

Lower Thames Crossing

6.2 Environmental Statement Figures

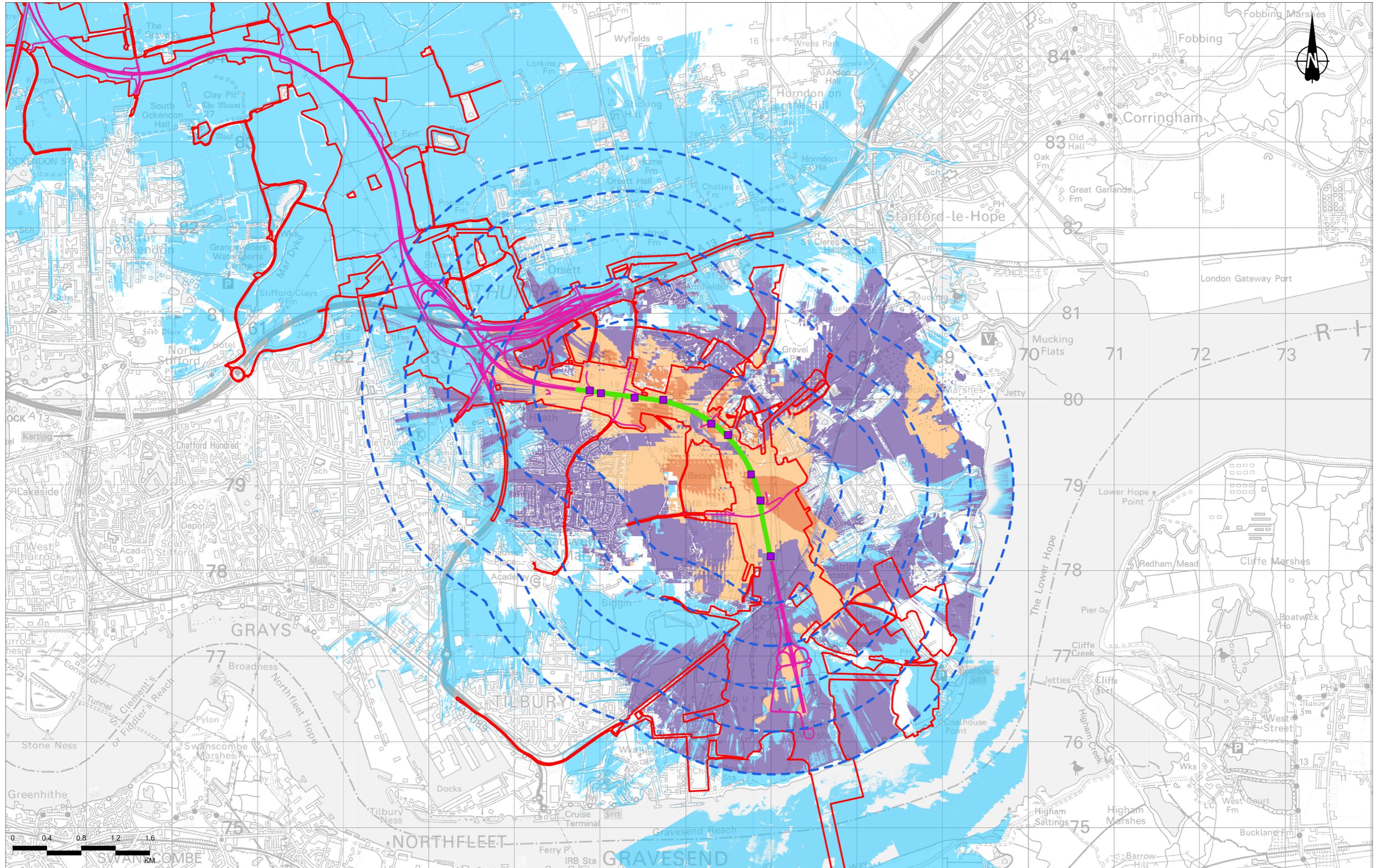
**Figure 7.13 - ZTV (2.5km) - Lower Thames Crossing route
Highway Section Analysis (3 of 4)**

APFP Regulation 5(2)(a)
Infrastructure Planning
(Applications: Prescribed Forms and Procedure)
Regulations 2009
Volume 6

DATE: October 2022

Planning Inspectorate Scheme Ref: TR010032
Application Document Ref: TR010032/APP/6.2

VERSION: 1.0



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Legend

- Order Limits
- Gantry locations considered within ZTV
- 2.5km study area (500m interval offsets from Section 10)
- Section 10 of route alignment considered within ZTV
- Route alignment not considered within ZTV

Zone of Theoretical Visibility (ZTV): (2.5m DSM)

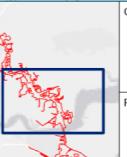
Section 10 - Vehicles on route alignment

Extent of visibility from other highway sections of the route alignment (excluding vehicles) shown on Figure 7.10

- Area from which 1% to 33% of Section 10 of vehicles travelling along route alignment would be theoretically visible (including gantries)
- Area from which 34% to 66% of Section 10 of vehicles travelling along route alignment would be theoretically visible (including gantries)
- Area from which 67% to 100% of Section 10 of vehicles travelling along route alignment would be theoretically visible (including gantries)

Notes:

- The Zone of Theoretical Visibility (ZTV) was created using Esri ArcGIS Visibility tool. It is based on the combined Tm Digital Surface Model (DSM) and has been compiled from data received from National Highways.
- The ZTV illustrates the area of theoretical visibility of the proposed elements of the Project and a view height of 2m and is limited to a 5km study area.
- The ZTV for vehicles travelling along route alignment and ZTV for overbridges, roads/bridges, roads, River have been run using an assumed maximum vehicle height of 4.5m.
- This figure shows theoretical visibility and therefore the worst case scenario for visibility from the highway section from the surrounding landscape. The actual extent of visibility is likely to be substantially greater than the ZTV due to buildings and other features.
- The ZTV for vehicles travelling along route alignment and ZTV for overbridges, roads/bridges, roads, River have been run using an assumed maximum vehicle height of 4.5m.



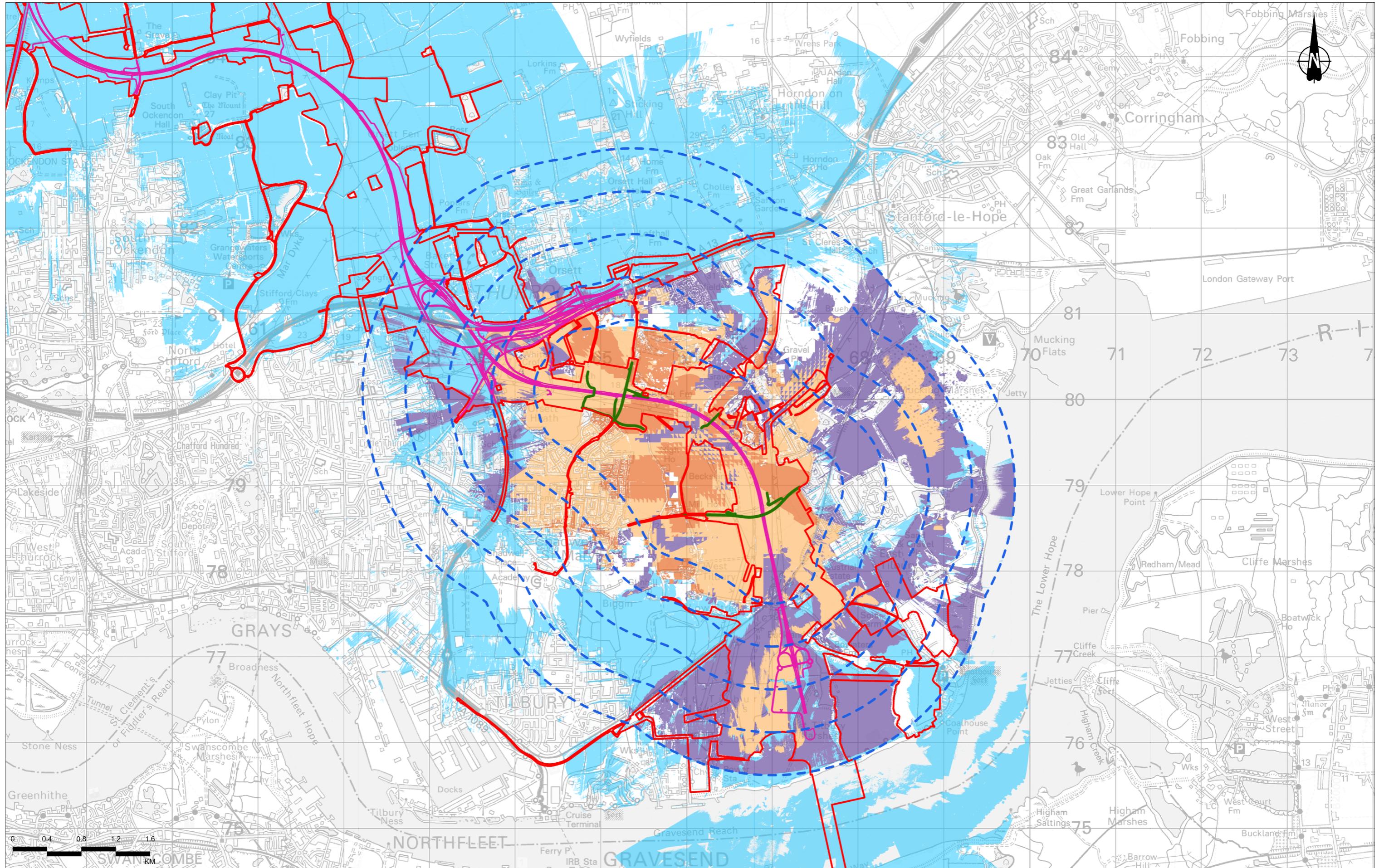
DCO APPLICATION
Application Document Number TR010032/APP/6.2
Original Size A3
Revision P03
Scale 1:40,000

Drawing Title
Figure 7.13 - ZTV (2.5km) - Lower Thames Crossing route Highway Section Analysis

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Drawing Number
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P03 S8 09/08/2022 DCO Application RG SK BF
Rev Status Rev Date Purpose of revision Drawn Chkd Apprvd



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Legend

- Order Limits
- 2.5km study area (500m interval offsets from Section 10)
- Section 10 of overbridges, side roads and access roads considered within ZTV
- Route alignment not considered within ZTV

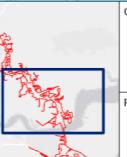
Zone of Theoretical Visibility (ZTV): (2.5m DSM)
Section 10 - Vehicles on overbridge structures, side roads and access roads

Area from which 1% to 33% of Section 10 of vehicles travelling on overbridge structures, side roads and access roads would be theoretically visible
Area from which 34% to 66% of Section 10 of vehicles travelling on overbridge structures, side roads and access roads would be theoretically visible
Area from which 67% to 100% of Section 10 of vehicles travelling on overbridge structures, side roads and access roads would be theoretically visible

Extent of visibility from other highway sections of the route alignment (excluding vehicles) shown on Figure 7.10

Notes:

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- The ZTV illustrates the area of theoretical visibility of the proposed elements of the Project and a view height of 2m and is limited to a 5km study area.
- The ZTV for vehicles travelling along route alignment and ZTV for overbridges, roads/access roads have been run using an assumed maximum vehicle height of 4.5m.
- This figure shows theoretical visibility and therefore the worst case scenario for visibility from the highway alignment from the surrounding landscape. The actual extent of visibility is likely to be substantially greater than the ZTV due to buildings and other urban areas where outward views are typically screened by existing buildings or other features.

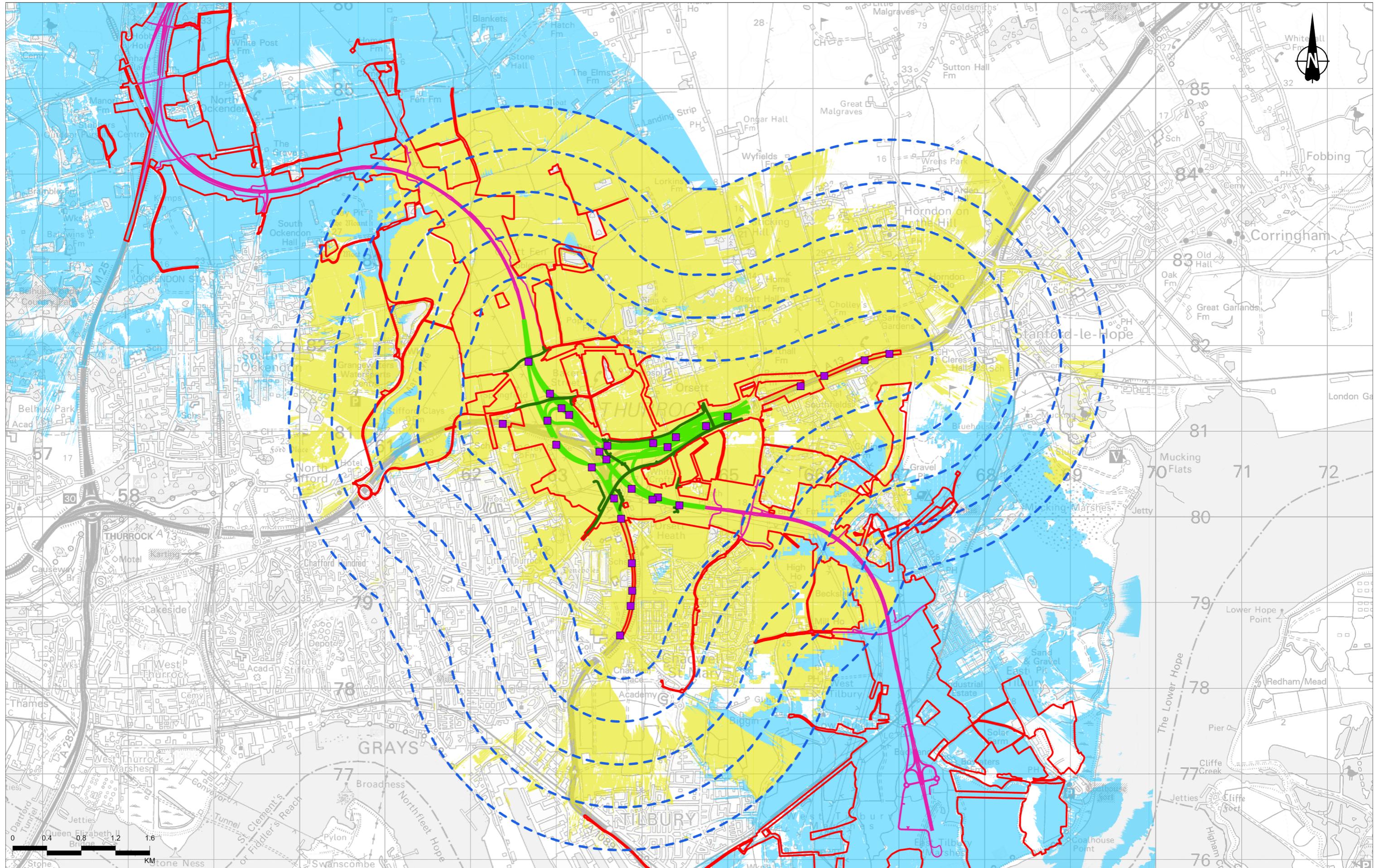


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Drawing Title
Figure 7.13 - ZTV (2.5km) - Lower Thames Crossing route Highway Section Analysis

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ZTV (2.5m DSM)
Area identifying combined visibility of route alignment (includes gantries), vehicles, overbridge structures, side roads and access roads within Section 11

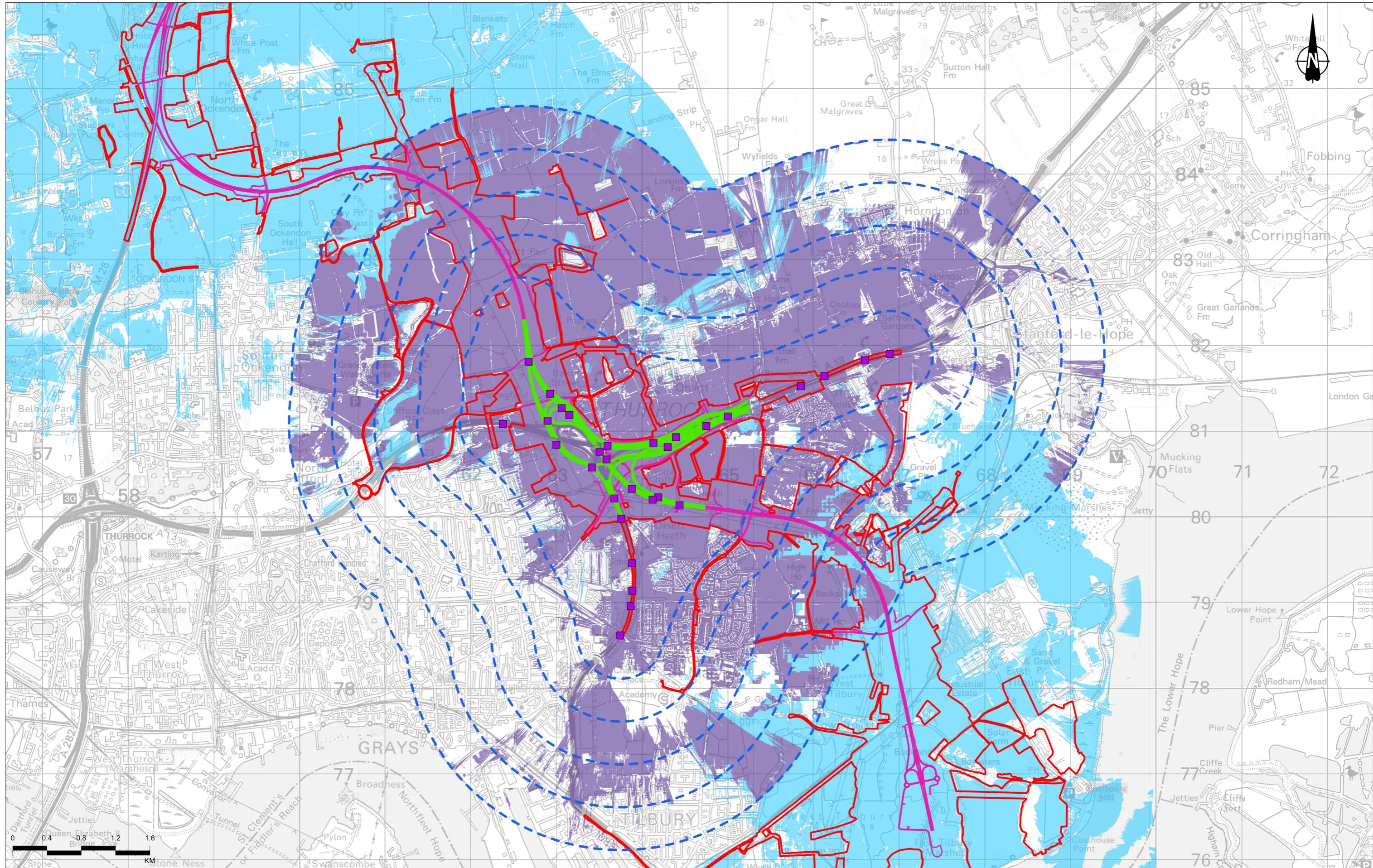
Extent of visibility from other highway sections of the route alignment (excluding vehicles) shown on Figure 7.10

Notes:
 1. The Zone of Theoretical Visibility (ZTV) was created using Esri ArcGIS Visibility tool. It is based on the combined Tm Digital Surface Model (DSM). This has been compiled from data received from Network Rail.
 2. The ZTV illustrates the area of theoretical visibility of the proposed elements of the Project and a view height of 2m and is limited to a 5km study area.
 3. The ZTV for vehicles travelling along route alignment and ZTV for overbridges, side roads/access roads have been run using an assumed maximum vehicle height of 4.5m.
 4. This figure shows theoretical visibility and therefore the worst case scenario for visibility from the route alignment, from the surrounding landscape. The actual extent of visibility is likely to be substantially greater, particularly in rural areas where outward views are typically screened by existing buildings or other features.



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Legend

- Order Limits
- Gantry locations considered within ZTV
- 2.5km study area (500m interval offsets from Section 11)
- Section 11 - Route alignment
- Area from which 1% to 33% of Section 11 of the route alignment would be theoretically visible (including gantries)
- Section 11 of route alignment considered within ZTV
- Route alignment not considered within ZTV

Zone of Theoretical Visibility (ZTV): (2.5m DSM)
Section 11 - Route alignment

Extent of visibility from other highway sections of the route alignment (excluding vehicles) shown on Figure 7.10

Notes:

- The Zone of Theoretical Visibility (ZTV) was created using Esri ArcGIS Visibility tool. It is based on the combined Tm Digital Surface Model (DSM). This has been compiled from data received from National Highways.
- The ZTV illustrates the area of theoretical visibility of the proposed elements of the Project and a view height of 2m and is limited to a 5km study area.
- The ZTV for vehicles travelling along route alignment and 2.5m for overbridges, roads/bridges, roads: River have been run using an assumed maximum vehicle height of 4.5m.
- This figure shows theoretical visibility and therefore the worst case scenario for visibility from the route alignment, from the surrounding landscape. The actual extent of visibility is likely to be substantially greater, particularly in built-up urban areas where outward views are typically screened by existing buildings or other features.

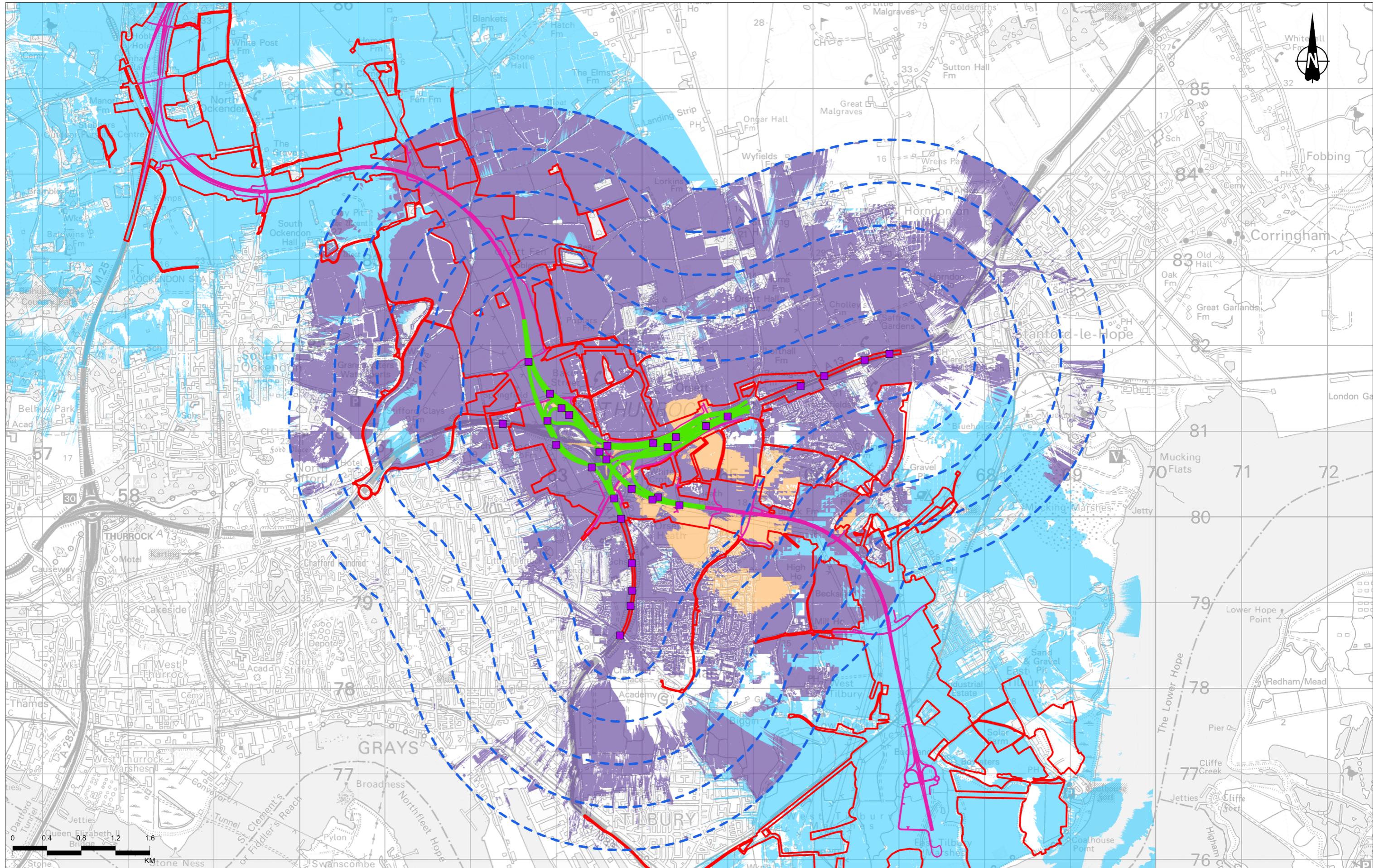
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Zone of Theoretical Visibility (ZTV): (2.5m DSM)
Section 11 - Vehicles on route alignment

Area from which 1% to 33% of Section 11 of vehicles travelling along route alignment would be theoretically visible (including gantries)

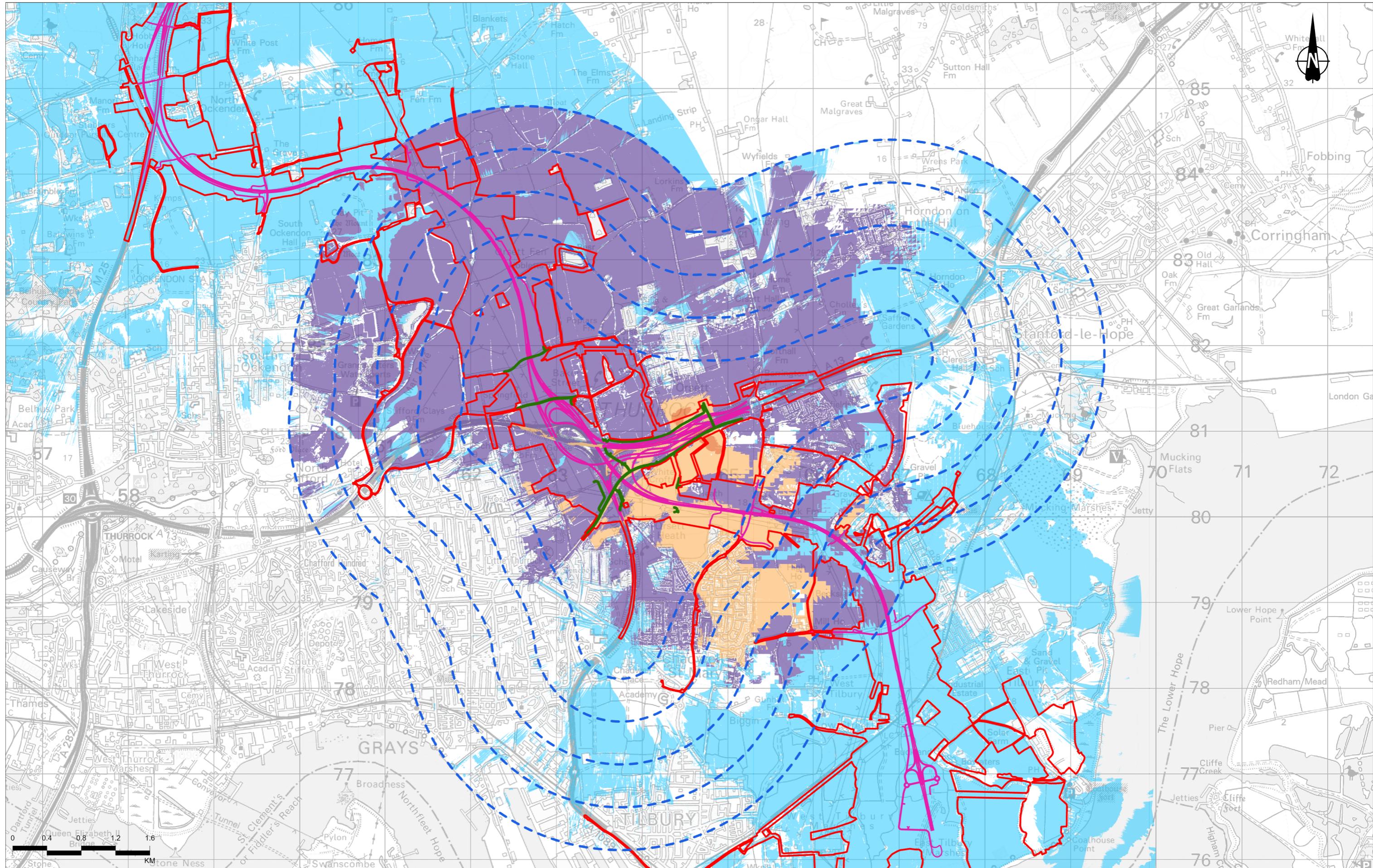
Area from which 34% to 66% of Section 11 of vehicles travelling along route alignment would be theoretically visible (including gantries)

Area from which 67% to 100% of Section 11 of vehicles travelling along route alignment would be theoretically visible (including gantries)

Extent of visibility from other highway sections of the route alignment (excluding vehicles) shown on Figure 7.10

Notes:

1. The Zone of Theoretical Visibility (ZTV) was created using Esri ArcGIS Visibility tool. It is based on the combined Tm Digital Surface Model (DSM). This has been compiled from data received from Network Rail.
2. The ZTV illustrates the area of theoretical visibility of the proposed elements of the Project and a view height of 2m and is limited to a 5km study area.
3. The ZTV for vehicles travelling along route alignment and ZTV for overbridges, roads/bridges, roads/bridges etc have been run using an assumed maximum vehicle height of 4.5m.
4. This figure shows theoretical visibility and therefore the worst case scenario for visibility from the road alignment to the surrounding landscape. The actual extent of visibility is likely to be substantially greater than shown due to buildings and other features.



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Zone of Theoretical Visibility (ZTV): (2.5m DSM)

Section 11 - Vehicles on overbridge structures, side roads and access roads

Area from which 1% to 33% of Section 11 of vehicles travelling on overbridge structures, side roads and access roads would be theoretically visible

Area from which 34% to 66% of Section 11 of vehicles travelling on overbridge structures, side roads and access roads would be theoretically visible

Area from which 67% to 100% of Section 11 of vehicles travelling on overbridge structures, side roads and access roads would be theoretically visible

Extent of visibility from other highway sections of the route alignment (excluding vehicles) shown on Figure 7.10

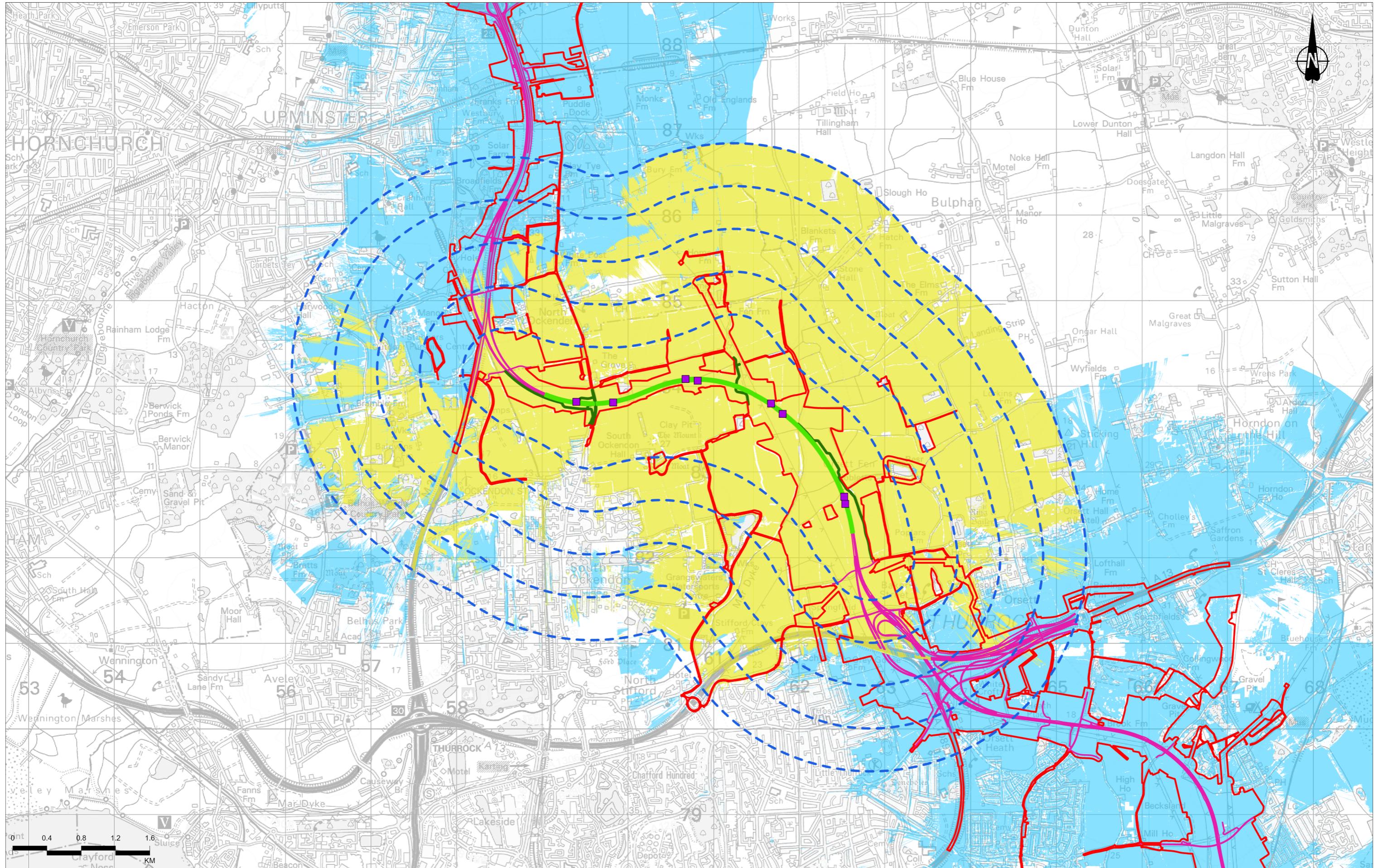
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- The ZTV for vehicles travelling along route alignment and ZTV for overbridges, roads/access roads have been run using an assumed maximum vehicle height of 4.5m.
- This figure shows theoretical visibility and therefore the worst case scenario for visibility from the highway alignment from the surrounding landscape. The actual extent of visibility is likely to be substantially greater than the ZTV due to buildings and other features in urban areas where the exception of settlement edges, outward views are typically screened by existing buildings or other features.



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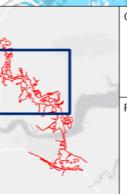
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Legend					
Order Limits					
Purple	Gantry locations considered within ZTV				
Blue	2.5km study area (500m interval offsets from Section 12)				
Green	Section 12 of route alignment considered within ZTV				
Black	Section 12 of overbridges, side roads and access roads considered within ZTV				
Magenta	Route alignment not considered within ZTV				

Zone of Theoretical Visibility (ZTV) : (2.5m DSM)
Area identifying combined visibility of route alignment (includes gantries), vehicles, overbridge structures, side roads and access roads within Section 12

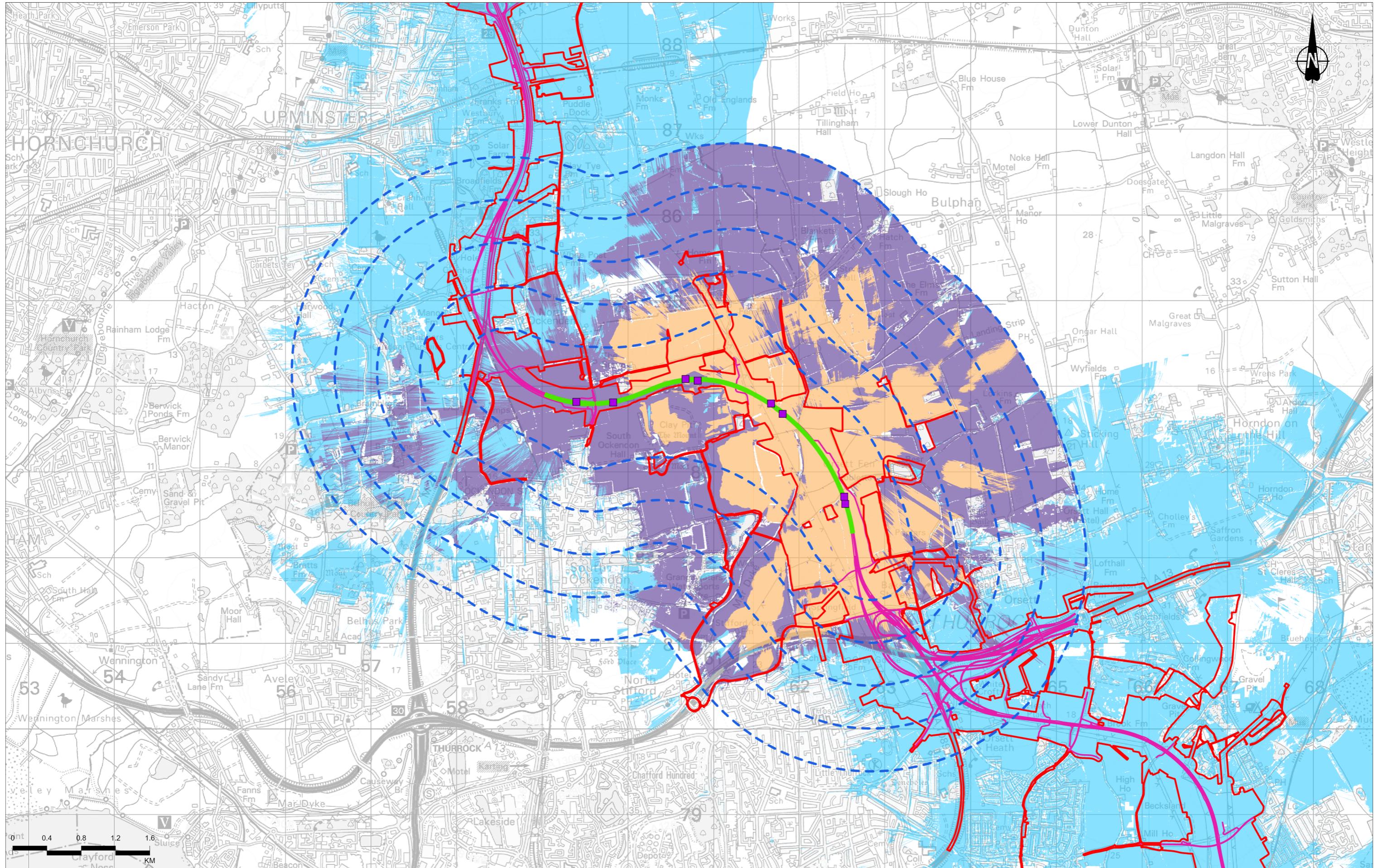
Extent of visibility from other highway sections of the route alignment (excluding vehicles) shown on Figure 7.10

- Notes:
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 - This figure shows theoretical visibility and therefore the worst case scenario for visibility from the route alignment to the surrounding landscape. The actual extent of visibility is likely to be substantially greater than the ZTV due to buildings and other features.



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Legend

- Order Limits
- Gantry locations considered within ZTV
- 2.5km study area (500m interval offsets from Section 12)
- Section 12 - Route alignment
- Zone of Theoretical Visibility (ZTV): 2.5m DSM
- Extent of visibility from other highway sections of the route alignment (excluding vehicles) shown on Figure 7.10
- Area from which 1% to 33% of Section 12 of the route alignment would be theoretically visible (including gantries)
- Area from which 33% to 66% of Section 12 of the route alignment would be theoretically visible (including gantries)
- Area from which 67% to 100% of Section 12 of the route alignment would be theoretically visible (including gantries)
- Route alignment not considered within ZTV

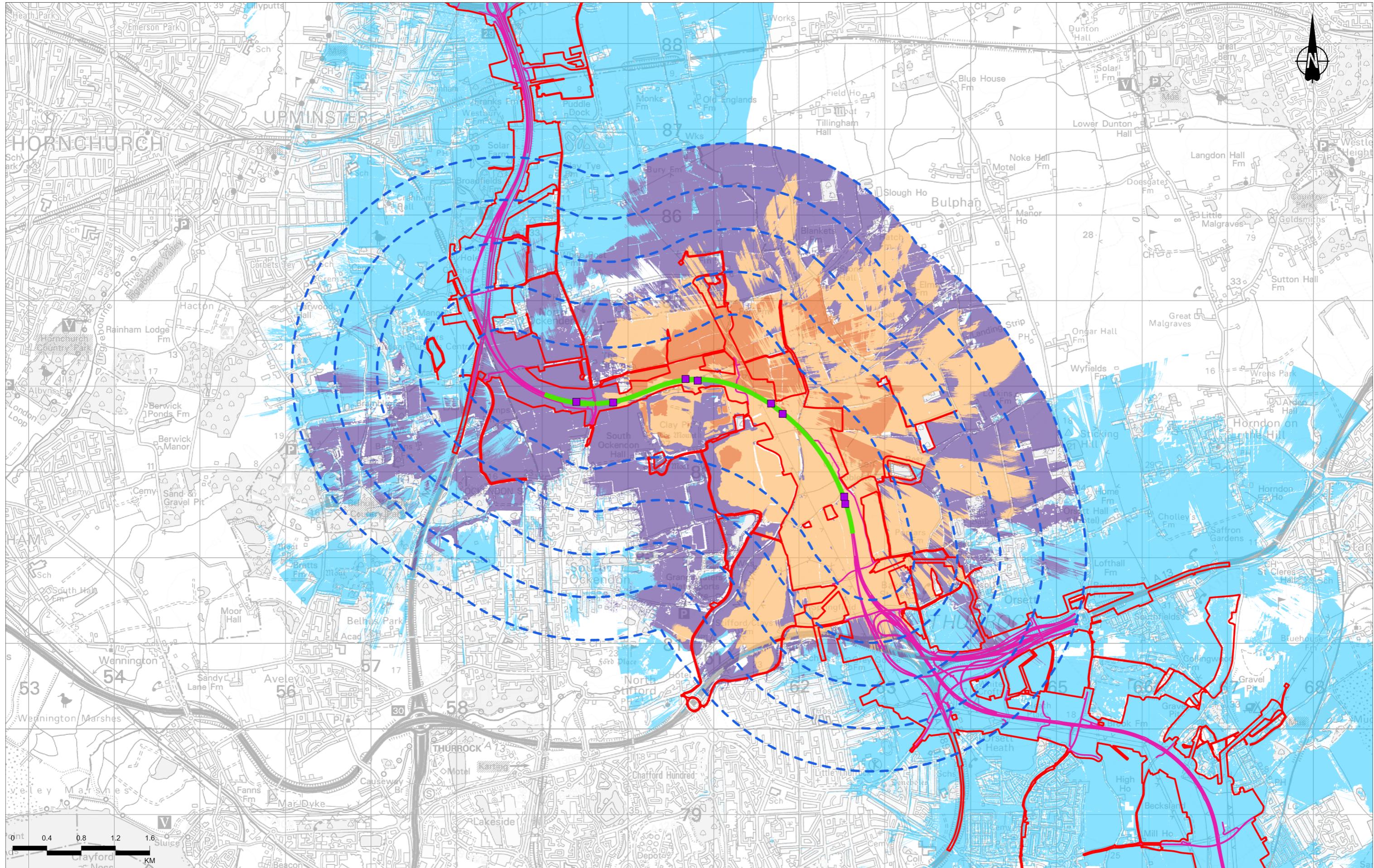
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- The ZTV for vehicles travelling along route alignment and ZTV for overbridges, roads/bridges, roads: have been run using an assumed maximum vehicle height of 4.5m.
- This figure shows theoretical visibility and therefore the worst case scenario for visibility from the road alignment from the surrounding landscape. The actual extent of visibility is likely to be substantially greater, particularly in built-up urban areas where outward views are typically screened by existing buildings or other features.

Client

Project

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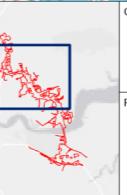


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Legend					
Order Limits					
Purple Gantry locations considered within ZTV					
Blue dashed 2.5km study area (500m interval offsets from Section 12)					
Green Section 12 of route alignment considered within ZTV					
Magenta Route alignment not considered within ZTV					

Zone of Theoretical Visibility (ZTV): (2.5m DSM) Section 12 - Vehicles on route alignment	Extent of visibility from other highway sections of the route alignment (excluding vehicles) shown on Figure 7.10
Purple Area from which 1% to 33% of Section 12 of vehicles travelling along route alignment would be theoretically visible (including gantries)	
Orange Area from which 34% to 66% of Section 12 of vehicles travelling along route alignment would be theoretically visible (including gantries)	
Red Area from which 67% to 100% of Section 12 of vehicles travelling along route alignment would be theoretically visible (including gantries)	

Notes:
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 3. The ZTV for vehicles travelling along route alignment and ZTV for overbridges, verges, roads/bridges roads /River have been run using an assumed maximum vehicle height of 4.5m.
 4. The figure shows theoretical visibility and therefore the worst case scenario for visibility from the road edge, looking outwards from the surrounding landscape. The actual extent of visibility is likely to be substantially greater due to buildings and other features.



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Registered office Bridge House, 1 Walnut Tree Close, Guildford GU1 4LZ

National Highways Company Limited registered in England and Wales number 09346363