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FORMER POWERGEN SITE, BULLS BRIDGE, HAYES PERS AUDIT

FM Conway Ltd

December 2012

Quality Management

Issue/revision	Issue 1	Revision 1	Revision 2	Revision 3
Remarks	Final for submission			
Date	21 December 2012			
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Project number	11012840			
Report number				
File reference	N:\Bulls Bridge, North Hyde Gardens\TEXT\REPORTS\PERS AUDIT\PERS Audit.docx			

FORMER POWERGEN SITE, BULLS BRIDGE, HAYES

PERS Audit

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Figure 1 PERS Audit Routes

1 Introduction

1.1 Preamble

- 1.1.1 WSP was appointed by FM Conway Ltd to provide transport advice to support a proposed planning application for the proposed development of the former Powergen site, Bulls Bridge, North Hyde Gardens, Hayes.
- 1.1.2 This PERS audit has been produced further to a request from Transport for London (TfL), and forms part of a suite of documentation supporting the proposals, which includes a Transport Assessment and a Travel Plan.

1.2 Site Location

- 1.2.1 The site is located in Hayes, west London and falls under the administration of the London Borough of Hillingdon (LBH) and TfL. The site is approximately 3.1 hectares in area and was formerly used by Powergen. All buildings for the previous use on the site have now been demolished.
- 1.2.2 The site is bounded to the north by the Paddington to Bristol railway line, whilst the Grand Union Canal forms the site's southern border and the Grand Union Canal's Paddington branch forms the site's eastern boundary. The western boundary of the site is the Yeading Brook.

1.3 Development Proposals

- 1.3.1 The development proposal is for an aggregate recycling facility, asphalt storage and production plant, and wet waste plant, together with associated ancillary structures and facilities, car and HGV parking, and landscaping.
- 1.3.2 Given the nature of the proposals, the development is not anticipated to generate a significant level of pedestrian movement. Notwithstanding this, a full PERS Audit has been undertaken.

1.4 Report Purpose

- 1.4.1 This report presents the findings of a Pedestrian Environment Review System (PERS) Audit undertaken in relation to the redevelopment proposals at Bulls Bridge, North Hyde Gardens, located in the London Borough of Hillingdon.
- 1.4.2 The Audit focuses on the following three routes as agreed with TfL. The routes are highlighted on Figure 1:
 - Site to Hayes & Harlington Railway Station
 - Site to parade of shops and bus stops
 - Site to superstore
- 1.4.3 The routes, and subsequently the scope of the audit comprises a total of eight links, four crossings, three public transport waiting areas and three routes.

1.4.4 The remainder of this report is set out as follows:

- Section 2 details the methodology followed in carrying out this PERS Audit;
- Sections 3 to 6 consider the results for each item within the audit; and
- Section 7 summarises and concludes the report.

2 Methodology

2.1 Purpose of Audit

- 2.1.1 This audit has been undertaken in accordance with the guidance provided in TfL's 'Pedestrian Environment Review System, Review Handbook Version 2, May 2006'.
- 2.1.2 The PERS Audit is based around two key principles:
- That the quality of the pedestrian environment may be evaluated according to the degree to which it meets pedestrians' needs; and
 - That in evaluating the degree to which pedestrians' needs are met by the environment, the objective should be to satisfy as many people as possible, with the standard pedestrian being considered to be towards the vulnerable end of the spectrum.
- 2.1.3 The assessment focuses on five key pedestrian needs referred to as 'the 5Cs':
- Convenience – routes should facilitate the desired journey without undue deviation or difficulty;
 - Connectivity – routes should link origins and destination;
 - Conviviality – routes should be pleasant to use, with potential for activity within the public realm;
 - Coherence – routes should be continuous; and
 - Conspicuity – route design should allow the user to be seen by, and to see other pedestrians and vehicles to promote personal security and road safety.
- 2.1.4 A pedestrian environment where these five elements are in evidence is therefore considered positive.
- 2.1.5 Each item (link, crossing etc) within the study area has been assessed against the relevant parameters. Each parameter has been scored between -3 to +3 and fed into the PERS software. The software has applied default weighting factors to the scores allocated to each parameter. The purpose of the weighting factor is to allow for differentiation between those elements that are more significant than others. While all the parameters reflect an issue of importance to pedestrians, some are more so than others.
- 2.1.6 Each individual element was rated and presented with Red, Amber, Green (RAG) scores:
- Red: Negative overall;
 - Amber: Average overall;
 - Green: Positive overall.

2.2 Process

2.2.1 TfL's handbook prescribes the following five stage process for conducting a PERS audit, which has been adhered to accordingly:

- Stage 1: Definition of study area;
- Stage 2a: Desk top identification of links, crossings, routes and spaces;
- Stage 2b: Collation of existing information;
- Stage 3: On-street evaluation;
- Stage 4: Data analysis using the PERS v2 software; and
- Stage 5: Display and review outputs.

3 Links

3.1 Summary

- 3.1.1 Out of the eight links assessed, six were assessed as Amber and two as Green overall. All links were categorised as of local character or importance.
- 3.1.2 The Green and Amber ratings indicate that all the links are of an acceptable standard overall, with no links to be considered negative overall.

Ref	Link	Total Score	Percent of Max Score	RAG Colour
L1	North Hyde Road (north side)	8	5	Amber
L2	North Hyde Road (south side)	15	9	Amber
L3	Station Road (west side)	99	62	Green
L4	Station Road (east side)	97	61	Green
L5	Nestles Avenue (both sides)	8	5	Amber
L6	North Hyde Gardens (south and east sides)	-33	-28	Amber
L7	North Hyde Gardens (north and west sides)	-38	-32	Amber
L8	Shared pedestrian / cycle route to superstore	33	21	Amber

- 3.1.3 Within each of the assessed links, there were specific items that would benefit from further attention, outlined below.

3.2 Link 1 – North Hyde Road (north side)

- 3.2.1 As shown in Photograph 1 below, foliage has overgrown above the footway, and may cause an obstruction for some pedestrians. Consideration should be given to increasing the frequency of pruning by the local authority, however as the pinch point is over a short distance it is not considered to be a significant obstruction.



Photograph 1:

North Hyde Road (north side), facing west

Obstruction caused by low-hanging branches

- 3.2.2 As shown in Photograph 2 below, leaf litter, wet weather causing mulch to form and general ponding have combined to reduce the attractiveness, or conviviality, of the footway. Consideration should be given to increasing the frequency of highway maintenance visits; however it is likely that the leaf litter is not seen as a barrier by pedestrians.



Photograph 2:

North Hyde Road (north side) facing west

Pinch point caused by ponding and leaf litter

3.3 Link 5 – Nestle's Avenue (both sides)

- 3.3.1 Occasional pinch points with a temporarily reduced footway width are caused by trees at several sites along the route. In addition, the roots of the same trees have caused some heaving in the footway, shown in Photograph 3 below. Where possible, consideration should be given to re-grading the footway on the approach to the trees and footway widening where possible, however it is possible that any re-grading would ultimately require the removal of the tree which would in turn reduce the attractiveness and residential nature of the link.
- 3.3.2 Notwithstanding this, it should be noted that the review of Personal Injury Accident Data review (undertaken within the Transport Assessment) did not highlight any accidents on Nestle's Avenue involving pedestrians which cited footway condition as a contributory factor.



Photograph 3

Nestles Avenue, north side, facing west

Pinch point and heaving caused by the tree

3.4 Link 6 – North Hyde Gardens (south and east sides)

- 3.4.1 As shown in Photograph 4 below, no formal footway is present on the south and east sides of North Hyde Gardens; however the route is infrequently used by pedestrians. However the existing footway on the opposite side of the road is considered to be an acceptable alternative. Consideration could be given to providing a crossing point in the form of dropped kerbs to facilitate ease of passage.



Photograph 4

North Hyde Gardens, south side, facing west

No footway present on south side

3.5 Link 7 – North Hyde Gardens (north and west sides)

- 3.5.1 Towards the southern end of North Hyde Gardens, the western footway narrows slightly while adjacent to an area of (assumed) electrical plant, as shown in Photograph 5 below. However during the site visit by WSP, no pedestrians were observed deviating from the footway and it does not appear that the area causes any problems for the typical pedestrian users.



Photograph 5

North Hyde Gardens, west side, facing north

Pinch point in footway

- 3.5.2 Dropped kerbs are not provided where the footway crosses an access road, just north of the canal and dropped kerbs are sub-standard at the access to British Airways Engineering, shown in Photographs 6 and 7 below. Dropped kerbs could be introduced to facilitate ease of crossing.



Photograph 6

North Hyde Gardens, west side, facing south
No dropped kerb adjacent to canal bridge



Photograph 7

North Hyde Gardens, north side, facing west
Dropped kerbs with minor upstand (shown where moss has grown) and obstruction caused by the sign

3.6 Link 8 – Shared Pedestrian and Cycle Route

- 3.6.1 As shown in Photographs 8 and 9 below, two sets of metal railing chicanes, on both approaches to an underpass form minor obstructions to cycle movement. Whilst these act as a deterrent to cyclist movement it is not recommended that any change is made as this is likely to generate an adverse impact on pedestrians through increased cyclist speed through the underpass.

	
Photograph 8 Shared footway, facing west Chicane on west side of underpass	Photograph 9 Shared footway, facing west Broken chicane on east side of underpass Evidence of 'black hole effect' at entrance to underpass.

- 3.6.2 A degree of poor inter-person visibility between pedestrians in the underpass and those on the approach is caused by horizontal deflection on the approach to the underpass, shown in Photograph 10 below. In addition, the provision of increased lighting at the tunnel entrances could be considered in order to counteract a potential 'black hole effect'.



Photograph 10

Shared footway facing east

Poor inter-person visibility on approach caused by sharp horizontal deflection

4 Public Transport Waiting Areas (PTWA)

4.1 Summary

- 4.1.1 Out of the three Public Transport Waiting Areas assessed, two were assessed as Amber and one as Green overall.

Ref	Link	Total Score	Percent of Max Score	RAG Colour
P1	Roseville Road - northbound	-3	-3	Amber
P2	North Hyde Road – westbound	67	52	Green
P3	North Hyde Road - eastbound	23	18	Amber

- 4.1.2 Within each of the assessed PTWAs, there were specific items that could benefit from further attention, outlined below.
- 4.1.3 Consideration should be given to re-locating the east bound stop on North Hyde Road to avoid the potential for conflict between residents accessing their private driveways across the footway adjacent to the bus stop, shown in Photograph 11 below.



Photograph 11

North Hyde Road, north side, facing east

Bus stop with no shelter and adjacent to private driveway accesses

5 Crossings

5.1 Summary

5.1.1 Out of the four crossings assessed, three were assessed as Amber and one as Green overall.

Ref	Link	Total Score	Percent of Max Score	RAG Colour
C1	Zebra crossing, Station Road	25	21	Amber
C2	North Hyde Road signals (north/south)	18	15	Amber
C3	North Hyde Road signals (east/west)	7	6	Green
C4	Puffin crossing, North Hyde Road	57	58	Green

5.1.2 Within each of the assessed crossings, there were specific items that would benefit from further attention, outlined below.

5.2 Crossing 3 – North Hyde Gardens at signals

5.2.1 The provision of red coloured tactile paving is not appropriate at this crossing as there is no pedestrian phase associated with the traffic signals. The highway authority should consider replacing the tactile paving with any other colour apart from red to comply with national and local guidance.



Photograph 12

North Hyde Road, north side, facing east

Red tactile paving suitable for controlled crossings only - no pedestrian phase exists here

- 5.2.2 There is a degree of confusion caused by the junction layout – pedestrians cross in three separate movements, and do not appear to intuitively look the correct way (specifically at traffic moving westbound on North Hyde Road turning north into North Hyde Gardens). The situation should be monitored and if necessary, consideration should be given to the provision of Look Right and Look Left road markings, as appropriate, at the crossing.
- 5.2.3 Notwithstanding this, the analysis of Personal Injury Accident Data undertaken for the Transport Assessment Report, confirms that during the study period (1 November 2006 – 31 October 2011), there were no accidents involving pedestrians recorded at the North Hyde Road / North Hyde Gardens junction.



Photograph 13

North Hyde Road, north side, facing east

Pedestrian crossing movement in three stages. Pedestrians noted to look to their left at the second stage of the crossing (proceeding eastbound) rather than towards on-coming traffic from the right.

5.3 Crossing 4 – Zebra Crossing on Station Road

- 5.3.1 This zebra crossing has a central island, which is less convenient for pedestrians. The central island also causes a degree of confusion between pedestrians and vehicles as to who has priority. The provision of a central island on a 'straight across' crossing is not recommended by the 'Design and Assessment of Pedestrian Crossings' guidance. However, the hesitation causes the pedestrian and vehicle driver to make eye contact and a therefore a conscious decision has to be made whether to proceed or not. It is recommended that the highway authority give consideration to removing the central island, after longer-term monitoring of the operation of the crossing.



Photograph 14

Station Road, west side, facing north-east

Zebra crossing at narrow carriageway with refuge island provided.

6 Routes

6.1 Summary

6.1.1 Out of three routes assessed, all were assessed as Amber.

Ref	Link	Total Score	Percent of Max Score	RAG Colour
R1	Site to Hayes & Harlington station	9	7	Amber
R2	Site to parade of shops	16	12	Amber
R3	Site to superstore	-11	-11	Amber

- 6.1.2 In general, all three routes may benefit from the provision of rest points along the route, this would serve to break up a journey for those pedestrians that require it, and would increase the natural passive surveillance of the area, potentially increasing the feeling of safety and security.
- 6.1.3 All routes are affected by the short section of narrow footway on North Hyde Gardens, as mentioned in section 3.5 of this report.
- 6.1.4 Routes 1 and 2 score an acceptable 1.3 and 1.5 WPDI rating respectively, comparing Actual Distance to Direct Distance, however Route 3, to the superstore, scores a WPDI of 3. This is due to the limited opportunity for crossing over the canal, requiring a circuitous route westwards.

7 Summary & Conclusion

7.1 Summary

- 7.1.1 WSP was appointed by FM Conway to prepare a PERS Audit of the existing public realm in the vicinity of the Powergen site at Bulls Bridge, North Hyde Gardens, Hayes.
- 7.1.2 The scope of the audit was agreed with TfL and a total of eight links, four crossings, three PTWAs, and three routes were reviewed.
- 7.1.3 The resulting scores were acceptable, with four items classed as green (positive overall), 14 classed as amber (average overall) and none classed as red (negative overall). This was reflected in amber scores for all three routes audited.

7.2 Conclusion

- 7.2.1 The scores reflect that no major issues were highlighted by the PERS audit in the area surrounding the site.
- 7.2.2 Some general maintenance and localised improvement works by the highway authority could improve the environmental quality of some of the links and crossings in the study area, and the inclusion of such should be considered in the context of the highway authority's routine maintenance programme.
- 7.2.3 In conclusion, the pedestrian environment around the development site was found to be acceptable.

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