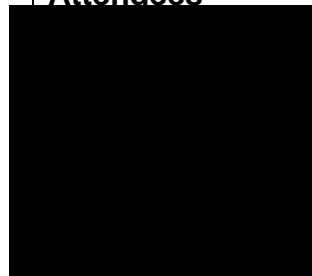



## Independent Disability Advisory Group

Thursday 15<sup>th</sup> June 2023

10.00 – 12.00

Attendees	
	IDAG Member (Chair for 1 <sup>st</sup> half of meeting)
	IDAG Member (Chair for 2 <sup>nd</sup> half of meeting)
	IDAG Member
	IDAG Member
	IDAG Member
	IDAG Member
	D&I Team
<b>Old Street Project</b>	
Mark Ulatowski	Project Manager
Kevin Walker	Senior Engineer Civil Engineering
David Samuel	Principle Urban Design Advisor
<b>Visions for Northolt</b>	
Martin Junge	Principal Sponsor
Sara Perera-Hammond	Project Team
<b>Innovative Solution to improve customer experience</b>	
Sabrina Mohit	Customer Experience Manager
Kathryn Jones	Customer Experience Lead
<b>Apologies</b>	
	IDAG Member
	IDAG Member
	IDAG Member
	IDAG Member

### 1. Minutes of the Last Meeting

 welcomed IDAG members to the meeting. Minutes approved.

### 2. Old Street Project

#### ➤ Bollards

- Suggestion made for TfL to consider positioning of the bollards – some have been positioned in spaces that get heavily congested at times, this can pose a safety risk to those who may struggle to see the bollards (e.g., visually impaired people) in amongst the swath of people.

- Reflective stainless steel – can be visually perceived by some as an ‘absence’ of something being there. – Suggestion to make bollards as obvious as possible, including adding a second band at the bottom of the bollard.
- IDAG member recommended changing the black bands (around the bollards) to a brighter colour such as red, or yellow, as these colours stand out against the grey. Another issue with using black is that it can sometimes give the perception of parts of the bollard ‘levitating’.
- Suggestion to look at Japanese bollards as guidance.
- Bollards outside station entrance/exit that block pedestrian walking path are the most concerning – suggested TfL prioritise these.
- **Seating**
- The greater the colour contrast, the better.
- Using grey on grey can be confusing & difficult to see.
- Curves can also be difficult to interpret visually for those with visual impairments.
- Suggestion to introduce ‘classic’ benches that include armrests.
- Benches seemed very close to the lift which could pose a problem for wheelchair users – member suggested a site visit to Old Street to see how the benches look in situ.
- Lack of arm rests and back support makes the benches difficult to use for those who are less mobile. – Even perched seating could be preferred.
- Recommended for TfL to try and make adjustments to the passenger flow between the lift and main station areas, as having seating directly in passenger flow can be of concern for people who are neurodiverse. – Suggestion to have seating at least 2 metres from traffic flow.

IDAG member who was unable to attend, shared comments (highlighted below):

### **General Lighting**

I note that bollards and seating were intended to be the primary discussion points, although I believe that an initial, broader discussion on lighting is more appropriate. This is particularly considering that these elements will need to be visible in both day and night conditions, particularly for patients returning from Moorfields Eye Hospital following afternoon appointments in winter. This is notwithstanding that Old Street is a high-traffic area where several roads meet, surrounded by commercial buildings, offices, and retail units.

With reference to the literature:

<https://eprints.whiterose.ac.uk/151808/1/Fotios%202019%20Current%20standards%20pt%201%20choosing%20a%20class%20AUTHOR%20ACCEPTED%20VERSION.pdf>

The main purpose of lighting for subsidiary roads and areas associated with those roads is “to enable pedestrians and cyclists to orientate themselves and detect vehicular and other hazards, and to discourage crime against people and property. The lighting on such roads can provide some guidance for motorists, but is unlikely to be sufficient for revealing objects on the road without the use of headlights.” I extend this to cyclists, e-scooters, and any other mode of transport that might interfere with pedestrians.

While this project aims to reduce vehicular traffic flow, the classification of any walkways, roads, or paving that pedestrians may interact with should fall into the most critical categories as a minimum, especially given an area of high night-time activity. This would likely put it into the highest lighting class, potentially Class ME1 for major roads or Class CE1 for conflict areas.

The benefits of additional lightning are obvious, including pedestrians’ facial recognition ability at the granite seating, to the reduction of accidents on-road (Jacket and Frith (2013) found that the night-to-day crash ratio reduced in an exponential trend from approx. 0.43 at 0.5 cd/m<sup>2</sup> to approx. 0.28 at 1.5 cd/m<sup>2</sup>). While BS 5489-1:2020 does not specifically address lighting bollards, meeting the minimum public lightning guidance should improve their visibility, especially if classifying the area under the highest priorities.

From my own experiments with visually impaired participants walking around an empirical environment with varied environmental illumination between 1 and 256 lux (and supported by broader literature), illuminating walking areas and objects such as these bollards with around a minimum of 100 lux would also aid visibility (although I appreciate this is well beyond typical values in BS 5489).

I also suggest using colour (using hues far apart on the spectrum and high chroma where LRV cannot be further maximised). BS 5489-1:2020 touches on the quality and colour of lighting, and a high Colour Rendering Index (CRI) light source can help improve visibility and colour differentiation. This could be important if the bollards are painted/equipped with contrasting colour strips. The granite benches may also benefit from this, including differentiating pedestrians sat on these benches.

Applicable to both day and night conditions, I strongly suggest avoidance of surfaces resulting in glare and light pollution which can be disabling for visually impaired people, particularly those with photophobic diseases. Examples include shiny metallic finishes under sunlight, polished finishes directly under streetlights, and direct light sources with poorly controlled directionality. The standard discusses ways to avoid excessive light pollution and glare. Note this 2020 revision affects how glare

is evaluated, with focus on the use of Threshold Increment. Positioning any new lightning features should therefore be considered carefully, particularly in their directionality to reduce glare to pedestrians and to maintain the visibility of illuminated objects.

## **Bollards and Seating**

Now, onto the bollards themselves, it is problematic that there is no clear minimum standard on how to enhance their visibility, but I concur with my colleagues in using a coloured strip, also considering bright colours beyond black (yellow is a favourite, both for its visibility and inference of a hazard).

Regarding the seating, going from the values in the presentation, the LRV of the granite seats and the surrounding paving show a contrast difference of 9.19 points (34.49 - 25.3). This is significantly less than the recommended variation of 30 points, and even less than the 'good practice' benchmark of 20 points. Moreover, I am confused by the reference to BS EN 1684. Is this not a withdrawn standard? **The contrast between the seating and paving must certainly be improved.**

Moreover, note that the ability to visually discriminate between contrasting surfaces is also dependent on the lighting conditions, visual acuity of the viewer, object size, and the viewing distance. Although the granite seats and the paving have LRVs at the lower end of the spectrum (which can indeed sometimes provide better contrast), the contrast difference itself is still not meeting the recommended variation, and visual contrast will only worsen given the higher prevalence of visually impaired people (with likely poor acuity) in the area.

I therefore strongly recommend changing the material or colour of the seating and using borders. If the material is not changed, then much will have to be done in directional lighting and signage to highlight the seating area. The feature paving strip may not be sufficient to compensate for this, and I would have to observe this in person through my own visual impairment.

I remain open to further discussion and questions. This is only the tip of the iceberg in making spaces visually accessible, and I am slightly concerned given the materials decision for the proposed seating and the corresponding justification for poor contrast.

## **TfL Response**

- Will make suggestions to the design team regarding incorporating more bands around the bollards/using better contrasting colours.
- Seating will be more difficult to make changes too as they are already in place; however, suggestions will still be put forward to the design team. There are further seats, with armrests, in the adjacent tree lined “avenue”.

### **3. Visions for Northolt**

- **General comments:**
- IDAG member suggested that TfL consider hosting a site visit.
- IDAG member expressed concern regarding overspill onto the pavement, restricting the movement of users of wheelchairs and mobility scooters, buggies, and the like.
- Keen to understand the accessibility for taxis within the given area.
- IDAG member urged TfL to do anything they can to help people become accustomed to the changes instead of being deterred by it, particularly those with a visual impairment. – This could be achieved through the inclusion of having a separate area for cyclists, pedestrians and motorists. A way to incorporate this could be with road markings.
- Removal of guard rails can be problematic for people with visual impairments who use the rails as assistance for navigation.
- IDAG member also expressed that the removal of guard rails can leave pedestrians feeling exposed – urged TfL to conduct research into the effects of removing guard rails for people who rely on them.

## **TfL Response**

- Currently no spill-out businesses. Businesses would have to be licensed to have further access to road space.
- Happy to host a site visit for members.

### **4. Innovative Solutions to improve customer experience**

#### **General comments**

- Phrasing of statements will be key - problem statements should also be distributed to students/universities who are often looking for industrial research. For instance, Imperial College's Civil Engineering MEng programme welcomes such projects where students and their supervisors will happily give their time to work on meaningful research.
- Recommended TfL to look into 'Hackathon' events - mechanisms should be implemented to actually exploit the outputs, such as forming a formal working relationship with the winning team.

- IDAG members are really positive about the idea and would be keen for TfL to return regarding the progression of the project.

### **Action Point**

- Plan on returning to IDAG with an update regarding the processes.

### **5. AOB**

- Members should start receiving emails regarding access to our sites (more info and steps to follow below. There are a couple of members who have personal email addresses which haven't been accepted so [REDACTED] will contact them directly.
- [REDACTED], [REDACTED] & [REDACTED] took part in the 3D advertising site visit at Kings Cross station.

### **6. Action Tracker**

- Kings Cross 3D Advertising – to be added