



# **Birmingham University Station**

## Diversity Impact Assessment

10 December 2019



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# Issue and Revision Record

Revision	Date	Originator	Checker	Approver	Description
PO1	10.12.19				First Issue
		This document has been issued for cross-discipline design review ahead of final inter-disciplinary co-ordination. This is NOT an issue for formal technical approval.			

**Document reference:** 148637-MMD-XX-XX-ASS-EMF-000001

**Information class:** Standard

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# Introduction

West Midlands Combined Authority (WMCA) are proposing to redevelop University Station on the Cross-City line in south west Birmingham. This is due to the existing overcrowding, future passenger forecast growth and to improve connectivity to Birmingham University across the existing canal. The development will include; a new station building at University Station, a footbridge across platforms, a footbridge over the canal, platform works, and a comprehensive landscaping scheme.

The redeveloped University Station will become a Network Rail Asset following completion and formal handover from West Midlands Combined Authority as the project sponsor.

This Diversity Impact Assessment therefore, has been prepared in the standard Network Rail format, identifying key impacts and mitigations from the assessment and also capturing any subsequent GRIP 4 design changes as a result of the DIA findings.

## Diversity Impact Assessment

Guidance for completing each section is provided in the  
[Everyone Guide to Diversity Impact Assessments](#)

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**Document Ref:** 148637-MMD-XX-XX-ASS-EMF-000001

**Version No:** 2

### Step 1: Clarifying Aims

#### Q1. What are the aims of this project/piece of work?

##### *Background*

University Station in Birmingham serves key educational and health resources, including the University of Birmingham campus and Queen Elizabeth Hospital. Over three million passengers currently use the station each year, with numbers predicted to rise considerably following recent and future development in the area. As a result, University Station has been identified for redevelopment in order to provide a station building that meets capacity requirements and considers expansion plans for both the university and hospital.

Figure 1: Current University Railway Station



### Project Details

The project will deliver a station designed to accommodate around 7 million passengers per year, reflecting the strong demand growth anticipated in rail industry forecasts.<sup>1,2</sup> It will deliver a new station entrance and access routes at the north end of the station, centred on land currently owned by the University of Birmingham and used mainly as a staff car park.

Key features of the redevelopment are:

- New station buildings with three access levels, including one additional lift on each platform.
- A large forecourt area for pedestrian access to the main station entrance via Vincent Drive.
- An accessible footbridge connecting the station entrance and station buildings to both platforms.
- An accessible footbridge over the adjacent Worcester and Birmingham canal connecting to the platform 2 building (east side of the railway line) to the University.
- The combined bridges will provide access between the station and the University between Vincent Drive and the University campus, open to non-rail passengers during operational hours.
- A taxi rank and drop-off facilities, with no change to the current bus stop facilities.
- Staff car parking.
- Modifications to the existing station entrance to allow its use as an exit only.
- Canopies on both platforms.
- Ticket buying facilities and retail units.
- Accessible passenger toilets on Platform 1 (west side of the railway line).
- Modifications to platforms, principally increased width, to accommodate the same projected usage.

Since the completion of the initial DIA review in October 2019, a number of design changes have been made to the above features. These have been detailed in a design change log in Appendix D which shows the initial comments made as a result of this assessment, changes to design and any additional comments or changes in impact.

The stakeholders'<sup>3</sup> vision for University Station is:

*“To deliver a flagship railway station that is welcoming, safe and heralds a gateway to a world class life science, hospitals and university campus, providing an outstanding passenger experience, boosting the economy, enhancing heritage and connecting seamlessly into the wider integrated transport network.”*

<sup>1</sup> Network Rail (2013): Long Term Planning Process: Regional Urban Market Study

<sup>2</sup> Jacobs (2019): University Station: Station Demand Assessment

<sup>3</sup> West Midlands Combined Authority, Network Rail, Birmingham City Council, Transport for West Midlands and the University of Birmingham



**Q2. Could this work impact on people? If yes, briefly explain how (considering our duty to promote equality, tackle discrimination and foster good relations between groups).**

### **The Equality Act and Public Sector Equality Duty (PSED)**

Network Rail also undertake DIAs to comply with current UK equality legislation. In particular, the Equality Act 2010, which sets out a Public Sector Equality Duty (PSED), at section 149. This is set out in Figure 2 below.

**Figure 2: Article 149 of the Equality Act 2010: The Public Sector Equality Duty**

- (1) A public authority must, in the exercise of its functions, have due regard to the need to—
- (a) eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under this Act;
  - (b) advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it;
  - (c) foster good relations between persons who share a relevant protected characteristic and persons who do not share it.
- (2) A person who is not a public authority but who exercises public functions must, in the exercise of those functions, have due regard to the matters mentioned in subsection (1).
- (3) Having due regard to the need to advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it involves having due regard, in particular, to the need to—
- (a) remove or minimise disadvantages suffered by persons who share a relevant protected characteristic that are connected to that characteristic;
  - (b) take steps to meet the needs of persons who share a relevant protected characteristic that are different from the needs of persons who do not share it;
  - (c) encourage persons who share a relevant protected characteristic to participate in public life or in any other activity in which participation by such persons is disproportionately low.

Source: Equality Act 2010

The PSED is intended to support good decision-making and encourages public bodies, such as Network Rail, to understand how different people will be affected by its activities. This helps to ensure policies and services, such as railway stations, are appropriate and accessible to all and meet different people's needs. Network Rail therefore have due regard to the aims of the PSED throughout the decision-making process for the redevelopment of University Station.

### **Assessing diversity impacts**

The PSED does not specify a particular process for considering the likely effects of policies, programmes and projects on different sections of society for public bodies to follow. However, this process is usually undertaken through some form of equality and diversity analysis, which can include a DIA.

Undertaking equality and diversity analysis such as a DIA can help to demonstrate how a public body is complying with the PSED by:

- providing a written record of the equality considerations which have been taken into account;
- ensuring that decision-making includes a consideration of the actions that would help to avoid or mitigate any negative impacts on particular protected groups; and
- supporting more transparent evidence-based decision-making.

By understanding the effect of its activities on different people - and how inclusive delivery can support and open up opportunities - Network Rail can also be more efficient and effective. The DIA process therefore helps Network Rail to deliver the Government's overall objectives for public services.

#### **Protected characteristics**

A DIA provides a systematic assessment of the likely or actual effects of policies or proposals on social groups with the following protected characteristics (as defined by the Equality Act).<sup>4</sup>

#### **Potential Impacts**

Yes – the proposed works will likely affect a range of people with protected characteristics.

The station redevelopment will increase the capacity of University railway station, providing a reduction in overcrowding and a smoother service for passengers. The redevelopment will provide an improved connection to university and hospital facilities, benefitting students, staff, patients and the general public. There's also an opportunity to improve the quality, accessibility, safety and inclusivity of the station through the upgrading of various facilities. The improved public realm and retail provisions will provide a more enjoyable travel experience for those passing through the station or for those who have significant waiting times.

Increased walking distances for some walking routes caused by the station re-location, omission of public parking and the distance between existing bus stops and the new station entrance could disproportionately affect some people with protected characteristics. Potentially cumbersome routes around the station will affect those with reduced mobility most, potentially affecting their access to facilities such as the canal footbridge and toilets.

The project aims to minimise disruption to the operation of the existing station during construction, so this is unlikely to have major effects on people. However, changes to the infrastructure of the station may cause confusion to station users as to routes to onward travel options or which exits to use. Therefore, good wayfinding through appropriate signage during construction and operation will be important.

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<sup>4</sup> Government Equalities Office / Home Office (2010): 'Equality Act 2010'. Available at: [www.legislation.gov.uk](http://www.legislation.gov.uk)

## Step 2: The Evidence Base

**Q3. Record here the data you have gathered about the diversity of the people potentially impacted by this work e.g. from the 2011 national census or from HR Shared Service. You should also include any research on the issues affecting inclusion in relation to your work.**

Consider evidence in relation to all the protected characteristics;

- |  |                              |
|--|------------------------------|
| - Disability including Carers <sup>5</sup> | - Age                        |
| - Pregnancy/maternity                      | - Race                       |
| - Religion or belief                       | - Gender                     |
| - Sexual orientation                       | - Marriage/Civil Partnership |
| - Gender reassignment                      |                              |

### Population Profile

In order to gain further insight into the local community and potential users of the station, existing socio-demographic data has been reviewed and analysed to establish the composition of the local population living in Birmingham's Edgbaston ward and the city itself. The Office for National Statistics (ONS) 2011 census data and mid-year estimate figures (2017) have been used.<sup>6</sup> The figures for Edgbaston and Birmingham have been considered in comparison to the West Midlands region and English national figures.

More detailed demographic analysis of the area – including density maps of equality groups and detailed figures about the total population for Edgbaston ward, the City of Birmingham, the West Midlands region and England– can be found in Appendix B.

- Children make up 13% of Edgbaston's population, a considerably lower proportion compared to the Birmingham (23%), West Midlands (20%) and national (19%) figures.
- The percentage of residents aged 65 or over is lower in Edgbaston (10%) and Birmingham (13%) compared to the regional and national rate of 18%.
- There are a higher proportion of women of childbearing age (aged between 16 and 44) in Edgbaston than there is in Birmingham, West Midlands and England (30% versus, 22%, 18% and 18%).
- 50% of Edgbaston residents are from a BAME background, more than double the regional and national proportions of 21% and 20% respectively.
- The proportion of people living with a long-term illness or disability is lower in Edgbaston compared to Birmingham overall and nationally (13% versus 18% in Birmingham and nationally).
- According to the Index of Multiple Deprivation (IMD), which is used to measure relative deprivation in small areas in England<sup>7</sup>, the city of Birmingham has a much higher proportion of people living in the most deprived quintile compared to the national average. 58% of people live in the most deprived quintile and 21% in the second most deprived.

The demographic data above shows that figures for Edgbaston vary significantly from the national average when it comes to people with protected characteristics. In line with Birmingham, Edgbaston has a considerably larger proportion of residents that are from a BAME background and fewer people over the age of 65. In contrast to Birmingham overall, children make up a small

<sup>5</sup> Including those with physical, mental and hidden impairments as well as **carers** who provide unpaid care for a friend or family member who due to illness, disability, or a mental health issue cannot cope without their support.

<sup>6</sup> ONS (2018): 'Mid-year population estimate'.

<sup>7</sup> The index of Multiple Deprivation (IMD) brings together data covering seven different aspects or 'domains' of deprivation into a weighted overall index for each Lower-layer Super Output Area (LSOA) in England. The scores are then used to rank the LSOAs nationally and to calculate an IMD score for each local authority area. These are then divided into deciles or quintiles, with 1 being the most deprived 20% of LSOAs, and 5 the least deprived 20% of LSOAs (in the case of quintiles).

proportion of Edgbaston residents. City-wide, Birmingham has a significantly higher proportion of people living in deprived areas when compared with national averages.

There is also a higher than average student population in the station's surrounding area. 37% of the population aged 16-74 in Edgbaston are students, perhaps due to the close proximity of the University of Birmingham. This is much higher than the Birmingham (14%), West Midlands (9%), and England (9%) proportions.

### User Data

Mott MacDonald commissioned passenger count surveys at University Station on 07.10.2019 and 08.10.2019. The station entrance point was surveyed between 07:00am and 09:00am and again between 16:00pm and 18:00pm on both days. Figures showed that:

- A total of 13,867 people entered and exited the station between 07:00am and 09:00am and 16:00pm and 18:00pm on 07.10.2019 and 08.10.2019.
- On both days, the busiest quarter hourly period occurred between 17:00-17:14hrs. On October 7<sup>th</sup>, 696 people used the station during this time, with 759 people using the station during this time on October 8<sup>th</sup>.
- User survey data does not show significant use by wheelchair users or people with young children.
- 7.4% of people were identified as unaccompanied children (under 18).

Tables of user data are available in Appendix C.

### Literature Review

#### Pedestrian Routes

The proposed redevelopment will alter the way people enter the station, and the completely new station building will create new pedestrian routes for the use of services. Key features of pedestrian routes such as surfaces, walkways and gradients are important for the accessibility and mobility of certain groups who may be affected differently by the redevelopment.

#### Groups potentially differentially affected:

- **Older people**
- **Disabled people**
- **People with young children**

#### Station Access

Changes to the location of entrances may result in longer walking distances for some people to access stations and other services. This is particularly impactful if wider infrastructure such as bus stops, highways and rest points are unsuitably located or in poor condition.

Walking distances are an important consideration for certain protected characteristic groups, potentially resulting in disproportionate impacts, primarily on **disabled people** and **older people**. Older people are more likely to experience conditions such as arthritis or weak muscles, meaning that they typically walk more slowly, get tired more easily and struggle to climb stairs.<sup>8</sup> Guidance issued by the Department for Transport (DfT) outlines that for people with a physical disability who are able to walk, approximately 30% can manage no more than 50 metres without stopping or

<sup>8</sup> NHS (2014): 'Safe, compassionate care for frail older people using an integrated care pathway'

severe discomfort, and a further 20% can only manage between 50 and 200 metres.<sup>9</sup> The guidance suggests the following distance limits without rest for various disability groups<sup>10</sup>:

**Table 1: Walking Distance Recommendations**

Impaired Group	Recommended Distance Limit Without Rest
Wheelchair users	150m
Visually impaired	150m
Mobility impaired using stick	50m
Mobility impaired without walking aid	100m

Source: Department for Transport (2005): 'Inclusive mobility'

Enough resting points should therefore be available to mitigate the negative impact of longer pedestrian routes for people with reduced mobility. For example, seating should be considered every 100m on key pedestrian routes, supporting the accessibility and mobility of older people and disabled people.<sup>11</sup>

The smooth integration of different transport modes is a critical enabler of safe, efficient and accessible travel for all passengers. This should include:

- Bus and coach stations and stops should ideally be located as close as possible to railway station entrances.
- Well-indicated, well-lit and step-free walking routes.<sup>12</sup>
- Accessible bus stops.<sup>13</sup>
- Routes between transport modes – e.g. the journey from bus stop to station – should be designed and maintained considering users with reduced mobility.
- Pavements should be well-maintained with appropriately placed dropped kerbs and navigable and legible routes in the public realm.<sup>14</sup>
- Layouts of pedestrian areas should be simple, logical and consistent, making use of tactile paving where required.<sup>15</sup>
- For wheelchair users, obstructions such as advertising boards or bins can make the pedestrian environment particularly challenging.<sup>16</sup>

As such, the pedestrian environment should be maintained in a way that supports the independent travel and mobility of disabled people to ensure they have equal access.

<sup>9</sup> Department for Transport (2005): 'Inclusive mobility: A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure'

<sup>10</sup> Department for Transport (2005): 'Inclusive mobility: A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure'

<sup>11</sup> Department for Transport (2007): 'Manual for Streets'

<sup>12</sup> London Travel Watch (2015): 'Interchange matters: Passenger priorities for improvement'

<sup>13</sup> Transport for London (2017): 'Accessible bus stop design guidance'

<sup>14</sup> Department for Transport (2018): 'The Inclusive Transport Strategy'

<sup>15</sup> Department for Transport (2007): 'Guidance on the use of tactile paving surfaces'

<sup>16</sup> Living Streets (2016): 'Overcoming barriers and identifying opportunities for everyday walking for disabled people'



**Figure 3: Poor pavement condition outside University Station**



Road crossings can be problematic for older people and disabled people, as well as people with pushchairs. Disabled people with a range of learning and physical impairments state that a reason for their lack of activity is due to the inaccessibility of the pedestrian environment, particularly road crossings where evidence shows they feel particularly vulnerable.<sup>17</sup> The timing of crossings, a lack of working crossings and the absence of dropped kerbs are all cited as barriers, and uneven surfaces increase the chance of falling for people with reduced mobility. Safety concerns relating to older people often focus on road crossings, as highlighted in research by Age UK.<sup>18</sup> The concerns raised highlight that crossings do not allow enough time for older people to cross safely. For example, pelican crossings assume that pedestrians cross at a rate of 1.2 meters per second, however when considering men and women over the age of 65, 76% of men and 85% of women walk at a slower speed.<sup>19</sup>

The evidence shows that transport hubs and stations are not truly accessible unless their surrounding areas are also accessible, and all passengers can easily interchange through them to use the services they require. Research in this area has found that while interchanges are often designed to ensure access for all, areas around the interchange may prevent this from being a reality.<sup>20</sup>

### *Mobility within a Station*

Ease of access around the station is important not just to make travel easier for **disabled people, older people, or those carrying luggage or travelling with children in pushchairs**, but for all passengers.<sup>21</sup> The importance of making rail travel accessible to all is reflected in publications from both Network Rail and the DfT. The latter's Inclusive Transport Strategy outlines a vision for disabled people to have the same access to transport as everyone else<sup>22</sup>, and Network Rail aims to make travelling by train as easy as possible irrespective of age, pregnancy, disability, race, religion or belief, sex, gender, or sexual orientation.<sup>23</sup>

Essential to achieving accessibility ambitions is creating consistent, well-designed and well-maintained environments within the station. Older people and disabled people with visual impairments face issues with surfaces, walkways and access to train carriages via platforms. A study on the experiences of disabled rail passengers found that 48% of those anticipating problems at rail stations see the problems as being associated with accessibility and mobility.<sup>24</sup>

Consideration of the natural desire lines through the station, and the design of simple uncomplicated routes is required to support mobility for all. There are several potential issues to consider regarding the pedestrian environment which may be relevant when existing routes are replaced or new routes produced, as well as changes to the passenger subway, both during construction and operation:

- **Ensuring the condition of pedestrian surfaces:** Surfaces that are uneven or contain loose and cracked paving slabs make walking difficult and can be potentially dangerous for older and disabled people<sup>25</sup>. Research commissioned by the Women's Royal Volunteering Service (WRVS) found that 43% of people surveyed who are aged 75 and over had suffered a fall in the past year, and 17% of this 43% will not leave the house by themselves due to fear of falling<sup>26</sup>. Older people and disabled people may be differentially affected if the condition of pedestrian surfaces is poor or not maintained.
- **Using appropriate tactile surfaces:** Tactile pavements can be used to provide visually-impaired people with guidance and can indicate potential hazards<sup>27</sup>, for example warnings of changes in level<sup>28</sup>. Therefore, it is crucial that the correct tactile surface is used in the correct location and it is used consistently, so people with visual impairments can understand what the pavement is conveying and be confident in using pedestrian spaces. This includes the provision of appropriate tactile paving on station platforms.<sup>29</sup> Incorrect tactile paving surface can lead to the wrong information being communicated which can be dangerous for people with visual impairments.<sup>30</sup>

<sup>17</sup> Living Streets (2016): 'Overcoming barriers and identifying opportunities for everyday walking for disabled people'

<sup>18</sup> Age UK (2015): 'The future of transport in an ageing society'

<sup>19</sup> Age UK (2015): 'The future of transport in an ageing society'

<sup>20</sup> London Travel Watch (2015): 'Interchange matters: Passenger priorities for improvement'

<sup>21</sup> London Travel Watch (2015): 'Interchange matters: Passenger priorities for improvement'

<sup>22</sup> Department for Transport (2018): 'The Inclusive Transport Strategy'

<sup>23</sup> Network Rail (2016), 'Making Rail Accessible: Helping Older and Disabled Passengers'

<sup>24</sup> Department for Transport (2019), 'Research on experiences of disabled rail passengers'

<sup>25</sup> IMTAC (October 2012): 'Highlighting barriers in the pedestrian environment, Report into issues, good practice and recommendations'

<sup>26</sup> PCP Market Research Consultants, WRVS (2012): 'Falls: Measuring the Impact on Older People'

<sup>27</sup> Centre for Excellence in Universal Design (2012): 'Building for Everyone: A Universal Design Approach, External Environment and Approach'

<sup>28</sup> Access code (2009): 'External Environment Fact Sheet'

<sup>29</sup> Department for Transport (2007): 'Guidance on the use of tactile paving surfaces'

<sup>30</sup> Centre for Excellence in Universal Design (2012): 'Building for Everyone: A Universal Design Approach, External Environment and Approach'



**Figure 4: University Station platform with no tactile paving**



- **Applying the appropriate gradient:** Any routes that include a gradient are potentially hazardous and exhausting to people with limited mobility. It is essential to consider ramps together with distance as sometimes a slightly steeper gradient over a shorter length may be preferred to a very long ramp.<sup>31</sup> A steeper gradient will negatively impact a manual wheelchair user due to the physical effort required and there is a risk that the wheelchair could fall over<sup>32</sup>. Guidance suggests that a level resting platform approximately 1.8m long should be provided at least every 30m for ramps with a gradient of 1:20, and more often for ramps with steeper gradients.<sup>33</sup> It is noted that the ramps in this project are being designed to *BS 8300 - Design of buildings and their approaches to meet the needs of disabled people*.
- **Pedestrian walkways:** Particular pavement or walkway widths are required for disabled people (e.g. wheelchair users and people that are visually impaired). It is also important that the width of the pavement provides sufficient space so that people can walk alongside one another, for example parents with young children.<sup>34</sup> Within transport sites and buildings, guidance recommends a minimum width of 2 metres for a two-way corridor with passing places provided when an access route is predominantly less than 1.8m.<sup>35</sup> Sufficient manoeuvring space must also be considered for wheelchair users, as well as appropriately positioned handrails and an effective reduction of obstructions in all walkways.
- **Step-free access:** For people with reduced mobility, older people, people with luggage and for people with young children in pushchairs, the importance of having spacious and compliant step-free access (via ramps and lifts) to platforms and facilities is important; without this, some



people may be unable to have full access to the station. Research has found that 40% of station in England do not have full step-free access, preventing passengers with physical disabilities or other mobility issues from travelling.<sup>36</sup> It has been found that a lack of step-free access can influence some people's choice of employment or where they go to socialise.<sup>37</sup>

- **Platforms:** Groups such as older people, disabled people and young children are at a heightened risk on station platforms, given the existence of moving railway vehicles. Design must therefore help mitigate concerns of these groups, including the adherence to regulations and best practice in platform width, surfacing (including tactile paving), seating and, where possible, canopies and waiting areas.<sup>38</sup> Negotiating the gap between the train and the platform edge is a widely reported issue for passengers with disabilities and reduced mobility.<sup>39</sup> A 2019 study found that, of disabled rail passengers who reported a problem at the station, 91% experienced this difficulty at least half the time.<sup>40</sup> Challenges arising from the alignment of the track with the platform edge can be reduced through engineering design first and foremost, but also through the provision of ramps and support staff to help vulnerable passengers board the train safely. Although amendment to the existing platform edge is recognised as not being part of the current project scope, it is identified for potential future development to the station.

## Parking and Drop-Offs

The proximity of parking to the railway station ensures that for those people who use Blue Badge bays, there is minimal walking distance to the entrance. This reduced walking distance benefits people with reduced mobility.

### Groups potentially differentially affected:

- **Disabled people**

For people with reduced mobility, it is important that parking (including appropriate levels of properly laid out disabled parking bays), or passenger drop-off / pick-up is located near to station entrances in order to minimise the distance people must walk between modes of transport.

Parking and vehicle access are reported as a key challenge for **disabled people** choosing rail as their mode of transport, and their overall perception of the accessibility of rail services. The proximity of parking to the station, the number of available parking bays, closeness to the entrance or platform, the cost of parking and the length of permitted stay have all found to be key factors in passengers choosing to travel by rail.<sup>41</sup>

Provision of well-maintained and sufficient Blue Badge parking where possible is therefore critical to providing equal rail access to all passenger groups. Evidence from DfT's Accessibility Action Plan consultation noted a lack of, or misuse of, disabled parking spaces generally<sup>42</sup>, and the British Parking Association has previously suggested that the number of disabled bays in the UK is being reduced due to the removal of bays and the imposition of loading bans on yellow lines, in order to

<sup>31</sup> Sensory Trust (2017): 'Outdoor access guidance – ramps'

<sup>32</sup> DfT (2005): 'Inclusive mobility: A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure'

<sup>33</sup> Sensory Trust (2017): 'Outdoor access guidance – ramps'

<sup>34</sup> Centre for Excellence in Universal Design (2012): 'Building for Everyone: A Universal Design'

<sup>35</sup> Department for Transport (2005): 'Inclusive mobility: A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure'

<sup>36</sup> Leonard Cheshire (2018): 'Accessible Transport'

<sup>37</sup> Leonard Cheshire (2018): 'Accessible Transport'

<sup>38</sup> DfT (2005): 'Inclusive mobility: A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure'

<sup>39</sup> Department for Transport (2018): 'Accessibility Action Plan: Summary of responses to the consultation on the draft plan'

<sup>40</sup> Department for Transport (2019), 'Research on experiences of disabled rail passengers'

<sup>41</sup> Department for Transport (2019), 'Research on experiences of disabled rail passengers'

<sup>42</sup> Department for Transport (2018): 'Accessibility Action Plan: Summary of responses to the consultation on the draft plan'

improve traffic flow.<sup>43</sup> As a result it may be becoming increasingly difficult for disabled people, some of whom are dependent on cars as their main source of station access, to find appropriate parking spaces that will help to reduce their walking distances to transport interchanges.

When on-site car parking is not possible, taxi ranks/drop-off points should be provided on firm and level ground close to the principal entrance to the building.<sup>44</sup> When mis-used or poorly managed though, these can also create issues for disabled passengers, particularly at larger and busy station where obstacles are more likely.<sup>45</sup>

### Accessible Information

Alongside the physical accessibility challenges outlined above, the railway station needs to ensure information about routes, tickets and services, as well as any alterations or delays, is accessible to all transport users. Different people require different considerations, and the following section outlines some of the key issues to consider when creating accessible information.

#### Groups potentially differentially affected:

- **Older people**
- **Disabled people**
- **People from a BAME background**

The new railway station will include wayfinding information on local transport links, cyclist routes and local amenities such as the university and hospital, all of which will need to be clear and accessible. The existing bus stops outside of the current station building will remain in situ. These stops serve routes to and from Birmingham city centre, Harborne, Edgbaston, Quinton, West Bromwich and Selly Oak. Therefore, information needs to clearly demarcate the different routes and different stops to make it easier for people to navigate. Ticketing facilities should be accessible to all, with multiple options available to suit individual passenger needs.

#### Digital Information and Technology

Rail services are increasingly being enhanced using technology, e.g. purchasing tickets via machines or mobile apps, and using contactless payment through gatelines. **Older people** tend to be less familiar with technology than younger age groups, and this can act as a barrier to them using services effectively. Research has found that almost 20% of people aged 65-74 have never been online<sup>46</sup>, and this means they risk missing out on information regarding transport projects, service alterations and work schedules, all of which may affect them. Older people are also more likely to buy tickets from staffed ticket offices<sup>47</sup>, so when only ticket machines are available this may cause stress and confusion, or even deter travel, for some individuals. This challenge may be increased if ticket machines are located outside of stations where sunlight can make it difficult to read the screen.<sup>48</sup> It's clear that older people face a wide range of challenges when using public transport, and both the physical and psychological accessibility of transport needs to be considered when planning for new networks.

The increased use of technology may also present challenges for some **disabled people**. One recent survey found that the most common anticipated problems for disabled people when buying train tickets was difficulties using ticket machines. Interview respondents reported machines not

<sup>43</sup> British Parking Association (2012): 'Parking issues for people with disabilities'

<sup>44</sup> DfT (2005): 'Inclusive mobility: A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure'

<sup>45</sup> Department for Transport (2019), 'Research on experiences of disabled rail passengers'

<sup>46</sup> ONS (2018): 'Internet users: UK, 2018'

<sup>47</sup> Office for Rail and Road (2014): 'Rail passenger experience report'

<sup>48</sup> Rail Delivery Group (2015): 'On track for 2020? The future of accessible rail travel'

being appropriate for all passengers, including wheelchair users, those with dexterity difficulties, dyslexia, learning disabilities, and visually impaired people.<sup>49</sup>

Automated ticket machines without tactile or audio feedback function make it difficult for visually impaired people to buy tickets<sup>50</sup>, and the absence of these audio functions on most ticket vending machines was recently raised as an issue in a DfT accessibility consultation.<sup>51</sup> Evidence has shown that visually impaired people may find it difficult to access websites with journey planners and information about tickets and fares.<sup>52</sup> This means that, for visually impaired people, the presence of audio instructions is important in order to complete journeys. However, a DfT consultation with 700 visually impaired people found that 50% felt that they were unable to rely on announcements on modes of transport or at stations, making it difficult for them to travel without planning the route in advance.<sup>53</sup>

Other problems with ticket machines are identified as: screens not being height adjustable, poor location and machines being confusing to navigate.<sup>54</sup> Research has shown that people with certain learning disabilities may find ticket machines confusing, while people with dyslexia may find the large volumes of information overwhelming and difficult to understand.<sup>55</sup> More broadly, an Ofcom study has found that compared to 81% of non-disabled people, only 53% of disabled people have access to a smartphone, and only 67% of disabled people compared to 92% of non-disabled people use the internet.<sup>56</sup> This disparity should be considered when looking at the way information and tickets are made available.

Transport providers are continuing to maximise the use of technology to enhance services, but this should not be at the expense of the safety and accessibility of groups like older people and disabled people. One way of mitigating issues is ensuring the availability of staff to support ticket purchasing; this is seen as an important element of creating an easy and accessible way for all groups to use rail services.<sup>57</sup>

### **Figure 5: Accessible information help point at University Station (on platform)**

<sup>49</sup> Department for Transport (2019), 'Research on experiences of disabled rail passengers'

<sup>50</sup> Guide Dogs for the Blind (2013); House of Commons Transport Committee (2013-14): 'Access to transport for disabled people'

<sup>51</sup> Department for Transport (2018): 'Accessibility Action Plan: Summary of responses to the consultation on the draft plan'

<sup>52</sup> Transport Focus (2012): 'Experiences of disabled rail passengers'

<sup>53</sup> RNIB (2018): 'Rail research summary and key recommendations'

<sup>54</sup> Department for Transport (2018): 'Accessibility Action Plan: Summary of responses to the consultation on the draft plan'

<sup>55</sup> British Dyslexia Association (2014); House of Commons Transport Committee (2013-14): 'Access to transport for disabled people'

<sup>56</sup> Ofcom (2018): 'Access and Inclusion 2018: Consumers' experiences in communications markets'

<sup>57</sup> London Travel Watch (2015): 'Interchange matters: Passenger priorities for improvement'



### *Wayfinding and Information Availability*

Information provision in transport interchanges should be designed to ensure all passengers can navigate around stations with ease. This includes the appropriate use and delivery of signage, announcements and enough staff to help affected groups like **disabled people, older people and people from a BAME background** who may not have English as a first language.

People with learning disabilities that result in reduced literacy and numeracy skills may find it difficult to understand route maps, fares and signs, while a lack of straightforward and easily accessible information could affect someone's mental health.<sup>58</sup> Passengers with a range of disabilities are therefore likely to be disproportionately affected by the volume of information regarding ticketing, routes and restrictions when using public transport.<sup>59</sup> Importantly, there are a set of different issues that are dependant on an individual's specific disability.

Challenges faced by **people with hearing impairments** are not dissimilar from those outlined above. However, inconsistencies with the provision of information in audio and visual formats can make travel difficult. For people who use sign language, barriers occur when there is a need to communicate with members of staff directly.<sup>60</sup> Works that extend or make alterations to Customer Information Systems (CIS) may have a disproportionate effect on people with hearing impairments who rely on written information regarding transport.

Signage has an important role to play in mobility around a station, particularly for older people and people who are **visually impaired**. A recent study found that almost a third of disabled passengers who reported experiencing problems at rail stations cited signs and instructions being difficult to follow.<sup>61</sup> It is also the case that customer information boards and announcements are not suitable for some disabled passengers; display boards can be too small, announcements can lack clarity or be difficult to hear alongside the high levels of background noise in stations.<sup>62</sup>

Signs should show all the facilities within the area, especially identifying services and facilities for disabled people such as accessible toilets and lifts. DfT guidance suggests the size of letters

<sup>58</sup> House of Commons Transport Committee (2013-14): 'Access to transport for disabled people: Volume 1'

<sup>59</sup> Mackett, R. (2017): 'Building confidence – improving travel for people with mental impairments'; Transport Focus (No date): 'Retailing: Buying a ticket'

<sup>60</sup> Action for Hearing Loss (2014): 'Access to rail travel for people with hearing loss: policy statement'

<sup>61</sup> Department for Transport (2019), 'Research on experiences of disabled rail passengers'

<sup>62</sup> Department for Transport (2019), 'Research on experiences of disabled rail passengers'

should be related to the distance from which the sign will usually be read, recommending the following character height sizes<sup>63</sup>:

- Long distance reading, for example at building entrances, a minimum size of 150mm.
- Medium range reading, for example direction signs in corridors, a size of 50-100mm
- Close up reading, for example wall mounted information signs, a size of 15-25mm.

The guidance also stresses the importance of colour contrast – ensuring characters on signs contrast with the sign background, the size of symbols and the appropriate positioning of signs.<sup>64</sup>

**Figure 6: Station signage for lift access at University Station**



**People from BAME backgrounds** may face challenges when travelling on public transport if English is not their first language.<sup>65</sup> According to 2011 census data, out of all ethnic groups whose first language is not English, people with a Bangladeshi background were least likely to speak English well or at all.<sup>66</sup> There is also a gender divide in these statistics, with women making up 60% of people who do not speak any English.<sup>67</sup> Pakistani and Bangladeshi women are five times as likely as men from the same background to not speak any English.<sup>68</sup>

### Toilets

Accessible toilets in railway stations and on trains are important facilities for all users, but some groups – older people, disabled people and people with young children – are impacted most when these services are unavailable or poorly situated. Lack of available accessible toilets can be a major deterrent to travel for these groups.

<sup>63</sup> Department for Transport (2005): 'Inclusive mobility: A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure'

<sup>64</sup> Department for Transport (2005): 'Inclusive mobility: A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure'

<sup>65</sup> TfL (2008 – 11): 'Race equality scheme'

<sup>66</sup> Office for National Statistics (2018): 'English language skills'

<sup>67</sup> Office for National Statistics (2018): 'English language skills'

<sup>68</sup> Office for National Statistics (2018): 'English language skills'



#### Groups potentially differentially affected:

- **Older people**
- **Disabled people**
- **People with young children**

There's an established correlation between age and bladder control, with **older people** more likely to need frequent toilet access. A link has also been found between worries about needing to be within easy reach of a toilet and social isolation; many older people in a study by Age UK reported that they didn't use public transport in fear of not being able to reach a suitable toilet quickly enough.<sup>69</sup> Access to toilets whilst travelling is therefore important for older people, aiding their access to public transport services and subsequent destinations.<sup>70</sup>

The same effect is true for **people with young children** and some **disabled passengers**. Individuals can be affected by several issues with toilets, including a lack of accessible facilities, frequently out of order facilities, and facilities that require staff support for their use. Research undertaken on the experiences of disabled rail passengers has reported that of those who reported challenges, 32% of passengers reported a lack of good or any toilets and a key issue.<sup>71</sup> Evidence to a DfT consultation has suggested the need for more toilets in general including Changing Places facilities<sup>72</sup>, standard and fully accessible toilets at stations, and more up to date information about accessible toilet availability on trains and at stations.<sup>73</sup>

For many older people, disabled people, and those with young children, access to a toilet is of great importance. Plentiful accessible toilets should be available at stations, and be well-maintained and navigable to ensure reliability for passengers. This will ensure groups with increased need, and often reduced mobility, are able to feel more confident and comfortable using rail services.

#### Safety & Security

Changes to stations and redevelopments should be designed in a way that considers people's safety, or feelings of safety around the station. This may be particularly pertinent for people who already feel vulnerable using the station for a variety of different reasons.

#### Groups potentially differentially affected:

- **Older people**
- **Disabled people**
- **Women**
- **People from a BAME background**

Concern about antisocial behaviour and crime has been found to be a significant barrier to public transport use by **older people**, this is second only to concerns relating to overcrowding.<sup>74</sup> Research has found that older people are concerned about travelling through subway tunnels or on footbridges, as these were found to be quieter areas and a greater fear of crime was felt.<sup>75</sup>

**Women** are more likely than men to experience unwanted sexual behaviour while travelling on the public transport network, and perhaps as a result of this fact, are more likely to experience moments of concern or worry.<sup>76</sup> Evidence suggests that women are more likely to exercise caution when travelling.<sup>77</sup> They are more likely to limit travel to familiar routes or journeys, and when this is not possible women are more likely to seek advice or do pre-travel research to feel more reassured.<sup>78</sup>

It has been highlighted in research that **people from a BAME background** fear racially-motivated attacks when using public transport, thus potentially creating a barrier to their use of transport

networks.<sup>79</sup> To overcome some of these concerns, it has been found that good quality lighting and the provision of CCTV improves feelings of safety for station users.<sup>80</sup>

## Service Provision

Public transport services provided should be accessible and reliable to ensure that people who are reliant on buses and trains do not become isolated from wider community areas.

### Groups potentially disproportionately affected:

- **Older people**
- **Young people**
- **Disabled people**
- **People living in deprived areas**

Research has shown that **young people** make proportionately more journeys by rail, bus and coach than all other age groups.<sup>81</sup> This evidence highlights that young people are some of the main users of public transport due to not having access to a car or being too young to drive, and are therefore likely to be affected by changes during and after construction of new networks.

A report into access to employment for **people living in deprived areas** revealed that public transport is often seen by people in deprived areas as something that constrains rather than promotes access to employment.<sup>82</sup> This is due to poor transport connections or irregular and expensive local services. Research also shows that low skilled jobs are increasingly being located out of city centres and may involve shift or weekend work. Therefore, a lack of regular and affordable transport to more rural areas may become a barrier to employment for some young people, who live in deprived areas or are employed in lower-skilled jobs.<sup>83</sup>

Public transport has the potential to increase access to employment and education, in return creating economic prosperity. However, this is based on ensuring that transport networks connect more deprived areas to centres of employment and education. Furthermore, good transport infrastructure is necessary for economic growth and poverty reduction, as long as those living in deprived areas have the resources to utilise it. Affordability of public transport is one of the key barriers for people living in deprived areas. People living in deprived areas are significantly more likely to use buses than other groups of people, and bus travel therefore accounts for a larger percentage of their expenditure.<sup>84</sup>

<sup>69</sup> Help the Aged (2007). 'Incontinence and Older People: Is there a link to social isolation'

<sup>70</sup> Rail Delivery Group (2015), 'On Track for 2020? The Future of Accessible Rail Travel'

<sup>71</sup> Department for Transport (2019), 'Research on experiences of disabled rail passengers'

<sup>72</sup> Changing Places facilities are toilets which feature a large space for people to move around - as needed by people using powered or specialist positioning wheelchairs or who require assistants to assist them. See <http://www.changing-places.org/>

<sup>73</sup> Department for Transport (2018): 'Accessibility Action Plan: Summary of responses to the consultation on the draft plan'

<sup>74</sup> Transport for London (2013): 'Attitudes to Safety and Security – Annual Report'

<sup>75</sup> Ancaies, P. (2014): 'Community Severance: Where is it found and at what cost?'

<sup>76</sup> Transport for London (2013): 'Attitudes to Safety and Security – Annual Report'

<sup>77</sup> Susilo, Y. and Cats, O. (2014): 'Exploring key determinants of travel satisfaction for multi-modal trips by different traveller groups'

<sup>78</sup> Susilo, Y. and Cats, O. (2014): 'Exploring key determinants of travel satisfaction for multi-modal trips by different traveller groups'

<sup>79</sup> Department for Transport (2012): 'Transport for Everyone: an action plan to promote equality'

<sup>80</sup> Department for Transport (2012): 'Transport for Everyone: an action plan to promote equality'

<sup>81</sup> Urban Transport Group (2010): 'Young people and bus travel'

<sup>82</sup> Joseph Rowntree Foundation (2018): 'Tackling transport-related barriers to employment in low-income neighbourhoods'

<sup>83</sup> Campaign for Better Transport (2016): 'Why getting transport right matters to young people'

<sup>84</sup> UK Women's Budget Group on public transport and gender (2018): 'Public transport and gender briefing'

Evidence from the DfT has highlighted that one in six people in England aged 50 and over are socially isolated.<sup>85</sup> Transport plays a key role in keeping older people socially connected. Evidence suggests that well connected areas, neighbourhoods and communities can provide social support networks where social isolation is reduced and **older peoples'** well-being is improved.<sup>86</sup>

Evidence shows that over half of **disabled people** (53%) have reported feeling lonely.<sup>87</sup> Improving links, making sure to consider accessibility, could therefore help disabled people to maintain and establish social connections. Research by the Office for National Statistics (ONS) found that people in the UK with a learning or physical impairment tend to have lower levels of social contact compared to the rest of the population.<sup>88</sup> The research also suggests that most disabled adults in the UK experience participation restriction regarding leisure activities, particularly spending time with family and visiting friends.<sup>89</sup> The research also notes that the degree of social isolation experienced by disabled people varies with age and with the specific impairment(s) or severity of the impairment(s).<sup>90</sup>

## Step 3: Impact

**Q4. Given the evidence listed at step 2, what potentially negative impacts could this work have on people with protected characteristics?**

Protected Characteristic	Impact	Explain the potential negative impact
		<b>Appendix D details changes to the design and amended impacts as a result of these changes. A number of the following impacts have since been addressed as a result of this DIA being carried out and subsequent changes to the design.</b>
<b>Disability</b>	Y	<p>The station redevelopment will impact disabled people in various ways, the severity of which depends on the particular impairment or disability.</p> <p><b>Re-location of Main Station Entrance</b>  The station redevelopment includes the re-location of the main entrance (Platform 1 side), approx. 200m further up the road, with no change in the location of the closest bus stop. This will result in a longer walk for some users to access the station – particularly those travelling via bus – including, potentially, those with reduced mobility such as disabled people, who may be disproportionately impacted by this change. If direct access from the station to the canal towpath is not provided, passengers will have an increased walking distance between the towpath and entrance to the new station building. This has been addressed with a new entrance leading directly to the towpath. Please see Appendix D.</p>

<sup>85</sup> DfT (2012): 'Transport for everyone: An action plan to promote equality'

<sup>86</sup> Parsfield, M. (2015): 'Community capital: The value of connected communities'

<sup>87</sup> Sense (2018): 'Loneliness'

<sup>88</sup> Office for National Statistics (2015): 'Life opportunities survey'

<sup>89</sup> Office for National Statistics (2015): 'Life opportunities survey'

<sup>90</sup> Office for National Statistics (2015): 'Life opportunities survey'



		<p>Additionally, part of the pavement on the route from the bus stop to the new station entrance is currently in poor condition. A new forecourt and the improvement of paving surfaces will increase the accessibility and usability of the station, with the improved public realm making the area in the immediate vicinity of the station an enjoyable space for everyone. The new forecourt will benefit people through the inclusion of an accessibility ramp that has the potential to benefit disabled people and older people in particular. Work on the route to the station and on roads/pathways around it should be delivered so that it is accessible for everyone. As noted in the evidence section above, this means providing adequate rest points, well-maintained and wide pavements/walkways and tactile paving where required.</p> <p><b>Lack of Blue Badge Parking</b> As with the current station, the redevelopment will include no public parking provision - including Blue Badge parking – on site, with originally 5 parking spaces allocated to staff. This continues to reduce accessibility by omitting the option to drive and park, and by increasing the walk to access the station through alternative routes (e.g. via the bus stop). In particular, the lack of Blue Badge parking will continue to affect accessibility for disabled people who are Blue Badge holders wanting to use the station. Considerations for Blue Badge staff parking are found in appendix D as a result of this DIA.</p> <p>A drop-off area will be provided as part of the redevelopment, and this will help to ease the potential negative impacts on disabled people to an extent, but only those that have someone to drive them or can afford taxis. Also, the location of this will still not reduce the lengthy walk for disabled people accessing the station this way. As above, enough rest points need to be provided to mitigate this issue.</p> <p><b>Lack of toilets on Platform 2</b> With the only planned toilets located on Platform 1, access from Platform 2 will be longer and potentially more challenging. The route to access the toilets from platform 2 and its associate building will require multiple level changes and increased distance. This potentially challenging route will disproportionately impact people with reduced mobility such as disabled people, and may negatively affect their experience or deter them from using the station altogether – as suggested by the evidence. This impact has been addressed as a result of consideration of this DIA and is detailed in Appendix D.</p>
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		<p><b>Mobility around the station</b></p> <p>The redevelopment provides an opportunity to deliver a more spacious, accessible and comfortable station to that which exists at present. As stated in the pedestrian section of the evidence above, delivering this will require applying the right gradients, using appropriate tactile surfaces, providing sufficiently wide pedestrian walkways, step-free access and good platform design. Any improvements to these features within the redevelopment are likely to disproportionately benefit disabled people. Upgraded lifts and the provision of tactile paving on platforms are two examples where positive changes have been applied to the design of the University station redevelopment.</p> <p>However, some features of the redevelopment design may be difficult for some disabled passengers to navigate. For example, access to the canal footbridge from Platform 1 will be cumbersome for some users – requiring one lift up, a journey across a footbridge, and then another lift down for those that need to use it. Furthermore, the station is situated on the bend of the track, meaning that, due to the angle, there is a significant height and horizontal gap between the platform edge and the train door. As noted in the evidence, design changes and other mitigations – such as a reasonable number of ramps and support staff – can reduce this issue.</p> <p><b>Accessible Information</b></p> <p>The redevelopment is an opportunity to provide a station that fully considers all groups when designing information services. As outlined in the evidence above, people with certain visual impairments or learning difficulties may have specific difficulties in accessing digital information for ticketing, routes and wayfinding, and new station design should aim to mitigate this disproportionate impact, e.g. through ensuring the availability of appropriately-trained staff to support ticket purchasing. This is also important for supporting accessible wayfinding and broader information availability for disabled people, alongside appropriate signage and announcements – this is considered in the accessibility section of the evidence review above.</p> <p><b>Mobility Area</b></p> <p>The introduction of a mobility area in the station provides a location where disabled people are able to access information and help in a central, easy to access location, as well as providing a quiet area for reorientation purposes. This will make help facilitate ease of use for people with a range of disabilities.</p>
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		<p><b>Use of Existing Station</b></p> <p>The space, usability and accessibility of the current station is likely to be improved by the redevelopment, though certain features will negatively impact disabled people disproportionately. This is particularly relevant given the close proximity of the station to the Queen Elizabeth Hospital, which may mean that disabled people are a higher than average share of users of the station.</p>
Age	Y	<p>The redevelopment may have differential impacts on people of a certain age, particularly older people.</p> <p><b>Pedestrian environment and infrastructure</b></p> <p>For older people who find it uncomfortable to stand for long periods of time, and for those people who are worried about overcrowding, the new forecourt and entrance will distribute footfall at the entrance, meaning reduced queues and crowding around the station.</p> <p>However, as the main station entrance will be located approximately 200m further north along Vincent Drive to the current entrance, the distance walked to access the station for some users will increase – including users of the bus stop which will not be re-located. This may disproportionately impact older people that have reduced mobility, and who are more likely to be frequent bus users. The issue is worsened by the lack of passenger parking on site. Enough rest points should be provided to mitigate the issue, and ensuring the route between the bus stop and the train station entrance is upgraded and well-maintained.</p> <p><b>No Toilets on Platform 2</b></p> <p>The evidence shows that many older people report that they don't use public transport in fear of not being able to reach a suitable toilet quickly enough. The lack of toilets on Platform 2 of the redevelopment may therefore disproportionately impact older people, who may not have time to travel to Platform 1 toilets because of reduced mobility. This impact has been addressed as a result of new provision of an accessible toilet on platform 2. This is outlined in Appendix D.</p> <p><b>Mobility around the station and the platform edge</b></p> <p>Any improvements to features like walkways, surfaces, gradients and step-free access will disproportionately benefit older people, who often have reduced mobility. Some older people will be disproportionately impacted by the currently large gap between the train and the platform edge, which can be mitigated through the provision of ramps and enough support staff.</p> <p><b>Accessible information</b></p>

		<p>Older people are more likely to buy tickets from staffed ticket offices. Should the design only provide the option to use ticket machines, this may cause stress and confusion for some older individuals. As with disabled people, appropriate wayfinding and signage has an important role to play in supporting the mobility of older people when moving around the station.</p> <p><b>Mobility Area</b> The provision of a mobility area will provide additional spaces to sit and rest while using the station or waiting for trains. It will also provide additional assistance to older people, bringing a positive impact for older people.</p> <p><b>Summary</b> Older people face a wide range of challenges when using public transport, and both the physical and psychological accessibility of transport for older people needs to be considered when designing and delivering new stations.</p> <p>The space, usability and accessibility of the current station is likely to be improved by the redevelopment for people of all ages, though certain features have the potential to negatively impact older people disproportionately. This is particularly relevant given the close proximity of the station to the Queen Elizabeth Hospital, which may mean that older people are a higher than average share of users of the station.</p>
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<b>Pregnancy / maternity</b>	Y	<p>The redevelopment may have disproportionate impacts on pregnant women and people with young children in pushchairs.</p> <p><b>Increased Walking Distances</b> The longer walking distance to the station entrance from key routes – including the bus stops on New Fosse Way – may disproportionately affect pregnant women, people with young children, and those with pushchairs. Work on the route to the station and on roads/pathways around it should be delivered so that it's accessible for pregnant women and those with pushchairs. As noted in the evidence, this means providing adequate rest points, well-maintained and wide pavements/walkways, tactile paving and dropped kerbs when required.</p> <p><b>Toilets</b> With the only planned toilets and baby changing facilities) located on Platform 1, access to a toilet and baby change from Platform 2 will be longer and potentially more challenging. This may disproportionately affect people with reduced mobility such as pregnant women and parent with children in pushchairs. This may negatively affect the experience of such users, or potentially deter them from using the station altogether. This has been addressed and is detailed in Appendix D.</p> <p><b>Mobility around the station</b> Any improvements to features like walkways, surfaces, gradients and lifts will disproportionately benefit pregnant women/those with pushchairs, who often have reduced mobility. In addition the improved forecourt area, covered platforms and indoor waiting rooms will benefit this group of people.</p>
<b>Race</b>	Y	<p><b>Signs/wayfinding</b> People from BAME backgrounds may face challenges when travelling on public transport if English is not their first language, and signs/information access should be provided in a way that best supports reducing this difficulty. This is particularly important given that 50% of Edgbaston residents are from a BAME background, more than double the regional and national figures of 21% and 20% respectively.</p>
<b>Religion or belief</b>	N	<b>No impacts are expected to arise.</b>
<b>Gender</b>	N	<b>No impacts are expected to arise.</b>
<b>Sexual orientation</b>	N	<b>No impacts are expected to arise.</b>
<b>Marriage/Civil Partnership</b>	N	<b>No impacts are expected to arise.</b>
<b>Gender reassignment</b>	N	<b>No impacts are expected to arise.</b>

**Q5. What could you do to ensure your work has a positive impact on diversity and inclusion including by supporting delivery of the [Everyone Strategy](#).**

The proposed station redevelopment will support the Everyone Strategy by ensuring a safe and accessible station that provides an enjoyable and efficient travel experience. The proposed changes align with the following commitments in particular:

**Commitment 1. Everyone home safe everyday**

The redevelopment has the potential to facilitate accessible safe travel for a wider number of people, particularly for access to local amenities like the university and the hospital. Overcrowding will be reduced and the modernisation of the station building and forecourt should make it a more inclusive station for everyone, making passengers feel more secure and more likely to use the station.

**Commitment 2. Reliable Infrastructure**

Safe and accessible routes to the station via improved pavements and the new footbridges will promote pedestrian and passenger footfall, encouraging more sustainable travel that is accessible to all. A more spacious station with upgraded facilities will make it easier for people to use the rail network and services such as toilets, ticketing and retail. This reliability should encourage travellers to use the station, particularly to access the university and hospital, easing pressure on the road network.

**Commitment 4. The biggest investment since the Victoria era**

Investment in the station will have long-term benefits for its users and will make it easier for people to travel to the nearby university and hospital, which it serves. The proposed redevelopment will ensure a smooth and enjoyable experience for people accessing amenities, as well as for those who use the station regularly for commuting. Increased space outside and inside the station and on platforms will help passengers move more smoothly through the station. Inclusive design principles can ensure the station is accessible to all passengers.

**Commitment 6. Customer focused organisation**

A focus on customers will ensure an inclusive and accessible railway station that suits the needs of all its current, and potential, users. The project will help to improve the safety, reliability and comfort of journeys for railway users through, among other things, use of customer and stakeholder engagement in the planning process. A more accessible station will encourage more train travel among equality groups who currently may not travel as often.

**Commitment 9. A railway fit for the future**

The redevelopment helps to deliver an inclusive and accessible railway that better links people to education, jobs and key amenities such as the nearby hospital. This is conducive to delivering economic growth locally. A modern, sustainable and inclusive design, the new station helps to deliver required improvements and enhancements to ensure network infrastructure is fit for future use.

## Step 4: Consultation

### Q6. How has consultation with those who share a protected characteristic informed your work?

The below are views received through engagement with representatives of local protected characteristic groups regarding the existing station configuration and proposed works. However, views are not necessarily specific to those who share a protected characteristic.

List the groups you have consulted or reference previous relevant consultation? <sup>91</sup>	What issues were raised in relation to one or many of the protected characteristics?
University of Birmingham Guild of Students	<p>Representatives from University of Birmingham Guild of Students raised the following points:</p> <ul style="list-style-type: none"> <li>• The current station is busy and almost unsafe during peak hours and there is often not enough space on platforms which can be scary for users.</li> <li>• A new larger station is needed and will help reduce overcrowding, improving passenger flow, safety and accessibility. The footbridge will support this too.</li> <li>• Accessibility for disabled people is important, including the provision of wide walkways/platforms, modern and accessible lifts and reduced overcrowding to avoid pedestrian collisions.</li> <li>• The lack of parking and drop-off area for cars will negatively affect students as there's already a lack of parking on campus. It shouldn't be assumed that all students are able to walk or cycle from the station to the university.</li> <li>• Lighting and CCTV are important, including on walkways into campus. Currently, the hospital side of the station is perceived as safer at night.</li> <li>• A significant number of students use the station. Negative reactions from students can be mitigated through clear communication and consultation, including the sharing of information online.</li> </ul>
King Edwards School and King Edwards High School for Girls	<p>Representatives from the two King Edwards' Schools raised the following points:</p> <ul style="list-style-type: none"> <li>• Students from across Birmingham and the wider region use the station to access the schools, and its generally a safe walk from the station.</li> <li>• The current station is very small and access is difficult due to a lack of parking. Positively, the redevelopment will increase capacity and should allow more frequent trains which will help students.</li> </ul>

<sup>91</sup> This could include our staff networks, the Built Environment Access Panel, local faith leaders etc.



	<ul style="list-style-type: none"> <li>• The walk to school from the new station may be longer which could impact those with mobility issues.</li> <li>• Making the station more accessible should include wider platforms, the provision of catering facilities, enough ticket barriers, good signage and ensuring it's well-lit at night – supporting the safety of students, some of which are as young as 11 and potentially travelling alone.</li> <li>• If construction disrupts current station operations, this will impact student access to school. The works should take into account the school's reliance on the station: changes (e.g. operations, road closures, traffic issues) should be communicated clearly to parents and staff. If station shut down is necessary, the summer holidays would be the preferable time to do this in order to minimise negative impacts on the schools.</li> </ul>
The British Institute for Learning Difficulties (BILD)	<p>Representatives from BILD raised the following points:</p> <ul style="list-style-type: none"> <li>• BILD has an office located in walking distance of the station. The new entrance will be a shorter walk, but the route is currently in poor condition with an unpaved walkway. Upgrading this would support access to/from BILD, including for visitors with learning difficulties.</li> <li>• The current station has capacity issues which can be disorientating and crowded, making it difficult to get in and out of the station and on/off trains.</li> <li>• Priority features for the station should be: appropriate signage (including to the bus stops on New Fosse Way), lighting, priority seating, accessible routes for wheelchair users and appropriate gradients.</li> <li>• Ideal extras include push buttons (e.g. in lifts and ticket machines), quiet areas, and plenty of accessible toilets. Features like this really improve the experience of people with learning disabilities.</li> <li>• If there is disruption/changes during construction, mitigations need to consider the effect of alterations like temporary walkways on people with autism and other learning disabilities.</li> <li>• Communication is key to mitigate accessibility issues, and making sure staff are available to help.</li> </ul>
Royal National Institute for the Blind (RNIB)	<p>Representatives from RNIB raised the following points:</p> <ul style="list-style-type: none"> <li>• Accessible train stations should allow visually-impaired people to have independence, safely travelling alone and using station and facilities.</li> <li>• The current station is very small and crowded, and very difficult to navigate for visually-impaired people. The new, bigger station should reduce stress, and this can be enhanced by ensuring wide-enough</li> </ul>



	<p>walkways and footbridges, sufficient tactile paving (including on platforms) and modern, sizeable lifts.</p> <ul style="list-style-type: none"> <li>• Effective colour contrasts are critical to the experience of visually impaired people. This includes making sure features like signs and handrails are different to the environment, and appropriate lighting is used inside and outside of the station.</li> <li>• The accessibility of timetable and ticket information should be considered, including the use of push buttons and Braille when possible.</li> <li>• The increased walking distance between the bus stops on New Fosse Way and train station can be mitigated by clear markings, easy pathways and tactile paving.</li> </ul>
West Midlands Women's Voice	<p>Representatives from West Midlands Women's Voice raised the following points:</p> <ul style="list-style-type: none"> <li>• The current station is very basic but easy to use, although recent works have made navigation more difficult.</li> <li>• A redeveloped station can have positive effects in the long-term, creating more of a social hub and opening up economic opportunities in the area.</li> <li>• Roads around the station are already congested, and, more passengers may worsen this. More cycle facilities could help ease congestion.</li> <li>• Safety is a key issue, particularly for shift workers (many of which are women) working late at night or early in the morning at the hospital. Appropriate lighting and 24-hour security/CCTV would support safety and encourage women to take jobs/study in the area.</li> <li>• To mitigate concerns, joined up thinking between key stakeholders (e.g. university and the hospital) is required, with further consultation (e.g. with students, local businesses/groups) and effective varied communication. This is important for the construction phase and beyond.</li> </ul>

**Q7. Where relevant, record any consultation you have had with Network Rail teams who are delivering work that might overlap with yours. This will ensure that our solutions are joined up.**

N/A

## Step 5: Informed Decision-Making

**Q8. In light of the assessment above, what is your decision?**

Please tick one box and provide a rationale (for most DIAs this will be box 1).

1. Change the work to mitigate against potential negative impacts found	<p>✓</p> <p>The proposed redevelopment of University Station will bring a range of positive improvements and impacts on protected characteristic groups. Modernising the station, increasing platform capacity and providing direct access to the University Campus are beneficial changes. The detailed design of the station will need to ensure mitigations are in place to reduce any disproportionate or differential impacts on protected characteristic groups. This includes ensuring appropriate and accessible step-free access to all public areas of the station, ensuring wayfinding is appropriate and that timetable and ticket information is provided in accessible formats for everyone. The below section provides some further recommendations to ensure the new station does not negatively impact passengers.</p>
2. Continue the work because no potential negative impacts found	
3. Justify and continue the work despite negative impacts (please provide justification)	
4. Stop the work because discrimination is unjustifiable and no obvious ways to mitigate	

## Step 6: Action Planning

**Q9. What specific actions will be taken to deliver positive impacts and address any potentially negative impacts identified at step 3 or through consultation?**

Action	By when	By who
<p><b>Stakeholder Engagement</b></p> <p>Consider the stakeholder engagement undertaken so far and carry out further public consultation to understand potential issues. Develop an effective communications strategy (through a variety of methods) to ensure that local residents, businesses, community facilities, and users of the station are kept informed of developments (including scheduling of works and any disruption, details of enhancements and improvements, and any other information about the scheme, particularly focussing on user safety).</p>	Ongoing	WMCA
<p><b>Construction Management Measures</b></p> <p>Develop a code of construction practice (COCP) to ensure the needs of station users, local residents and the wider community are embedded throughout the construction phase of the project. This should include:</p> <ul style="list-style-type: none"> <li>• Information on how the works will be undertaken and details of the proposed phasing.</li> <li>• Plans to ensure the construction site is set up to minimise passenger danger and inconvenience.</li> <li>• Plans to ensure user access during construction is no less accessible and includes no increases in walking distances wherever possible.</li> <li>• Maintenance of access and compliance with all relevant health and safety guidance throughout the construction works. This will help ensure that equality of access is maintained for all users throughout the station for all users.</li> </ul>	Before works start and throughout construction phase	Network Rail/WMCA

<p><b>Accessible Station Design</b></p> <p>Ensure good practice is used when updating the design of the station, implementing detailed design work according to the latest accessibility rules and regulations.</p> <p>Key features to deliver for accessibility include providing sufficiently spacious lifts, tactile paving where appropriate (including on platforms), appropriately wide walkways (including on footbridges), and effective step-free access with appropriate gradients. Accessibility should be central to the proposed work, both in the new station building and through the refurbishment of the existing station.</p>	<p>Planning phase</p>	<p>Network Rail, WMCA Mott MacDonald</p>
<p><b>Accessible Information</b></p> <p>Make sure that information is accessible for all users of the station, both during construction and operation. This includes signs with appropriate colour schemes/contrasts, the provision of audio-visual information and Customer Information Systems (CIS), and ticket machines that people with sensory impairments or lack of computer literacy can use. Staff should be available to provide support and assistance.</p> <p>Good signage should be provided to direct passengers to key amenities, e.g. the university and hospital, and to the new station building from the closest bus stops. Signage should also be used appropriately inside the station to assist with navigation around it.</p>	<p>Before, after and during construction</p>	<p>Network Rail WMCA</p>
<p><b>Minimising Walking Distances</b></p> <p>Manage the potential adverse impacts of increasing walking distances to the station (from the bus stop, drop off and with no parking on site) by ensuring the route is accessible. This will need to include providing enough rest points/seating on the route and ensuring surfaces are well-maintained and have the right features such as dropped kerbs.</p> <p>Once constructed, accessibility to the new station from the bus stop should be monitored, and new road crossings, road</p>	<p>Before, after and during construction</p>	<p>WMCA</p>

upgrades and bus stop re-location should be considered in future based on passenger experience.		
<b>Toilet Facilities</b> Consider options for providing accessible toilet facilities on both sides of the station building. If this is not possible, mitigate the issue with appropriate signage to, and maintenance of, the toilet facilities and access routes.	Planning phase  As of December 2019 designs have changed so that accessible toilets are now available on both sides of the station building.	WMCA
<b>Station Safety</b> Provide enhanced safety in and around the station through the delivery of appropriate lighting and CCTV facilities, including on routes to the station from both sides and during the construction phase.	Before, after and during construction	Network Rail WMCA
<b>DIA Review and Update</b> The DIA should be updated at the next stage of the project to ensure it is up to date and reflective of any design changes in and around the station.	Throughout planning and construction	Mott MacDonald

## Step 7: Sign off

Name	Position	Signed	Date

If you don't have a local superuser please send your DIA for quality assurance to [DiversityImpactAssessment@networkrail.co.uk](mailto:DiversityImpactAssessment@networkrail.co.uk)

To help us respond more quickly please make sure you have;

1. Sent your DIA as a Word document not a PDF
2. Used this naming convention '**Name of project-Draft DIA**'
3. Used the correct DIA form with no additional pages e.g. 'not for circulation cover-sheets'
4. Included any relevant maps / diagrams needed to understand your project
5. Completed all sections of the DIA in line with guidance and training

## Step 8: Publication

Send your final DIAs to [DiversityImpactAssessment@networkrail.co.uk](mailto:DiversityImpactAssessment@networkrail.co.uk). Customer related DIAs will be published on our website.

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<sup>92</sup> Quality assurance check.

<sup>93</sup> Sign-off should be by someone who can approve policy, programme or budget changes.



## Appendix A: Site Photographs

Figure 7: Current University Station Platform 2



Mott MacDonald 2019



**Figure 8: Proposed site for new station and forecourt**



Mott MacDonald 2019



**Figure 9: Current station lift**



Mott MacDonald 2019

**Figure 10: Current station information point (on platform)**



Mott MacDonald 2019



## Appendix B: Demographic Profile

The following profile provides a demographic overview of the area in which the University station site falls – Edgbaston ward, relevant surrounding areas and comparators. The below data and mapping show the current social and economic context of the site area and how this differs from the demographic data for the city of Birmingham, the West Midlands region, and England.

This evidence helps us to draw out key characteristics of the area on people with protected characteristics (e.g. age, disability, gender, gender reassignment, pregnancy and maternity, race, religion or belief, marriage and civil partnerships, and sexual orientation), who may be impacted by the station redevelopment.

Please note that the demographic data has been sourced from publicly available data and only applies to the resident population.

### Age

#### Children (under 16 years)

Table 2 indicates that the proportion of people under the age of 16 within Edgbaston Ward is significantly lower than Birmingham, West Midlands, and England (13% compared with 23%, 20% and 19% respectively).

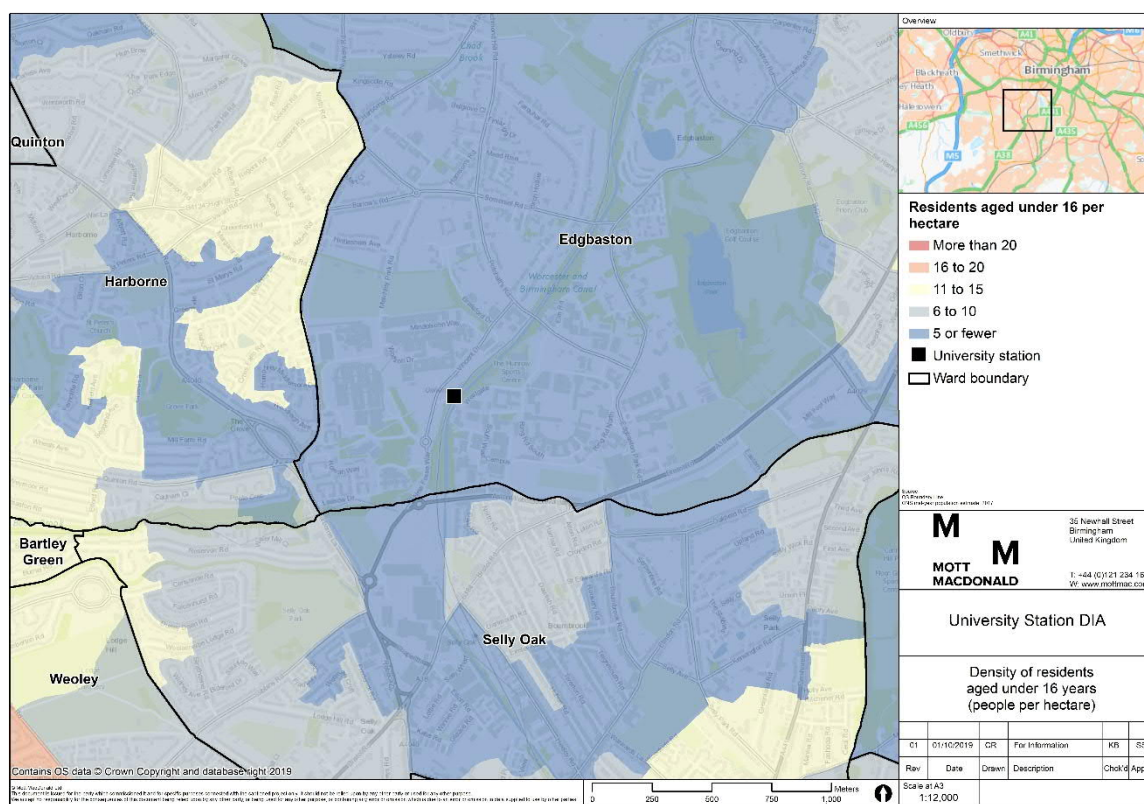
**Table 2: Under 16s**

Location	Total population (2017)	Under 16	Under 16 %
Edgbaston Ward	29,351	3,834	13%
Birmingham	1,137,123	258,968	23%
West Midlands	5,860,706	1,148,314	20%
England	55,619,430	10,637,971	19%

Source: ONS mid-year population estimate, 2017

Figure 11 shows a slightly higher proportion of young people living in the wards surrounding Edgbaston, with a fairly similar low density of under-16's across Edgbaston Ward as a whole (5 or fewer per hectare, with some areas showing a density of 6 to 10 per hectare). This is compared with a density of 11-15 under-16's per hectare in Harborne, Bartley Green and northern Weoley to the west of Edgbaston.

**Figure 11: Density of the population aged under 16.**



Source: ONS mid-year population estimate, 2017

## Older People (65 and over)

Table 3 shows that there are a much smaller proportion of older people living in Edgbaston Ward as compared with the regional and national average (10% compared with 18% for both), but a similar proportion to the city of Birmingham as a whole (13%).

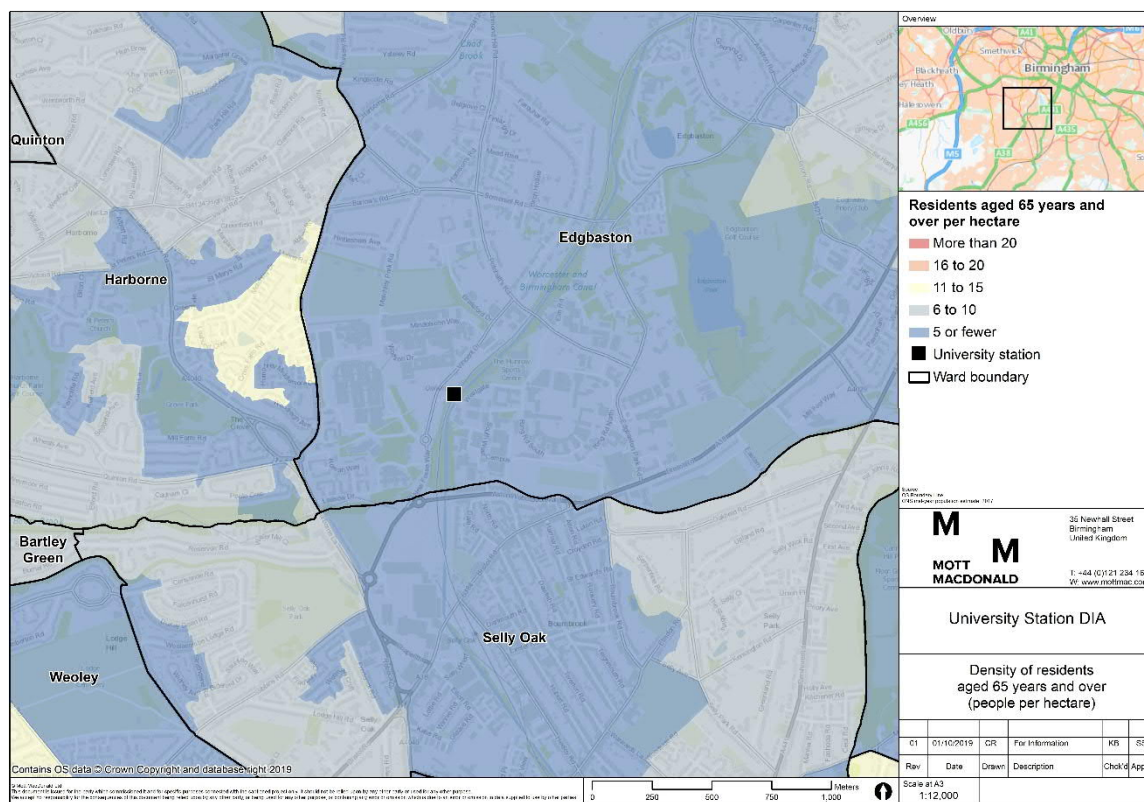
**Table 3: Over 65s**

Location	Total population (2017)	Over 65	Over 65 %
Edgbaston Ward	29,351	3,051	10%
Birmingham	1,137,123	146,693	13%
West Midlands	5,860,706	1,075,756	18%
England	55,619,430	10,030,511	18%

Source: ONS mid-year population estimate, 2017

Figure 12 shows that in the area immediately surrounding the site, there is a low density of over 65s, with 5 or fewer per hectare. In some ward areas further out from the site, such as much of Harborne and eastern Selly Oak, the density increases slightly to 6-10 older people per hectare. A small area to the west of the site, in eastern Harborne, has a larger density of older people, reporting 11-15 persons per hectare.

**Figure 12: Density of the population aged 65 and over**



Source: ONS mid-year population estimate, 2017

## Sex

Table 4 below shows the proportion of the population in Edgbaston Ward who are male (51%) and female (49%), compared with the proportions in Birmingham, West Midlands and England as a whole. The share of men and women in the Ward is broadly in line with other regions, with all of them having an approximate 50/50 split.

**Table 4: Sex**

Location	Male %	Female %
Edgbaston Ward	51%	49%
Birmingham	49%	51%
West Midlands	50%	50%
England	49%	51%

Source: ONS mid-year population estimate, 2017

## Women aged 16-44

This age group of women is used as a proxy for pregnancy and maternity under the assumption that it is representative of women of a childbearing age. The following table shows the proportion of women aged between 16-44 living in certain areas. It shows that there is a significantly higher proportion of women aged 16-44 living in Edgbaston Ward (30%) than there is on average across Birmingham, West Midlands and England (22%, 18% and 18%, respectively).

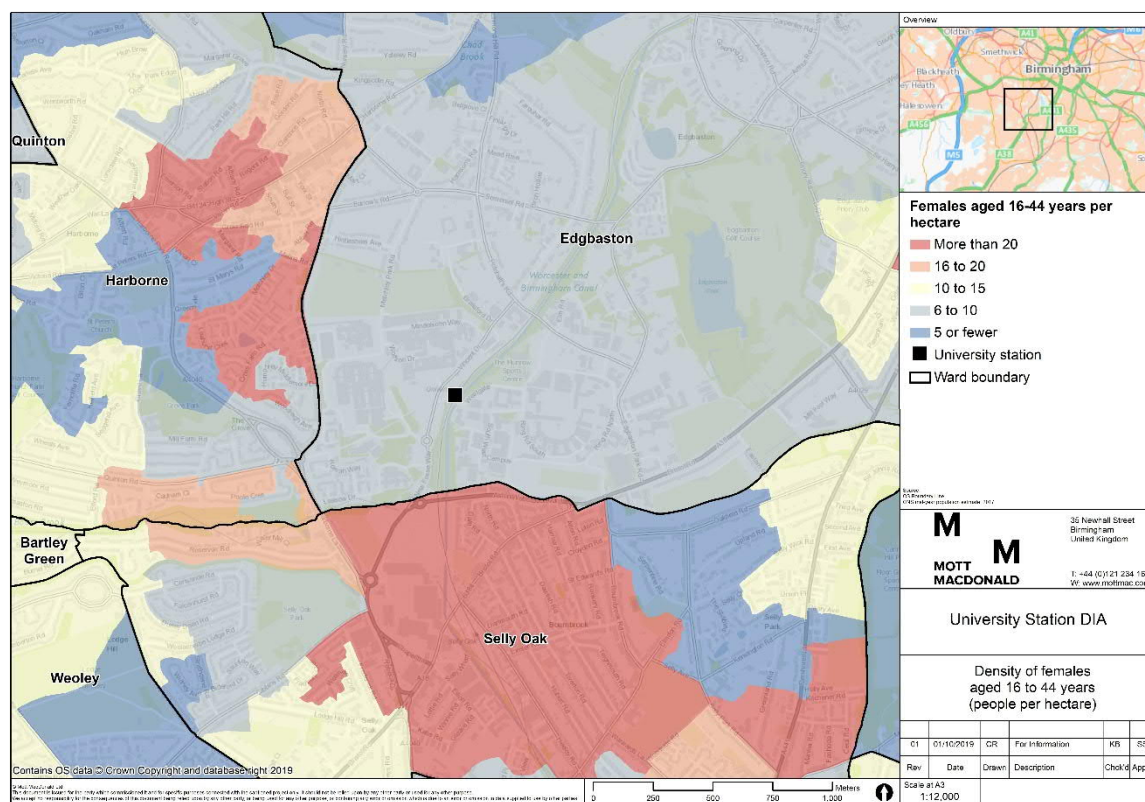
**Table 5: Women aged 16-44**

Location	Women aged 16-44	% of total population
Edgbaston Ward	15,087	30%
Birmingham	562,742	22%
West Midlands	2,904,272	18%
England	27,481,053	18%

Source: ONS mid-year population estimate, 2017

The map below shows the density of women aged 16-44 living in the areas around the site. The area immediately surrounding the site, and the rest of the Edgbaston Ward, has a lower density of women aged 16-44 with 6- 10 per hectare. However, in areas of Selly Oak to the south; and Harborne to the west, there are significantly higher densities of females ages 16-44, with more than 20 per hectare in some parts, and a density of 16-20 in others.

**Figure 13: Density of women aged 16-44**





Source: ONS mid-year population estimate, 2017

## Disabled People

Table 6 below shows the proportion of the population who have a long-term health problem or disability that limits their day to day activities living in Edgbaston ward, Birmingham, West Midlands and England.

Table 6 shows that the proportion of the population in the site ward who have a long-term health problem or disability limiting their day to day activities (13%) is lower than the figures for Birmingham (18%), West Midlands (19%) and England (18%) which are all broadly similar.

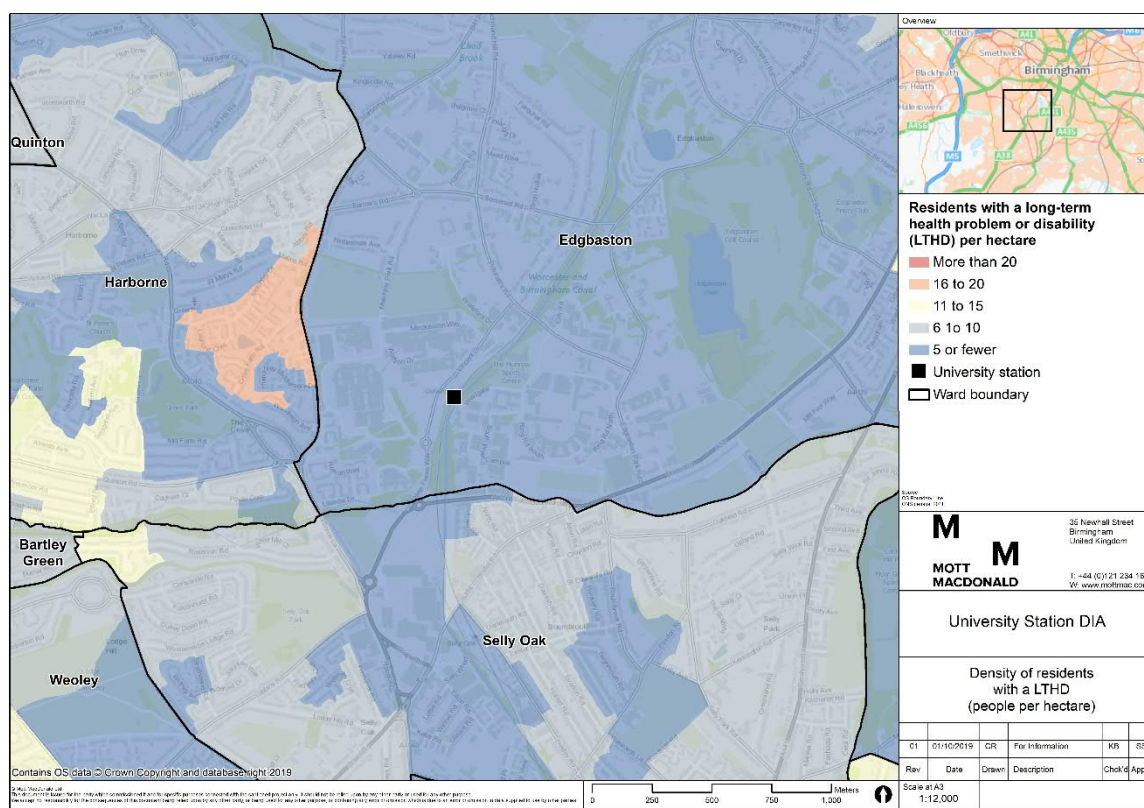
**Table 6: Population % with a LTHD limiting day to day activities**

Location	Limited a lot %	Limited a little %	Not limited %	Long term health problem or disability
Edgbaston Ward	6%	7%	87%	13%
Birmingham	9%	9%	82%	18%
West Midlands	9%	10%	81%	19%
England	8%	9%	82%	18%

Source: ONS census 2011

Figure 14 shows a lower density of people with a long-term health problem or disability in the area immediately surrounding the site (5 or fewer per hectare) than the area as a whole. There are slightly higher densities (6-10 per hectare) to the south and west of the site; and a significantly higher area of Harborne to the west where the density reaches 16-20 per hectare.

**Figure 14: Density of the population with a long-term health problem or disability**



Source: ONS Census Data 2011

## Gender Reassignment

There is no Census or other data for the number of Trans people in Edgbaston Ward, Birmingham, West Midlands or England. This is because data on gender identity is currently limited due to methodological challenges such as privacy, complexity, accuracy, terminology, and small sample size.<sup>94</sup> The ONS has estimated that the size of the Trans community in the UK could range from 65,000 people, up to 300,000 people.<sup>95</sup>

## Marriage and Civil Partnership

Table 7 below demonstrates that there is a significantly higher proportion of single people in the ward (59%) than in the West Midlands (34%) and England (35%). There is also a significantly lower proportion of married people in the ward (28%) than in Birmingham as a whole (41%), West Midlands (48%) and England (47%). These are likely both influenced by the large student demographic in the area due to the University. The proportion of divorced people (6%) is slightly lower than in the comparative areas; but the proportion of separated people is broadly similar across all areas. There is a slightly higher proportion of people who

<sup>94</sup> Office for National Statistics (date unknown): 'Gender identity update'

<sup>95</sup> Office for National Statistics (2009): 'Trans Data Position Paper'.

are in a civil partnership (0.5%) than across the rest of Birmingham and England as a whole, which is the same at 0.2%.

**Table 7: Proportion of population that are married, in a civil partnership or separated**

Location	Married %	Civil Partnership %	Separated (but still legally married) %	Divorced %	Single %
Edgbaston Ward	28%	0.5%	2%	6%	59%
Birmingham	41%	0.2%	3%	8%	42%
West Midlands	48%	0.2%	3%	9%	34%
England	47%	0.2%	3%	9%	35%

Source: ONS census 2011

## Pregnancy and Maternity

Table 8 below shows that live births in Birmingham as a proportion of the total population (1.4%) are slightly higher, but still broadly in line with the West Midlands and England proportions (all 1%). Site-level data is not available for pregnancy and maternity.

**Table 8: Live births by mothers usual area of residence**

Location	Total Population	Live Births	Live Births (%)
Birmingham	1,137,123	15,916	1.4%
West Midlands	5,860,706	67,282	1%
England	55,619,430	625,651	1%

Source: ONS Births in England and Wales, 2018

## General and Total Fertility Rates

Table 9 shows that the total fertility rate in Birmingham is slightly higher than the West Midlands (1.76) and England (1.7) but remains broadly similar.

**Table 9: Total fertility rates**

Location	Female Pop aged 16-44	Live births	Total fertility rate
Birmingham	245,293	15,916	1.83
West Midlands	1,066,497	67,282	1.76
England	10,285,061	625,651	1.7

Source: ONS Births in England and Wales, 2018

## Race and ethnicity

The table below shows the proportion of people from a Black, Asian and Minority Ethnic (BAME) and White British background living within Edgbaston Ward, Birmingham, West Midlands and England. The table shows that the proportion of people from a BAME community in the ward is slightly higher (50%) than the rest of Birmingham (47%) and significantly higher than that of West Midlands (21%) and England (20%). As part of this, the proportion of people from an Asian background is slightly lower in the ward (25%) than in

Birmingham (27%), but significantly higher than that of West Midlands (11%) and England (8%).

Conversely, the proportion of white people in the ward (58%) is the same as across Birmingham as a whole, but significantly less than across West Midlands (83%) and England (85%).

**Table 10: Population by race and ethnicity**

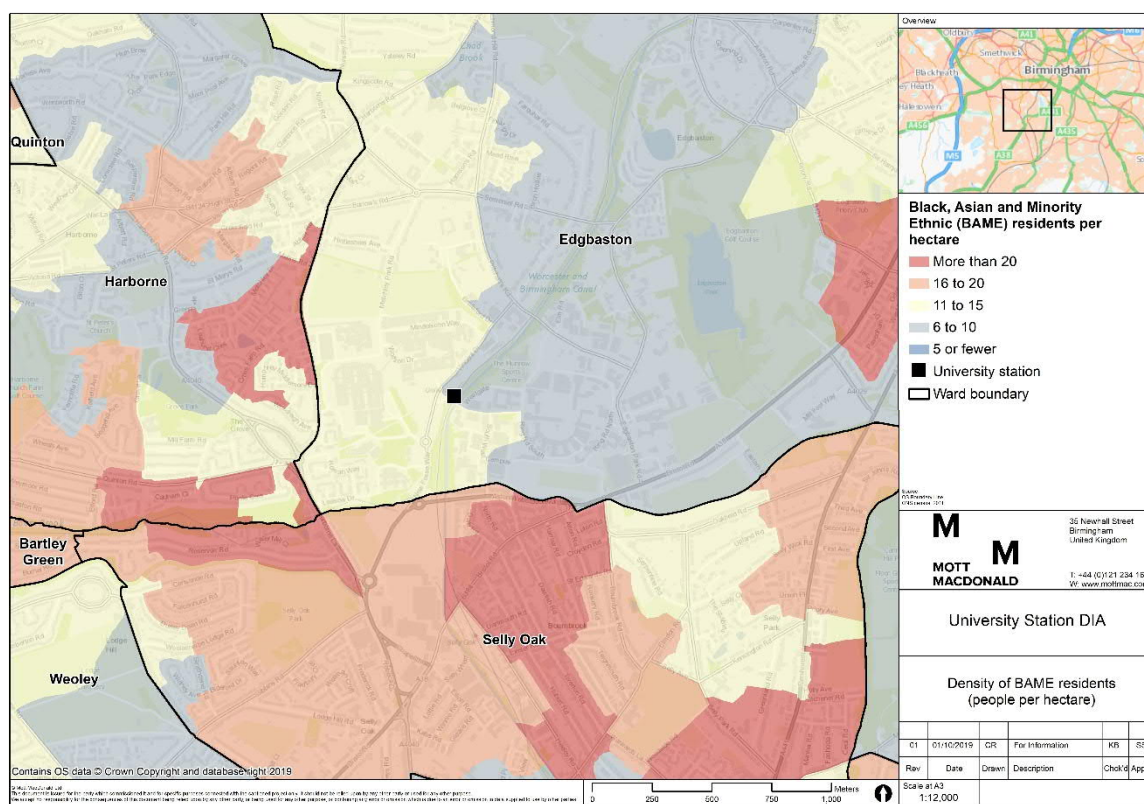
Location	White %	% mixed/ multi ethnic groups	% Asian/ Asian British	% Black/ African/ Caribbean/ Black British	% other ethnic group	% BAME
Edgbaston	58	5	25	9	3	50
Birmingham	58	4	27	9	2	47
West Midlands	83	2	11	3	1	21
England	85	2	8	3	1	20

Source: ONS census 2011

Figure 15 below shows that there are higher densities of people from a BAME community to the west and south of the site, with a lower density to the east and north.

To the immediate west of the site, there is a density of 11-15 per hectare, which increases to more than 20 in some areas further west. The density of people from a BAME community is also 11-15 per hectare to the immediate south of the site, whilst further south in Selly Oak, the density increases in areas to 16-20 per hectare, and more than 20 in others. The density in most of eastern Edgbaston is lower at 6-10 persons per hectare.

**Figure 15: Density of the population that are from a BAME community**



Source: ONS Census Data 2011

## Religion and Belief

Table 11 below provides a religious profile of the ward, in comparison with Birmingham, West Midlands and England. Whilst Edgbaston Ward has a slightly smaller proportion (42%) of Christians than Birmingham (46%), it has a significantly smaller proportion than West Midlands (60%) and England (59%). For many religions, Edgbaston Ward has a higher proportion than the regional and national averages. For example, 6% of people who live in Edgbaston are Hindu, compared with 1% across West Midlands and England.

**Table 11: Proportion of population by religion and belief**

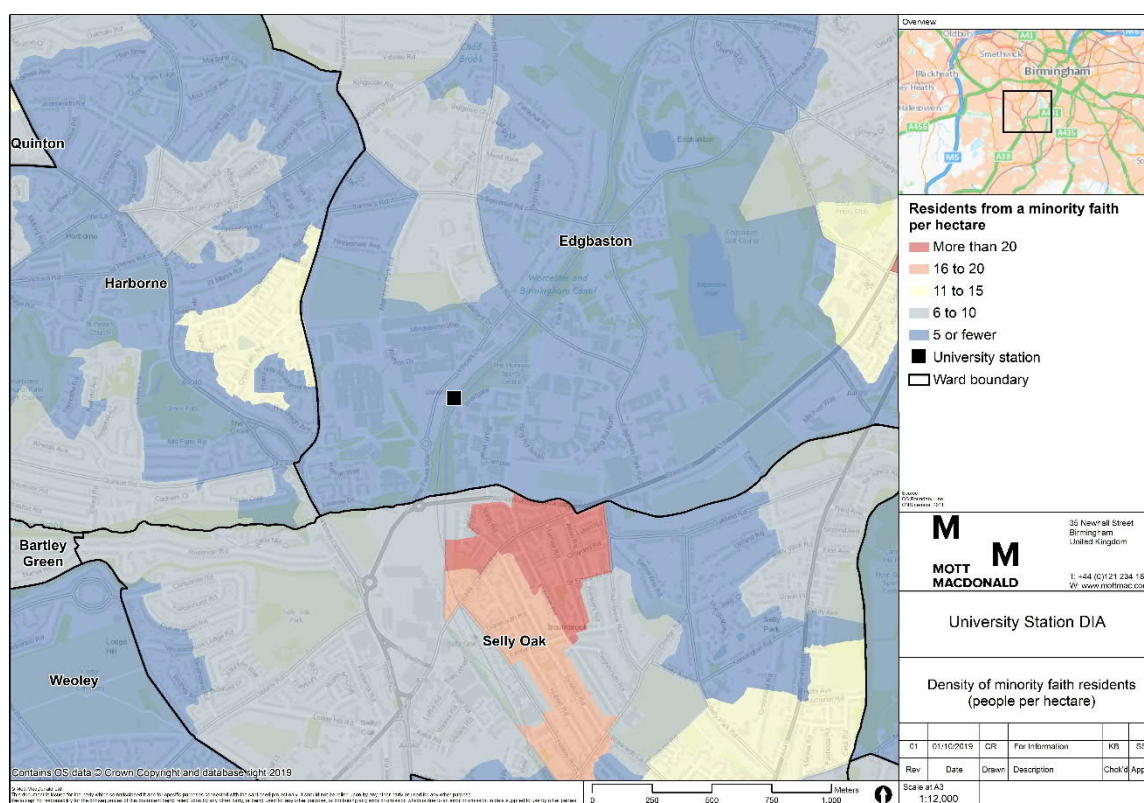
Religion	Edgbaston Ward %	Birmingham %	West Midlands %	England %
Christian	42	46	60	59
Buddhist	1	0.4	0.3	0.5
Hindu	6	2	1	1
Jewish	2	0.2	0.1	0.5
Muslim	11	22	7	5
Sikh	5	3	2	1
Other religion	1	1	0.5	0.4
No religion	26	19	22	25
Religion not stated	7	7	7	7



Source: ONS census 2011

Figure 16 below shows that in the immediate area surrounding the site, there is a low density of residents from a minority faith<sup>96</sup> (5 or fewer per hectare). In some areas further away in all directions, this increases slightly to 6 to 10 per hectare. In the area of Selly Oak to the south there is a small area where densities of people from a minority faith is significantly higher, with between 16-20 per hectare, rising to more than 20.

**Figure 16: Density of people from a minority faith group**



Source: ONS Census Data 2011

## Sexual Orientation

There is no data available on this protected characteristic for the study area. However, emerging experimental statistics relating to sexual identity are available nationally and at a regional level.

In 2017, estimates from the Annual Population Survey (APS)<sup>97</sup> showed that 93% of the UK population identified as heterosexual or straight and 2% of the population identified themselves as lesbian, gay or bisexual (LGB). This comprised of:

<sup>96</sup> Minority faith refers to faith or religion that is held by a minority of the population, in this case people belonging to a religious group that is not Christianity.

<sup>97</sup> Source: Office for National Statistics (2017)



- 1.3% identifying as gay or lesbian
- 0.8% identifying as bisexual
- A further 0.6% of the population identified themselves as “other”, which means that they did not consider themselves to fit into the heterosexual or straight, bisexual, gay or lesbian categories.
- A further 4.5% refused or did not know how to identify themselves.

The Site falls within the West Midlands, where the proportion of lesbian, gay or bisexual people sits at 2.2%, which is in line with the national figure.

## People Living in Deprived Areas

The index of Multiple Deprivation (IMD) brings together data covering seven different aspects or ‘domains’ of deprivation into a weighted overall index for each Lower-layer Super Output Area (LSOA) in England. The scores are then used to rank the LSOAs nationally and to calculate an IMD score for each local authority area. These are then divided into deciles or quintiles, with 1 being the most deprived 20% of LSOAs, and 5 the least deprived 20% of LSOAs (in the case of quintiles).

There was no data for this on a ward level, but the table below shows that Birmingham overall is more deprived than the national average. 58% of people in Birmingham live in the most deprived quintile, compared with 30% for West Midlands. 3% of people in Birmingham live in the least deprived quintile, compared with 14% for West Midlands.

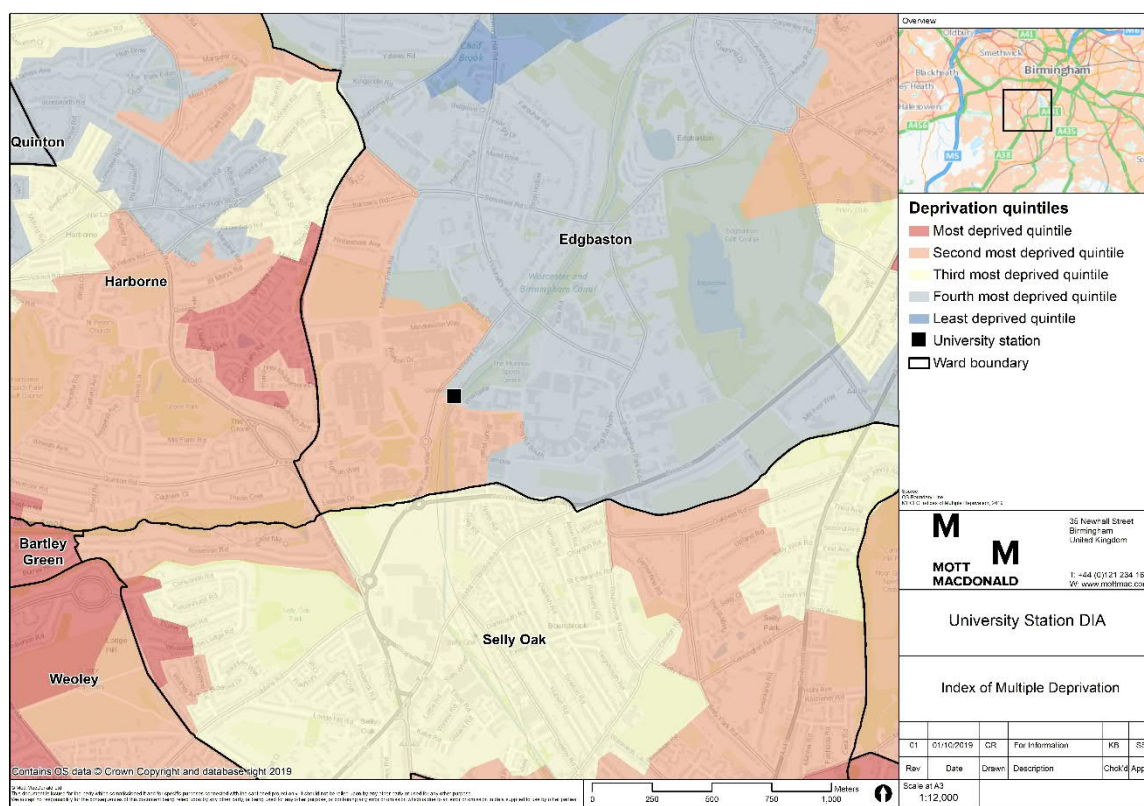
**Table 12: Proportion of the population living in quintiles identified by the Index of Multiple Deprivation (IMD)**

Location	1 (Most deprived)	2	3	4	5 (Least deprived)
Edgbaston Ward	-	-	-	-	-
Birmingham	58%	21%	12%	6%	3%
West Midlands	30%	19%	20%	17%	14%

Source: MHCLG Indices of Multiple Deprivation 2019 and ONS mid-year population estimate 2017

Figure 17 below shows that the areas to the immediate south and west and further west of the site in Harborne are in the second most deprived quintile, whilst the area of Edgbaston to the east of the site is the least deprived quintile. Areas further west in Harborne, Bartley Green, and Weoley have most deprived quintiles within them.

**Figure 17: Distribution of the IMD Quintiles**



Source: MHCLG Indices of Multiple Deprivation 2019 and ONS mid-year population estimate 2017

## Students

Given that the station serves the University of Birmingham, it's also useful to understand the local student population and its scale compared to the wider region and nationally. Table 13 below provides a breakdown of economic activity in Edgbaston ward, Birmingham, West Midlands region and England. Reflecting close proximity of the University, 37% of the population aged 16-74 in Edgbaston are students. This is much higher than the Birmingham (14%), West Midlands (9%), and England (9%) rates. Unlike these larger areas, students are a major demographic feature of Edgbaston.

**Table 13: Economic Activity**

Location	Employed Full-time	Employed Part-time	Self-employed	Unemployed	Student	Retired	Other
Edgbaston Ward	28%	7%	8%	5%	37%	7%	8%
Birmingham	33%	13%	7%	7%	14%	11%	15%
West Midlands	37%	14%	9%	5%	9%	14%	11%
England	39%	14%	10%	4%	9%	14%	11%

Source: Census 2011

## Appendix C: User data

**Table 14: Pedestrian Usage of University Station**

	Adults	Adults with Young Children	Adults with Young Children in Pushchairs	Unaccompanied Child (under 18s)	Wheelchair / Mobility Chair Users	Persons with walking aids	Total
7 <sup>th</sup> October	6,472	3	1	504	1	3	6,991
8 <sup>th</sup> October	6,336	6	3	517	1	6	6,876
<b>TOTAL</b>	<b>12,808</b>	<b>9</b>	<b>4</b>	<b>1021</b>	<b>2</b>	<b>9</b>	<b>13,867</b>

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## Appendix D: Design Change Log

Table 15: Design Change Log

Original DIA comment	Subsequent design change to address DIA comment	Further comments/amended impact
<b>Station access</b>		
<ul style="list-style-type: none"> <li>An accessible footbridge over the adjacent Worcester and Birmingham canal connecting to the platform 2 building (east side of the railway line) to the University.</li> <li>If direct access from the station to the canal towpath is not provided, passengers will have an increased walking distance between the towpath and entrance to the new station building.</li> </ul>	<ul style="list-style-type: none"> <li>Passive provision for lift on UoB side of the canal bridge in the future</li> <li>New entrance from station directly onto canal towpath</li> </ul>	<ul style="list-style-type: none"> <li>Ensuring a design that allows for an accessible lift in the future means that step-free access can be strengthened between the University and the station. However, retro-fitting the footbridge with a lift may be more costly than putting in a lift and this stage.</li> <li>The entrance that links the towpath and the station means that passengers who use the towpath to begin or complete their journeys have a reduced walking distance to the station entrance. It also means that cyclists do not have to carry their bicycles up a flight of steps, making it easier for them to use the station. This is subject to security agreement with WMT.</li> </ul>
<b>Car parking</b>		
<ul style="list-style-type: none"> <li>Staff car park (no public or Blue Badge parking).</li> <li>As with the current station, the redevelopment will include no public parking provision - including Blue Badge parking – on site, with 4no. parking spaces allocated to staff.</li> </ul>	<ul style="list-style-type: none"> <li>Allocation of 4 staff parking spaces - with 2 no. standard, 1 no. blue badge, 1 no. oversize for NR maintenance van.</li> </ul>	<ul style="list-style-type: none"> <li>The allocation of one blue badge space in the car park allows disabled members of staff to park with ease and with good access to the railway station.</li> </ul>
<ul style="list-style-type: none"> <li>N/A</li> </ul>	<ul style="list-style-type: none"> <li>Mobility area</li> </ul>	<ul style="list-style-type: none"> <li>The inclusion a mobility lounge in the design will create a location where people that require additional assistance to use the station and its services are able to access appropriate help and information. This</li> </ul>

will have a positive impact on older people, disabled people and people with additional needs.

## Forecourt

- A large forecourt area for pedestrian access to the main station entrance via Vincent Drive.
- Step free access in forecourt/staff car park area
- Step free access from the forecourt into the railway station allows for passengers to change their mode of transport without having to negotiate kerbs or changes in levels.

## Toilets

- Accessible passenger toilets on Platform 1 (west side of the railway line).
- With the only planned toilets located on Platform 1, access from Platform 2 will be longer and potentially more challenging. The route to access the toilets from platform 2 and its associate building will require multiple level changes and increased distance. This potentially challenging route will disproportionately impact people with reduced mobility such as disabled people, and may negatively affect their experience or deter them from using the station altogether – as suggested by the evidence.
- The evidence shows that many older people report that they don't use public transport in fear of not being able to reach a suitable toilet quickly enough. The lack of toilets on Platform 2 of the redevelopment may therefore disproportionately impact older people, who may not have time to travel to Platform 1 toilets because of reduced mobility.
- With the only planned toilets and baby changing facilities) located on Platform 1, access
- Gender neutral toilets
- An accessible toilet to be located on Platform 2 side of building.
- Putting an accessible toilet on Platform 2 acts as mitigation for the comments in the DIA relating to the importance of access for disabled people, older people and people with young children or who are pregnant.
- Gender neutral toilets will benefit people who are transitioning from male to female or vice versa, or who may not identify as male or female. This promotes equality and inclusivity in the design.

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to a toilet and baby change from Platform 2 will be longer and potentially more challenging. This may disproportionately affect people with reduced mobility such as pregnant women and parent with children in pushchairs. This may negatively affect the experience of such users, or potentially deter them from using the station altogether.

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Source: Mott MacDonald 2019



