

Whipps Cross Hospital – Maximizing Health Opportunities

April 2021



London Plan, Good Growth, and Whipps Cross

- **The Mayor's Healthy Streets Approach** is central to delivering good growth in London and enabling people to travel by walking, cycling and public transport.
- **GG1** integrating walking, cycling and public transport access into the design
- **GG2**, shifting land use from car use to provide improved infrastructure for buses, cyclists and pedestrians.
- **GG3** Creating a healthy city, reducing health inequalities by promoting improved access by public transport, walking and cycling.
- **D2** asks development to plan for future infrastructure needs including future public transport services.
- **Policy S2** New facilities should be easily accessible by public transport, cycling and walking.



Waltham Forest - Proposed Submission Local Plan (LPI) - Shaping the Borough

- **Policy 48 - Social and Community Infrastructure** - The location is easily accessible by sustainable modes of transport such as walking, cycling and public transport for staff and users
- **Policy 62 - Promoting Sustainable Transport** - Support permeability for active modes of travel, and prioritise road space for cycling, walking and public transport;
- **Policy 64 - Public Transport** - Seeking development contributions towards enhancing public transport provision and infrastructure in order to mitigate likely adverse impact of development;
- **Policy 65 - Development and Transport Impacts**
- **Policy 96 - Infrastructure and Developer Contributions** - Infrastructure provision or enhancements should be provided on-site as an integral part of a development wherever possible and appropriate.

Council's Corporate Strategy

- Ensuring safer healthy lives is a corporate priority; the provision of modern healthcare, tackling health inequality and the creation of a 15 minute neighbourhood



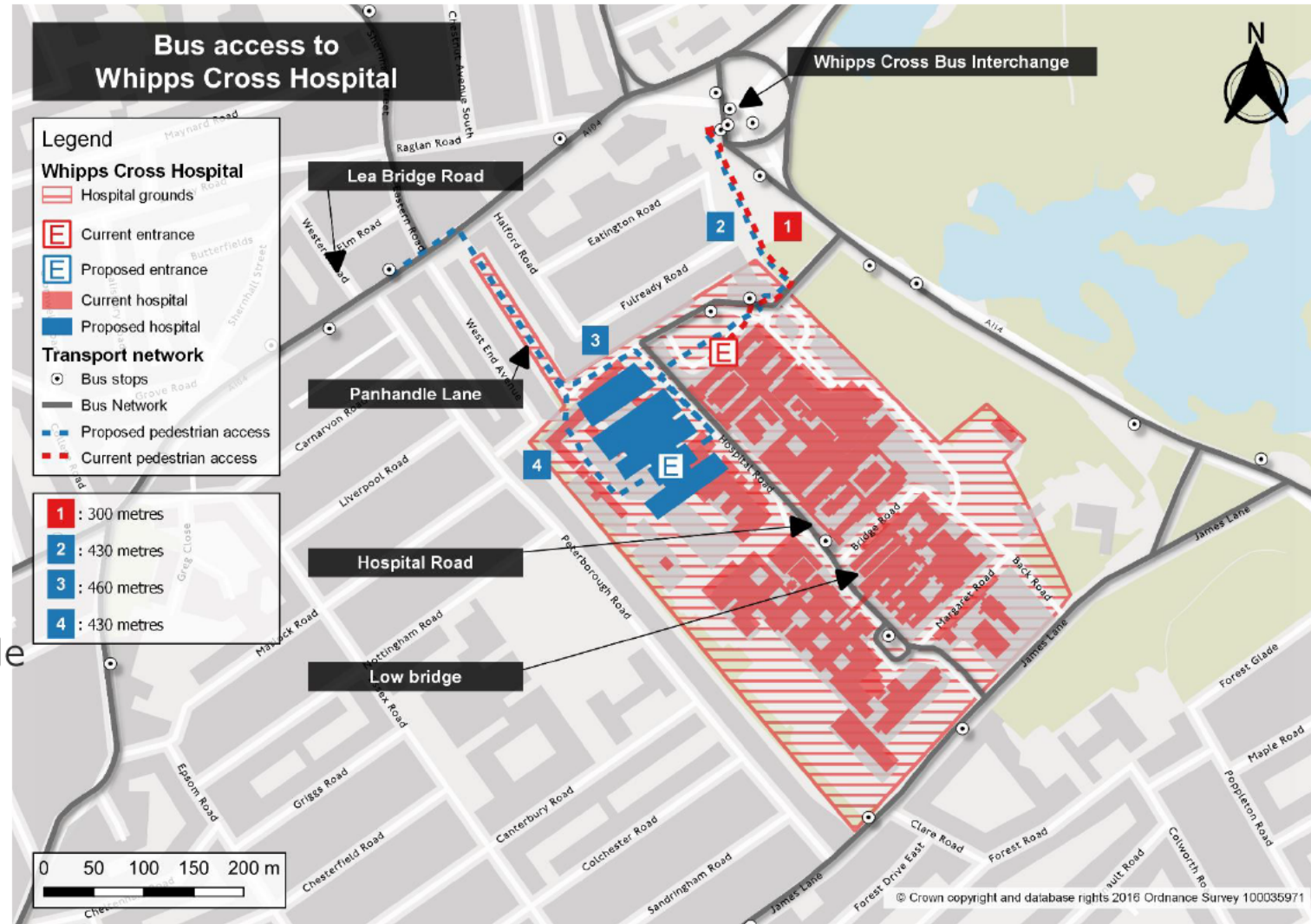
Bus Access Issues

Current situation

- Low bridge constrains access to hospital to single-deck bus only (W12, W15, W19 – 15.5bph)
- Bus interchange located 300m from hospital main entrance (20, 56, 230, 257, 357, N55 – 29bph)

Future site

- Hospital relocated on west side
- Residential developments on east side
- Removal of low bridge allows for double-deck bus operation
- Bus interchange located further than 400m from future hospital entrance



Opportunities for bus network – Panhandle Lane bus way

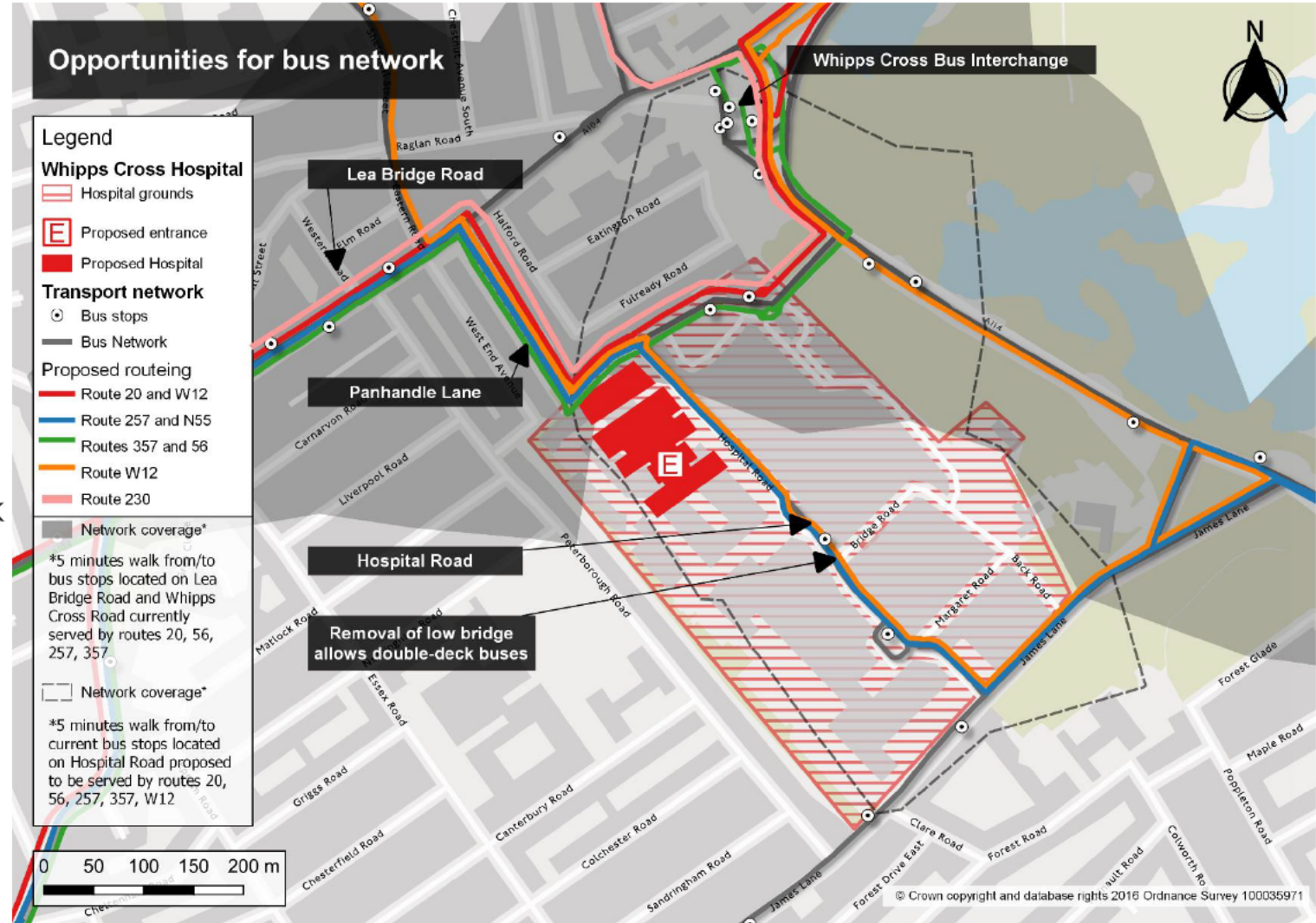
Routes 20, 56, 230, 257, 357, WI2, N55

- Re-routeing via Panhandle Lane
- Improved connectivity to hospital
- Simplification of WI2 routeing
- Minimal cost implication

Routes WI2, WI5, WI9

- Opportunity to convert to double-deck

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Health equality impact – Panhandle Lane bus way

The proposal improves the connectivity throughout:

- Network coverage**

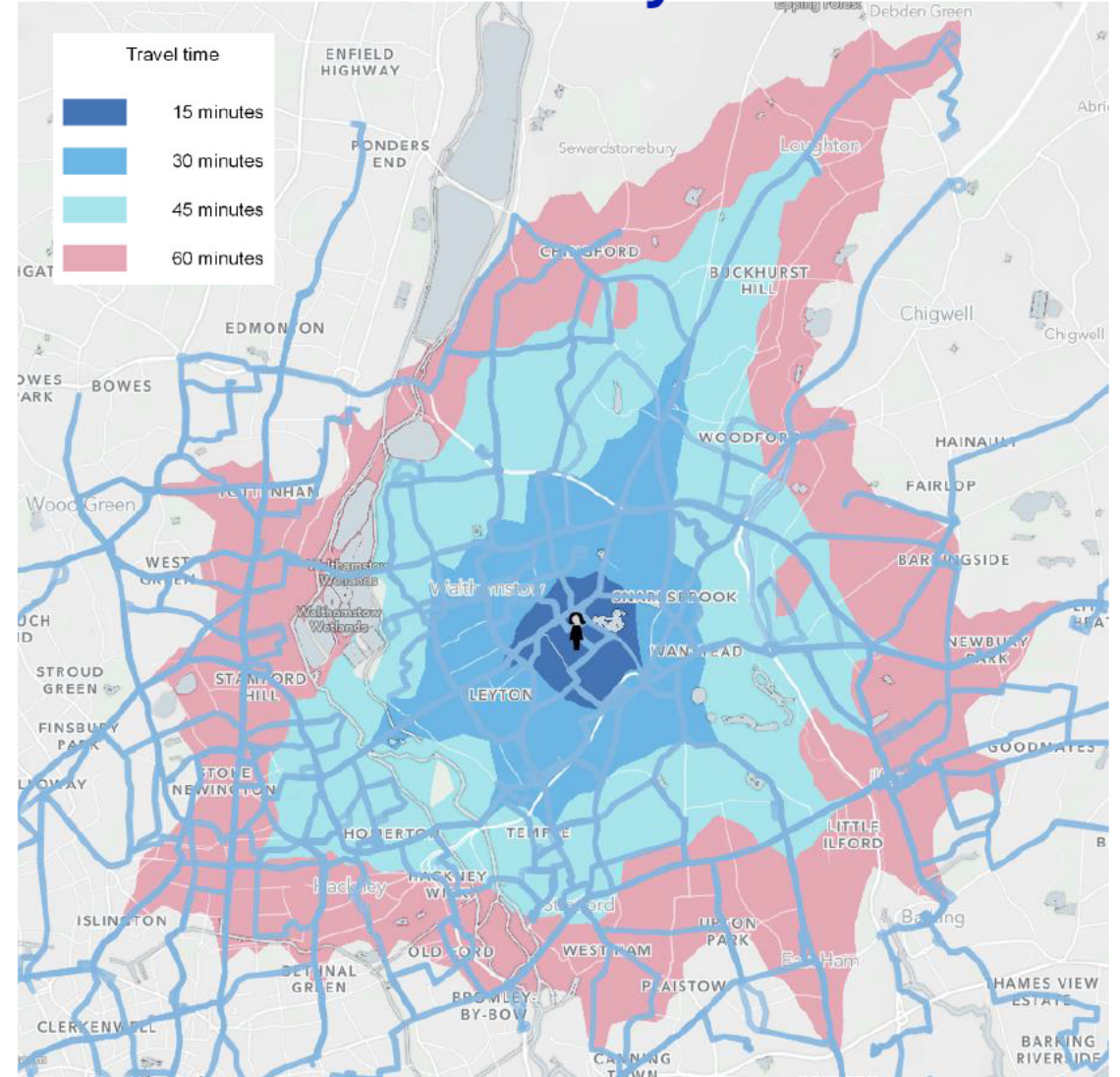
(People located within 400m of a bus stop directly serving the hospital)
 Improved by **109%** - An additional 191,000 people can access directly the hospital entrance

Current network	Proposed network	% change	Absolute change
175,600	366,800	109%	191,200

- Travel time**

(People located within X minutes of the hospital using the bus network)
 Improved by **15%** - An additional 143,000 people can access the hospital entrance within an hour

Travel time (min)	Population coverage			Absolute change
	Current network	Proposed network	% change	
15	21,100	25,500	21%	4,400
30	147,900	174,600	18%	26,700
45	406,700	479,000	18%	72,300
60	990,200	1,133,500	15%	143,300



Travel time analysis (Remix) from Whipps Cross Hospital



Alternative access option

Alternative access in case:

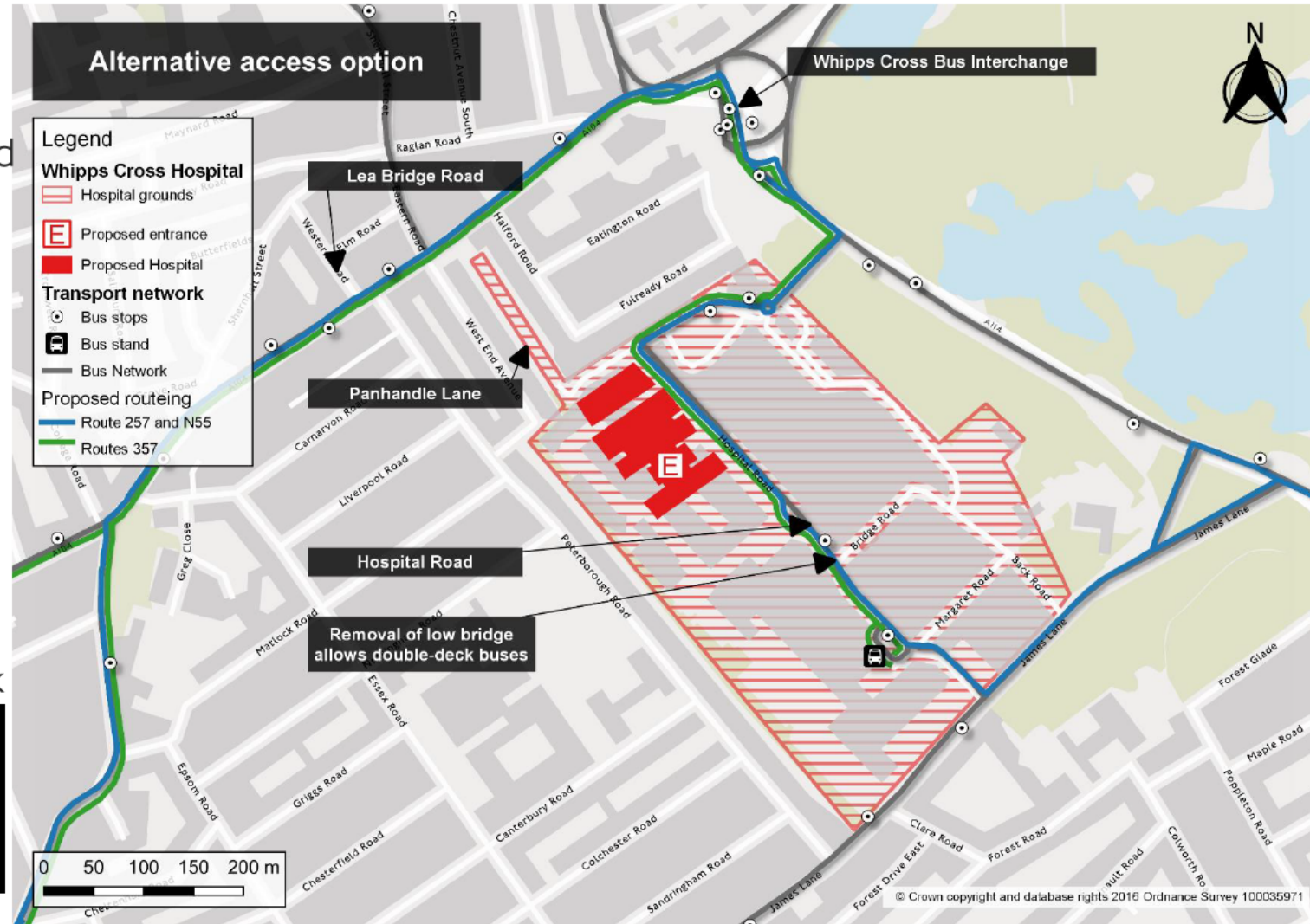
- Panhandle Lane bus way not provided
- Assumed bus stand provided on site

Routes 257, 357, N55

- Re-routing via Hospital Road
- Significant cost implication
- Improved connectivity to hospital

Routes W12, W15, W19

- Opportunity to convert to double-deck



Health equality impact – Alternative Access

The proposal improves the connectivity throughout:

- Network coverage**

Improved by **34%** - An additional 60,000 people can access directly the hospital entrance

(130,000 people will not have a direct access to the hospital entrance compared to Panhandle Lane Bus Way)

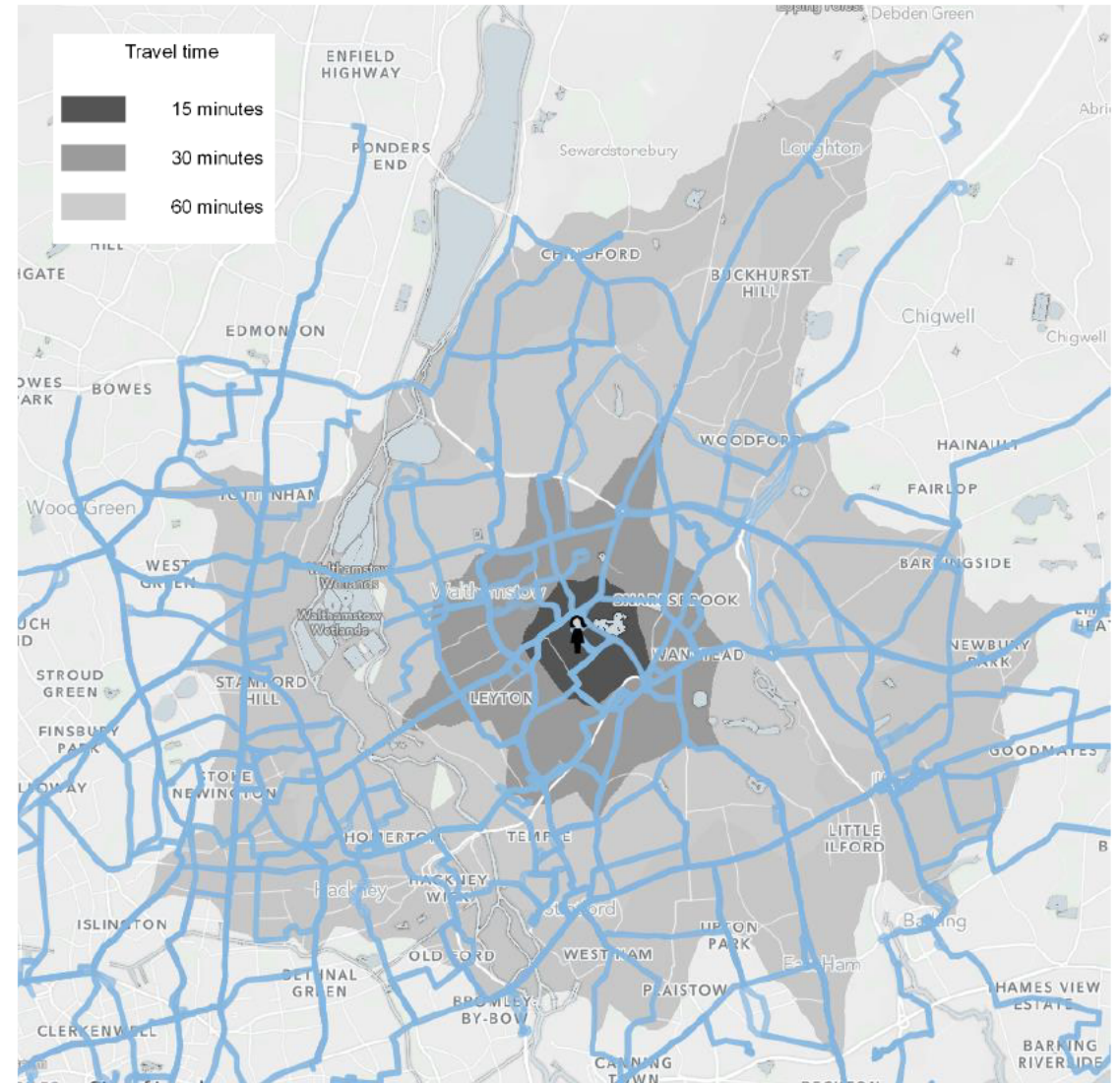
Current network	Proposed network	% change	Absolute change
175,800	236,100	34%	60,300

- Travel time**

Improved by **6%** - An additional 57,000 people can access the hospital entrance within an hour

(86,000 people will still be further than one hour away from the hospital entrance compared to Panhandle Lane Bus Way)

Travel time (min)	Population coverage			Absolute change
	Current network	Proposed network	% change	
15	21,100	23,900	13%	2,800
30	147,900	159,800	8%	11,900
45	406,700	424,300	4%	17,600
60	990,200	1,046,900	6%	56,700



Travel time analysis (Remix) from Whipps Cross Hospital

Change in PTAL

Current situation

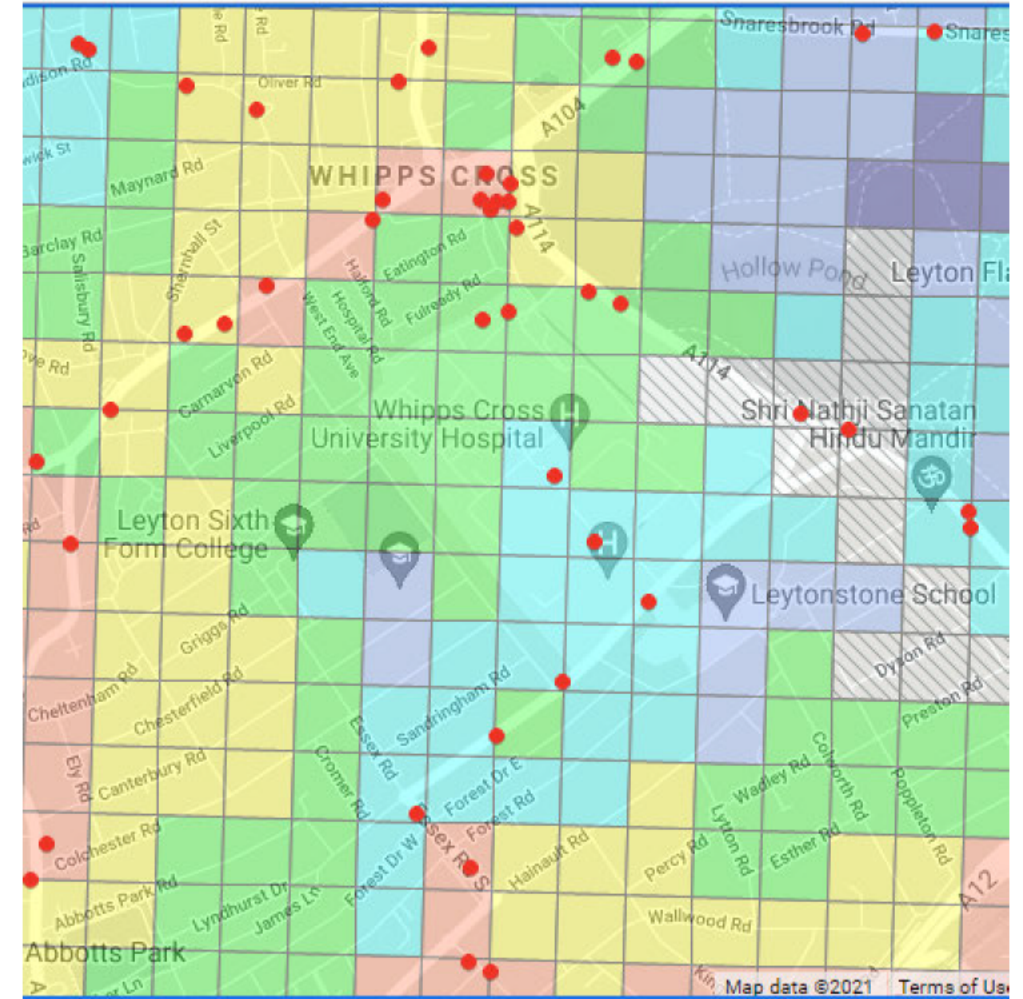
- The PTAL of the site ranges from 5 on Lea Bridge Rd to 2 in the south with the future hospital located in a PTAL of 3.

Panhandle Lane Bus Way

- The Panhandle Lane bus proposals provide the opportunity to equalise the PTAL at 4 across most of the site improving the accessibility of the new hospital.

Alternative Access

- The Alternative Access bus proposals only increase the PTAL at 3 in the south of the site because of the limited improved accessibility.
- Increasing the PTAL above 3 helps to optimise development



PTAL for Whipps Cross Hospital

Summary

Panhandle Lane bus way provides significant benefits for the NHS, Boroughs & TfL :

- **Directly connects 191,000 more people** to within the hospital grounds
- **143,000 additional people within 1 hour travel time** of the hospital
- **Travel times improved for all** irrespective of the current length of the journey
- **Improves PTAL up to 4** within the development site
- **Maximises policy objectives** including the Mayor's Transport Strategy

Option	Panhandle Lane bus way									Alternative access								
Routes	20	56	230	257	357	W12	W15	W19	N55	20	56	230	257	357	W12	W15	W19	N55
Proposed changes	Y	Y	Y	Y	Y	Y			Y				Y	Y				Y
Double-decking opportunity						Y	Y	Y							Y	Y	Y	
Access to Hospital	Y	Y	Y	Y	Y				Y				Y	Y				Y
Bus Stand required														Y				
Network coverage	+191K people (+110%)									+60K people (+34%)								
Travel time (30 min)	+27K people (+21%)									+12K people (+9%)								
Travel time (60 min)	+143K people (+15%)									+57K people (+6%)								
Cost	£230,000 per year									£305,000 per year								



Already in place

APPENDIX

Summary by route



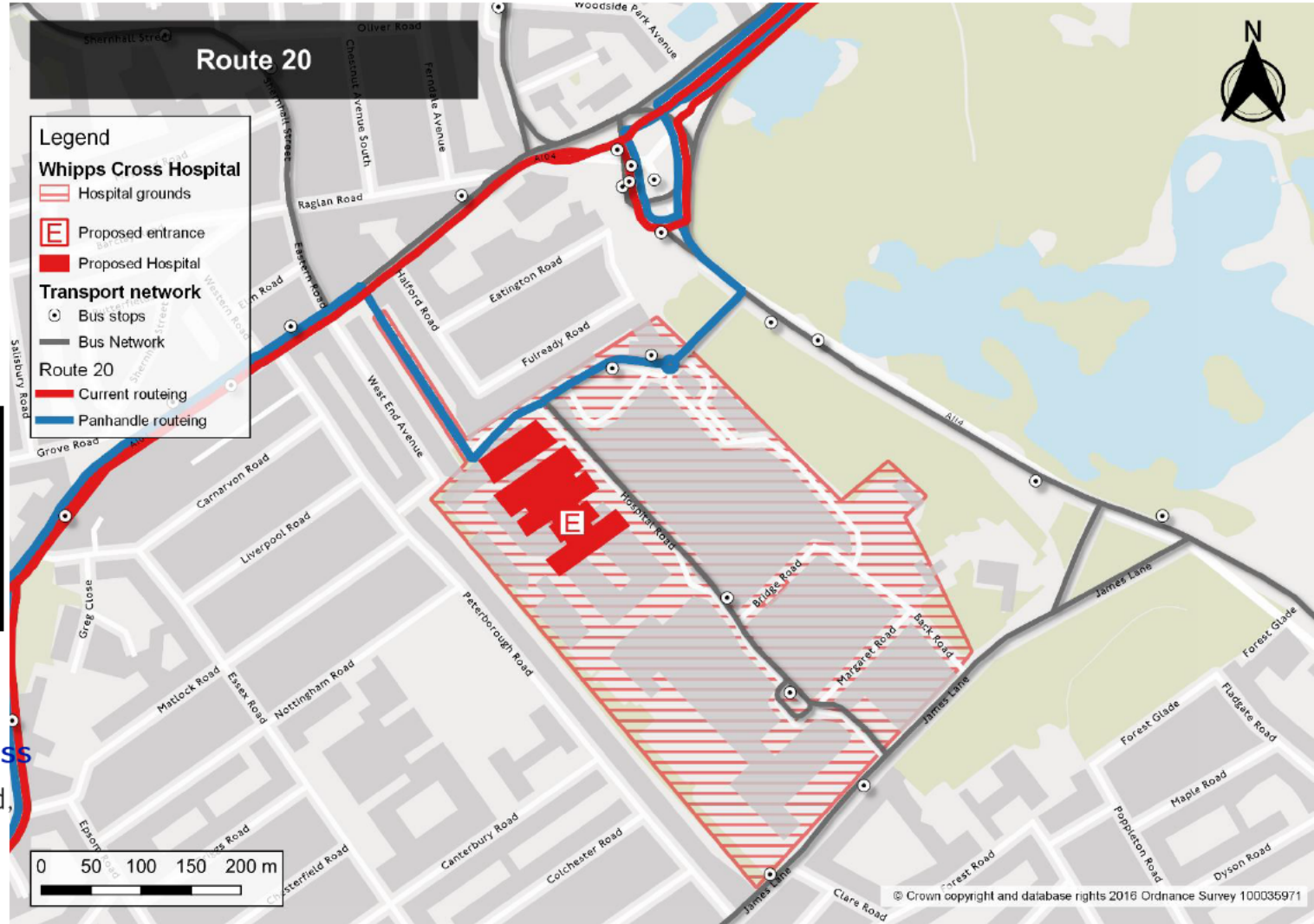
Route 20

Route 20

Table 1 – Health benefits

Scheme	Additional network coverage	Additional population within 1/2 hour travel time	Additional population within 1 hour travel time
Panhandle Lane bus way	32,200	9,500	26,700

Particularly improves access for LB Redbridge residents



Wards with improved connectivity to Whipps Cross

Wood Street, Hale End and Higham Park, Church End, Hatch Lane, Monkams

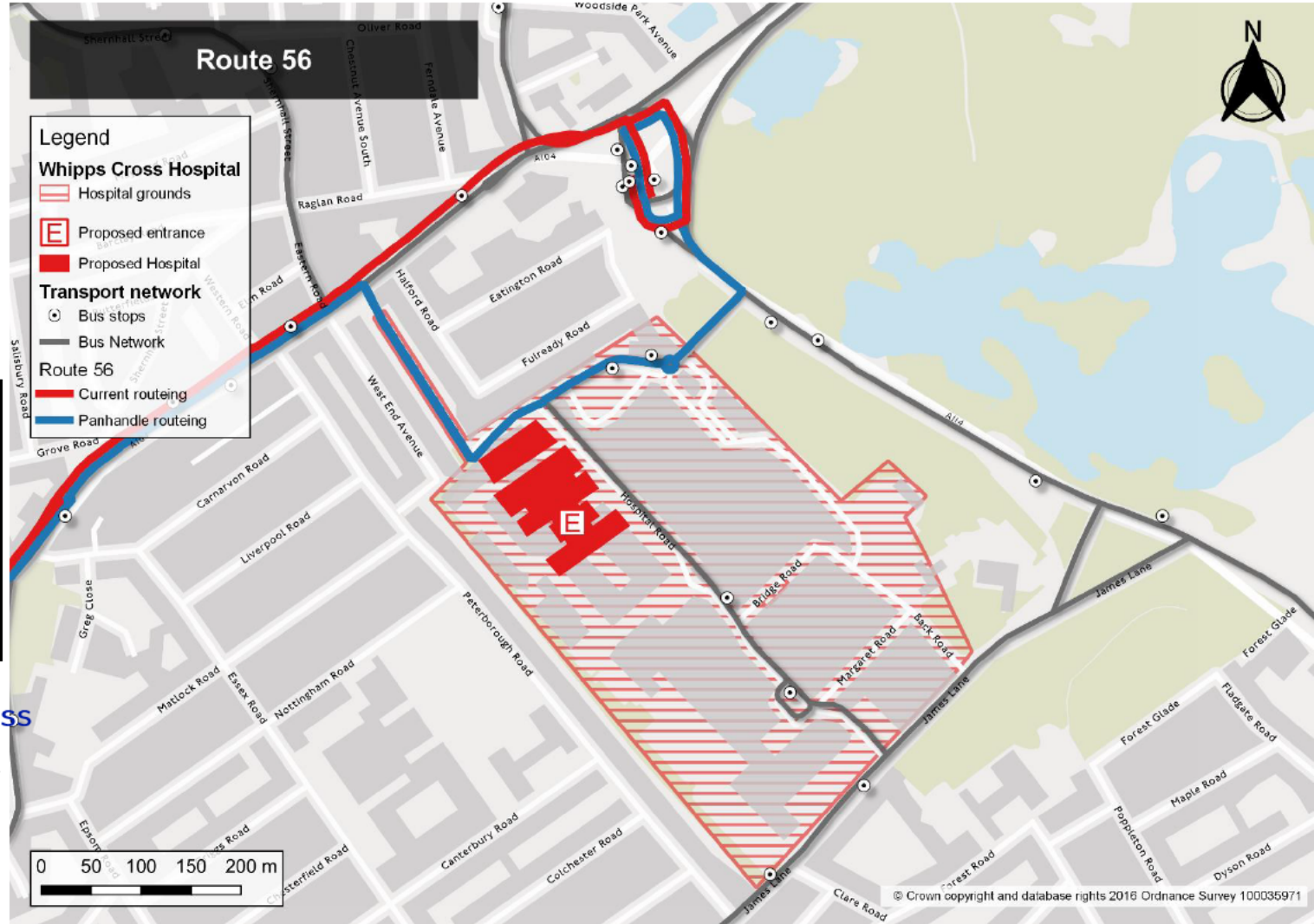


Route 56

Route 56

Table 1 – Health benefits

Scheme	Additional network coverage	Additional population within 1/2 hour travel time	Additional population within 1 hour travel time
Panhandle Lane bus way	98,600	2,900	49,300



Wards with improved connectivity to Whipps Cross

Lea bridge (LWBF), Lea Bridge (LBH), Hackney Downs, Hackney Central, Dalston, Mildmay, De Beauvoir, Canonbury

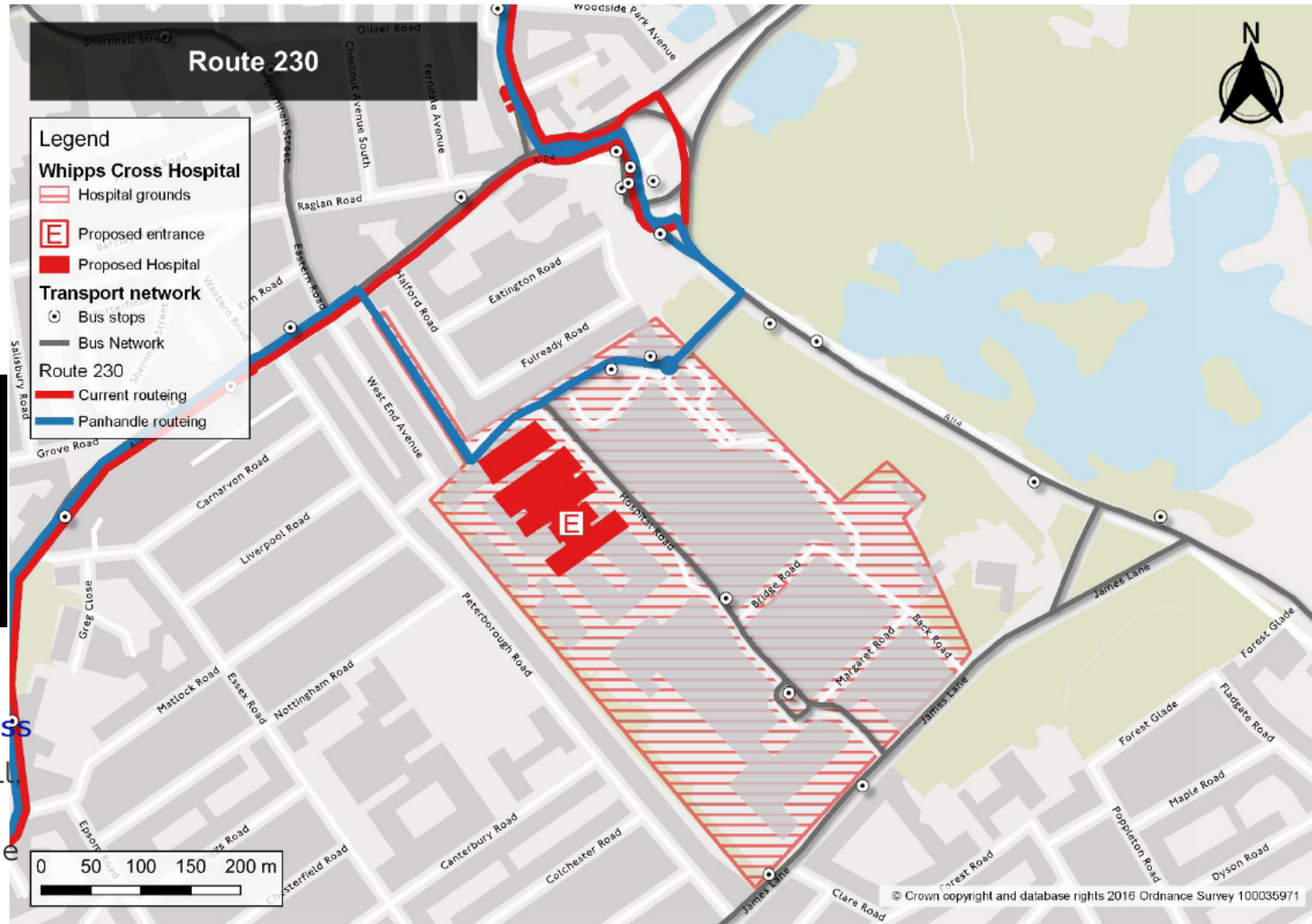


Route 230

Route 230

Table 1 – Health benefits

Scheme	Additional network coverage	Additional population within 1/2 hour travel time	Additional population within 1 hour travel time
Panhandle Lane bus way	54,000	100	1,500



Wards with improved connectivity to Whipps Cross

Wood Street, High Street, William Morris, Higham Hill, Tottenham Hale, Tottenham Green, Bruce Grove, St Ann's, West Green, Harringay, Noel Park, Woodside



Route 257

Route 257

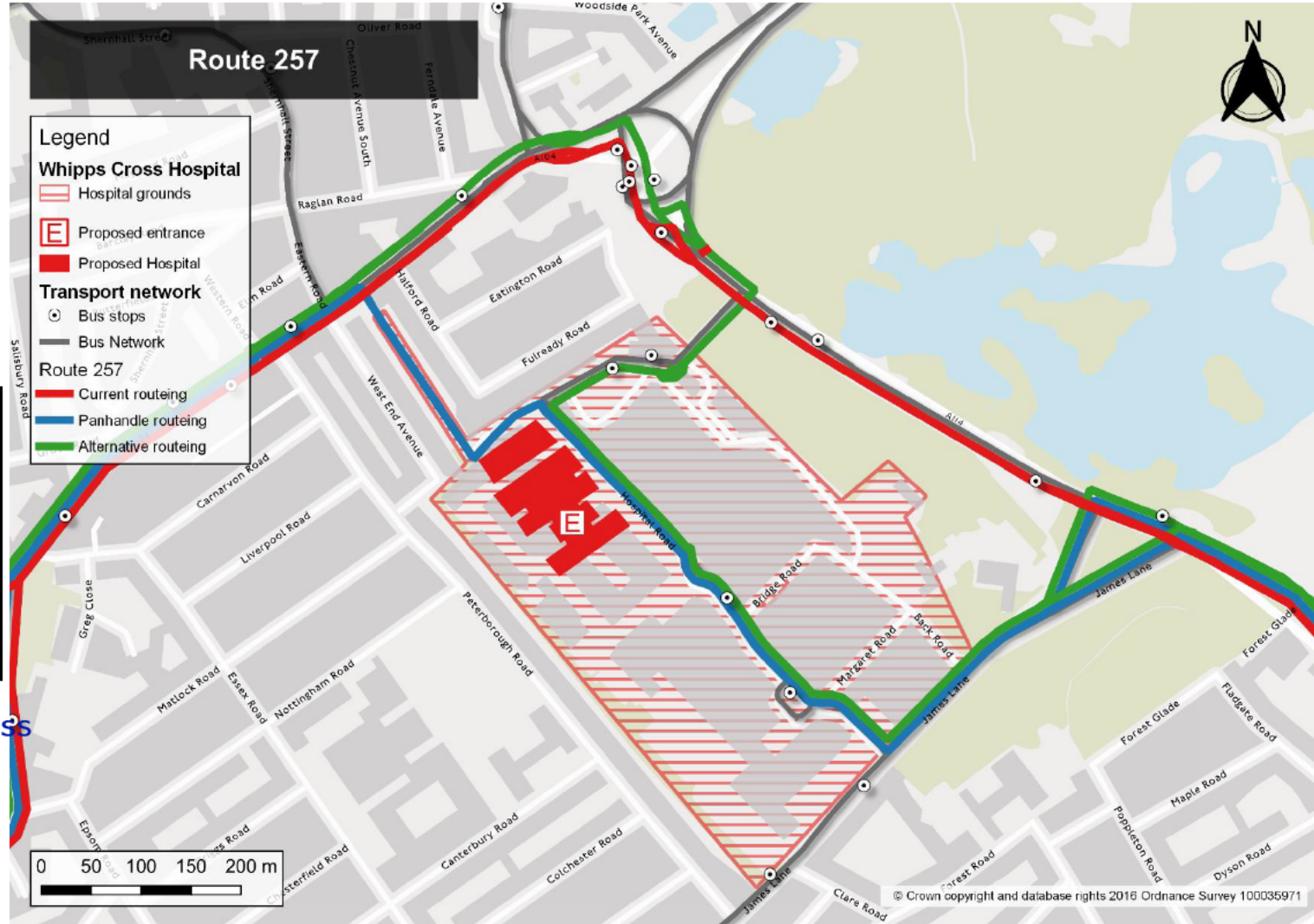
Table 1 – Health benefits

Scheme	Additional network coverage	Additional population within 1/2 hour travel time	Additional population within 1 hour travel time
Panhandle Lane bus way	29,500	9,300	52,900
Alternative access	29,500	5,800	34,300



Wards with improved connectivity to Whipps Cross

Leytonstone, Forest, Cann Hall, Cathall,
Forest Gate North, Stratford and New Town

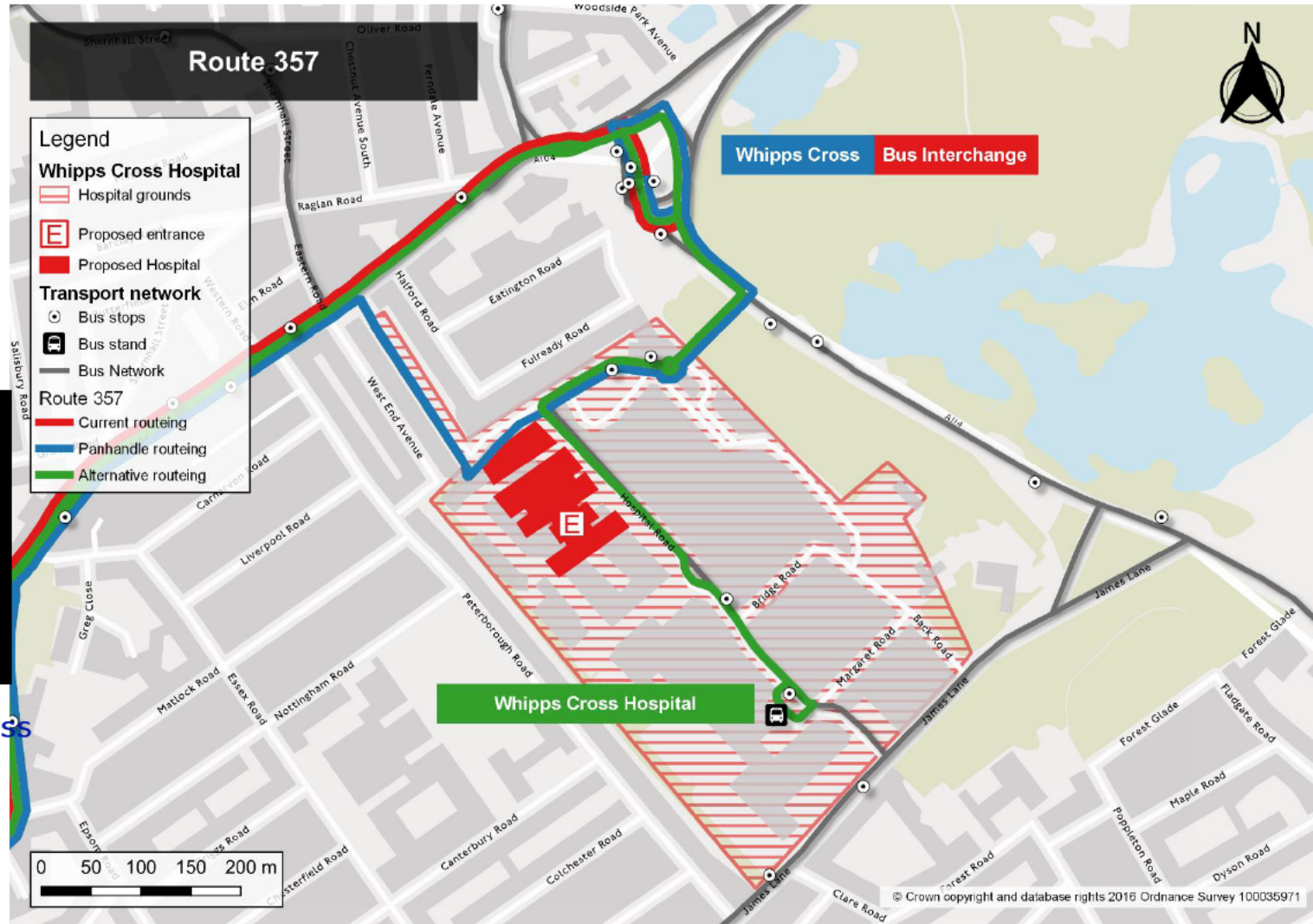


Route 357

Route 357

Table 1 – Health benefits

Scheme	Additional network coverage	Additional population within 1/2 hour travel time	Additional population within 1 hour travel time
Panhandle Lane bus way	30,900	4,100	100
Alternative access	30,900	2,000	100



Wards with improved connectivity to Whipps Cross

Hoe Street, William Morris, Chapel End, Valley, Larkwood, Hatch Lane, Monkams

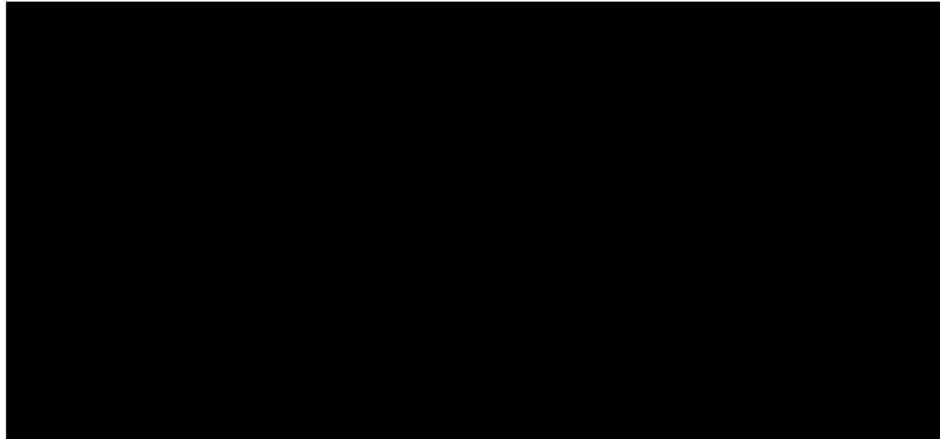


Route W12

Route W12

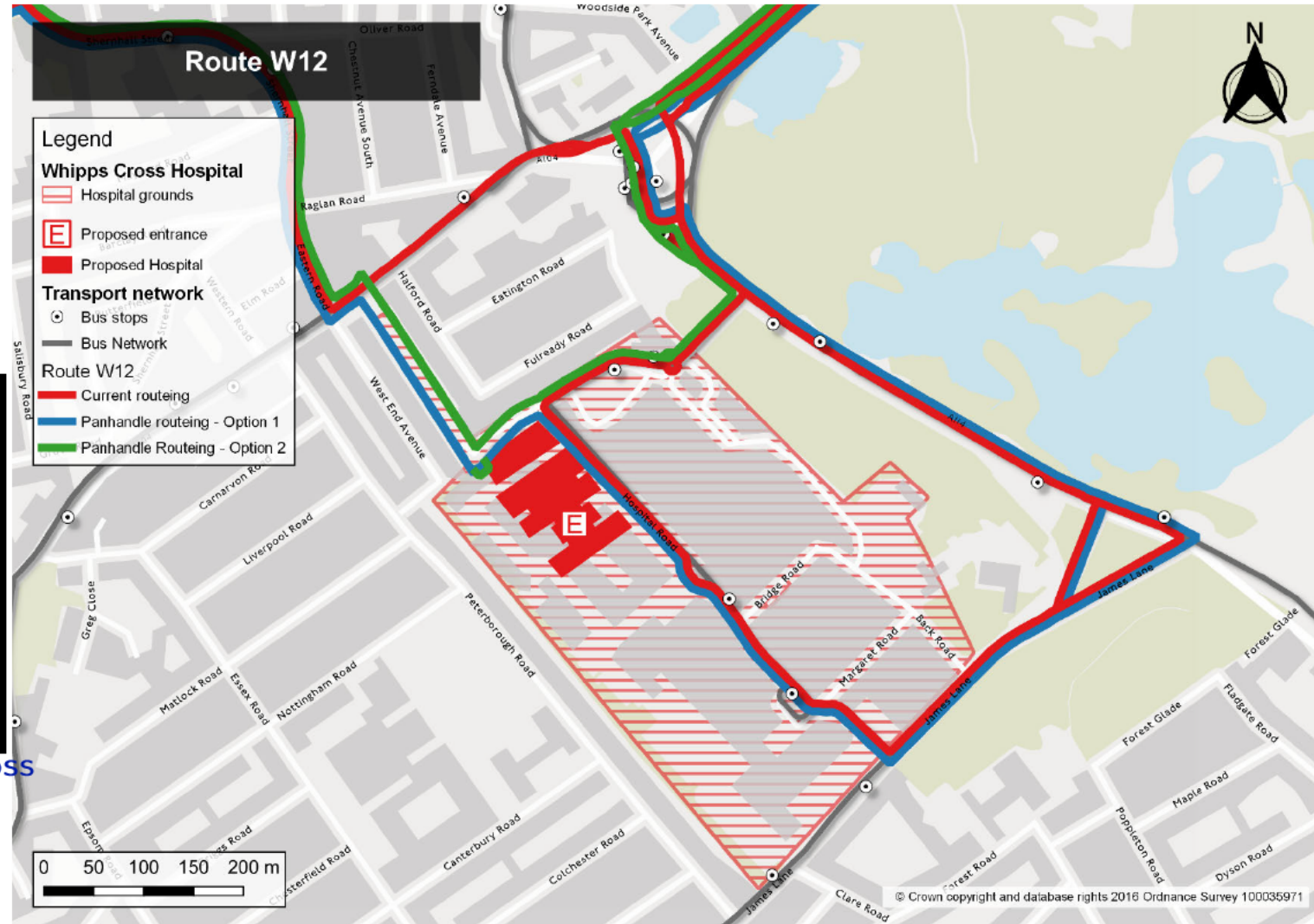
Table 1 – Health benefits

Since route W12 already serves the hospital, there is no additional network coverage from the proposals. The impact on travel time is minimal given the low frequency of the route i.e. every half hour.



Wards with improved connectivity to Whipps Cross

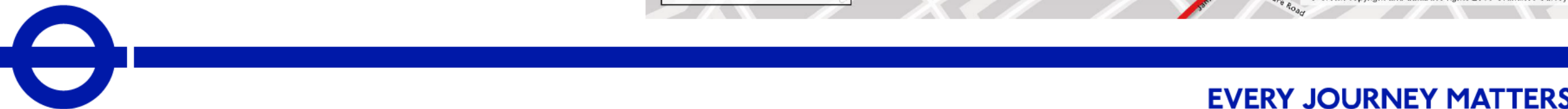
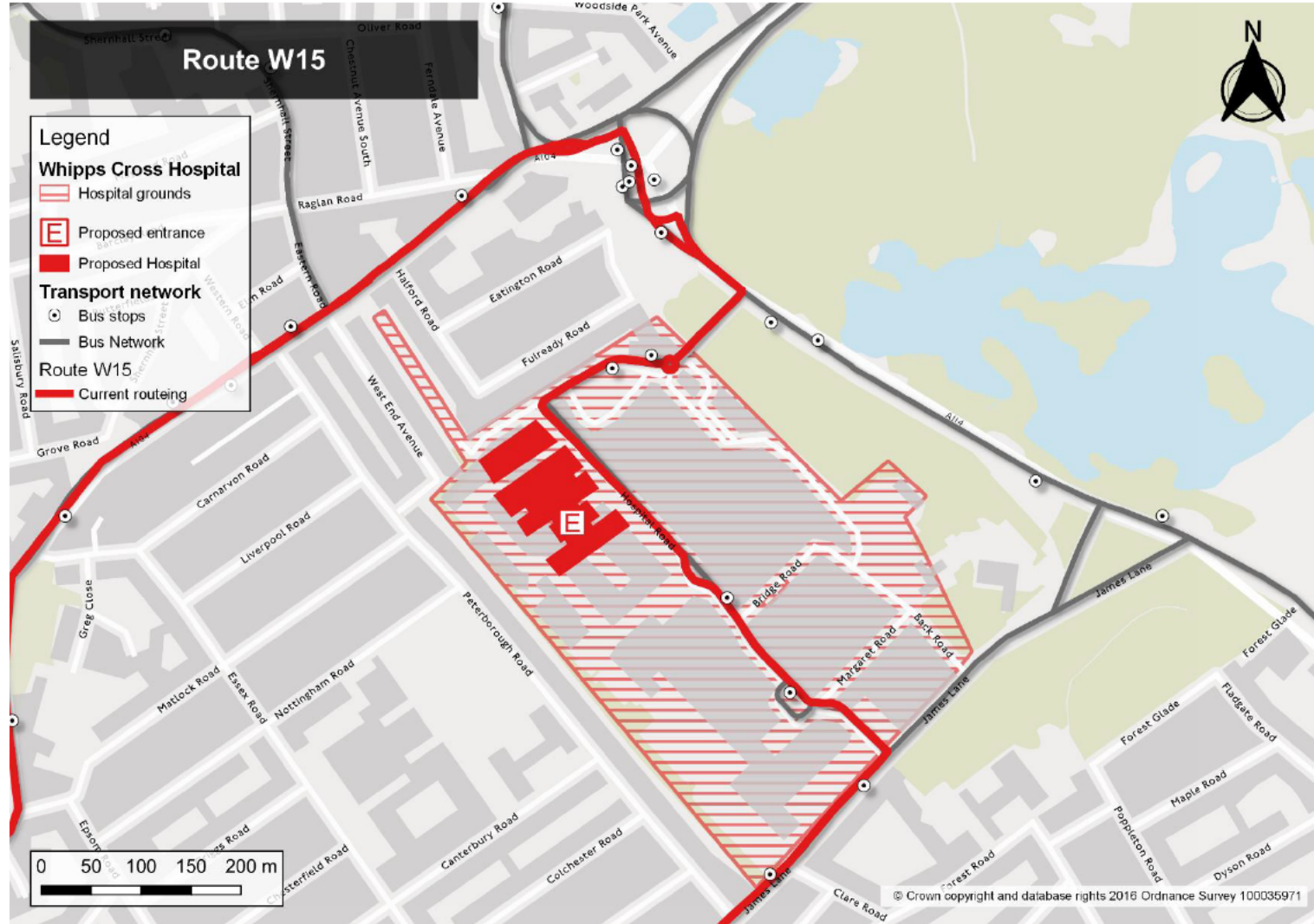
No wards will have an improved connectivity since route W12 already serves the hospital.



Route W15

Route W15

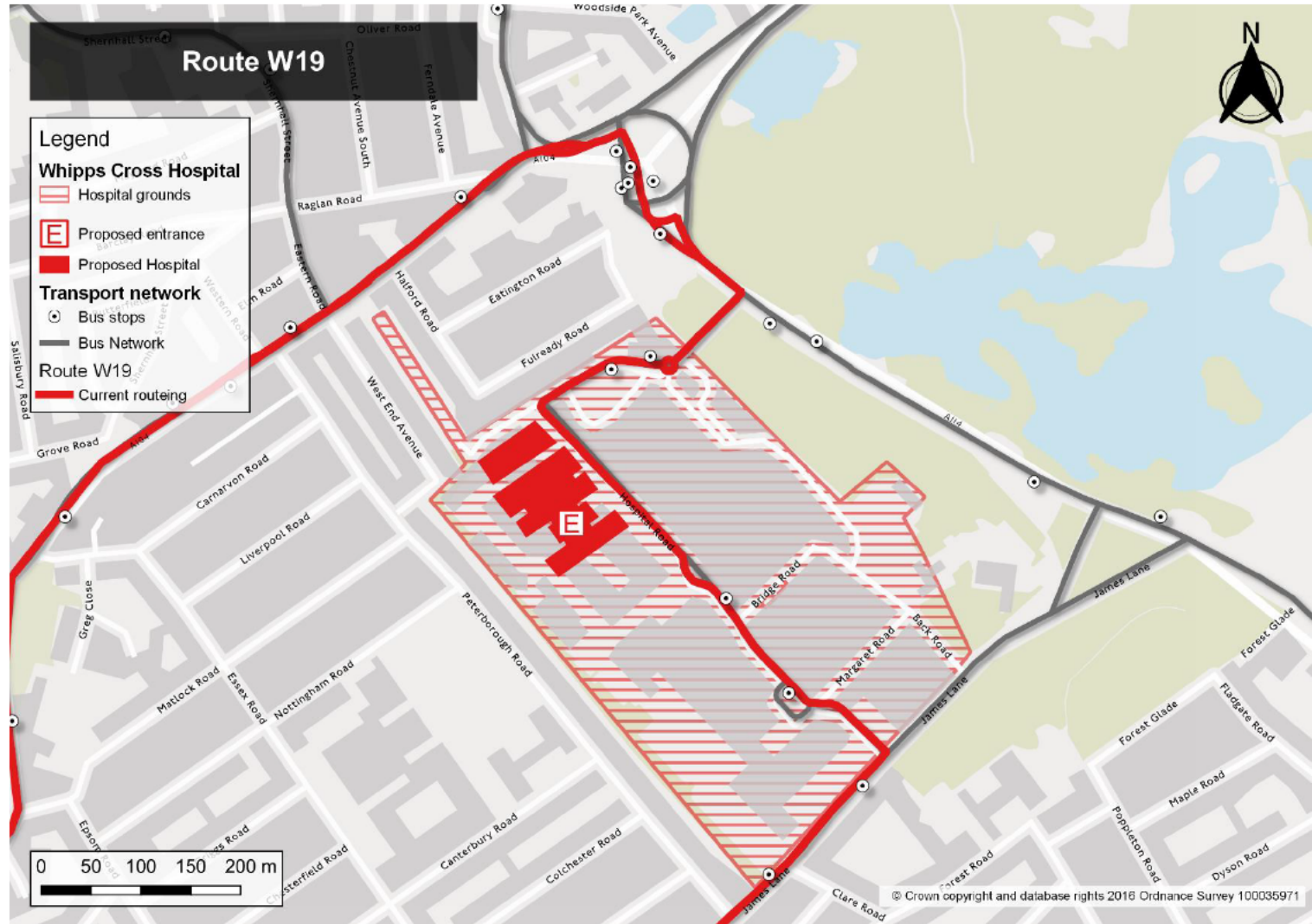
No change assumed to structure or frequency



Route W19

Route W19

No change assumed to structure or frequency

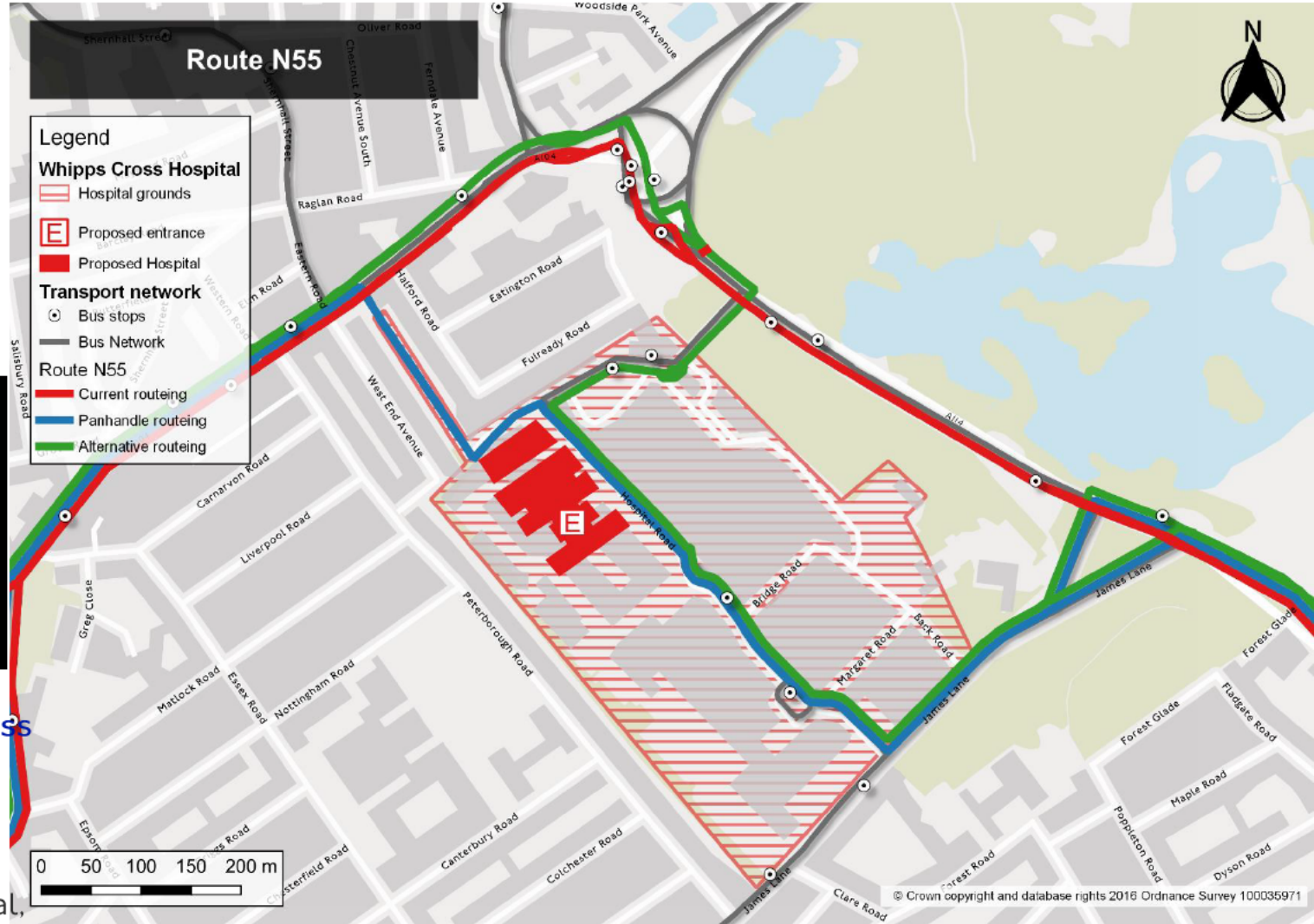


Route N55

Route N55

Table 1 – Health benefits

Scheme	Additional network coverage	Additional population within 1/2 hour travel time	Additional population within 1 hour travel time
Panhandle Lane bus way	169,000	11,200	87,900
Alternative access	169,000	9,000	53,200

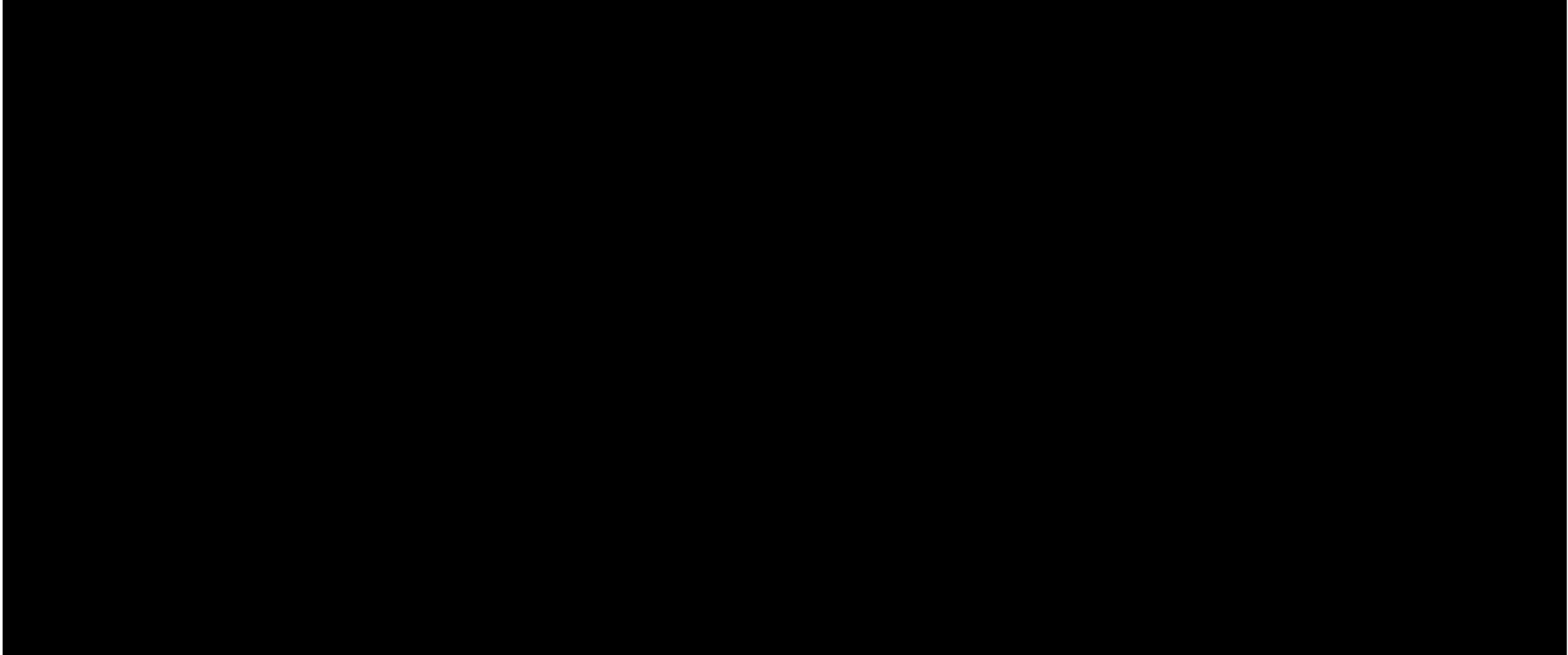


Wards with improved connectivity to Whipps Cross

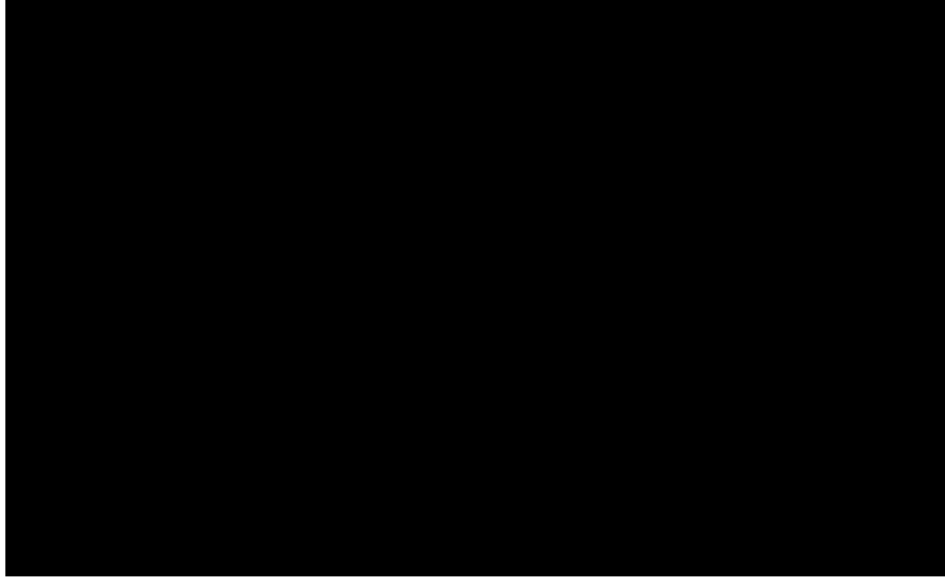
Monkhams, Roding, Church End, Hatch Lane, Snaresbrook, Leytonstone, Wanstead, Hoe Street, Wood Street, Forest, Lea bridge (LWBF), Lea Bridge (LBH), Hackney Downs, Hackney Central, Dalston, Mildmay, De Beauvoir, Canonbury



Cost summary – Panhandle Lane Bus Way



Cost summary – Alternative Access



Glossary

- In this analysis **network coverage** refers to the population located within 400 metres, i.e. approximately a five-minute walk, of a bus stop that is served by a route going to the hospital.

The impact of the proposals is to bring additional network coverage by connecting new stops to the hospital.

There are cases where the same stop could be connected to the hospital via different proposals. Each proposal is assessed individually. It means that the population at these stops would be included in each proposal. This is the reason why the additional network coverage from all proposals is lower than the sum of the additional network coverage from each proposal.

- In this analysis **travel time** refers to the population located within a defined travel time from the hospital. The travel time includes: walking time to departing bus stop, waiting time based on the frequency of the route, on-bus travel time & walking time to final destination. If the journey requires interchanging, additional waiting time and on-bus travel time will be applied for each part of the journey.

The impact of the proposals is mainly on walking time to/from hospital and on-bus travel time.

There are cases where the same stop could be connected to the hospital via different proposals. It means that there is a network effect where the superposition of these proposals generates a greater improvement than each proposal would on its own. This is the reason why the overall travel time to the hospital is higher than the sum of individual travel time for each proposal.

