

Notes


The ZTV shown is an indication of the area, up to a distance of 28km, within which the proposed River Usk Crossing piers for the new section of motorway may be visible.

The ZTV is based on Ordnance Survey Land-Form PANORAMA®, a 50 metre resolution gridded Digital Terrain Model (DTM) which does not consider the surface detail of vegetation and buildings.

The ZTV is calculated from two points at 160.21m Above Ordnance Datum (AOD) which is consistent with the highest point of the proposed bridge piers.

Legend

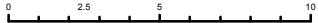

- Proposed bridge pier locations of River Usk Crossing
- Proposed alignment of new section of motorway
- Indicative extent of surrounding area from which views to the proposed bridge piers of the River Usk Crossing may be visible



Llywodraeth Cymru
Welsh Government

Environmental Statement

New Section of Motorway
Zone of Theoretical Visibility
28km from Proposed Bridge Piers of River Usk Crossing

Figure: 9.1	Revision: 01
Date: March 2016	Status: At Issue
Drawn: SJD	Checked: NJR
Scale: A3 @ 1:250,000	
 	
<small>© Crown Copyright and database right 2016. Ordnance Survey 100021874. Welsh Government. © Hawlfraint a hawliau cronfa ddata'r Goron 2016. Rhif Trwydded yr Arolwg Ordnans 100021874.</small>	
dwg ref:	

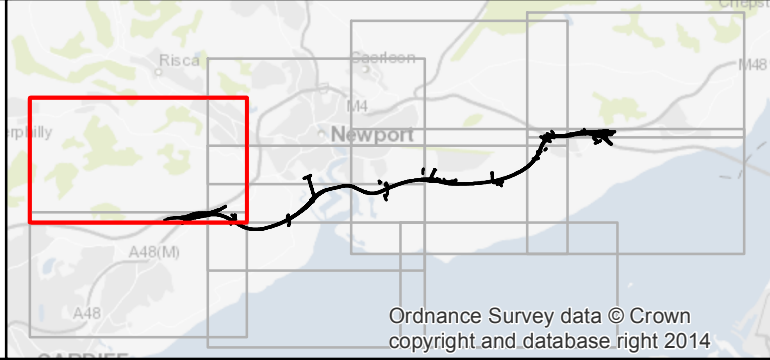
P:\GBBS\Locally Managed\513402 M4 CAM400 Technical\Information\513402 GIS team\WIP\513402_M4C_ZTV_28K_04.mxd




Legend

- Proposed alignment of new section of motorway
- ZTV up to 5km for Junction 29 Castleton to South Wales to London Mainline (new Duffryn Railway)
- ZTV up to 3km for South Wales to London Mainline (new Duffryn Railway Underbridge) across Wentlooge Levels to south of
- ZTV up to 5km for Docks Way Landfill site (new Docks Way Junction), south of Newport Docks across River Usk to east of Uskmouth Railway line
- ZTV up to 3km for East of Uskmouth Railway line across Caldicot Levels to Steelworks Access Road, south of Bareland
- ZTV up to 5km for Steelworks Access Road, south of Bareland Street to Junction 23

Ordnance Survey data © Crown copyright and database right 2014





Llywodraeth Cymru
Welsh Government

Environmental Statement

New Section of Motorway
Combined Zones of Theoretical Visibility
Sheet 1 of 10

Figure: 9.2	Revision: 01
Date: March 2016	Status: At Issue
Drawn: SJD	Checked: NJR

Scale: A3 @ 1:25,000

0 0.5 1 Kilometres

dwg ref:

© Crown Copyright and database right 2016. Ordnance Survey 100021874. Welsh Government.
© Hawlfraint a hawliau cronfa ddata'r Goron 2016. Rhif Trwydded yr Arolwg Ordnans 100021874.



Legend

Proposed alignment of new section of motorway

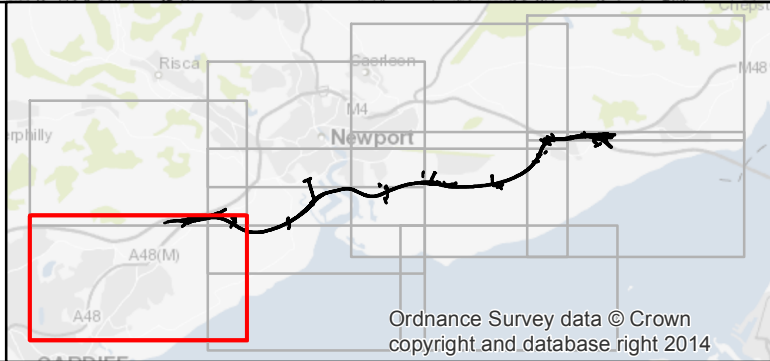
ZTV up to 5km for Junction 29 Castleton to South Wales to London Mainline (new Duffryn Railway)


ZTV up to 3km for South Wales to London Mainline (new Duffryn Railway Underbridge) across Wentlooge Levels to south of

ZTV up to 5km for Docks Way Landfill site (new Docks Way Junction), south of Newport Docks across River Usk to east of Uskmouth Railway line

ZTV up to 3km for East of Uskmouth Railway line across Caldicot Levels to Steelworks Access Road, south of Bareland

ZTV up to 5km for Steelworks Access Road, south of Bareland Street to Junction 23





Llywodraeth Cymru
Welsh Government

Environmental Statement

New Section of Motorway
Combined Zones of Theoretical Visibility
Sheet 2 of 10

Figure: 9.2

Date: March 2016

Drawn: SJD

Scale: A3 @ 1:25,000

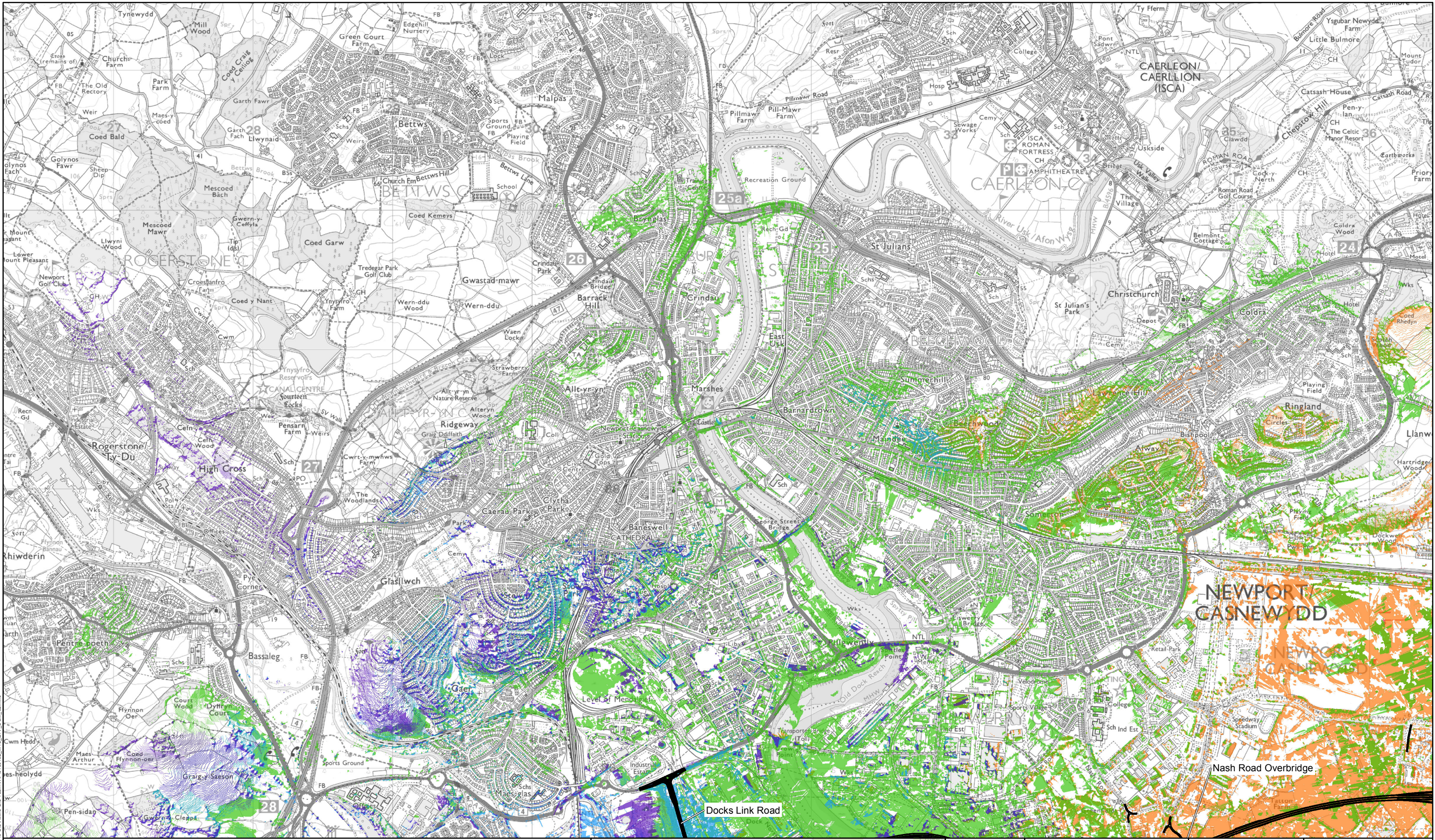
© Crown Copyright and database right 2016. Ordnance Survey 100021874. Welsh Government.
© Hawffraint a hawliau cronfa ddata'r Goron 2016. Rhif Trwydded yr Arolwg Ordnans 100021874.

Revision: 01

Status: At Issue

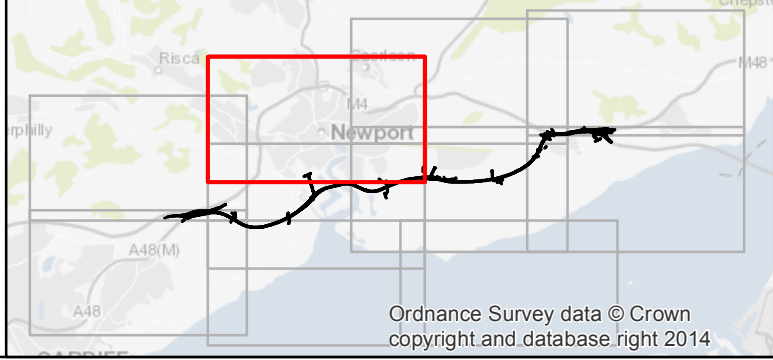
Checked: NJR


dwg ref:



Legend

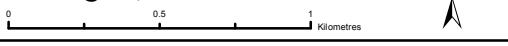

- Proposed alignment of new section of motorway
- ZTV up to 5km for Junction 29 Castleton to South Wales to London Mainline (new Duffryn Railway)
- ZTV up to 3km for South Wales to London Mainline (new Duffryn Railway Underbridge) across Wentlooge Levels to south of
- ZTV up to 5km for Docks Way Landfill site (new Docks Way Junction), south of Newport Docks across River Usk to east of Uskmouth Railway line
- ZTV up to 3km for East of Uskmouth Railway line across Caldicot Levels to Steelworks Access Road, south of Bareland
- ZTV up to 5km for Steelworks Access Road, south of Bareland Street to Junction 23

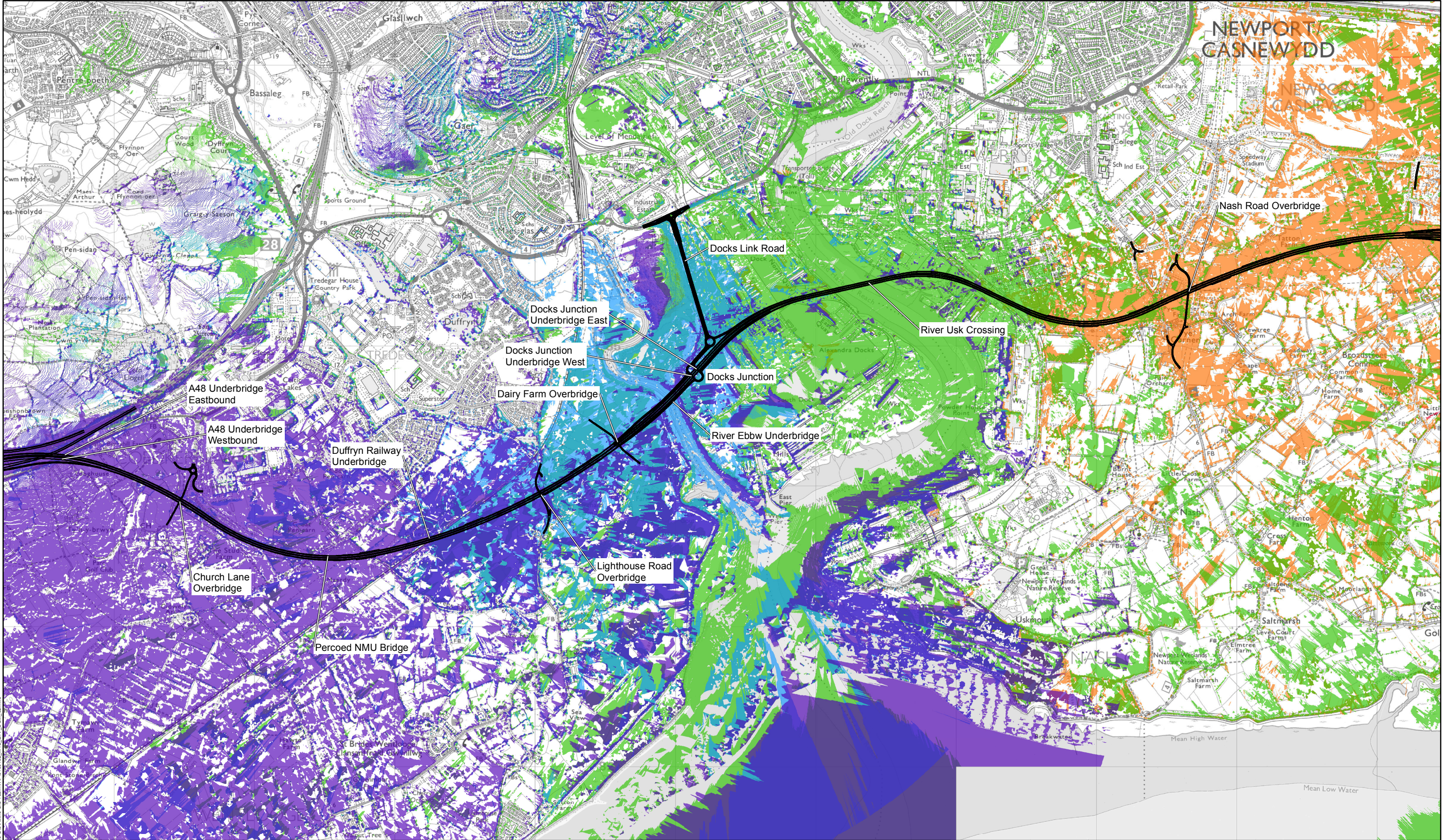



Llywodraeth Cymru
Welsh Government

Environmental Statement

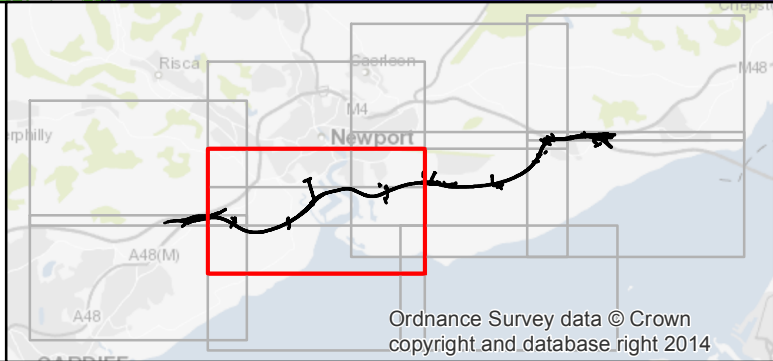
**New Section of Motorway
Combined Zones of Theoretical Visibility
Sheet 3 of 10**

Figure: 9.2	Revision: 01
Date: March 2016	Status: At Issue
Drawn: SJD	Checked: NJR
Scale: A3 @ 1:25,000	
	
	
© Crown Copyright and database right 2016. Ordnance Survey 100021874. Welsh Government. © Hawffaint a hawliau cronfa ddata'r Goron 2016. Rhif Trwydded yr Arolwg Ordnans 100021874.	
dwg ref:	



Legend

- Proposed alignment of new section of motorway
- ZTV up to 5km for Junction 29 Castleton to South Wales to London Mainline (new Duffryn Railway)
- ZTV up to 3km for South Wales to London Mainline (new Duffryn Railway Underbridge) across Wentlooge Levels to south of
- ZTV up to 5km for Docks Way Landfill site (new Docks Way Junction), south of Newport Docks across River Usk to east of Uskmouth Railway line
- ZTV up to 3km for East of Uskmouth Railway line across Caldicot Levels to Steelworks Access Road, south of Bareland
- ZTV up to 5km for Steelworks Access Road, south of Bareland Street to Junction 23

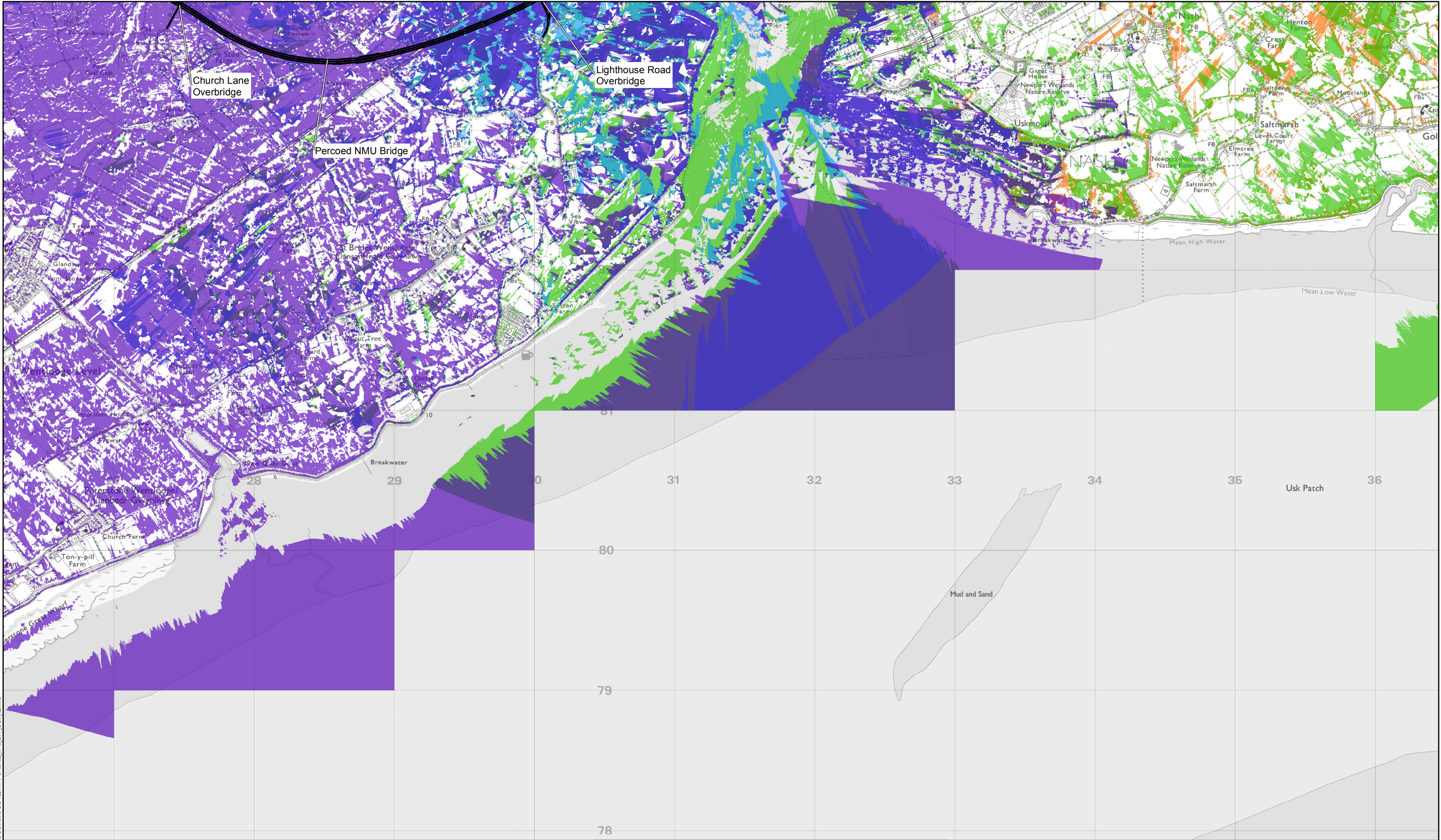


Llywodraeth Cymru
Welsh Government

Environmental Statement

New Section of Motorway
Combined Zones of Theoretical Visibility
Sheet 4 of 10

Figure: 9.2	Revision: 01
Date: March 2016	Status: At Issue
Drawn: SJD	Checked: NJR
Scale: A3 @ 1:25,000	
© Crown Copyright and database right 2016, Ordnance Survey 100021874, Welsh Government. © Hawlfraint a hawliau cofrestru ddata'r Goron 2016. Rhif Trwydded yr Arolwg Ordnans 100021874.	
dwg ref:	



Legend

Proposed alignment of new section of motorway

ZTV up to 5km for Junction 29 Castleton to South Wales to London Mainline (new Duffryn Railway)

ZTV up to 3km for South Wales to London Mainline (new Duffryn Railway Underbridge) across Wentlooge Levels to south of

ZTV up to 5km for Docks Way Landfill site (new Docks Way Junction), south of Newport Docks across River Usk to east of Uskmouth Railway line

ZTV up to 3km for East of Uskmouth Railway line across Caldicot Levels to Steelworks Access Road, south of Bareland

ZTV up to 5km for Steelworks Access Road, south of Bareland Street to Junction 23

Llywodraeth Cymru
Welsh Government

Environmental Statement

New Section of Motorway
Combined Zones of Theoretical Visibility
Sheet 5 of 10

Figure: 9.2

Date: March 2016

Drawn: SJD

Scale: A3 @ 1:25,000

0 0.5 1 Kilometres

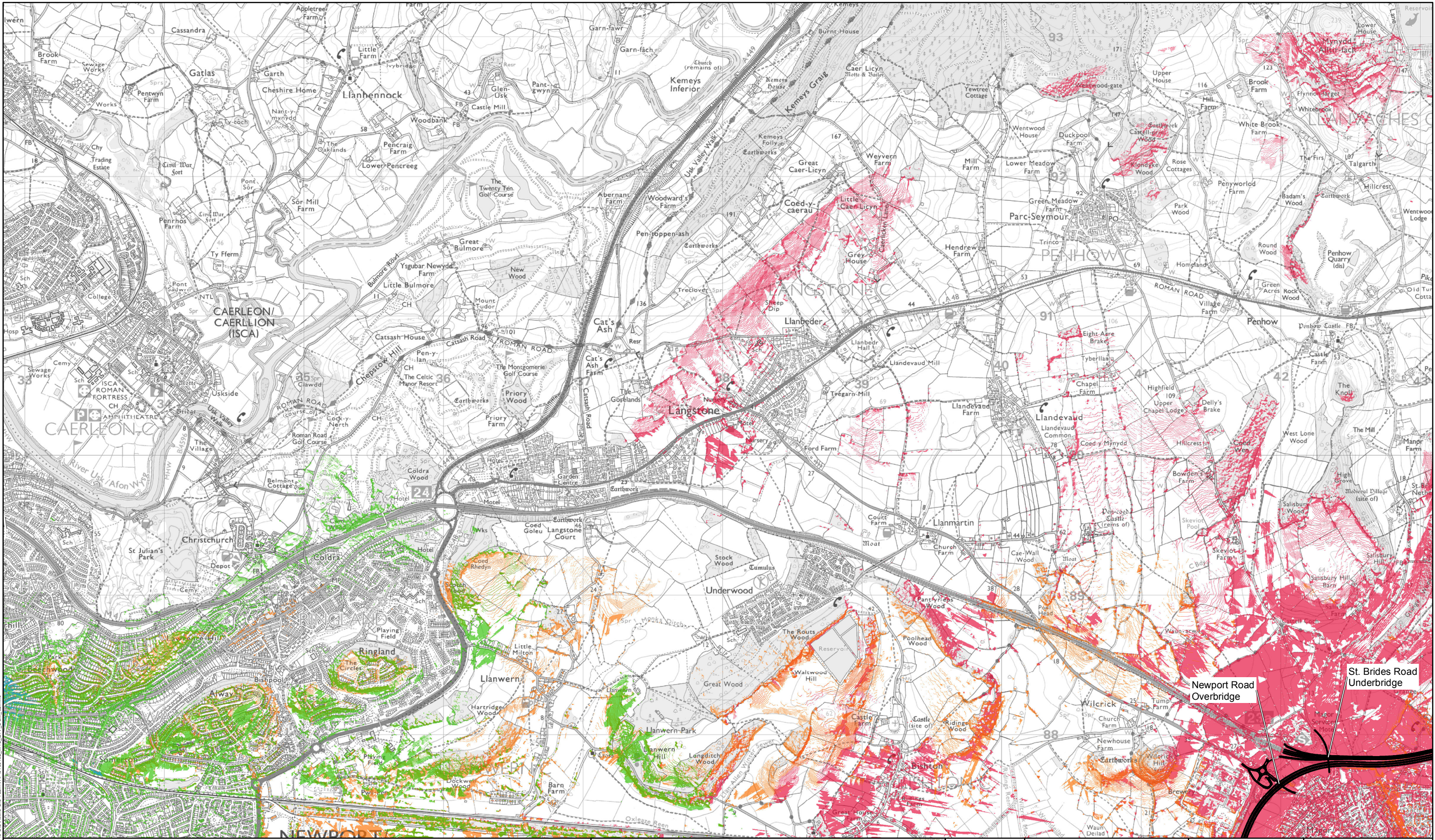
© Crown Copyright and database right 2016. Ordnance Survey 100021874. Welsh Government.
© Hawlfraint a hawliau cronfa ddata'r Goron 2016. Rhif Trwydded yr Arolwg Ordnans 100021874.

dwg ref:

Revision: 01

Status: At Issue

Checked: NJR



Legend

- Proposed alignment of new section of motorway
- ZTV up to 5km for Junction 29 Castleton to South Wales to London Mainline (new Duffryn Railway)
- ZTV up to 3km for South Wales to London Mainline (new Duffryn Railway Underbridge) across Wentlooge Levels to south of
- ZTV up to 5km for Docks Way Landfill site (new Docks Way Junction), south of Newport Docks across River Usk to east of Uskmouth Railway line
- ZTV up to 3km for East of Uskmouth Railway line across Caldicot Levels to Steelworks Access Road, south of Bareland
- ZTV up to 5km for Steelworks Access Road, south of Bareland Street to Junction 23

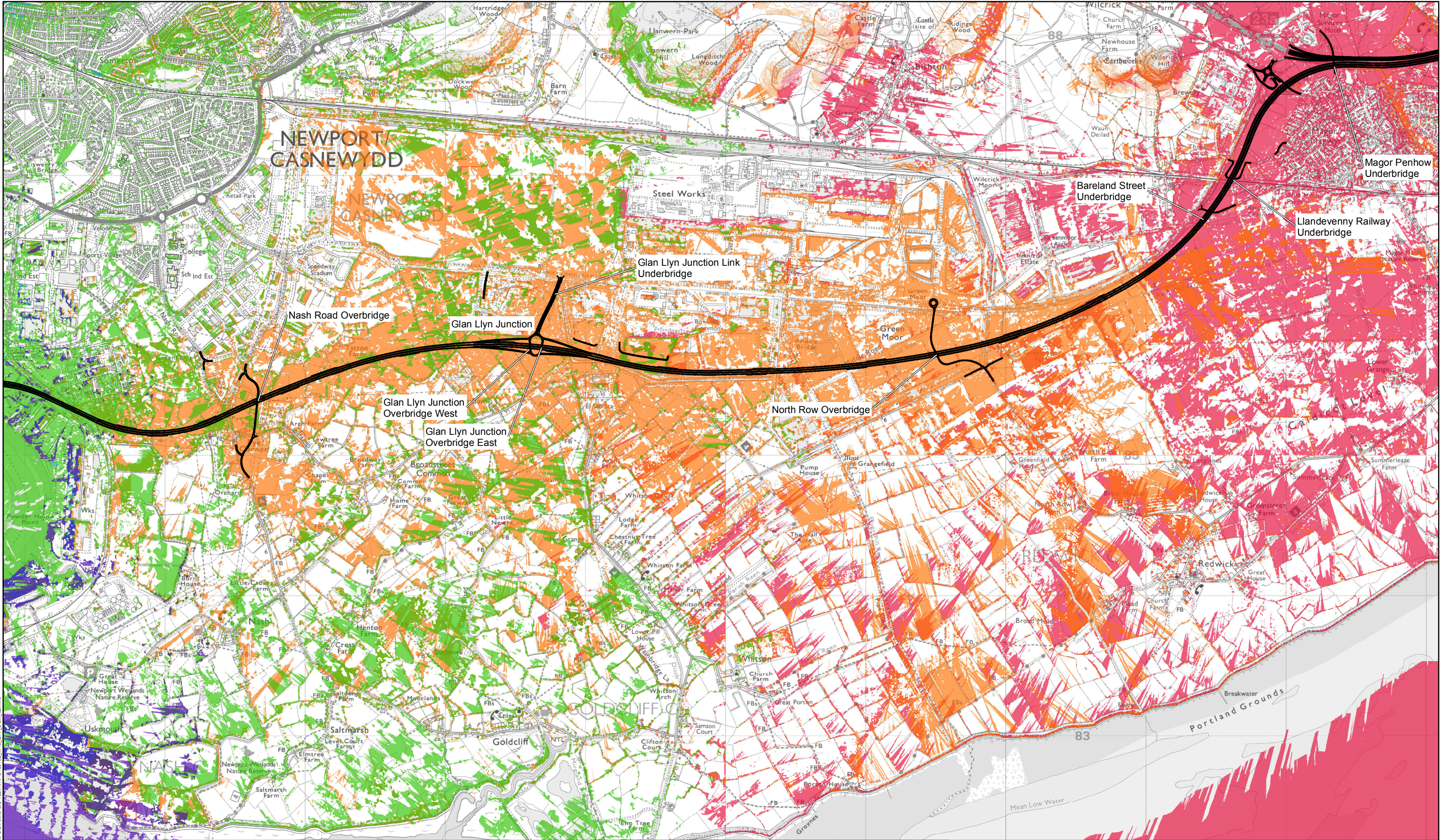
Ordnance Survey data © Crown copyright and database right 2014

Llywodraeth Cymru
Welsh Government

Environmental Statement

New Section of Motorway
Combined Zones of Theoretical Visibility
Sheet 6 of 10

Figure: 9.2	Revision: 01
Date: March 2016	Status: At Issue
Drawn: SJD	Checked: NJR
Scale: A3 @ 1:25,000	
© Crown Copyright and database right 2016. Ordnance Survey 100021874. Welsh Government. © Hawffraint a hawliau cronfa ddata'r Goron 2016. Rhif Trwydded yr Arolwg Ordnans 100021874.	
dwg ref:	



Legend

—

Proposed alignment of new section of motorway

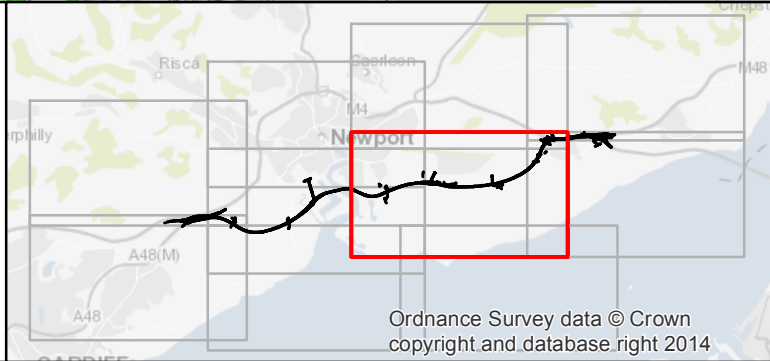
ZTV up to 5km for Junction 29 Castleton to South Wales to London Mainline (new Duffryn Railway)


ZTV up to 3km for South Wales to London Mainline (new Duffryn Railway Underbridge) across Wentlooge Levels to south of

ZTV up to 5km for Docks Way Landfill site (new Docks Way Junction), south of Newport Docks across River Usk to east of Uskmouth Railway line

ZTV up to 3km for East of Uskmouth Railway line across Caldicot Levels to Steelworks Access Road, south of Bareland

ZTV up to 5km for Steelworks Access Road, south of Bareland Street to Junction 23





Llywodraeth Cymru
Welsh Government

Environmental Statement

New Section of Motorway
Combined Zones of Theoretical Visibility
Sheet 7 of 10

Figure: 9.2

Date: March 2016

Drawn: SJD

Scale: A3 @ 1:25,000

0 0.5 1 Kilometres

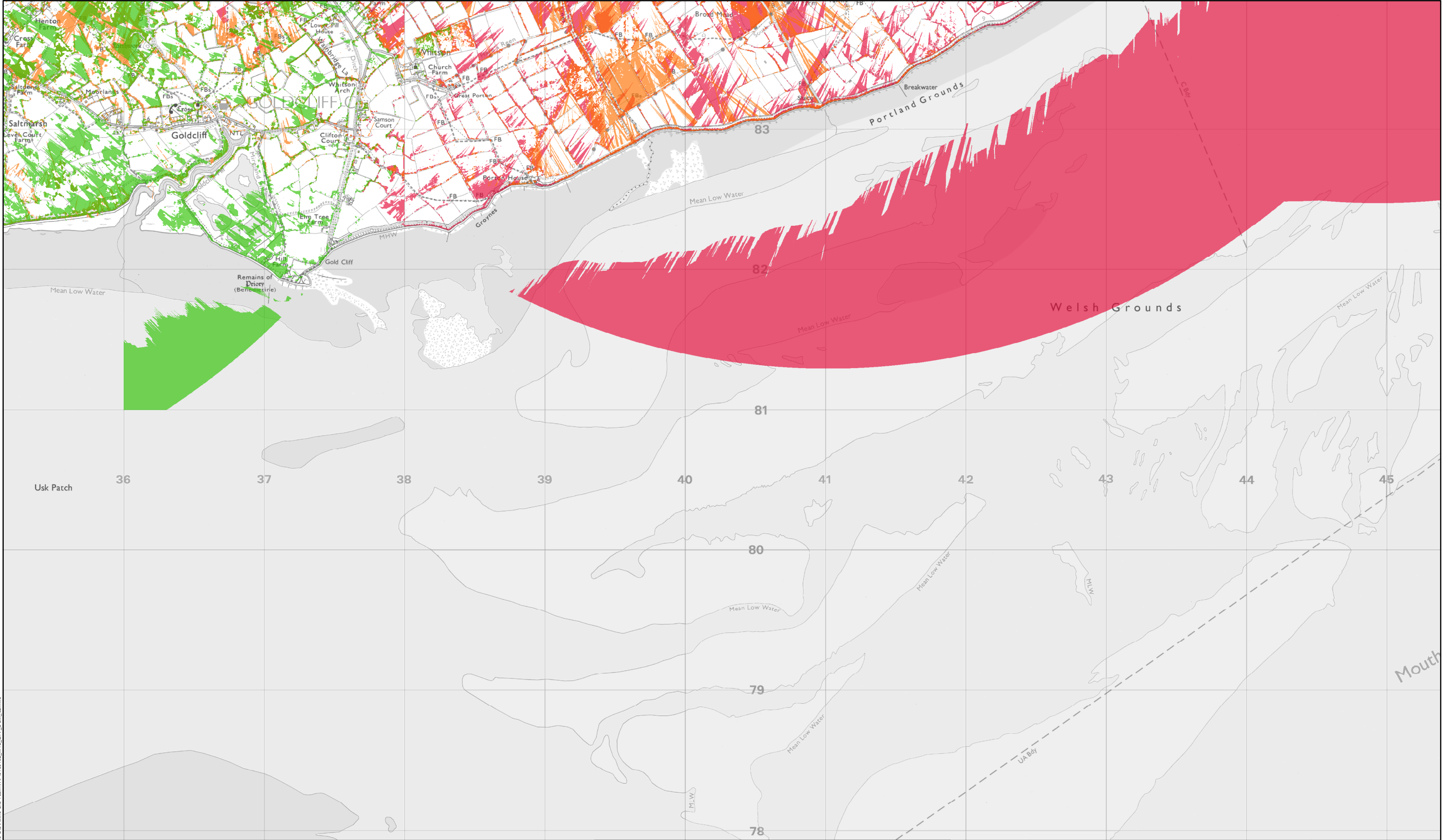
© Crown Copyright and database right 2016. Ordnance Survey 100021874. Welsh Government.
© Hawffaint a hawliau cronfa ddata'r Goron 2016. Rhif Trwydded yr Arolwg Ordnans 100021874.

Revision: 01

Status: At Issue

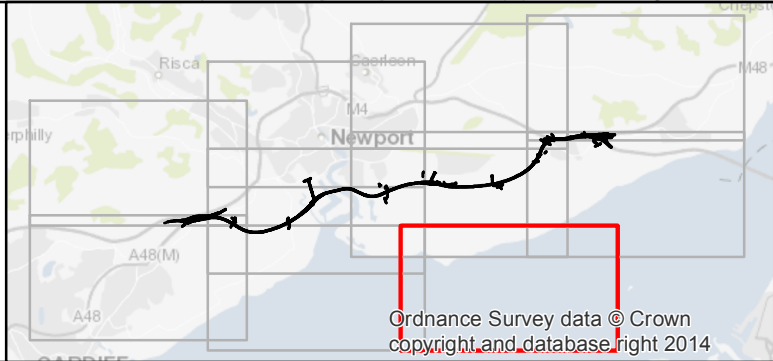
Checked: NJR


dwg ref:



Legend

- Proposed alignment of new section of motorway
- ZTV up to 5km for Junction 29 Castleton to South Wales to London Mainline (new Duffryn Railway)
- ZTV up to 3km for South Wales to London Mainline (new Duffryn Railway Underbridge) across Wentlooge Levels to south of
- ZTV up to 5km for Docks Way Landfill site (new Docks Way Junction), south of Newport Docks across River Usk to east of Uskmouth Railway line
- ZTV up to 3km for East of Uskmouth Railway line across Caldicot Levels to Steelworks Access Road, south of Bareland
- ZTV up to 5km for Steelworks Access Road, south of Bareland Street to Junction 23

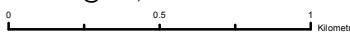





Llywodraeth Cymru
Welsh Government

Environmental Statement

**New Section of Motorway
Combined Zones of Theoretical Visibility
Sheet 8 of 10**

Figure: 9.2	Revision: 01
Date: March 2016	Status: At Issue
Drawn: SJD	Checked: NJR
Scale: A3 @ 1:25,000	
	
	
© Crown Copyright and database right 2016. Ordnance Survey 100021874. Welsh Government. © Hawlfraint a hawliau cronfa ddata'r Goron 2016. Rhif Trwydded yr Arolwg Ordnans 100021874.	
dwg ref:	



Legend

Proposed alignment of new section of motorway

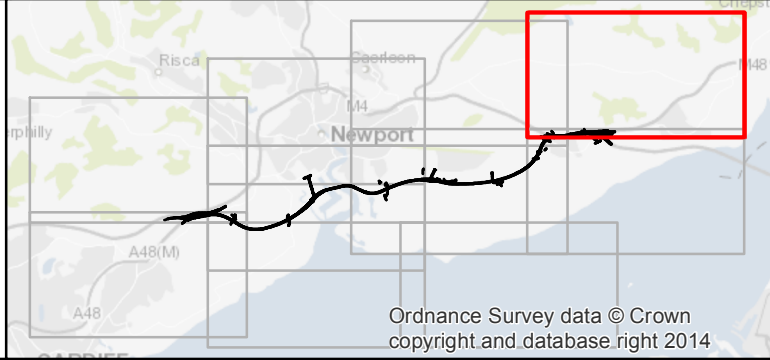
ZTV up to 5km for Junction 29 Castleton to South Wales to London Mainline (new Duffryn Railway)


ZTV up to 3km for South Wales to London Mainline (new Duffryn Railway Underbridge) across Wentlooge Levels to south of

ZTV up to 5km for Docks Way Landfill site (new Docks Way Junction), south of Newport Docks across River Usk to east of Uskmouth Railway line

ZTV up to 3km for East of Uskmouth Railway line across Caldicot Levels to Steelworks Access Road, south of Bareland

ZTV up to 5km for Steelworks Access Road, south of Bareland Street to Junction 23





Llywodraeth Cymru
Welsh Government

Environmental Statement

New Section of Motorway
Combined Zones of Theoretical Visibility
Sheet 9 of 10

Figure: 9.2

Date: March 2016

Drawn: SJD

Scale: A3 @ 1:25,000

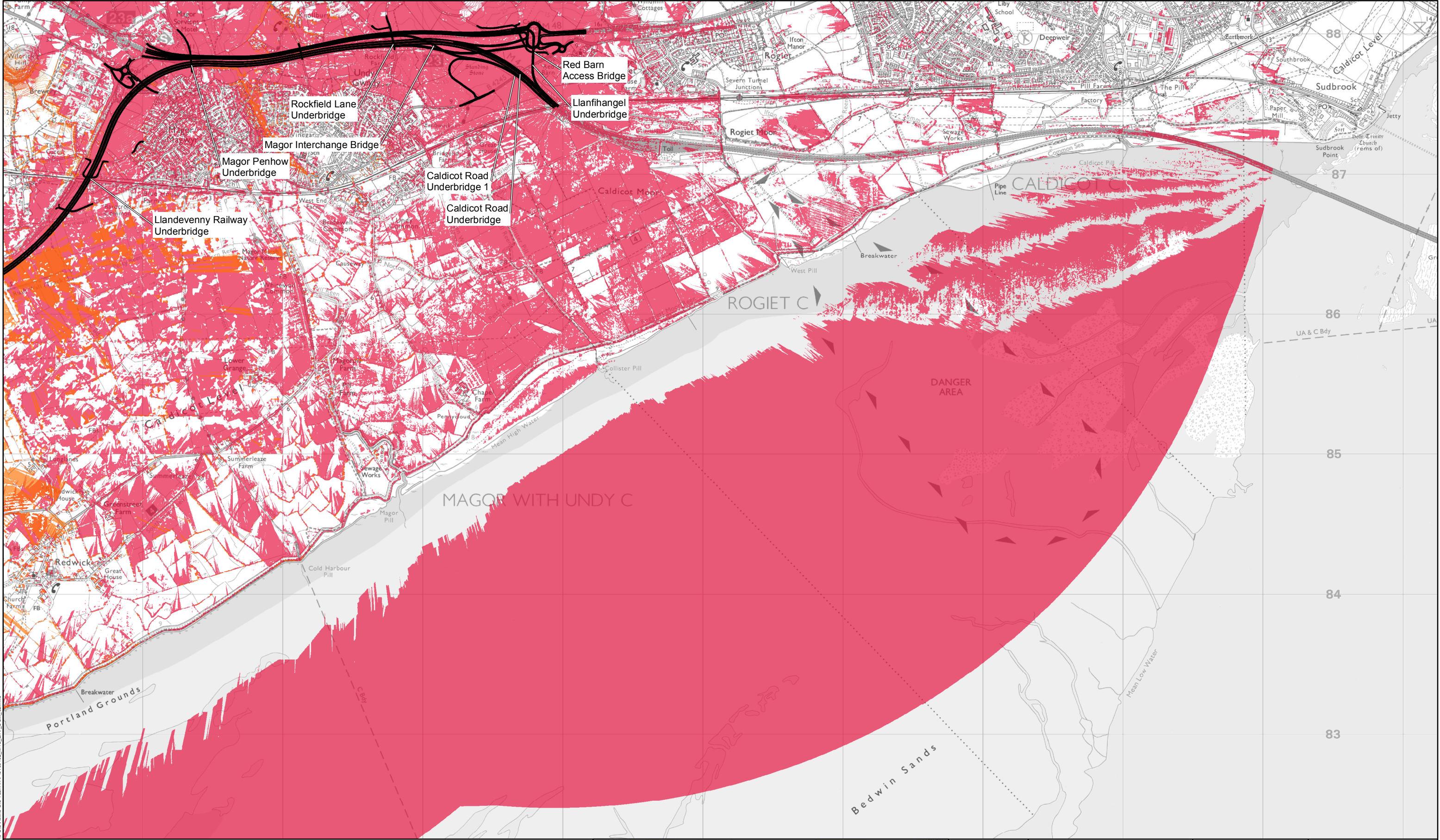
© Crown Copyright and database right 2016. Ordnance Survey 100021874. Welsh Government.
© Hawlfraint a hawliau cronfa ddata'r Goron 2016. Rhif Trwydded yr Arolwg Ordnans 100021874.

Revision: 01

Status: At Issue

Checked: NJR

dwg ref:



Legend

Proposed alignment of new section of motorway


ZTV up to 5km for Junction 29 Castleton to South Wales to London Mainline (new Duffryn Railway)

ZTV up to 3km for South Wales to London Mainline (new Duffryn Railway Underbridge) across Wentlooge Levels to south of

ZTV up to 5km for Docks Way Landfill site (new Docks Way Junction), south of Newport Docks across River Usk to east of Uskmouth Railway line

ZTV up to 3km for East of Uskmouth Railway line across Caldicot Levels to Steelworks Access Road, south of Bareland

ZTV up to 5km for Steelworks Access Road, south of Bareland Street to Junction 23



Llywodraeth Cymru
Welsh Government

Environmental Statement

New Section of Motorway
Combined Zones of Theoretical Visibility
Sheet 10 of 10

Figure: 9.2

Date: March 2016

Drawn: SJD

Scale: A3 @ 1:25,000

0 0.5 1 kilometres

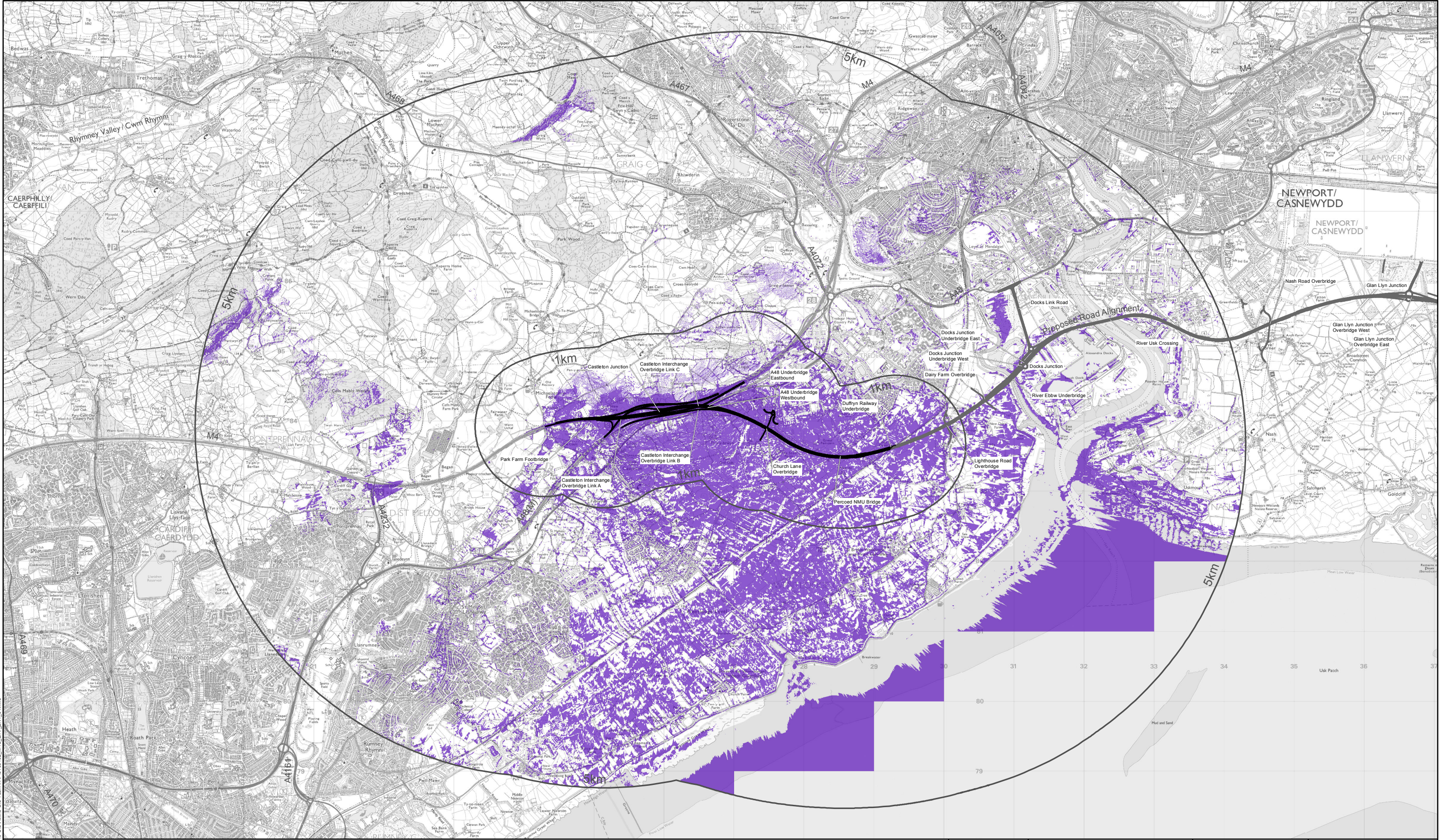
© Crown Copyright and database right 2016. Ordnance Survey 100021874. Welsh Government.
© Hawlfraint a hawliau cronfa ddata'r Goron 2016. Rhif Trwydded yr Arolwg Ordnans 100021874.

Revision: 01

Status: At Issue

Checked: NJR

dwg ref:



Notes


The ZTV shown is an indication of the area, up to a distance of 5km from the centreline, within which the new section of motorway between Junction 29 Castleton to South Wales to London Mainline (new Duffryn Railway Underbridge) may be visible.

The ZTV is based on a 2 metre resolution Digital Surface Model (DSM). The DSM contains the surface detail of vegetation and buildings.

A height of 4.35m has been added to the proposed alignment elevation to simulate the average height of HGV traffic Above Ordnance Datum (AOD).

Legend

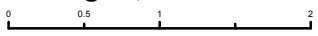

- Proposed alignment of new section of motorway
- Section of analysis - Junction 29 Castleton to South Wales to London Mainline (new Duffryn Railway Underbridge)
- Indicative extent of surrounding Digital Surface Model from which views to the proposed new section of motorway may be visible



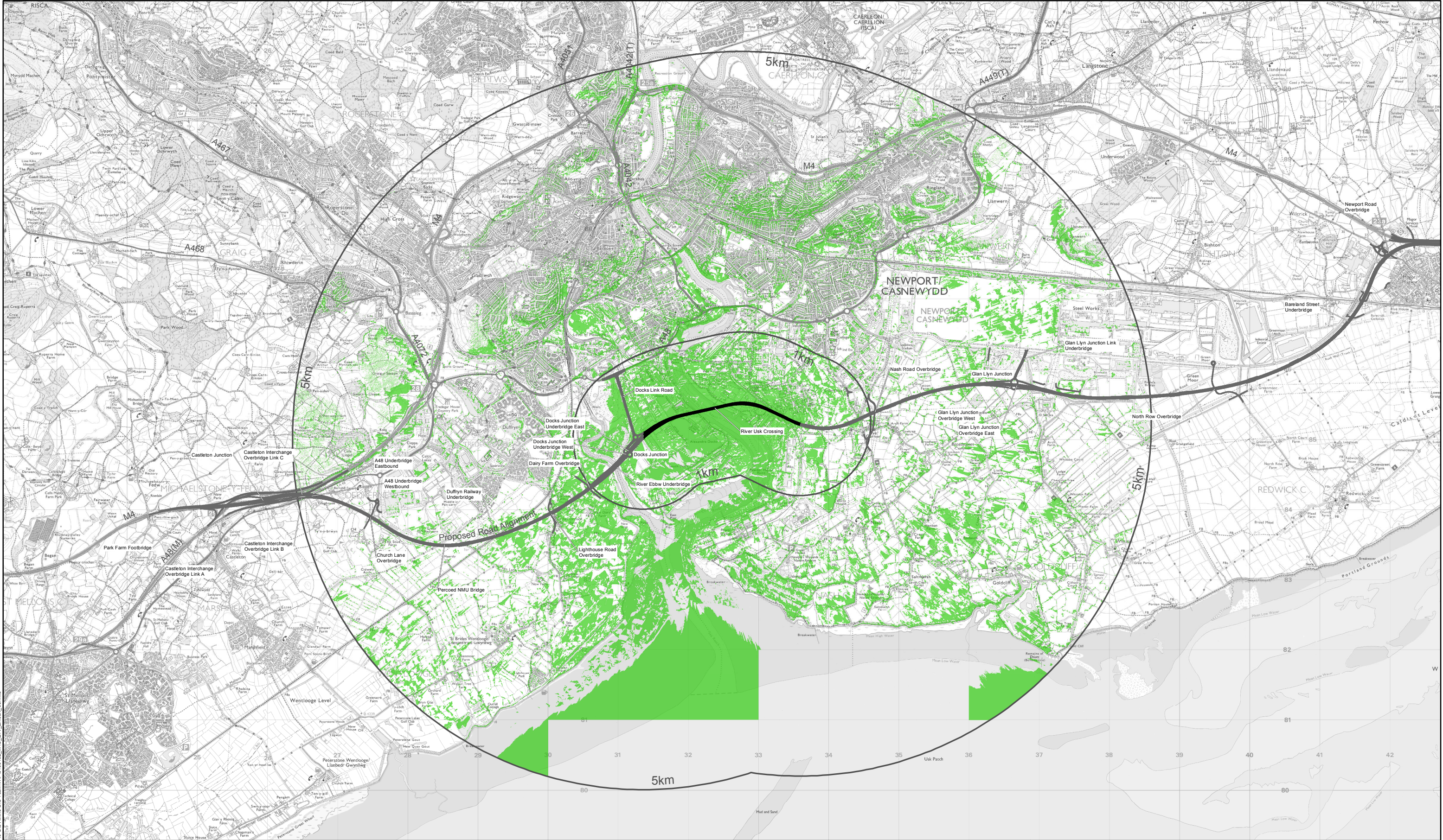
Llywodraeth Cymru
Welsh Government

Environmental Statement

New Section of Motorway
Zone of Theoretical Visibility
Junction 29 Castleton to South Wales to London
Mainline (new Duffryn Railway Underbridge)

Figure: 9.3	Revision: 01
Date: March 2016	Status: At Issue
Drawn: SJD	Checked: NJR
Scale: A3 @ 1:50,000	
	
	
© Crown Copyright and database right 2016. Ordnance Survey 100021874. Welsh Government. © Hawlfraint a hawliau cronfa ddata'r Goron 2016. Rhif Trwydded yr Arolwg Ordnans 100021874.	
dwg ref:	

P:\GBBS\Locally Managed\5139402 M4 CAN400 Technical Information\19 GIS\Atkins GIS Team\WP5139402_M4C_ZTV_ZN1_04.mxd



Notes


The ZTV shown is an indication of the area, up to a distance of 5km from the centreline, within which the new section of motorway between Docks Way Landfill site (new Docks Way Junction), south of Newport Docks across River Usk to east of Uskmouth Railway line may be visible.

The ZTV is based on a 2 metre resolution Digital Surface Model (DSM). The DSM contains the surface detail of vegetation and buildings.

A height of 4.35m has been added to the proposed alignment elevation to simulate the average height of HGV traffic Above Ordnance Datum (AOD).

Legend



- Proposed alignment of new section of motorway
- Section of analysis - Docks Way Landfill site (new Docks Way Junction), south of Newport Docks across River Usk to east of Uskmouth Railway line
- Indicative extent of surrounding Digital Surface Model from which views to the proposed new section of motorway may be visible



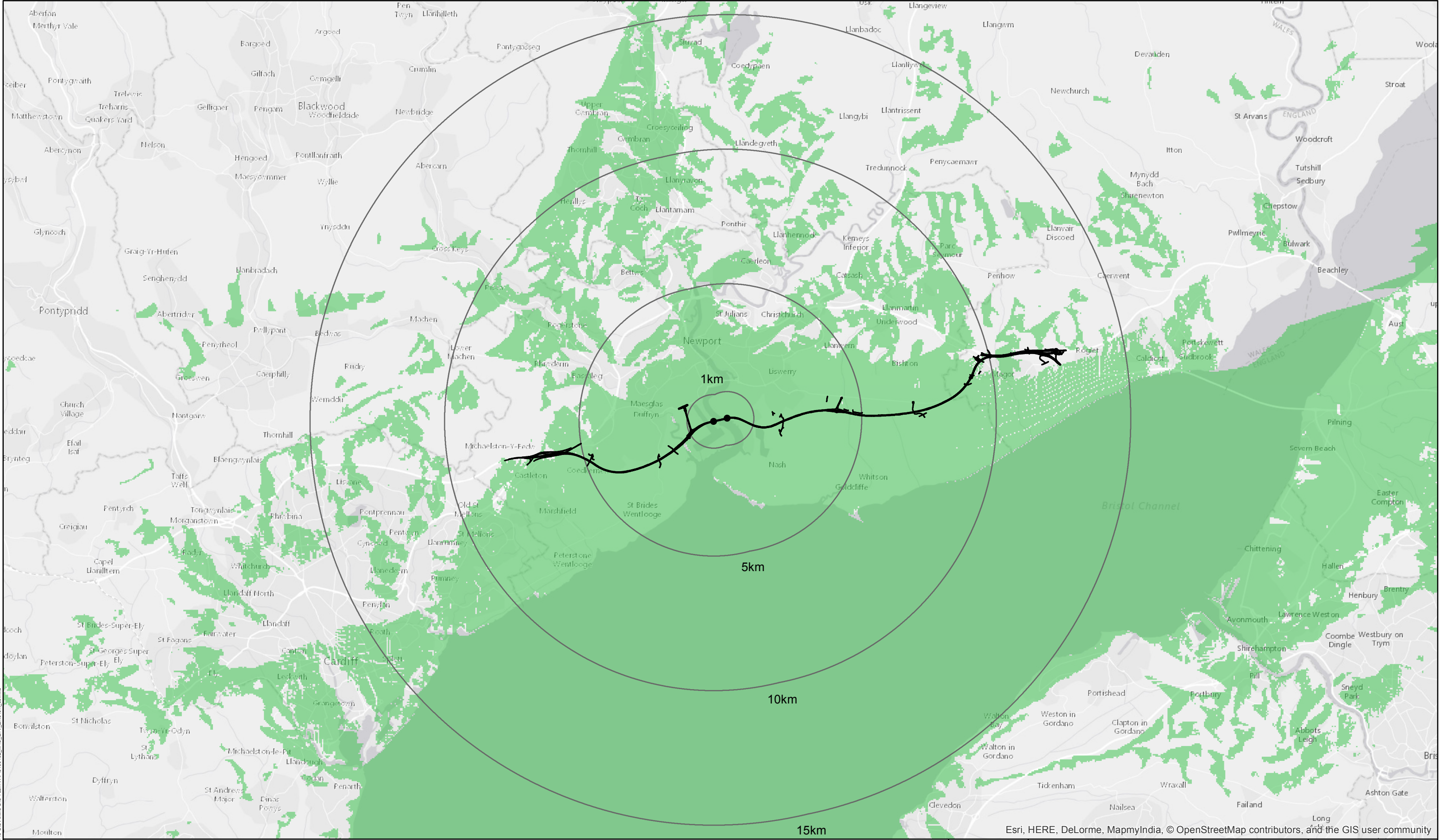
Llywodraeth Cymru
Welsh Government

Environmental Statement

New Section of Motorway
Zone of Theoretical Visibility
Docks Way Landfill site (new Docks Way Junction),
south of Newport Docks across River Usk to
east of Uskmouth Railway line

Figure:	9.5	Revision:	01
Date:	March 2016	Status:	At Issue
Drawn:	SJD	Checked:	NJR
Scale: A3 @ 1:50,000			
			
© Crown Copyright and database right 2016. Ordnance Survey 100021874. Welsh Government. © Hawffraint a hawliau cronfa ddata'r Goron 2016. Rhif Trwydded yr Arolwg Ordnans 100021874.			
dwg ref:			

P:\GB888\Locally Managed\5139402_M4_CAN-400_Technical Information\419_GB888\GIS Team\WP\5139402_M4C_ZTV_ZN39K_03.mxd



Notes


The ZTV shown is an indication of the area, up to a distance of 15km, within which the proposed River Usk Crossing piers for the new section of motorway may be visible.

The ZTV is based on Ordnance Survey Land-Form PANORAMA®, a 50 metre resolution gridded Digital Terrain Model (DTM) which does not consider the surface detail of vegetation and buildings.

The ZTV is calculated from two points at 160.21m Above Ordnance Datum (AOD) which is consistent with the highest point of the proposed bridge piers.

Legend

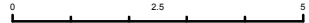

- Proposed bridge pier locations of River Usk Crossing
- Proposed alignment of new section of motorway
- Indicative extent of surrounding area from which views to the proposed bridge piers of the River Usk Crossing may be visible



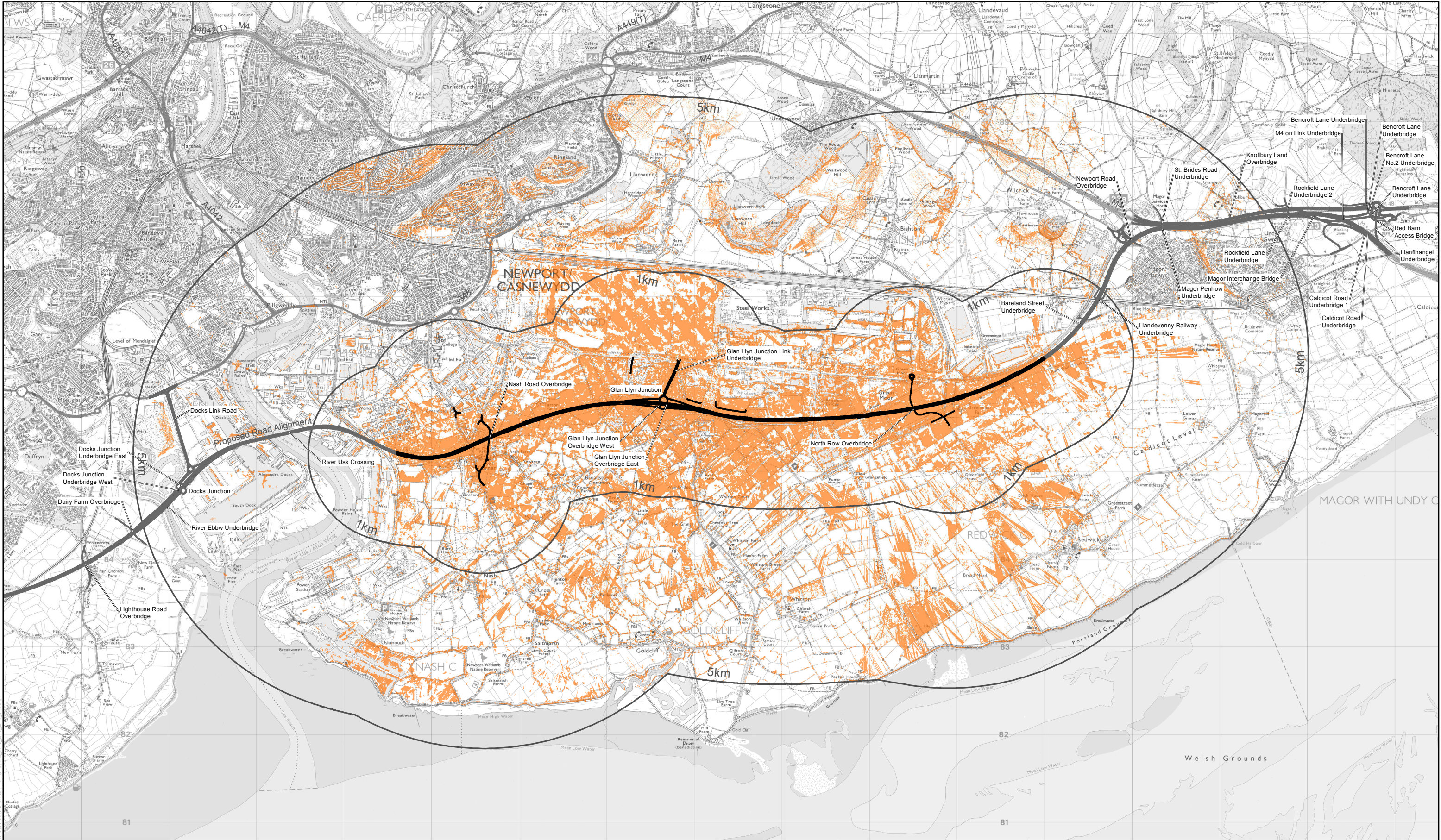
Llywodraeth Cymru
Welsh Government

Environmental Statement

New Section of Motorway
Zone of Theoretical Visibility
15km from Proposed Bridge Piers of River
Usk Crossing

Figure: 9.6	Revision: 01
Date: March 2016	Status: At Issue
Drawn: SJD	Checked: NJR
Scale: A3 @ 1:130,000	
 	
<small>© Crown Copyright and database right 2016. Ordnance Survey 100021874. Welsh Government. © Hawlfraint a hawliau cronfa ddata'r Goron 2016. Rhif Trwydded yr Arolwg Ordnans 100021874.</small>	
dwg ref:	

P:\GB888\Locally Managed\513402_M4_CAN-400_Technical Information\4.19 GIS\Atkins GIS Team\WP\513402_M4_C_ZTV_ZN315K_03.mxd



Notes


The ZTV shown is an indication of the area, up to a distance of 3km from the centreline, within which the new section of motorway between East of Uskmouth Railway line across Caldicot Levels to Steelworks Access Road, south of Bareland Street may be visible.

The ZTV is based on a 2 metre resolution Digital Surface Model (DSM). The DSM contains the surface detail of vegetation and buildings.

A height of 4.35m has been added to the proposed alignment elevation to simulate the average height of HGV traffic Above Ordnance Datum (AOD).

Legend


- Proposed alignment of new section of motorway
- Section of analysis - East of Uskmouth Railway line across Caldicot Levels to Steelworks Access Road, south of Bareland Street
- Indicative extent of surrounding Digital Surface Model from which views to the proposed new section of motorway may be visible



Llywodraeth Cymru
Welsh Government

Environmental Statement

New Section of Motorway
Zone of Theoretical Visibility
East of Uskmouth Railway line across Caldicot
Levels to Steelworks Access Road, south of
Bareland Street

Figure: 9.7	Revision: 01
Date: March 2016	Status: At Issue
Drawn: SJD	Checked: NJR
Scale: A3 @ 1:40,000	
	
© Crown Copyright and database right 2016, Ordnance Survey 100021874. Welsh Government. © Hawffraint a hawlau cronfa ddata'r Goron 2016. Rhif Trwydded yr Arolwg Ordnans 100021874.	
dwg ref:	

P:\GIS\BIS\Locally Managed\513402 M4 CAN-400 Technical Information\419 GIS\Akins GIS Team\WP01 3402_M4_ZTV_ZN4_04.mxd



Notes

The ZTV shown is an indication of the area, up to a distance of 5km from the centreline, within which the new section of motorway between Steelworks Access Road, south of Bareland Street to Junction 23 Magor may be visible.

The ZTV is based on a 2 metre resolution Digital Surface Model (DSM). The DSM contains the surface detail of vegetation and buildings.

A height of 4.35m has been added to the proposed alignment elevation to simulate the average height of HGV traffic Above Ordnance Datum (AOD).

- Legend**
- Proposed alignment of new section of motorway
 - Section of analysis - Steelworks Access Road, south of Bareland Street to Junction 23 Magor
 - Indicative extent of surrounding Digital Surface Model from which views to the proposed new section of motorway may be visible



Llywodraeth Cymru
Welsh Government

Environmental Statement

New Section of Motorway
Zone of Theoretical Visibility
Steelworks Access Road, south of Bareland
Street to Junction 23 Magor

Figure: 9.8	Revision: 01
Date: March 2016	Status: At Issue
Drawn: SJD	Checked: NJR
Scale: A3 @ 1:54,304	
0 0.5 1 2 Kilometres	
© Crown Copyright and database right 2016. Ordnance Survey 100021874. Welsh Government. © Hawffraint a hawliau cronfa ddata'r Goron 2016. Rhif Trwydded yr Arolwg Ordnans 100021874.	
dwg ref:	