mobility hub is logical and legible

1. The hub is laid out to conveniently present the users with the most appropriate sustainable modes at the centre of the hub site.
2. The hub has a blend of passenger and freight modes appropriate for its location and users.
3. Reflecting a hierarchy of modes, active travel and interchange with and between mass transit are prioritised within the site.
4. Modes other than active travel and mass transit are located at the edge of mobility hubs.
5. Space dedicated to each function is clearly demarcated and routes between and visibility of key elements are unobstructed.
6. Travel information and wayfinding is relevant, clear, concise, and communicated intuitively and interactively through easy-to-use user interfaces (physical and digital).

#### The hub is located in an easily accessible location

1. The hub has been strategically located to provide the greatest benefit from aggregating and integrating land uses in the area.
2. Routes to and from the mobility hub provide direct and convenient access along desire lines to key destinations nearby.
3. The hub provides digital connectivity so that users can work, plan their journeys, and stay in touch with others as they travel.

#### Hubs are designed with the community in mind

1. The offering at the hub has been shaped by community input, engagement, and ownership.
2. The hub helps to meet the mobility and wider activity needs of the community through increasing choice.
3. The hub provides opportunities for both permanent and temporary/mobile service provision.
4. The hub supports the local land use plan and complements local activities.
5. The hub supports the densification of activity in the area to create vibrant neighbourhoods.
6. The hub may provide commercial opportunities for local businesses and creators through the provision of flexible space and increased footfall in the area.

#### The hub is environmentally and operationally sustainable

1. The hub is resilient to adverse weather conditions.
2. The hub provides green and blue infrastructure appropriate for its location.
3. The hub is easy to maintain.
4. The hub has low operational and maintenance costs.
5. The hub exploits sustainable building materials and practices, including renewable energy generation and storage and sustainable urban drainage systems.
6. Local materials are used where appropriate to be in-keeping with the local architectural vernacular and character (more applicable to larger hubs).

1.7 Project scope   
The project will deliver 13 mobility hubs across Bristol and South Gloucestershire’s ‘Northern Arc’ by February 2024. The Northern Arc description refers to a group of distinct communities which share some common characteristics. These include areas of low-density family housing with concentrations of single tenure types, few local employment opportunities, limited provision of services and places where local amenity space could be enhanced. The Northern Arc generally corresponds with the wards of Lockleaze, Henbury, Southmead, Kingsweston, Horfield and part of Avonmouth within Bristol City; and within South Gloucestershire includes Emersons Green, Lyde Green and the north fringe of Bristol (an area between the northern edge of the City of Bristol and the M4 and M5 motorways which encompasses Filton, Cribbs Causeway, Patchway, Bradley Stoke, Stoke Gifford, Little Stoke, Harry Stoke).

The locations are listed in the table below, and mapped on Google maps at: <https://tinyurl.com/k5s634zw>

The following site information is available to Tenderers for each site

* Appendix A2 – site information pack including site narratives
* Reference designs
* C2 Utility Stats Drawings
* Topographical surveys

Table 1 Mobility Hub sites

|  |  |
| --- | --- |
| Hub name | Highway authority/key stakeholder |
| Portway P&R | Bristol City Council (BCC) |
| Ridingleaze, Lawrence Weston | BCC |
| Arnside Road, Southmead | BCC |
| Southmead Hospital | BCC/North Bristol NHS Trust (NBT) |
| Filton Avenue Horfield Library | BCC |
| Station Road, Filton | South Gloucestershire Council (SGC) |
| Conygre Road, Filton Avenue | SGC |
| Gainsborough Square, Lockleaze | BCC |
| Abbeywood Retail Park | SGC |
| UWE campus | SGC/University of the West of England (UWE) |
| St James' Place, Mangotsfield | SGC |
| Bristol and Bath Science Park | SGC |
| Lyde Green P&R (MVP) | SGC |

The West of England Combined Authority is looking for a provider to supply, deliver and install a range of transport and non-transport components at the mobility hub sites. The supplier will also be required to operate and maintain defined components during the trial period which is planned to last for 12-months.

The Combined Authority aims to deliver the Mobility Hubs project during 2023 and monitor and evaluate their usage throughout the trial period against the Mobility Hubs Monitoring and Evaluation Plan and a pre-agreed understanding of what success looks like between the West of England Combined Authority and the site landowners. This will largely be based on metrics which support us in answering the five overarching monitoring and evaluation questions:

1. To understand the extent in which mobility hubs have contributed to an increase in the use of public transport and active modes.
2. To understand the extent in which mobility hubs have contributed to an increase in awareness of/attitude towards public transport and active modes.
3. To understand how mobility hubs have contributed to an increase in connectivity to key sites/services.
4. To understand how mobility hubs have contributed to improving local communities/economy.
5. To understand the commercial viability/sustainability of mobility hub (i.e., can the mobility hubs fund their own maintenance and operation).

Should any/all sites and/or selected components be deemed not to be a success at the end of the trial period they may need to be decommissioned.

Decommissioning requires the Contractor to remove components, make utilities connections safe, and return affected areas to their original pre-trial condition.

All sites have already undergone rigorous feasibility assessments; however, the West of England Combined Authority reserves the right to reduce the number of sites for development, and/or alter the exact quantities of components at each site subject to value for money assessments and deliverability.

## 1.8 Guidance regarding collaborative delivery

Effective collaboration is required to complete the project successfully and meet the objectives detailed in our specification. Whilst effective collaboration requires appropriate project management and governance frameworks to be in place, establishing the right behaviour is also a fundamental part of effective collaboration. For the Combined Authority, collaborative behaviours include:

* Agreeing collaborative objectives and ways of working, and agreeing shared values (e.g. by developing a team charter).
* Having a clear understanding of expected and acceptable attitudes and behaviour to foster the desired approach to openness, trust, and mutual respect.
* Understanding the needs and expectations of the Combined Authority, our partners, and stakeholders.
* Developing a culture of continual improvement and shared learning.
* Being open to new opportunities for collaboration where it benefits the objectives of the project.
* Application of collaboration throughout the organisation/team, with strong support from leadership.

## 1.9 Construction (Design and Management) Regulations (CDM)

The Construction (Design and Management) Regulations 2015 (CDM 2015) came into force on 6 April 2015. The law applies to the whole construction process on all construction projects, from concept to completion; and sets out what each duty holder must or should do to comply with the law to ensure projects are carried out in a way that secures health and safety.

The Contractor will be responsible for taking on the legal CDM responsibilities of the Principal Contractor and if bidding as part of a Joint Venture/Partnership/ Consortium, will need to nominate a member to take on this role and, the West of England Combined Authority will need to be satisfied that the nominated Principal Contractor is suitably qualified.

## 1.10 Additional information

The Combined Authority will pay for any fees due to the relevant Planning and Highway authorities or landowners, including but not limited to: Planning Application fees; Diversion costs; road space bookings; and Road Safety Audits, and therefore these costs should not be incorporated into pricing submissions.

# Delivery specification

The components and services required for this project are provided below;

## Section 1: Component specifications

1. Supply mobility hub components as detailed in the [Component Specification](#_Component_specification) and itemised within [ITT Appendix D – Pricing Schedule](https://westofenglandca.sharepoint.com/sites/Ext-FutureTransportZone-D.3MobilityStationsproject/Shared%20Documents/D.3%20Mobility%20Stations%20project/07%20Procurement/03%20Invitation%20to%20Tender/Tender%20documentation/Ready%20for%20upload/ITT%20Appendix%20D%20-%20Pricing%20Schedule.xlsx).

## Section 2: Organisational structure and proposed approach to delivery

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Role/responsibility | BCC sites | SGC sites | UWE site | NBT site |
| 1. Take on the role of Principal Contractor as set out in the Construction (Design and Management) regulations (CDM) section of this document | Contractor | | | Work with NBT Contractor |
| 1. Take on the role of Principal Contractor as set out in the [Programme of Works](#_Section_3:_Programme) section of this document | Contractor | | | Work with NBT Contractor |
| 1. Provide component specifications to the West of England Combined Authority’s Principal Designer. | Contractor | | | |
| 1. Support the West of England Combined Authority in seeking planning permissions for certain components, where required. (The Combined Authority has appointed a Planning consultant. The Contractor will be required to supply component details, such as materials, and look and feel, to support the planning applications) | Contractor | | | |
| 1. Liaise with the West of England Combined Authority, and Bristol City Council and South Gloucestershire Council to support their governance and processes. | Contractor | | | |
| 1. Liaise with Bristol City Council, South Gloucestershire Council, North Bristol Trust (NBT), and the University of the West of England (UWE) where required, to support delivery and installation. | Contractor | | | |
| 1. Prepare sites for component installation including engineering integration (white lining: micromobility/e-scooter/car club car/disabled parking bays; including removal of existing white lining), removal of existing assets, power, water, data, connections, foundations, and works) | Contractor | | | Work with NBT Contractor |
| 1. Undertake additional groundworks as set out in the site Reference designs and itemised within [ITT Appendix D - Pricing Schedule](https://westofenglandca.sharepoint.com/sites/Ext-FutureTransportZone-D.3MobilityStationsproject/Shared%20Documents/D.3%20Mobility%20Stations%20project/07%20Procurement/03%20Invitation%20to%20Tender/Tender%20documentation/Ready%20for%20upload/ITT%20Appendix%20D%20-%20Pricing%20Schedule.xlsx) (e.g. cleaning, relocation or removal of existing facilities) | Contractor | | | Work with NBT Contractor |
| 1. Project manage the supply of components according to the Detailed Design | Contractor | | | |
| 1. Project manage the installation of components according to the Detailed Design | Contractor | | | Work with NBT Contractor |
| 1. Coordinate the installation of any components supplied outside of this contract, for example, parcel lockers. | Contractor | | | |
| 1. Apply branding, logos, imagery, and patterns through use of colour and materials, with the ability to change the branding after installation should local branding change. | Contractor | | | |

## Section 3: Programme of works

In addition to the CDM responsibilities, the Principal Designer (already appointed through the Combined Authority’s Professional Services Framework), Principal Contractor (Contractor), and the Client (the West of England Combined Authority) will need to work closely together from the point of Contract Award through until the final site sign-off.

* We plan to deliver the mobility hubs between November 2023 and February 2024, or sooner.
* The Portway Park & Ride and Ridingleaze sites should be delivered first, by the end of November 2023.
* The other sites can be delivered in any order, as soon as possible after November 2023, and before February 2024.
* Delivery of the UWE site should be scheduled outside of September and October.
* Southmead Hospital will carry out their own component installation, but the supply of components should also be included within this programme of works. These are due by the end of November 2023.

The table below sets out the roles and responsibilities of each of the parties as well as indicative timings which the Tenderer will need to build on to create a programme in their response to ITT Appendix C - Technical Questionnaire. Tenderers are encouraged to submit programmes which improve on the stated timelines in Table 2: Programme of works.

Table 2 Programme of works

| Stage | Task | Resource Names | CDM | Duration |
| --- | --- | --- | --- | --- |
| Detailed design/construction | Contractor/designer development discussions | Principal Contractor |  | 80 days |
| Detailed design/construction | Submit F10 Notification of Construction Project to the HSE | Principal Designer | Yes | 1 day |
| Information to be provided by Contractor | Full component specifications and datasheets | Principal Contractor |  | 10 days |
| Planning approvals | Develop and submit planning applications | Client |  | 20 days |
| Planning approvals | Determination period | Local Planning Authority |  | 40 days |
| Planning approvals | Planning application outcomes received | Client |  | 1 day |
| Request for Diversion Estimates (C3/C4) | Issue stats plan and letters Collate responses, review costs with Client | Principal Designer |  | 23 days |
| Request for Diversion Estimates (C3/C4) | Raise PO and pay for diversions (C6 stage in SA10/05) | Client |  | 5 days |
| Request for Diversion Estimates (C3/C4) | Programming and co-ordinating diversions (C7 stage in SA 10/05) | Principal Contractor |  | 5 days |
| Traffic Management and Roadspace | Traffic Management & Roadspace | Principal Contractor |  | 12 days |
| Detailed design | Design review/project set up (inc SiD workbook/Designer's RA) | Principal Designer |  | 4 days |
| Detailed design | Set up drawing sheets 100 Series - Proposed Site Layout 100 Series - Proposed Setting Out Drawings 100 Series - Proposed Utility Diversions 200 Series - Proposed Site clearance 700 Series - Proposed Pavement Design & Calculations 1100 Series - Proposed Kerbs, footways and paved areas 1200 Series - Proposed Traffic signs & road markings 1200 Series - Proposed Traffic sign design & sign schedule 1200 Series - Proposed Road Markings Setting Out Standard Details drawing | Principal Designer |  | 22 days |
| Detailed design | Bill of Quantities | Principal Designer |  | 20 days |
| Detailed design | Checking / verifying / approval for issue | Principal Designer |  | 3 days |
| Detailed design | Client ECI/Buildability/risk review period | Principal Designer |  | 7 days |
| Detailed design | Client Review | Client |  | 5 days |
| Detailed design | Amendments following Client review | Principal Designer |  | 2 days |
| Stage 1/2 Road Safety Audits (RSA) | Produce Stage 1/2 brief Agree/confirm RSA dates, undertake RSA and receive RSA report Designer's response to RSA report Amendments to design Checking / verifying / approval for issue | Principal Designer |  | 1 day |
| Stage 1/2 Road Safety Audits (RSA) | Client Exception Report (If required) | Client |  | 1 day |
| Stage 1/2 Road Safety Audits (RSA) | Final review/check/approval of Detailed Design pack | Principal Designer |  | 2 days |
| Stage 1/2 Road Safety Audits (RSA) | Local Authority/landowner final assurance | Local Authority Network Managers, Landowner |  | 5 days |
| Detailed design final review | Final Client Review and Approval (incl. buildability/risk meeting) | Client |  | 1 day |
| Detailed design final review | Production of Pre-Construction Information (PCI) Pack | Principal Designer | Yes | 1 day |
| Detailed design final review | Submission of PCI and Design Package for Construction | Principal Designer | Yes | 1 day |
| Component utility connections | Contractor to confirm programme | Principal Contractor |  | 5 days |
| Construction Phase | Submission of Construction Phase Plan | Principal Contractor | Yes | 1 days |
| Construction Phase | Construction Phase Plan reviewed and accepted | Principal Designer, Client | Yes | 4 days |
| Construction Phase | Site construction period | Principal Contractor |  | 120 days |
| Stage 3 Road Safety Audits | Contractor to amend design on site if required following road safety audit | Principal Contractor |  | 1 day |
| Stage 3 Road Safety Audits | Mobility Hub sites opened for public use | WECA, Principal Contractor |  | 1 days |
| Post-construction | Submission of Health & Safety File | Principal Contractor | Yes | 2 days |
| Post-construction | Production of As-built drawings | Principal Designer |  | 10 days |

## Section 4: Inclusive and flexible component design and installation

1. Select and install components for modern, multi-modal, multi-functional, flexible, inclusive, and innovative interchanges that
   1. are inclusive and safe for all to use.
   2. provide opportunities to integrate two or more components into a single unit while and still meeting the product specifications; facilitate delivery; and add to the aesthetic appeal of a mobility hub. See [Appendix A: Precedent images](#_Appendix_A:_Precedent) in this document.
   3. are designed to withstand vandalism, and wear and tear.
   4. are recognisable as mobility hubs with integrated look, feel and materials to create a consistent aesthetic across the network of sites, while retaining the ability to be individually tailored to reflect the local identity.
   5. are future proof.
   6. are as carbon neutral and environmentally low impact as possible, including the use of reusable, recycled and recyclable materials and components; and renewable energy sources.

## Section 5: Branding

1. Apply West of England Sustainable Transport branding to mobility hub components to ensure mobility hubs have consistency in terms of recognition.
2. Have the ability to change the branding after installation should local branding change.

## Section 6: Proposed approach to operation and maintenance

1. For certain components, the Contractor carries out operational and maintenance responsibilities during the trial period as detailed below. These components include:

|  |  |
| --- | --- |
| Component | Maintenance requirements |
| Individual secure cycle lockers  Secure cycle enclosure (UWE only) | Provide operation and maintenance including:   * Bookable and accessible in advance online via app/or website * 24/7 customer support service * Maintenance and repair to ensure component remains in good operational condition * Replacement of component if damaged beyond economic repair * Cleaning * Watering/re-planting * Safety checks * Safety defects response * Emergency damage * Failure of power supply * Replace broken glazing * Other reported faults/damage * Removing components damaged beyond economic repair, and making good, if requested by the Combined Authority. * Removal of offensive or racist graffiti/flyposting * Removal of other graffiti/flyposting |
| Specialised/integrated lighting  Defibrillator  Wi-Fi  Mobile Device Charging | Provide maintenance including:   * Maintenance and repair to ensure component remains in good operational condition * Replacement of component if damaged beyond economic repair * Cleaning * Watering/re-planting * Safety checks * Safety defects response * Emergency damage * Failure of power supply * Replace broken glazing * Other reported faults/damage * Removing components damaged beyond economic repair, and making good, if requested by the Combined Authority. * Removal of offensive or racist graffiti/flyposting * Removal of other graffiti/flyposting |

1. Post Contract Award, the Contractor provides warranties for all components. For the Tender submission an overview of the warranty coverage is required.
2. The Contractor replaces any damaged components if requested to do so during the trial period, at the same rates as detailed in ITT Appendix D – Pricing Schedule.
3. For the components not listed in Section 6a, day-to-day maintenance will be carried out by the relevant landowner (Bristol City Council, South Gloucestershire Council, North Bristol NHS Trust, and the University of the West of England). The Contractor should ensure that these components are suitable for a typical local authority maintenance team to undertake the following activities:

* Cleaning
* Watering/re-planting
* Safety checks
* Safety defects response
* Emergency damage
* Failure of power supply
* Replace broken glazing
* Other reported faults/damage
* Removing components damaged beyond economic repair, and making good, if requested by the Combined Authority.
* Removal of offensive or racist graffiti/flyposting
* Removal of other graffiti/flyposting

## Section 7: Proposed approach to contributing to monitoring and evaluation

1. Monitor and report programme progress throughout the trial to the Combined Authority
   1. Provide monthly data (or at any other frequency as requested by the Combined Authority) on usage of any components (as requested by the Combined Authority) to inform the outputs of the trial.
   2. Provide feedback, and lessons learned, to support the trial’s monitoring and evaluation.

## Section 8: Decommissioning

1. Decommission mobility hubs and/or components if required at the end of the trial period, including:
   1. making any utility connections safe
   2. returning affected areas to their original condition
2. A buy-back scheme to enable the Combined Authority to sell components back to the supplier at the end of the trial period.
3. In line with Section 4a (vii), that components are as carbon neutral and environmentally low impact as possible, including the use of reusable, recycled and recyclable materials and components; and renewable energy sources.

## Section 9: Social value

1. Provide social value benefits in line with Table 5 – Social Value Model Policy Outcomes in the Invitation to Tender, and ITT Appendix K – Social Value Delivery Plan.

# Component specification

## Priority components

The components listed below are those required for the Mobility Hub and are grouped into categories according to their function within the hubs.

|  |  |  |  |
| --- | --- | --- | --- |
| Component category | Component | Priority component | UWE site only |
| Wayfinding | Wide totem | Yes | - |
| Wayfinding | Projected identification | Yes | - |
| Wayfinding | Poster case information | Yes | - |
| Wayfinding | Identification cube | Yes | - |
| Wayfinding | Fingerpost | Yes | - |
| Wayfinding | Site identification | Yes | - |
| Transport | Sheffield stand (n-shaped) | Yes | - |
| Transport | Sheffield stand (m-shaped) | Yes | - |
| Transport | Individual secure cycle lockers | Yes | - |
| Transport | Micromobility parking infrastructure | Yes | - |
| Transport | Cycle repair stand | No | - |
| Transport | Bike pump | No | - |
| Transport | Secure cycle enclosure | No | Yes |
| Public realm | Seating with integrated canopy | Yes | - |
| Public realm | Seating with integrated canopy | Yes | Yes |
| Public realm | Seating into embankment/retaining wall | No | Yes |
| Public realm | Paving | No | Yes |
| Public realm | Relocation of shipping container | No | Yes |
| Public realm | Planters and planting | Yes | - |
| Public realm | Community noticeboard | No | - |
| Public realm | Specialised/integrated lighting | No | - |
| Public realm | Defibrillator | No | - |
| Public realm | Wi-Fi | Yes | - |
| Public realm | Mobile device charging | Yes | - |
| Public realm | Water fountain | Yes | - |
| Public realm | Thermoplastic markings | No | - |
| Delineations | Micromobility parking delineations | Yes | - |
| Delineations | Disabled parking delineation | Yes | - |
| Delineations | Car club bays | Yes | - |

## Wayfinding components

Please note that these specifications do not include suggestions for the full makeup of the products including features such as foundations and fixings. These product specifications are minimum requirements, however detailed specifications will be developed further between the Contractor and the Combined Authority’s wayfinding consultants.

### Wide totem (priority component)

|  |
| --- |
| Chart  Description automatically generated with low confidence |
| Consistent look and feel with the other wayfinding products in this specification |
| 600 x 2750mm |
| Internal galvanised steel frame |
| External powder coated aluminium panels |
| Stainless steel base plate |
| Low iron toughened glass panel with vinyl graphics applied to rear |
| Easily maintainable by a typical local authority maintenance team. |

### Projected identification (priority component)

|  |
| --- |
| Chart  Description automatically generated |
| Consistent look and feel with the other wayfinding products in this specification |
| 300 x 300mm |
| Internal galvanised steel frame |
| External aluminium panels with direct printed graphics |
| Easily maintainable by a typical local authority maintenance team. |

### Poster case information (priority component)

|  |
| --- |
| Chart, bar chart, box and whisker chart  Description automatically generated |
| Consistent look and feel with the other wayfinding products in this specification |
| Bespoke on a site-by-site basis – Likely standard paper sizes A2-A0 depending on each bus shelter. |
| Graphics printed on PVC poster paper or vinyl |
| Easily maintainable by a typical local authority maintenance team. |

### Identification cube (priority component)

|  |
| --- |
| Chart, box and whisker chart  Description automatically generated |
| Consistent look and feel with the other wayfinding products in this specification |
| 400 x 400mm, 2500mm clearance from ground level (cube) |
| 3000mm pole with diameter of 90mm |
| 300 x 1000mm (display panel) |
| Powder coated steel post |
| Internal galvanised steel frame (cube) |
| External aluminium panels with direct printed graphics (cube) |
| Aluminium panels with direct printed graphics affixed to post (display panel) |
| Easily maintainable by a typical local authority maintenance team. |

### Fingerpost (priority component)

|  |
| --- |
|  |
| Consistent look and feel with the other wayfinding products in this specification |
| 3220mm pole with diameter of 90mm |
| 900 x 100mm (slats) |
| Powder coated steel post |
| Powder coated aluminium slats with direct printed graphics |
| Easily maintainable by a typical local authority maintenance team. |

### Site identification (priority component)

|  |
| --- |
|  |
| Consistent look and feel with the other wayfinding products in this specification |
| 3500mm pole with diameter of 90mm |
| 500 x 500mm (cube) |
| Powder coated steel post |
| Internal galvanised steel frame (cube) |
| External aluminium panels with direct printed graphics (cube) |
| Easily maintainable by a typical local authority maintenance team. |

## Transport components

### Sheffield stand (n-shaped) (priority component)

|  |
| --- |
|  |
| Stainless steel finish |
| Galvanised steel bar construction (minimum thickness 3mm) |
| “n”-shaped |
| Submerged fixing – minimum foundation depth of 300m with welded ‘anchor bar’ |
| Height: 750mm  Width: at least 750mm  Diameter 50 x 2mm |
| Compliance against one of the following minimum-security standards   * LPS 1175 Issue 7.2:2014 Security Rating 1 or 2, or * LPS 1175 Issue 8:2018 A1 Security Rating 1, or * Sold Secure (Bronze, Silver or Gold), or * STS 502 |
| Easily maintainable by a typical local authority maintenance team |

### Sheffield stand (m-shaped) (priority component)

|  |
| --- |
|  |
| Stainless steel finish |
| Galvanised steel bar construction (minimum thickness 3mm) |
| “m”-shaped |
| Submerged fixing – minimum foundation depth of 300m with welded ‘anchor bar’ |
| Height: 750mm  Width: at least 750mm  Diameter 50 x 2mm |
| Compliance against one of the following minimum-security standards   * LPS 1175 Issue 7.2:2014 Security Rating 1 or 2, or * LPS 1175 Issue 8:2018 A1 Security Rating 1, or * Sold Secure (Bronze, Silver or Gold), or * STS 502 |
| Easily maintainable by a typical local authority maintenance team |

### Individual secure cycle lockers (priority component)

|  |
| --- |
|  |
| Cycle lockers for individual use - one cycle per locker |
| Large enough to house most cycles |
| Keyless operation |
| Usage data available to the West of England Combined Authority |
| Meets security standard: LPS 1175 Security Rating 1 |
| Metered connection |

### Micromobility parking infrastructure (priority component)

|  |
| --- |
| Parking & Street DesignE-SCOOTER-RACKS-BIKE-DOCK-SOLUTION |
| *Provides micromobility parking for e-scooter and e-cycle users which minimise the impact of parked micromobility vehicles to other road users.* |
| Racks, corrals, or other infrastructure which encourages good parking behaviour from micromobility users |
| Must be suitable for use by any potential e-scooter hire, e-cycle hire, or cycle hire operator |
| Easily maintainable by a typical local authority maintenance team |

### Cycle repair stand

|  |
| --- |
|  |
| Phillips and flat head screwdrivers |
| Allen key set |
| Torx T.25 |
| Pedal spanner |
| Adjustable spanner |
| 2x steel tyre levers |
| Tool tethers: weatherproof cable |
| Ability to affix securely to the ground |
| Must be highly durable and vandal-proof |
| Maximum tether length: suitable distance to ensure tools can be comfortably used on the user’s cycle, yet short enough to ensure cannot reach neighbouring parked cycles |
| Easily maintainable by a typical local authority maintenance team |

### Bike pump

|  |
| --- |
| Cyclehoop bring municipal bike pumps to London's streets |
| Presta and Schraeder valves |
| Weatherproof |
| Suitable for public use |
| Ability to affix securely to the ground |
| Must be highly durable and vandal-proof |
| Easily maintainable by a typical local authority maintenance team |

### Secure cycle enclosure (UWE only)

|  |
| --- |
|  |
| *There is an ambition to link nature to the existing stark architectural styles at the University of the West of England. It is a campus university with attractive green spaces which we are keen to enhance through the selection of components to soften the hard lines of the architecture. The Contractor provides consistent materials across this site particularly between the secure cycle enclosure, canopy, seating and retaining structures either through natural materials such as hard woods, glazing, and metal where metal would support the longevity of the structure and add to the aesthetic attractiveness, including feature lighting to enhance these components.* |
| Enclosed cycle shelter with roof, and access door |
| Maximum dimensions: W 5.3m L1: 5.7m/L2: 4.8m |
| Materials: hard words, glazing and metal and/or ability to provide a consistent aesthetic with other mobility hub components at this site. |
| Highly durable and vandal-proof |
| To include single tier n or m shaped Sheffield stands inside  (Contractor to calculate appropriate number required according to final dimensions of shelter and meeting LTN 1/20 cycle parking specifications. Sheffield stands to meet [Sheffield stand specifications](#_Sheffield_stand_(n-shaped)) within this specification, but to be included within the cycle shelter price) |
| Visibility into the shelter to support natural surveillance |
| Integrated movement-activated lighting |
| Ducting to allow UWE to provide standardised CCTV equipment |
| Metered connection |
| Easily maintainable by a typical local authority maintenance team. |

## Public realm components

### Seating with integrated canopy (priority component)

|  |
| --- |
| A picture containing outdoor, furniture  Description automatically generated |
| *Seating with integrated canopy for leisure and relaxation, complementing a consistent design of the hub and other components*  *The seating will be a key design feature within the hubs, and the Contractor provides attractive designs which visually complement the other components to enhance the overall visual appeal of the hub.*  *We anticipate that this component could be integrated with other components.*  *The Component meets the following criteria:* |
| Size: to fit allocated space within Reference designs |
| Modular or bespoke design |
| Ability to provide a consistent aesthetic across mobility hub locations |
| Integrated canopy to provide some overhead shelter from the weather |
| Seating: 50% of seating to be provided under canopied area to offer protection from the weather including some seats with back and arm rests. |
| Variety of seating and work surface layouts to fit the available space, designed to support social interaction, informal work, and study |
| Made from durable and sustainable materials |
| Must be robust and weather resistant |
| Ability to incorporate brand colours |
| Ability to incorporate other components within the seating structure (e.g., integrated lighting or planters) |
| Easily maintainable by a typical local authority maintenance team |

### Seating with canopy (UWE site only) (priority component)

|  |
| --- |
| A picture containing outdoor, furniture  Description automatically generated |
| *Seating with canopy for leisure and relaxation, complementing a consistent design of the hub and other components*  *The seating will be a key design feature within the hubs, and the Contractor provides attractive designs which visually complement the other components to enhance the overall visual appeal of the hub.*  *There is an ambition to link nature to the existing stark architectural styles at the University of the West of England. It is a campus university with attractive green spaces which we are keen to enhance through the selection of components to soften the hard lines of the architecture. The Contractor provides consistent materials across this site particularly between the secure cycle enclosure, canopy, seating and retaining structures either through natural materials such as hard woods, glazing, and metal where metal would support the longevity of the structure and add to the aesthetic attractiveness, including feature lighting to enhance these components.*  *We anticipate that this component could be integrated with other components.*  *The component meets the following criteria:* |
| Maximum dimensions W 10 metres D 8 metres H 3 metres |
| Materials: hard woods, glazing, and metal |
| Ability to provide a consistent aesthetic with other mobility hub components at this site. |
| Integrated canopy to provide some overhead shelter from the weather. |
| Seating: 50% of seating to be provided under canopied area to offer protection from the weather including some seats with back and arm rests. |
| Variety of seating and work surface layouts to fit the available space, designed to support social interaction, informal work, and study |
| Made from durable and sustainable materials |
| Robust and weather resistant |
| Aesthetically complements the other components |
| Ability to incorporate brand colours |
| Ability to incorporate other components within the seating structure (e.g., integrated lighting or planters) |
| Easily maintainable by a typical local authority maintenance team |

### Seating into embankment/retaining wall (UWE only)

|  |
| --- |
|  |
| *In order to open up the public realm, the Contractor cuts back some of the existing landscaping in accordance with the reference design, and edges this with a retaining wall, also integrating seating.* |
| Re-landscape grassed area to create space for micromobility parking and integrated seating as per Reference design |
| Edge re-landscaped area with seating to follow shape of landscaping |
| Ability to provide a consistent aesthetic with other key components across the UWE Mobility Hub site, particularly the *Seating with integrated canopy* and *Secure cycle enclosure* |
| Made from durable and sustainable materials |
| Robust and weather resistant |
| Ability to incorporate other components within the seating structure (e.g. integrated lighting or planters) |
| Integrated lighting to enhance the visual form of the structure |
| Easily maintainable by a typical local authority maintenance team |

### Paving (UWE only)

|  |
| --- |
| Product Page |
| *At the University of the West of England Mobility site we are able to be more ambitious with our public realm aspirations. The Contractor paves the mobility hub area as indicated in the Reference design.* |
| Total area to cover: as per Reference design |
| Marshalls Keyblok Brindle |
| Kerb stone to retain block paving to area abutting car park |

### Planters and planting (priority component)

|  |
| --- |
|  |
| *Planters and planting, to complement the other hub components and enhance the visual appeal of the hub, to create a space for relaxation.*  *The planting will be a key design feature within many of the hubs, and the Contractor provides attractive designs which visually complement the other components to enhance the overall visual appeal of the hub.*  *We anticipate that this component could be integrated with other components.*  *We are open to planters and/or inground solutions such as tree pits and SUDS.*  *It is the aim of the Combined Authority to become the UK Pollinator Capital, and more details on this can be found at* [*https://www.westofengland-ca.gov.uk/what-we-do/environment/bee-and-pollinator-capital/pollinator-resources/*](https://www.westofengland-ca.gov.uk/what-we-do/environment/bee-and-pollinator-capital/pollinator-resources/)  *The Contractor provides planter designs that will support bees and other pollinators taking into consideration the following;*   * *A focus on using a diverse range of pollinator plants, with year-round flowering* * *Thinking about a design that incorporates suitable pollinator habitats* * *Providing a water source for bees and other pollinators* * *Using materials that are sustainable/sustainably sourced where possible* |
| Ability to provide consistent aesthetic across locations |
| Ability to provide bespoke planting solutions according to the allocated space indicated in the preliminary designs |
| Made from durable and sustainable materials |
| Aesthetically complements the other components |
| Ability to incorporate brand colours |
| Ability to incorporate other components within the seating structure (e.g., integrated lighting or mobile device charging) |
| Planter design and planting to support pollinators |
| Species selection and product design to encourage water retention and drought resistance |
| Where possible, species selection to offer shading |
| Easily maintainable by a typical local authority maintenance team |

### Community noticeboard

|  |
| --- |
|  |
| Ability to be integrated into other components, if possible |
| Minimum size: W: 1000mm; H: 750mm |
| Ability to locate frame at an accessible height, either on legs, or affixable to an external wall or similar surface |
| Weatherproof to ensure contents remain dry |
| Clear scratch resistant front panel |
| Easily maintainable by a typical local authority maintenance team |

### Specialised/integrated lighting

|  |
| --- |
|  |
| *Attractive lighting solutions which visually complement the other components to enhance the overall visual appeal of the hub.*  *The Components meet the following criteria:* |
| Lighting to enhance architectural features of supplied components |
| Ability to introduce colour/patterns etc. |
| Ability to integrate into other components where possible |
| Option of light shields to prevent light pollution |
| Renewable powered solutions if possible |
| Metered connection |
| Easily maintainable by a typical local authority maintenance team |

### Defibrillator

|  |
| --- |
|  |
| *A publicly accessible defibrillator, must be usable by persons with no prior training* |
| Group 1 device |
| Suitable for community use in most aspects, in most rescue conditions, and easily supported remotely |
| Suitable for use by untrained & panicking users, or special needs users |
| Compliant to various disability legislation, such as the Equalities Act 2010 |
| Provision of basic rescue information on the arrival of the ambulance |
| Metronomes |
| Clear visual and audio instructions |
| Easily checked and maintained by the community |
| Unlikely to cause issues in a community setting |
| Metered connection |

### Wi-Fi (priority component)

|  |
| --- |
|  |
| Wi-Fi hotspot |
| Free to use by public |
| Reliable |
| Secure |
| High speed |
| Customisable landing page |
| Potential for advertising inclusion on landing page |
| Advertising revenue to be paid to the West of England Combined Authority |
| Metered connection |

### Mobile device charging (priority component)

|  |
| --- |
|  |
| To suit USB-C, Apple Lightning Connector |
| Future proofed to reduce risk of potential future obsolescence |
| Where possible, integrated into another component |
| Energy generation via solar, or other renewable sources from within the mobility hub/or can be retrofitted into existing infrastructure such as bus shelters |
| Streamline design to fit compact design of mobility hubs |
| Metered connection |

### Water fountain (priority component)

|  |
| --- |
|  |
| Include WRAS approved water meter |
| Include all necessary connection fittings |
| Ability to refill water bottles of various sizes, up to at least 1litre capacity |
| For outdoor use |
| Vandal resistant |
| Weatherproof (including frost proof) |
| Ability to apply mobility hub branding |
| Durable |
| Connection to mains water (Bristol Water) via new suppliers’ request |
| Metered connection |
| Easily maintainable by a typical local authority maintenance team |

### Thermoplastic markings

|  |
| --- |
| See the source image |
| *To enhance the visibility of the mobility hubs, the Contractor provides the application of decorative thermoplastic markings at some of the sites as agreed with the Project Manager. The designs may vary from site to site according to local character.* |
| Customisable thermoplastic markings to a design set out by the project team |
| A different design may be required for each site |
| Will need to cover a maximum area as set out in the preliminary designs |
| Durability: 1+ years |
| Scope to install around pre-existing components |

## Delineations and groundworks

### Micromobility parking delineation (priority component)

|  |
| --- |
|  |
| *A space marked on the footway which clearly delineates space for e-scooter, e-cycle, and other micromobility parking*  *The exact size of the delineation will vary from site to site as shown in the preliminary designs provided* |
| Marking to follow national standards for e-cycle and e-scooter parking delineation |
| Ability to accommodate a generic parking dock, provided through this procurement exercise |

### Disabled parking delineation (priority component)

|  |
| --- |
|  |
| Marking to follow national standards for disabled bay parking delineation |

### Car club bays (priority component)

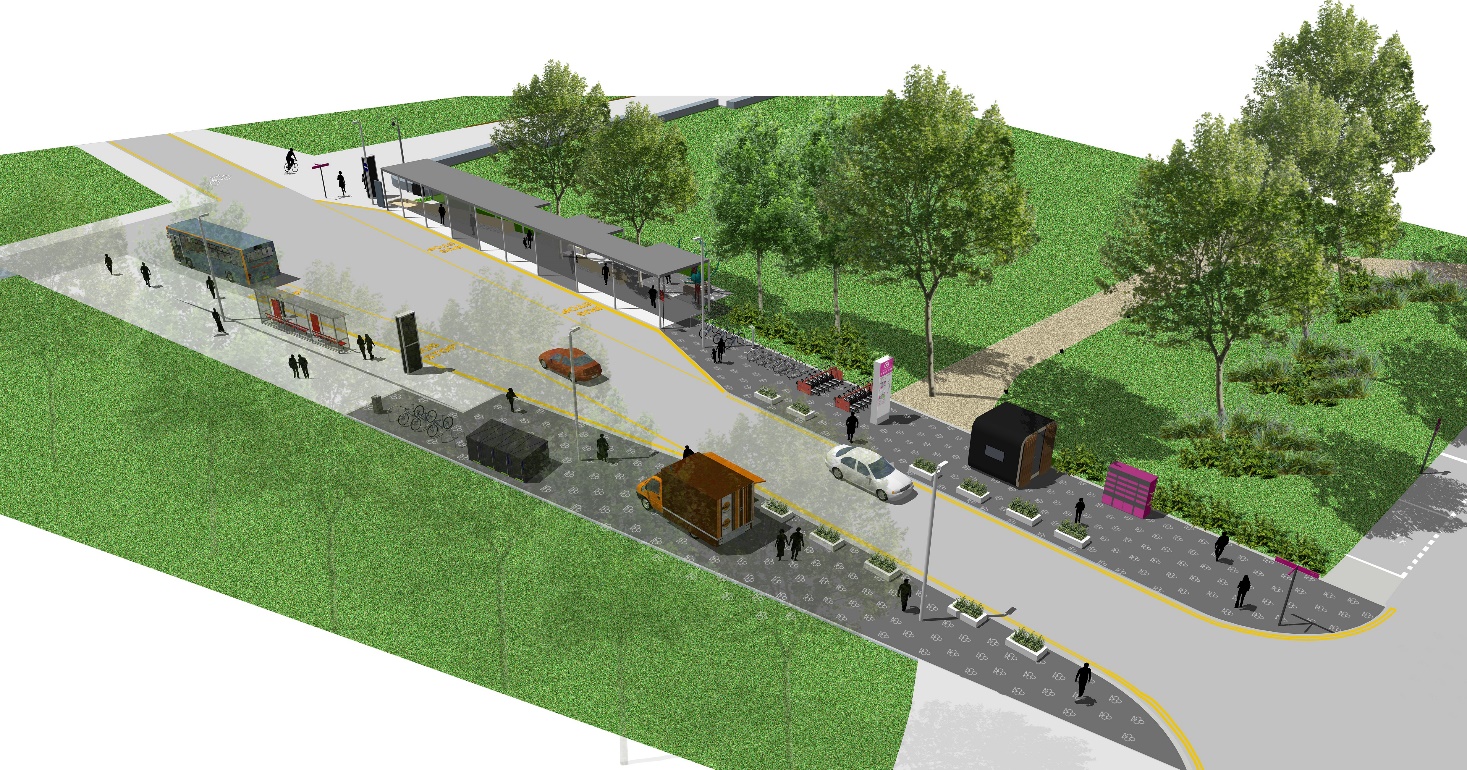
|  |
| --- |
|  |
| *Designated parking bay delineated with a road marking* |
| Marking to follow national standards for car club bay parking delineation |

### Relocation of shipping container (UWE only)

|  |
| --- |
|  |
| *The Contractor relocates the existing shipping container within the car park area, to open up the public realm.* |
| Relocation of shipping container |
| Re-levelling of ground or access steps to retain DDA compliance |
| Re-connection of services to container (power and data) |

Please review the site Reference designs in conjunction with [ITT Appendix D – Pricing Schedule](https://westofenglandca.sharepoint.com/sites/Ext-FutureTransportZone-D.3MobilityStationsproject/Shared%20Documents/D.3%20Mobility%20Stations%20project/07%20Procurement/03%20Invitation%20to%20Tender/Tender%20documentation/Ready%20for%20upload/ITT%20Appendix%20D%20-%20Pricing%20Schedule.xlsx) which itemises the quantities and works required for each site.

# Appendix A: Precedent images





A picture containing outdoor, furniture

Description automatically generated

