



PERSONAL SAFETY IN DESIGN

A GENDERED LENS

CIHT SoRSA Conference | June 2025
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Why is it important to consider gender?

Aim of our session today

- Why is it important to consider gender?
- How can gender be considered in the transport network?
- Gender inclusive design x Personal safety x Road safety
- What currently works in design?



SETTING THE SCENE

Understanding context

Why is it important to consider gender?

- Women's travel patterns are generally more diverse than those of men i.e., trip chaining (*Criado Perez, 2019*)
- Women make up 51% of the UK population, the female employment rate is 72.3%, and **women account for 26% of workers within the transport sector** (*Women in Transport, 2023*)
- **46% of transport professionals** stated that they have never considered gender within their day-to-day job (*Gender Equality Toolkit In Transport, 2021*)



52% feel unsafe walking to a bus stop or station



82% feel unsafe due to poor lighting



62% feel unsafe waiting at a bus stop



28% have been attacked on public transport

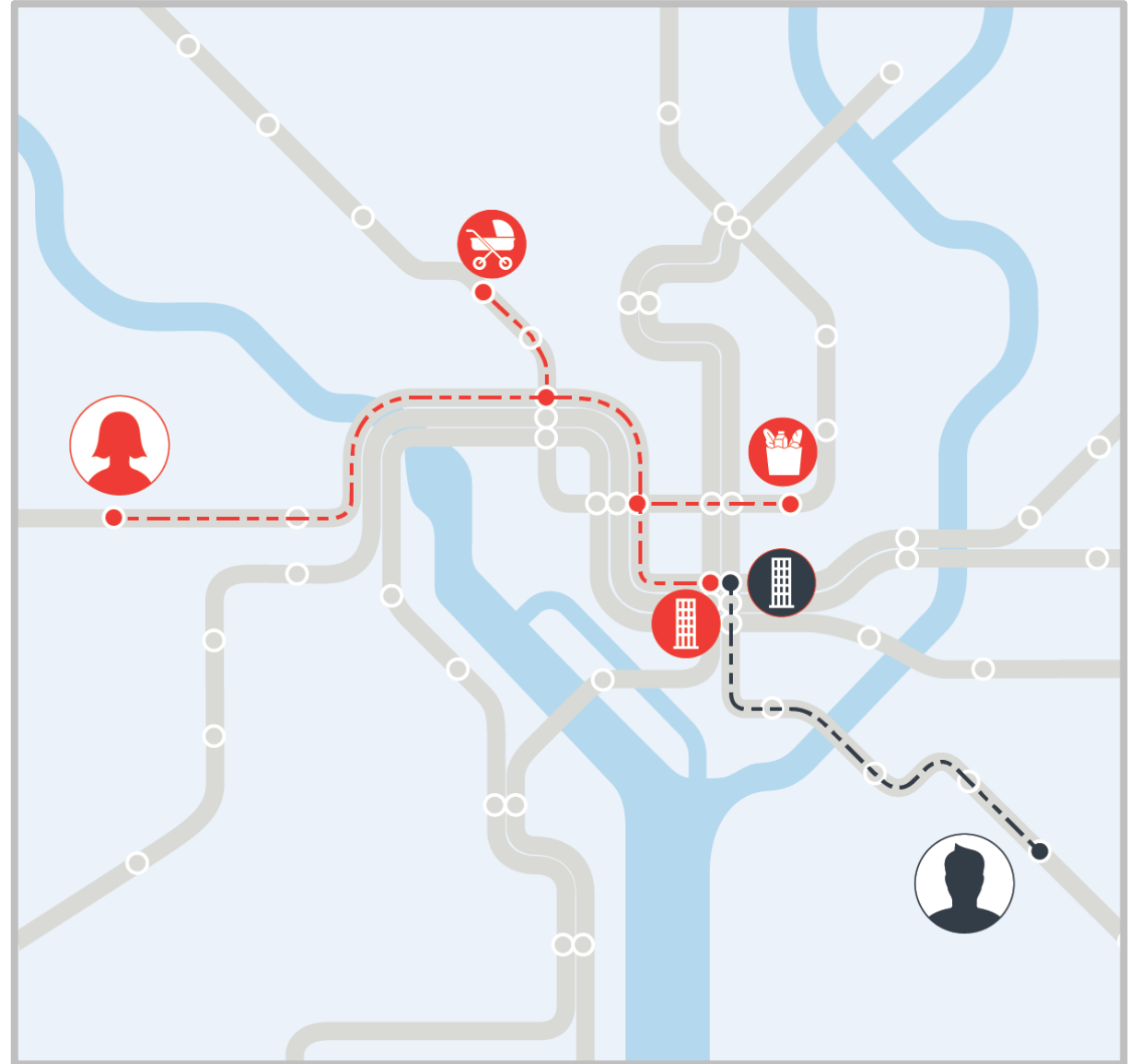
Gender shapes how we move

Gender affects travel patterns across five key areas:

- Trip purpose
- Mode choice
- Route
- Time of travel
- Distance

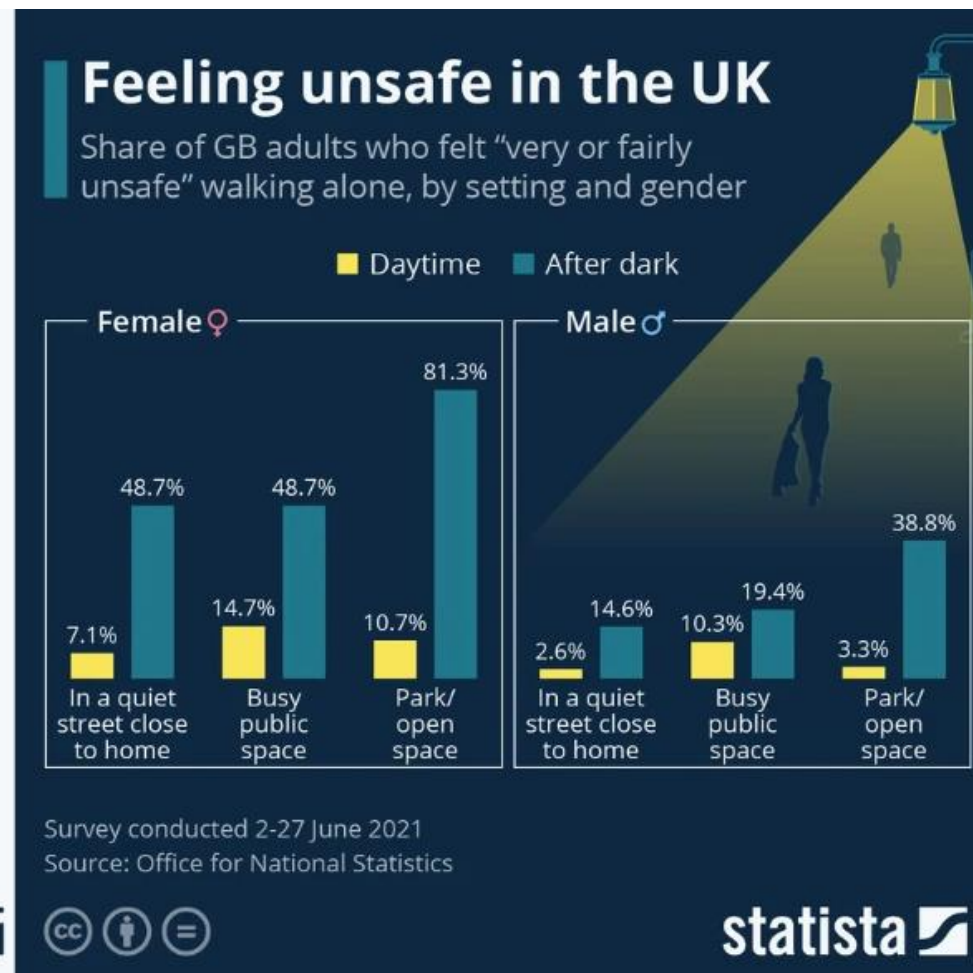
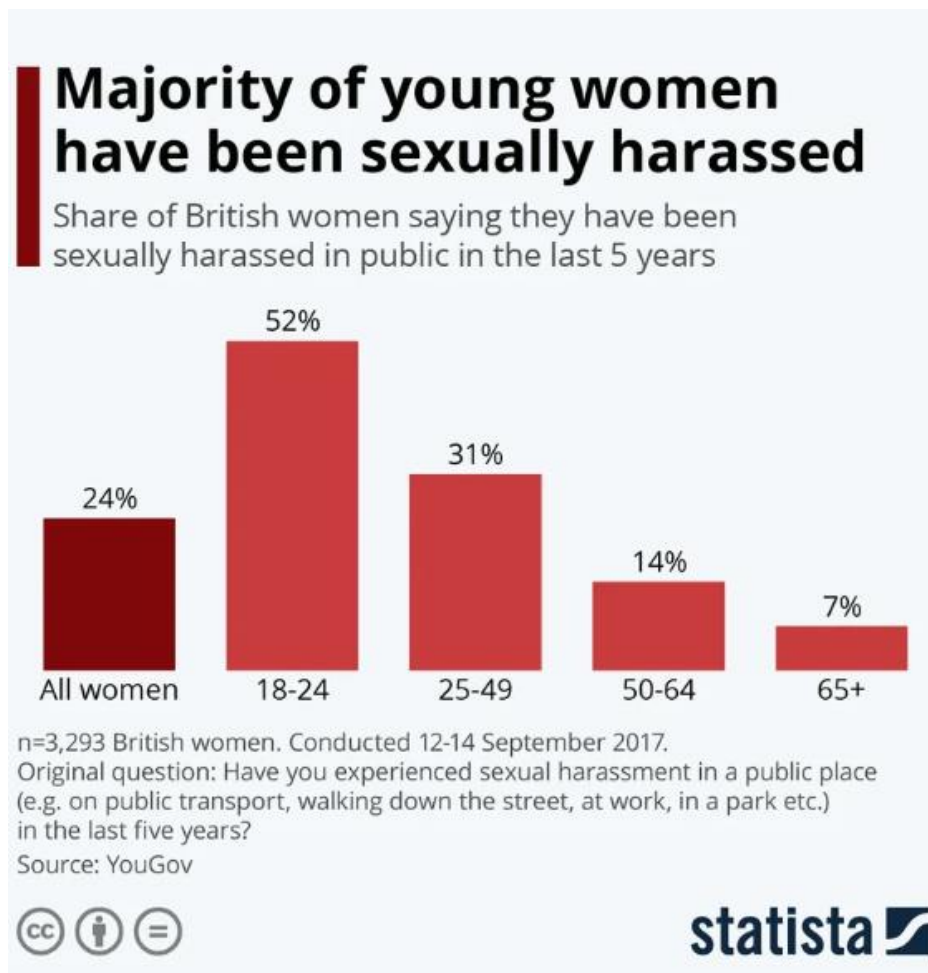
Generally, women tend to:

- Commute shorter distances
- Make more multi-stop journeys (called 'trip chaining')
- Take more non-work-related trips
- Travel off-peak
- Travel with others (such as children or elders)
- Pay more for transport overall

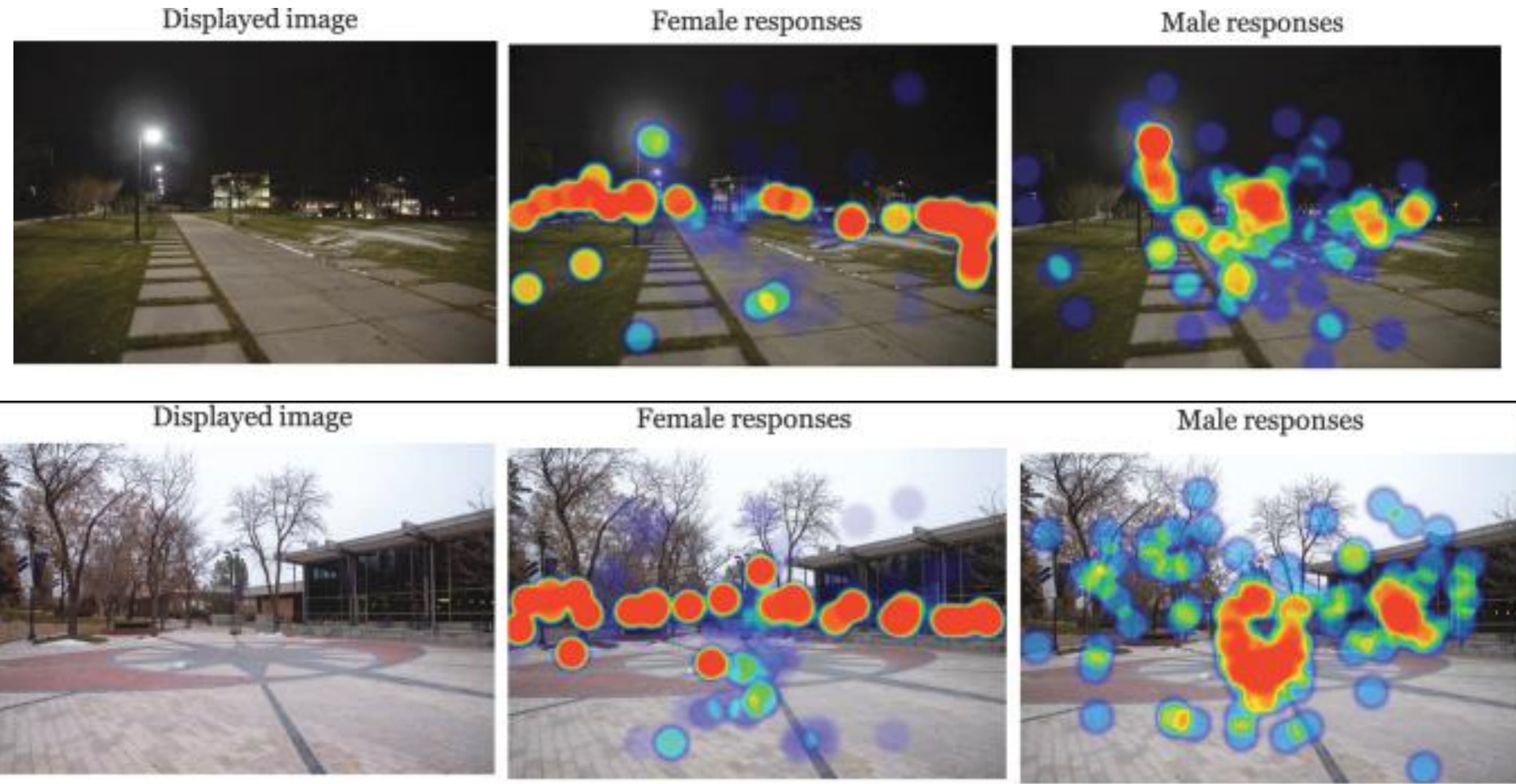


Visual representation of trip chaining
From: Cultivating Green and Inclusive Transport, WSP 2024

Personal safety risks, perceptions and experiences



A reflection of lived experience



HOW CAN PERSONAL SAFETY BE CONSIDERED IN THE TRANSPORT NETWORK

Recommendations through research and engagement

Gender in transport studies



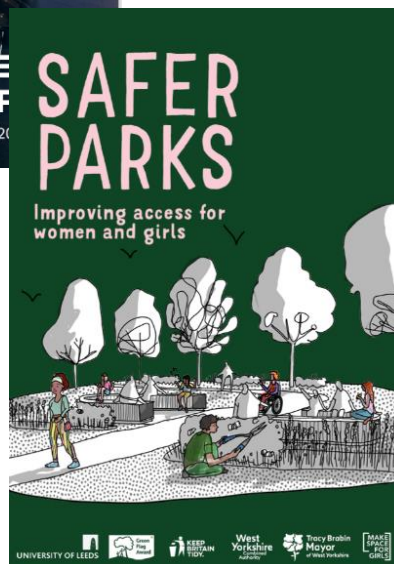
HM Government, VAWG strategy, July 2021



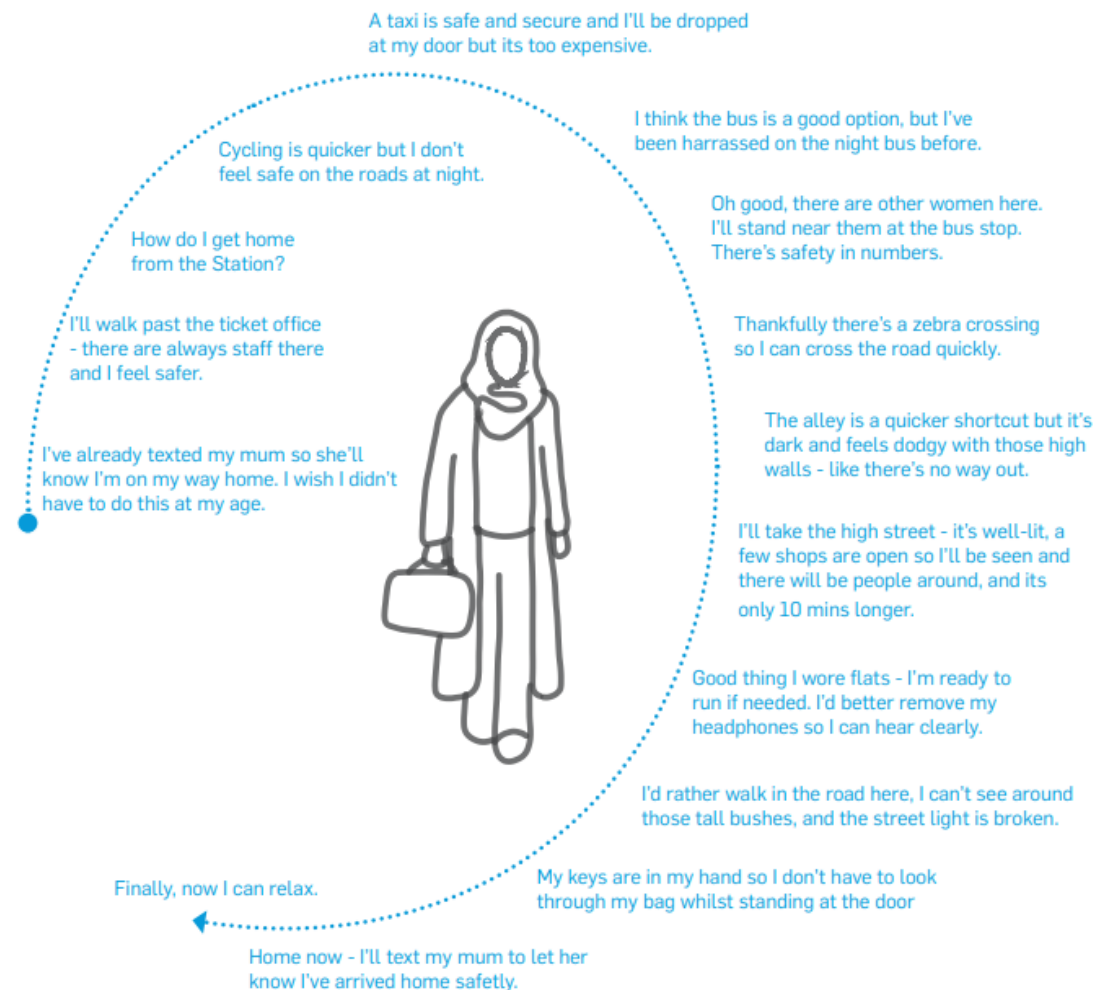
Sensitive Urban Design Framework, 2023



Tackling the Gender 'Pedal Gap', Lime, 2023



Safer Parks Guidance, 2023



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- ```

graph LR
 subgraph Inputs
 Funding[Funding]
 Resource[Resource]
 end
 subgraph Support
 Roles[Roles and responsibilities]
 Political[Political support]
 Accountability[Accountability]
 end
 subgraph Data
 Centralised[Centralised data platform]
 Standardised[Standardised data collection methods]
 end
 subgraph KnowledgeSharing[Knowledge sharing]
 Understand[Understand what already exists and works well]
 BestPractice[Best practice]
 DesignGuidance[Design guidance]
 Toolkits[Toolkits]
 end
 subgraph EvidenceLed[Evidence led]
 Monitoring[Monitoring and evaluation]
 end
 subgraph Engagement[End user engagement]
 end
 subgraph BehaviourChange[Behaviour change]
 Education[Education and awareness]
 end
 subgraph Reporting[Reporting]
 Trust[Building trust in the reporting process]
 Encouraging[Encouraging report]
 Easier[Enabling easier reporting systems]
 end

 Funding --> Roles
 Resource --> Roles
 Roles --> Centralised
 Roles --> Standardised
 Centralised --> Understand
 Standardised --> Understand
 Understand --> Monitoring
 Monitoring --> EndUser[End user engagement]
 Monitoring --> BehaviourChange
 Monitoring --> Reporting
 EndUser --> Reporting
 BehaviourChange --> Reporting

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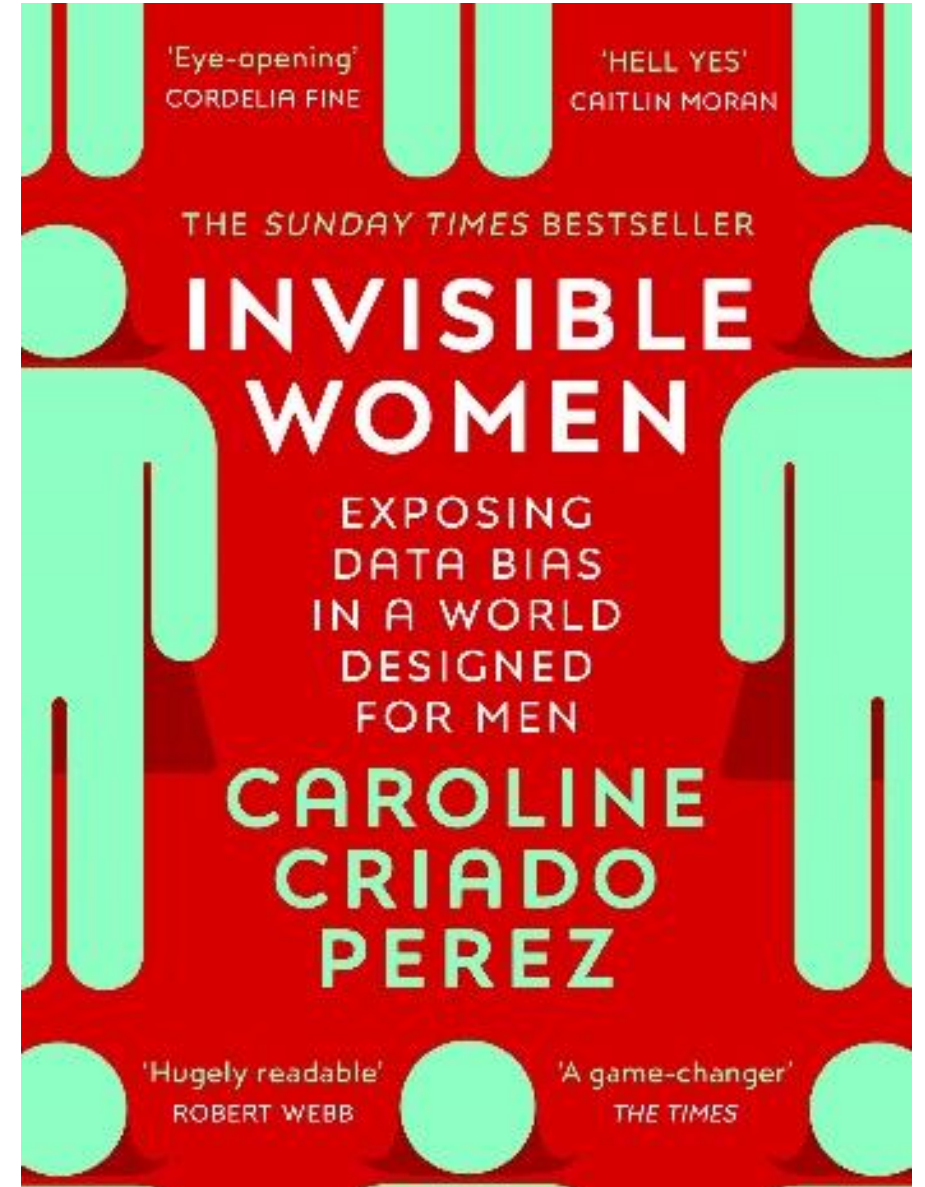
# Gender-responsive transport has wider benefits



# Gender safety gaps in vehicle design

- 3x more likely to get whiplash from rear end shunts
- 47% more likely to be seriously injured
- 71% more likely to be moderately injured
- 17% more likely to die

Cars have been designed using car crash-test dummies based on the “average” male





# Our approach to considering GID

## Safety Inclusion Assessment (SIA) Tool



A standardised approach to embedding **personal safety** early in the design process.



Promotes **co-design** with local end users.



Assesses **real and perceived** safety issues in an urban context – particularly those experienced by women.



Offers design solutions to **eliminate and reduce** personal safety risks



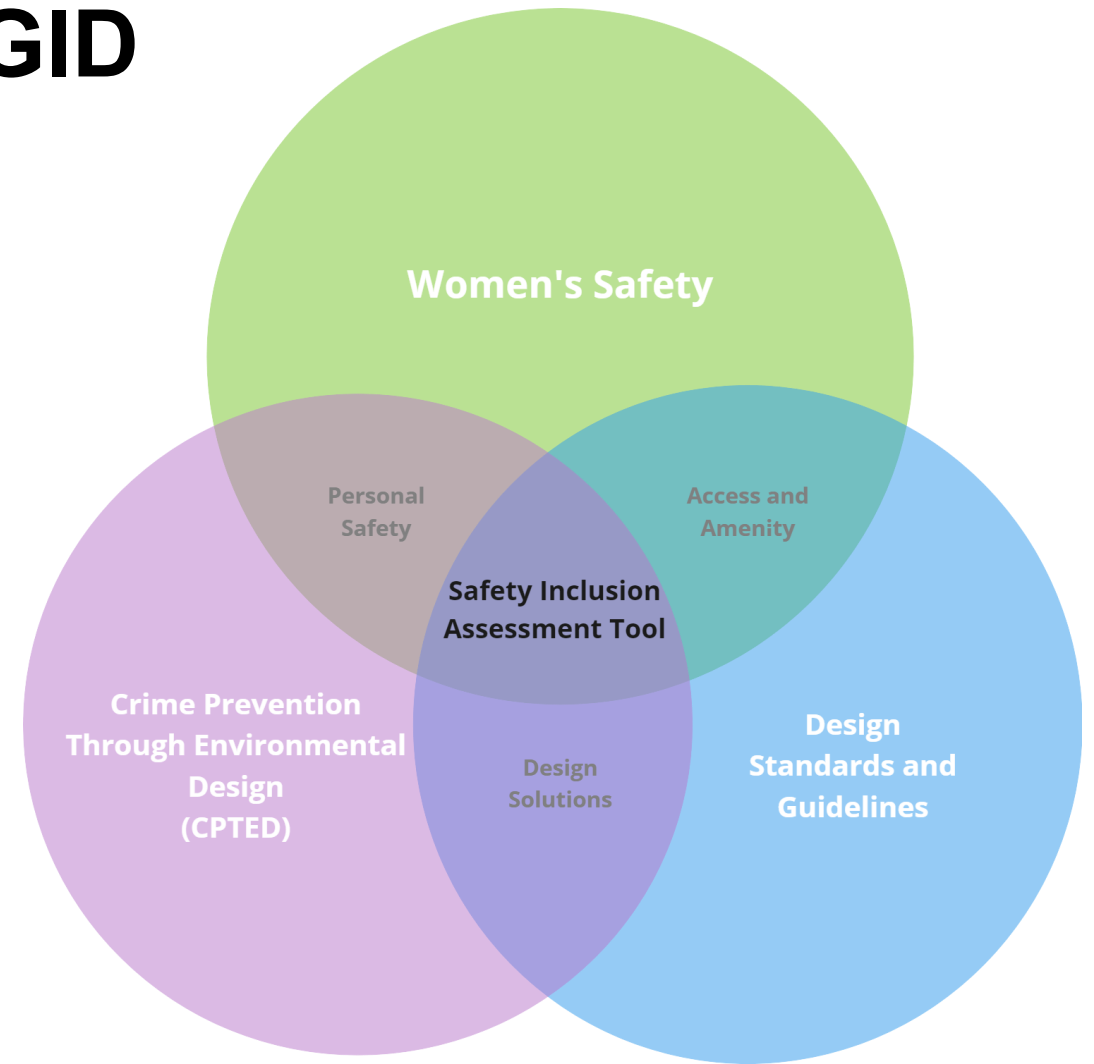
Provides a **context specific assessment** – i.e., movement and place functionality alongside anticipated users



Provides a **comparative assessment** including daytime and darkness



Provides an **overview of data** to understand which investments will provide the greatest benefit to users



# GENDER INCLUSIVE DESIGN AND ROAD SAFETY

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Similarities, differences and opportunities

# Approaches in assessment

## Road Safety Assessments (RSA) and the Personal Safety Assessments

### Similarities

- Both try to reduce, mitigate or remove physical harm
- Independent assessments
- Assessors provide a response back to the Design Team & the Client to highlight potential risks

### Differences

- Road safety audits are a design requirement (DMRB GG119)
- RSA's undertaken by trained professionals
- Personal safety assessment captures existing risks and proposed risks that don't pertain to a collision i.e. risk of assault
- Road safety audit assesses risk of collision

### Opportunities

- Road safety auditors to raise real and perceived personal safety risks
- Personal safety assessment to raise potential collision risks where design may influence a user to use alternative routes or crossings

# Can personal safety risks become road safety risks?



## Recent example shared

- M25 / A10 junction near Enfield
- High north-south crossing demands, especially for school students
- Existing underpass was considered to present personal safety risks, greater demand for level crossing
- Upgrade resolved in signalised crossing





## GENDER INCLUSIVE DESIGN EXAMPLES

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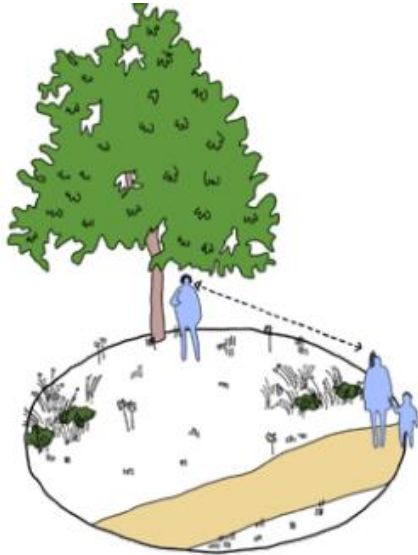
What does good design and engagement look like?



# Positive design examples

## Answers through research and engagement

- Consideration of gendered needs
- Co-design with local users and residents
- Usability of a space
- Freedom of use
- Sense of belonging



Raising the height of tree canopies and planting low bushes by paths improves visibility.



Clear signage should include distance and walking times to key destinations.

Open spaces offer a choice of journeys including both direct paths and looping (circular) paths that connect park features.





'Follow lit paths' sign at park entrance  
Credit: Marina Milosev

**DID YOU KNOW?**

The lighting in the north Park is deliberately low to support biodiversity and wildlife habitats. The Park is home to six species of bat.

For more information visit the Biodiversity pages at [QueenElizabethOlympicPark.co.uk](http://QueenElizabethOlympicPark.co.uk)

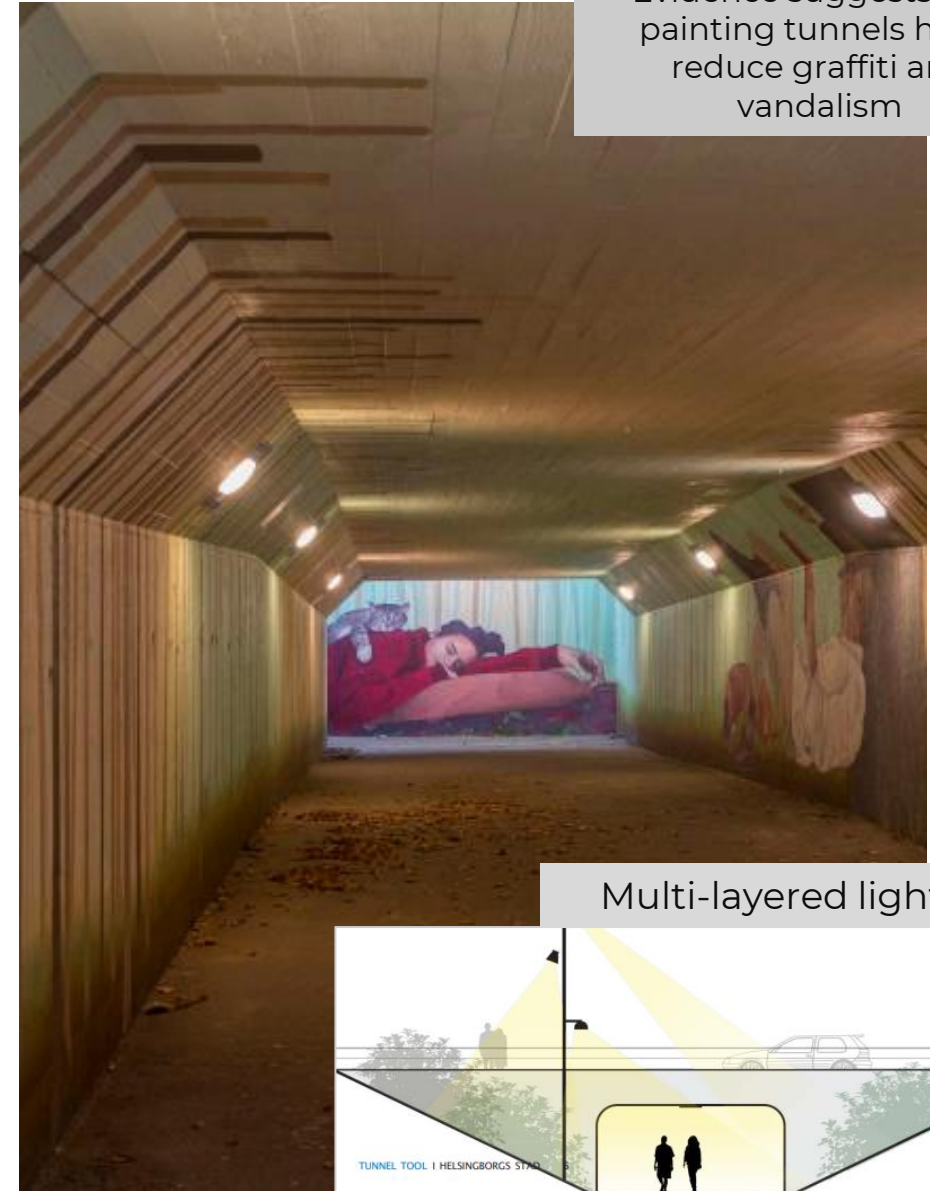


Signs placed in the north part of the park  
Credit: LLDC





# Underpass improvements



Evidence suggests that painting tunnels helps reduce graffiti and vandalism

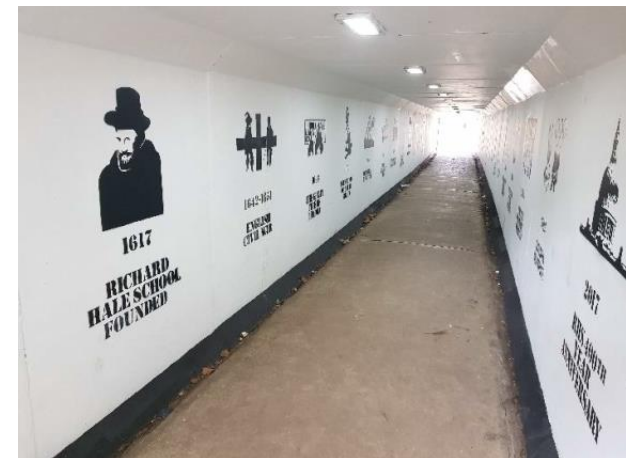
Multi-layered lighting







**WSP:** Hatfield town centre – Close to the University of Hertfordshire – Government Safe Streets Campaign with the Police and Crime Commissioner for Hertfordshire



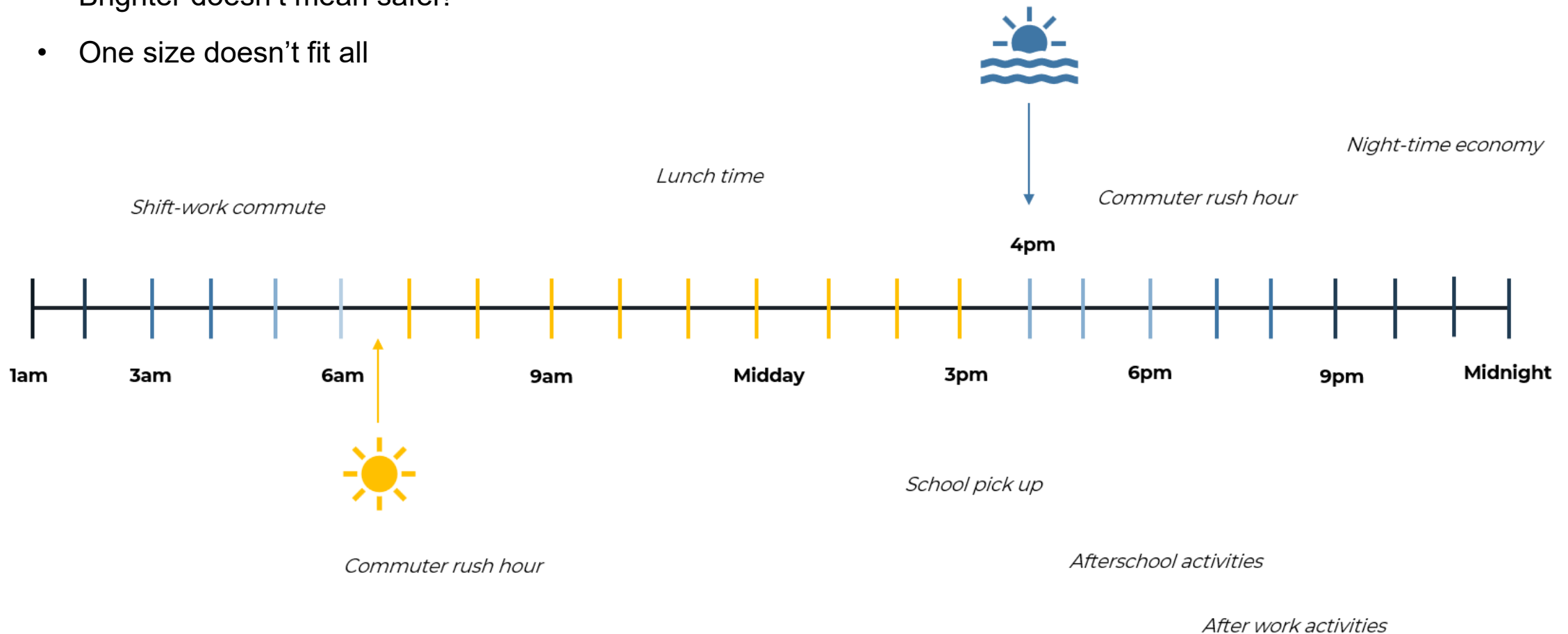
**WSP:** Richard Hale school subway Hertford – Art projects designed and painted by the pupils of the school to improve the subway leading directly into the school.





# Lighting considerations

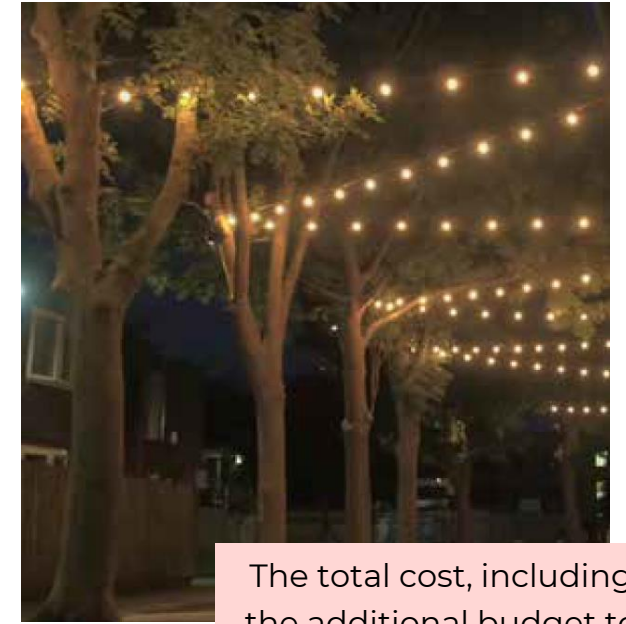
- Darkness is not always at night
- Brighter doesn't mean safer!
- One size doesn't fit all



# wsp Lighting



Cambridge Eastern Access -  
Lighting Safety Review



The total cost, including the additional budget to make it permanent was £10,000





# Engagement and collaboration

## Women's Safety Audit, Pilot Project, GLA

**Women's Safety Audit Pilot Project**

**Community Researcher Information Pack**

**02 Methods and Worksheets**

- Overview
- A: Interviews
- B: Small Group Discussion
- C: Checklist
- D: Participatory Mapping
- E: Multi-Sensory Walking

## Focus Group & Workshops



## Participatory Walks



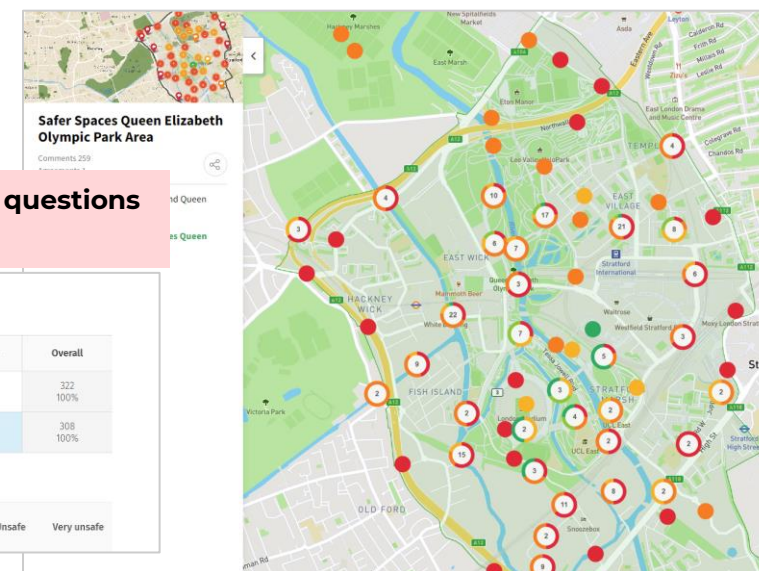
## Embedding gender & safety related questions into consultations

How safe do you feel when you're in the Pier Gardens?

| Statement          | Very safe     | Safe          | Neutral      | Unsafe       | Very unsafe | Overall     |
|--------------------|---------------|---------------|--------------|--------------|-------------|-------------|
| During the day     | 118<br>36.65% | 135<br>41.93% | 63<br>19.57% | 5<br>1.55%   | 1<br>0.31%  | 322<br>100% |
| During the evening | 19<br>6.17%   | 16<br>16.30%  | 11<br>43.57% | 78<br>25.32% | 21<br>6.82% | 308<br>100% |

Min Max

| Question | Count | Score | Very safe | Safe | Neutral | Unsafe | Very unsafe |
|----------|-------|-------|-----------|------|---------|--------|-------------|
|----------|-------|-------|-----------|------|---------|--------|-------------|



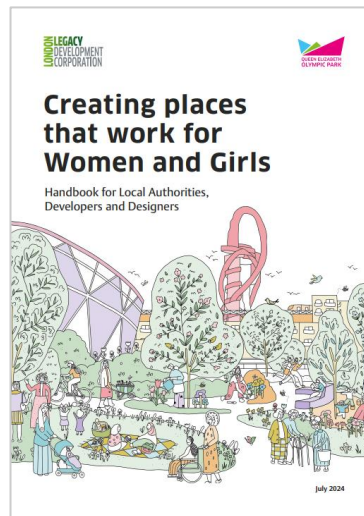
# Common pitfalls

- **One-size-fits-all approach:** Assuming “neutral” equals inclusive, without acknowledging different lived experiences.
- **Over-reliance on crime statistics:** Focusing only on reported crime instead of perceived safety, which especially affects women and marginalised groups.
- **Lack of diverse engagement:** Consulting only dominant voices or failing to engage women, girls, and marginalised genders meaningfully.
- **Designing routes based on efficiency, not experience:** Assuming people take the most direct route, without considering that women often take longer or diverted paths to feel safer, these patterns are rarely factored into design.
- **Toilets and facilities overlooked:** Insufficient or poorly maintained public toilets, baby change areas, breastfeeding spaces, or facilities to manage menstruation
- **Poor placement and maintenance:** Lights installed under tree canopies or left broken and large areas of vegetation overgrowth / vagrant land can undermine safety. Lack of long-term maintenance budgets often makes inclusive design unsustainable





Gender responsive transport, 2024



Handbook: Places that work for women and girls, 2024



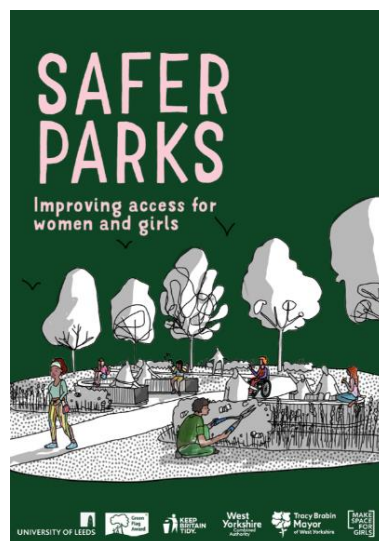
Safety in Public Space, GLA, 2022



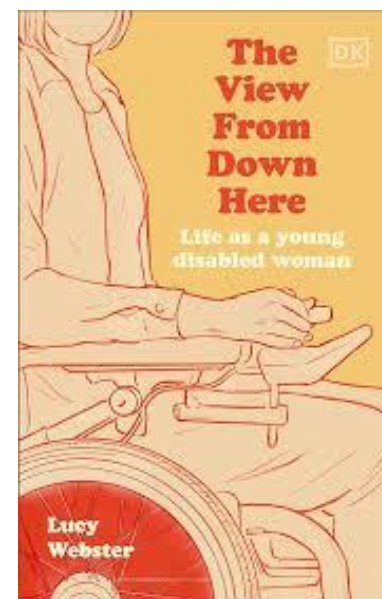
Gender Sensitive Urban Design Framework, 2023



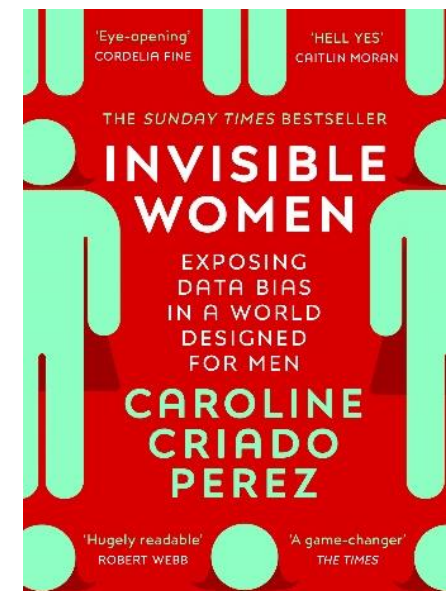
Transport Champions, 2022



Safer Parks Guidance, 2023



Life as a Young Disabled Woman, 2023



Invisible Women, 2019



# Thank you

**Gender Inclusive Design**

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