

A417 Missing Link

PEI Figures - Volume 3

Table of Figures

Figure 7.1 Visibility and Indicative Viewpoints - Sheet 1 of 2

Figure 7.1 Visibility and Indicative Viewpoints - Sheet 2 of 2

Figure 7.2 Visibility (trucks) and Indicative Viewpoints - Sheet 1 of 2

Figure 7.2 Visibility (trucks) and Indicative Viewpoints - Sheet 2 of 2

Figure 7.3 Designations - Sheet 1 of 2

Figure 7.3 Designations - Sheet 2 of 2

Figure 7.4 AONB Landscape Character Types - Sheet 1 of 2

Figure 7.4 AONB Landscape Character Types - Sheet 2 of 2

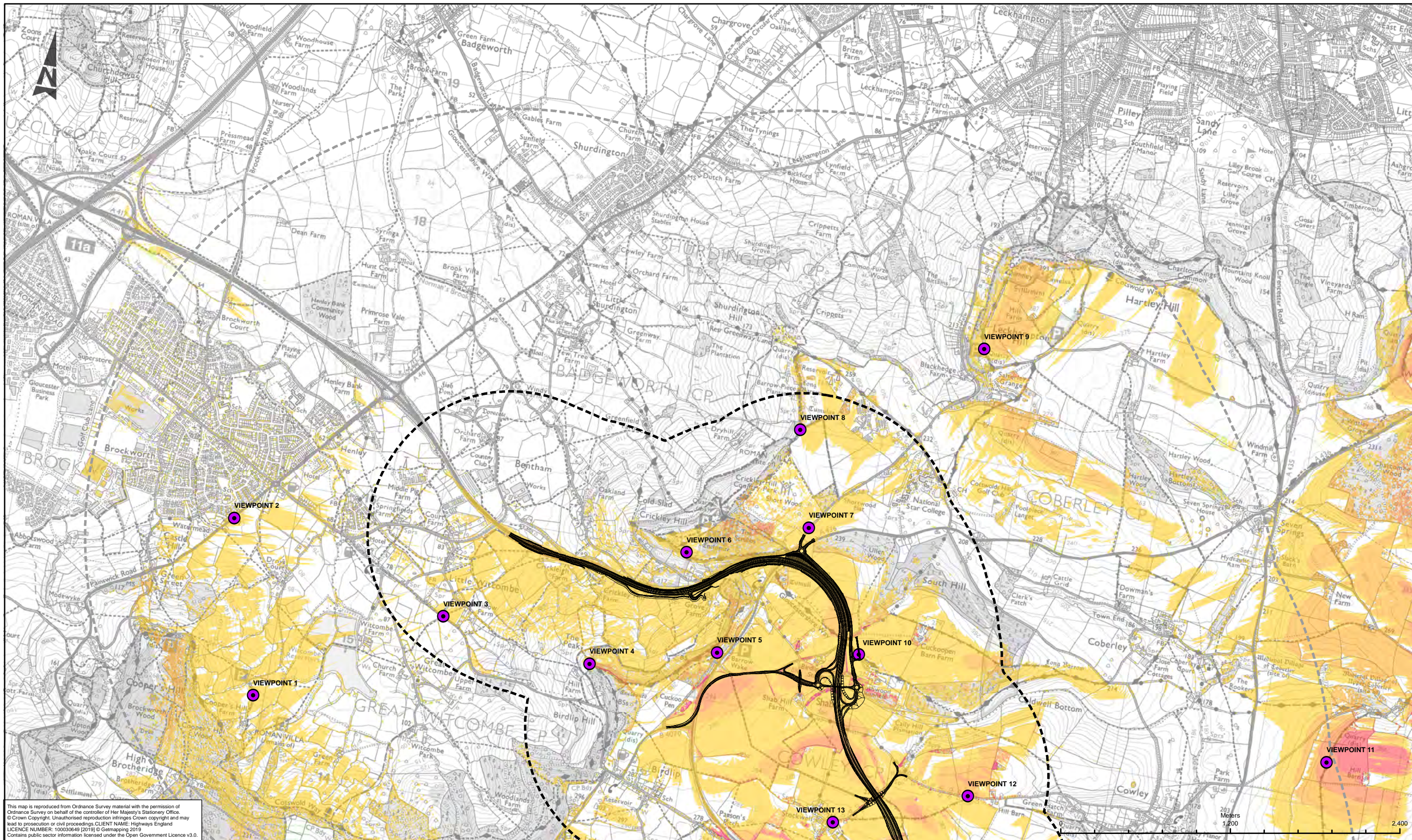
Figure 7.7 CPRE Dark Skies Mapping Sheet 1 of 2

Figure 7.7 CPRE Dark Skies Mapping Sheet 2 of 2

Figure 7.8 Landscape Design Approach

Figure 7.9 - Tranquillity Mapping Sheet 1 of 2

Figure 7.9 - Tranquillity Mapping Sheet 2 of 2



This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the controller of Her Majesty's Stationery Office. © Crown Copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. CLIENT NAME: Highways England
 LICENCE NUMBER: 100030649 (2019) © Getmapping 2019
 Contains public sector information licensed under the Open Government Licence v3.0.

LEGEND	
VISIBILITY	INDICATIVE VIEWPOINTS
2% OR 116M	CORE STUDY AREA (1KM)
4% OR 232M	WIDER STUDY AREA (3KM)
6% OR 348M	
8% OR 464M	
10% OR 580M	
20% OR 1.2KM	
30% OR 1.7KM	

NOTES
 THE EXTENT OF VISIBILITY SHOW IS BASED ON A PROJECTION OF PCF STAGE 2 DESIGN INCLUDING ROAD INFRASTRUCTURE AT THE PROPOSED LEVELS AOD. MINOR MODIFICATIONS HAVE BEEN MADE AS SHOWN ON ALL OTHER FIGURES.
 THE MAP WAS DERIVED USING DIGITAL SURFACE MODEL PROVIDED BY GETMAPPING.COM, WITH SPATIAL RESOLUTION OF TWO METRES.
 THE VIEWSHED IS CALCULATED FOR EVERY TWO METER SQUARE OF SURFACE, INCLUDED VEGETATION AND SURFACE STRUCTURES
 100% VISIBILITY EQUALS TO 5.8KM, WHICH REPRESENTS THE WHOLE ASSET.
 THERE IS NO VISIBILITY ABOVE 30%

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS (REFERENCE SHALL ALSO BE MADE IN THE DESIGN HAZARD LOG)

CONSTRUCTION	NONE
MAINTENANCE / CLEANING	NONE
USE	NONE
DECOMMISSIONING / DEMOLITION	NONE

Rev.	Date	Description	By	Chk'd	App'd	Aut'd
P04	19/08/19	UPDATED FIGURE NUMBER	EB	AK	JP	SW

Suitability S4 Drawing Status SUITABLE FOR STAGE APPROVAL

ARUP

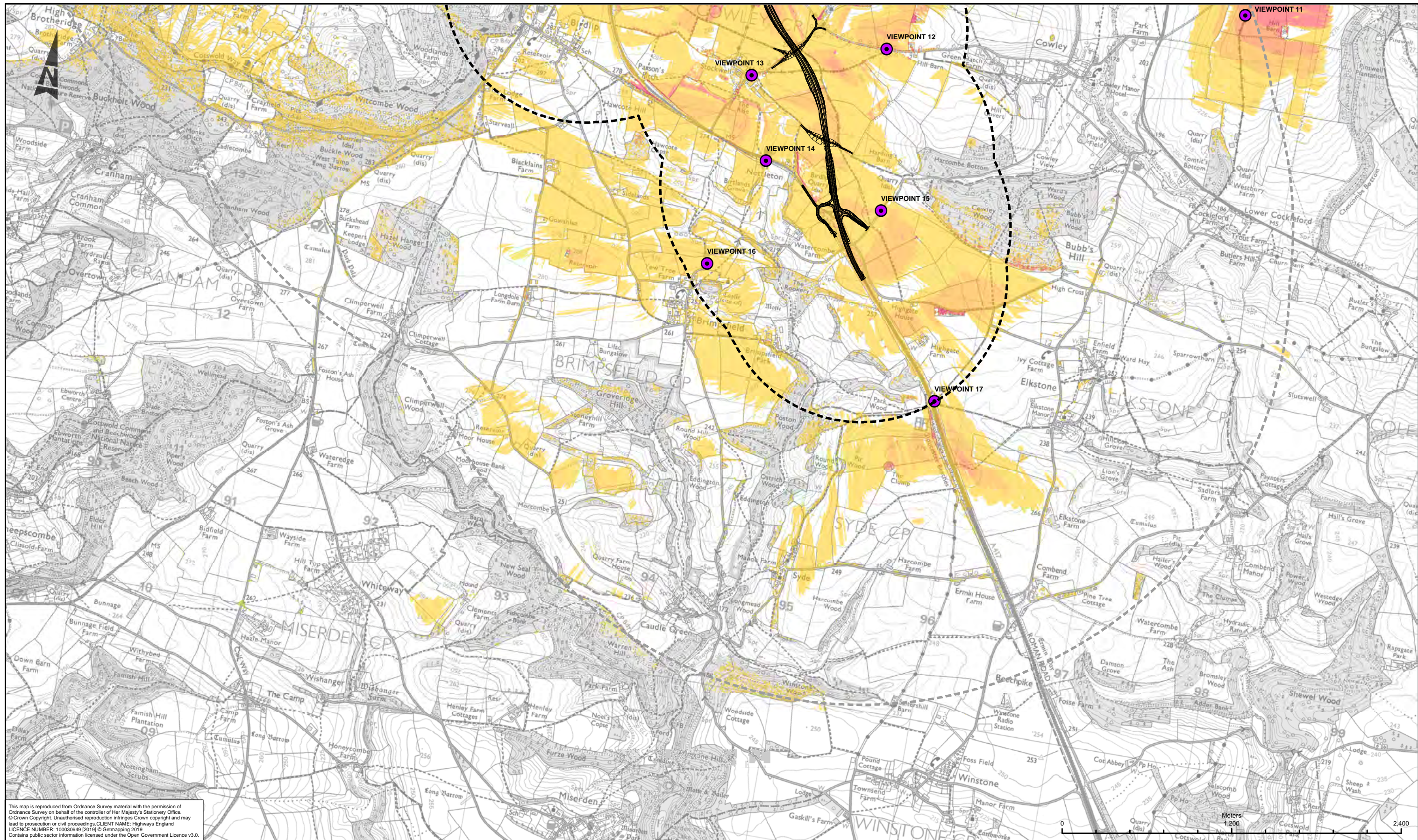
highways england

Project Title A417 MISSING LINK

Drawing Title FIGURE 7.1 VISIBILITY AND INDICATIVE VIEWPOINTS SHEET 1 OF 2

Scale	By	Checked	Approved	Authorised
1:25,000	EB	AK	JP	SW
Original Size	Date	Date	Date	Date
A3	19/08/19	19/08/19	19/08/19	19/08/19

Drawing Number	HE PIN	Originator	Volume	Revision
HE551506 - ARP		ARP	ELS	P04
X_XX_XXXX_X		-DR	LE	000034
Location	Type	Role	Number	



This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the controller of Her Majesty's Stationery Office. © Crown Copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. CLIENT NAME: Highways England LICENCE NUMBER: 10003049 (2019) © Getmapping 2019 Contains public sector information licensed under the Open Government Licence v3.0.

LEGEND	
VISIBILITY	
	2% OR 116M
	4% OR 232M
	6% OR 348M
	8% OR 464M
	10% OR 580M
	20% OR 1.2KM
	INDICATIVE VIEWPOINTS
	CORE STUDY AREA (1KM)
	WIDER STUDY AREA (3KM)

NOTES

THE EXTENT OF VISIBILITY SHOW IS BASED ON A PROJECTION OF STAGE 2 DESIGN INCLUDING ROAD INFRASTRUCTURE AT THE PROPOSED LEVELS AOD. MINOR MODIFICATIONS HAVE BEEN MADE AS SHOWN ON ALL OTHER FIGURES.

THE MAP WAS DERIVED USING DIGITAL SURFACE MODEL PROVIDED BY GETMAPPING.COM, WITH SPATIAL RESOLUTION OF TWO METRES. THE VIEWSHED IS CALCULATED FOR EVERY TWO METER SQUARE OF SURFACE, INCLUDED VEGETATION AND SURFACE STRUCTURES 100% VISIBILITY EQUALS TO 5.8KM, WHICH REPRESENTS THE WHOLE ASSET. THERE IS NO VISIBILITY ABOVE 30%

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS (REFERENCE SHALL ALSO BE MADE IN THE DESIGN HAZARD LOG)			
CONSTRUCTION			
NONE			
MAINTENANCE / CLEANING			
NONE			
USE			
NONE			
DECOMMISSIONING / DEMOLITION			
NONE			
Rev.	Date	Description	By Chk'd App'd Auid'd

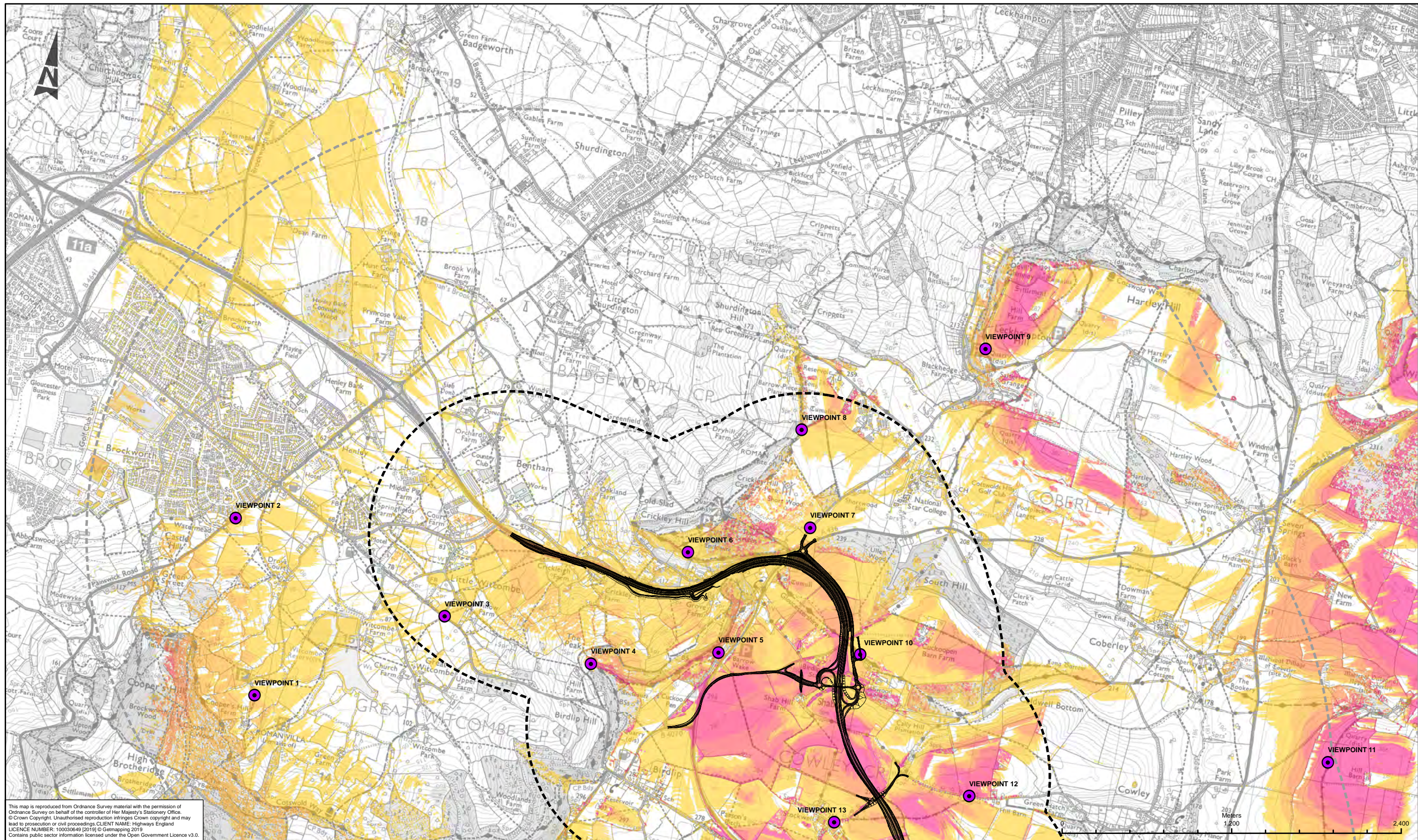
S4 Drawing Status SUITABLE FOR STAGE APPROVAL

ARUP

highways england

Project Title A417 MISSING LINK

Drawing Title				
FIGURE 7.1 VISIBILITY AND INDICATIVE VIEWPOINTS SHEET 2 OF 2				
Scale	By	Checked	Approved	Authorised
1:25,000	EB	AK	JP	SW
Original Size	Date	Date	Date	Date
A3	19/08/19	19/08/19	19/08/19	19/08/19
Drawing Number	HE PIN	Originator	Volume	Revision
HE551506 - ARP		ARUP	ELS	P04
X_XX_XXXX_X	-DR	-LE	-000035	
Location	Type	Role	Number	



This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the controller of Her Majesty's Stationery Office. © Crown Copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. CLIENT NAME: Highways England LICENCE NUMBER: 100030649 (2019) © Getmapping 2019 Contains public sector information licensed under the Open Government Licence v3.0.

LEGEND	
	CORE STUDY AREA (1KM)
	WIDER STUDY AREA (3KM)
	INDICATIVE VIEWPOINTS
	2% OR 116M
	4% OR 232M
	6% OR 348M
	8% OR 464M
	10% OR 580M
	20% OR 1.2KM
	30% OR 1.7KM
	40% OR 2.3KM
	50% OR 2.9KM

NOTES

THE EXTENT OF VISIBILITY SHOW IS BASED ON A PROJECTION OF PCF STAGE 2 DESIGN INCLUDING ROAD INFRASTRUCTURE AT THE PROPOSED LEVELS AOD AND HEAVY GOODS VEHICLES AT 4.7M. MINOR MODIFICATIONS HAVE BEEN MADE AS SHOWN ON ALL OTHER FIGURES.

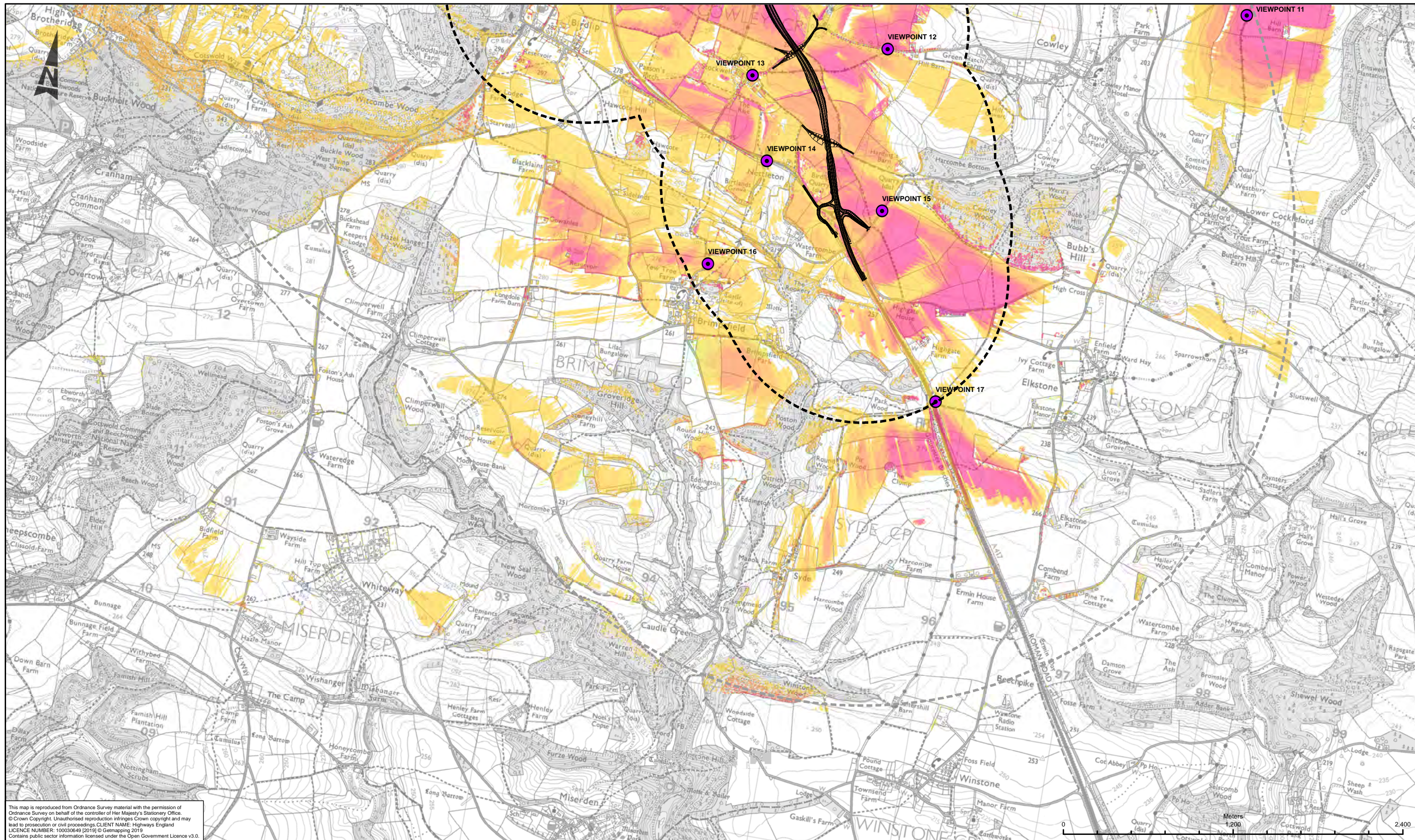
THE MAP WAS DERIVED USING DIGITAL SURFACE MODEL PROVIDED BY GETMAPPING.COM, WITH SPATIAL RESOLUTION OF TWO METRES. THE VIEWSHED IS CALCULATED FOR EVERY TWO METER SQUARE OF SURFACE, INCLUDED VEGETATION AND SURFACE STRUCTURES 100% VISIBILITY EQUALS TO 5.8KM, WHICH REPRESENTS THE WHOLE ASSET. THERE IS NO VISIBILITY ABOVE 50%

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION	
IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS (REFERENCE SHALL ALSO BE MADE IN THE DESIGN HAZARD LOG)	
CONSTRUCTION	
NONE	
MAINTENANCE / CLEANING	
NONE	
USE	
NONE	
DECOMMISSIONING / DEMOLITION	
NONE	

Rev.	Date	Description	By	Chk'd	App'd	Aut'd
P04	19/08/19	UPDATED FIGURE NUMBER	EB	AK	JP	SW

S4	Drawing Status	SUITABLE FOR STAGE APPROVAL

Project Title		A417 MISSING LINK			
Drawing Title		FIGURE 7.2 VISIBILITY (TRUCKS) AND INDICATIVE VIEWPOINTS SHEET 1 OF 2			
Scale	1:25,000	By	EB	Checked	AK
Original Size	A3	Date	19/08/19	Date	19/08/19
Approved	JP	Date	19/08/19	Authorised	SW
Date	19/08/19	Date	19/08/19	Date	19/08/19
Drawing Number	HE PIN	Originator	ARUP	Volume	ELS
HE551506 -		Originator	ARUP	Volume	ELS
X_XX_XXXX_X		Type	DR	Role	LE
		Number	000036		
					P04



This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the controller of Her Majesty's Stationery Office. © Crown Copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. CLIENT NAME: Highways England LICENCE NUMBER: 10003049 (2019) © Getmapping 2019. Contains public sector information licensed under the Open Government Licence v3.0.

LEGEND	
	CORE STUDY AREA (1KM)
	WIDER STUDY AREA (3KM)
	INDICATIVE VIEWPOINTS
	2% OR 116M
	4% OR 232M
	6% OR 348M
	8% OR 464M
	10% OR 580M
	20% OR 1.2KM
	30% OR 1.7KM

NOTES

THE EXTENT OF VISIBILITY SHOW IS BASED ON A PROJECTION OF PCF STAGE 2 DESIGN INCLUDING ROAD INFRASTRUCTURE AT THE PROPOSED LEVELS AOD AND HEAVY GOODS VEHICLES AT 4.7M. MINOR MODIFICATIONS HAVE BEEN MADE AS SHOWN ON ALL OTHER FIGURES.

THE MAP WAS DERIVED USING DIGITAL SURFACE MODEL PROVIDED BY GETMAPPING.COM, WITH SPATIAL RESOLUTION OF TWO METRES. THE VIEWSHED IS CALCULATED FOR EVERY TWO METER SQUARE OF SURFACE, INCLUDED VEGETATION AND SURFACE STRUCTURES 100% VISIBILITY EQUALS TO 5.8KM, WHICH REPRESENTS THE WHOLE ASSET. THERE IS NO VISIBILITY ABOVE 50%

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

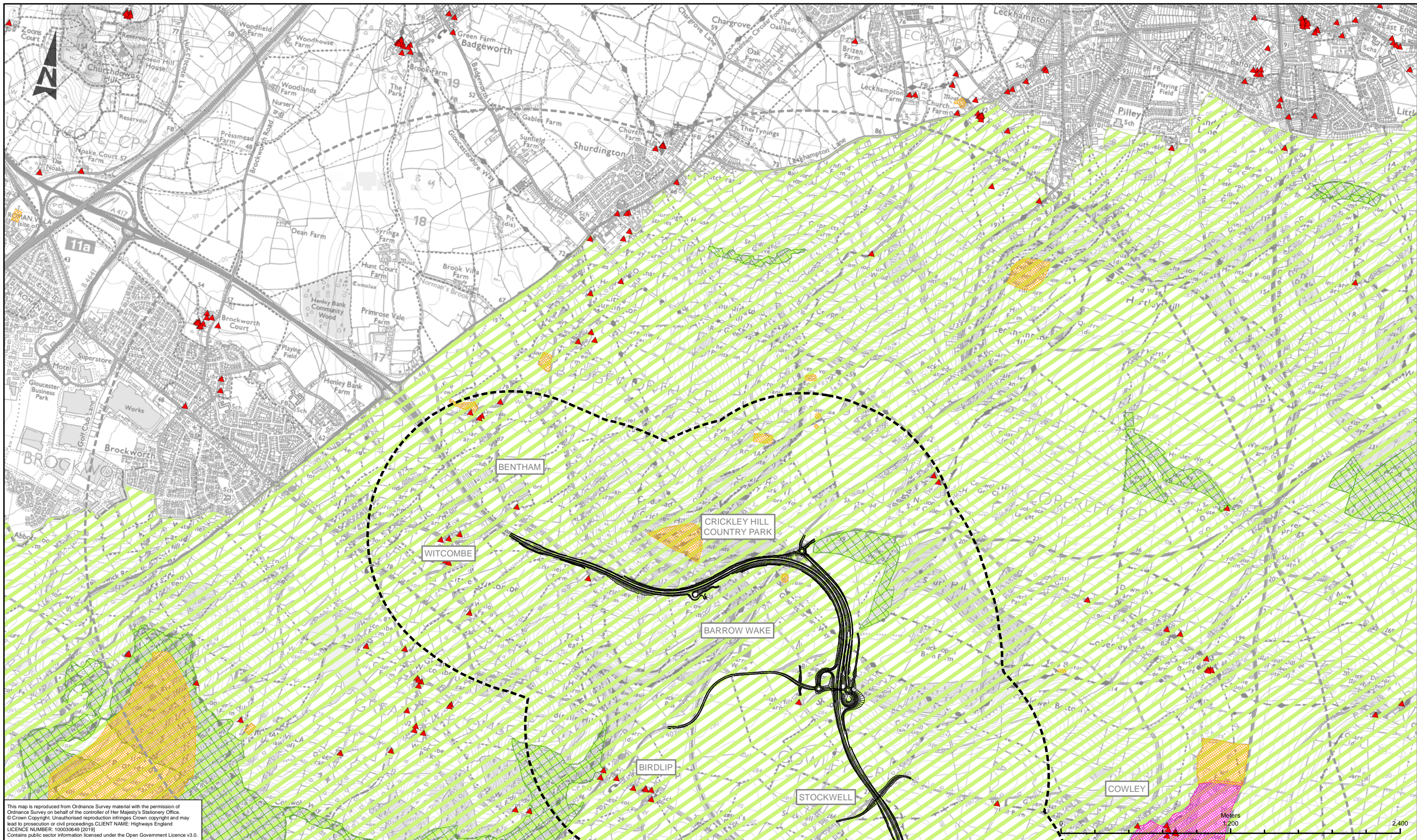
IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS (REFERENCE SHALL ALSO BE MADE IN THE DESIGN HAZARD LOG)	
CONSTRUCTION	NONE
MAINTENANCE / CLEANING	NONE
USE	NONE
DECOMMISSIONING / DEMOLITION	NONE

Rev.	Date	Description	By	Chk'd	App'd	Aud'td
P04	19/08/19	UPDATED FIGURE NUMBER	EB	AK	JP	SW

Suitability Drawing Status
S4 SUITABLE FOR STAGE APPROVAL

Project Title
A417 MISSING LINK

Drawing Title					
FIGURE 7.2 VISIBILITY (TRUCKS) AND INDICATIVE VIEWPOINTS SHEET 2 OF 2					
Scale	By	Checked	Approved	Authorised	
1:25,000	EB	AK	JP	SW	
Original Size	Date	Date	Date	Date	
A3	19/08/19	19/08/19	19/08/19	19/08/19	
Drawing Number	HE PIN	Originator	Volume	Revision	
HE551506 - ARP	HE551506 - ARP	ELLS	ELLS	P04	
X_XX_XXXX_X	-DR-LE-000037				
Location	Type	Role	Number		



This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the controller of Her Majesty's Stationery Office. © Crown Copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. CLIENT NAME: Highways England LICENCE NUMBER: 100030649 (2019) Contains public sector information licensed under the Open Government Licence v3.0.

LEGEND	
	LISTED BUILDINGS
	SCHEDULED MONUMENT
	HISTORIC PARKS AND GARDENS
	ANCIENT WOODLAND
	AREA OF OUTSTANDING NATURAL BEAUTY (AONB)
	CORE STUDY AREA (1KM)
	WIDER STUDY AREA (3KM)

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS (REFERENCE SHALL ALSO BE MADE IN THE DESIGN HAZARD LOG)

CONSTRUCTION	NONE
MAINTENANCE / CLEANING	NONE
USE	NONE
DECOMMISSIONING / DEMOLITION	NONE

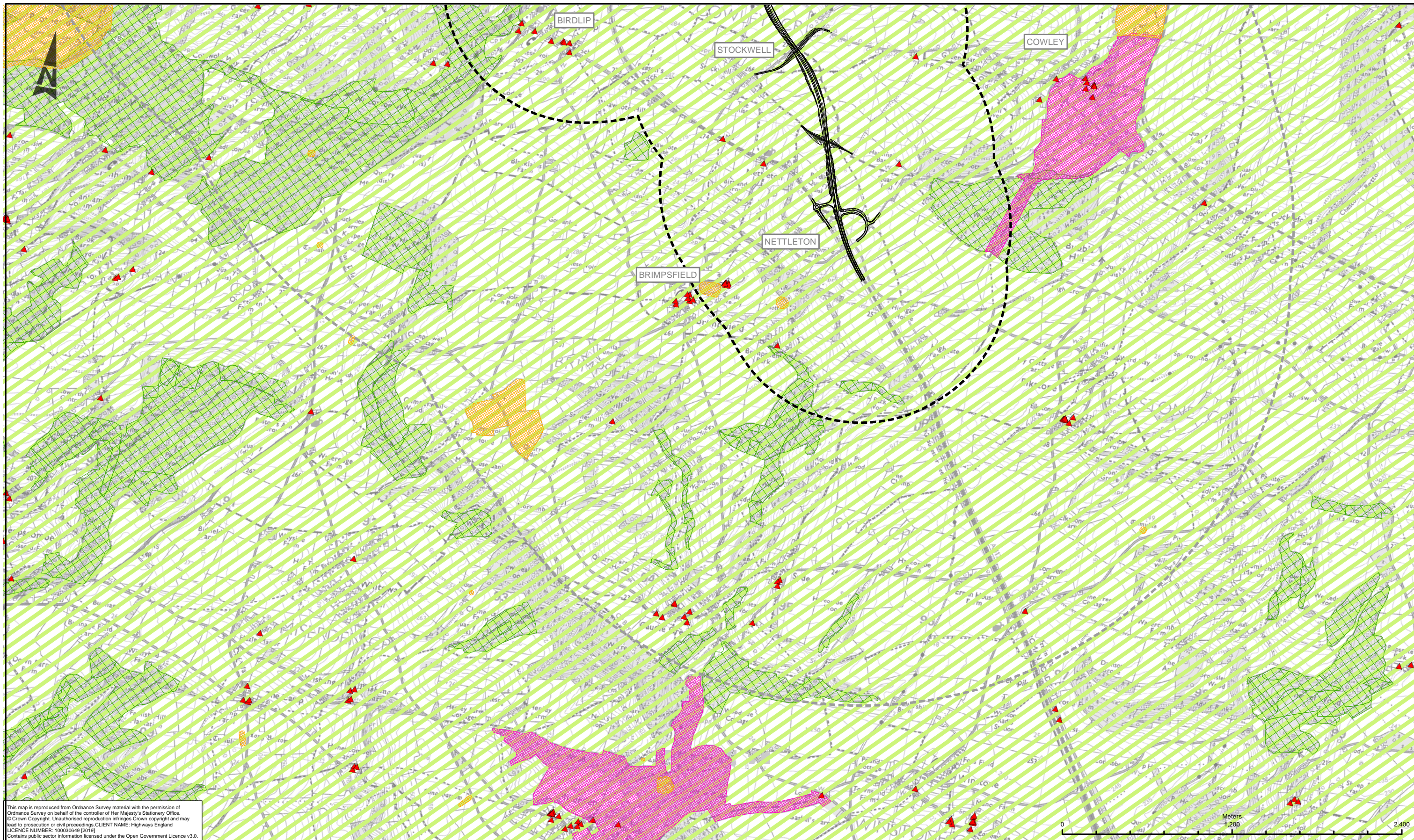
Rev.	Date	Description	By	Chk'd	App'd	Aut'd
P04	19/08/19	UPDATED FIGURE NUMBER	EB	AK	JP	SW

Suitability: S4
 Drawing Status: SUITABLE FOR STAGE APPROVAL

ARUP

Client: **highways england**

Project Title: A417 MISSING LINK					
Drawing Title: FIGURE 7.3 DESIGNATIONS SHEET 1 OF 2					
Scale: 1:25,000	By: EB	Checked: AK	Approved: JP	Authorised: SW	
Original Size: A3	Date: 19/08/19	Date: 19/08/19	Date: 19/08/19	Date: 19/08/19	
Drawing Number: HE PIN	Originator: ARP	Volume: ELS	Revision: P04		
HE551506 -	XX_XXXX_X	-DR - LE - 000004			
Location	Type	Role	Number		



This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the controller of Her Majesty's Stationery Office. © Crown Copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. CLIENT NAME: Highways England LICENCE NUMBER: 100030649 (2019) Contains public sector information licensed under the Open Government Licence v3.0.

- LEGEND**
- LISTED BUILDINGS
 - SCHEDULED MONUMENT
 - HISTORIC PARKS AND GARDENS
 - ANCIENT WOODLAND
 - AREA OF OUTSTANDING NATURAL BEAUTY (AONB)
 - CORE STUDY AREA
 - WIDER STUDY AREA

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS (REFERENCE SHALL ALSO BE MADE IN THE DESIGN HAZARD LOG)

CONSTRUCTION	NONE
MAINTENANCE / CLEANING	NONE
USE	NONE
DECOMMISSIONING / DEMOLITION	NONE

Rev.	Date	Description	By	Chk'd	App'd	Aut'd
P04	19/08/19	UPDATED FIGURE NUMBER	EB	AK	JP	SW

S4 Drawing Status: SUITABLE FOR STAGE APPROVAL

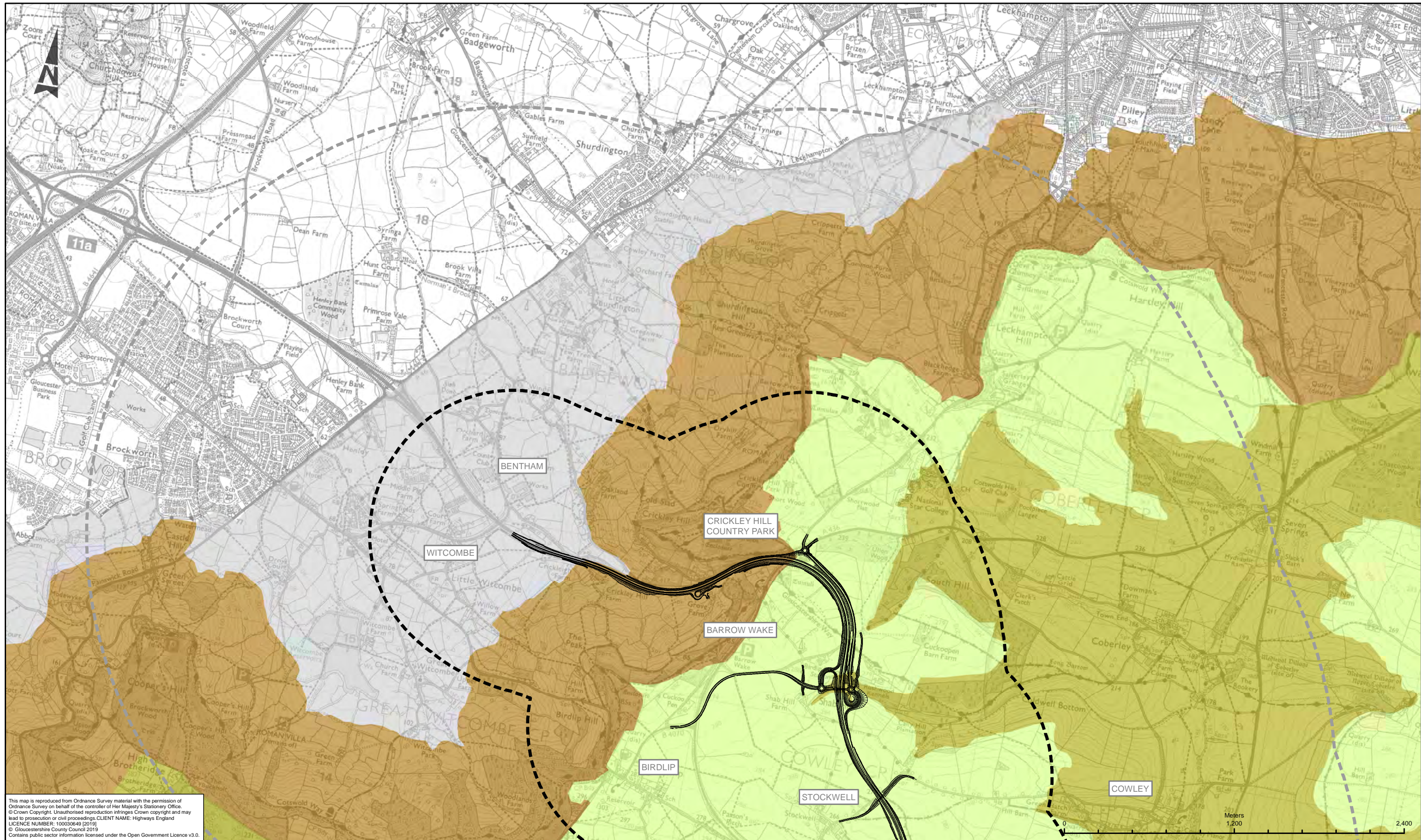
ARUP

Client: **highways england**

Project Title: A417 MISSING LINK

Drawing Title: **FIGURE 7.3 DESIGNATIONS SHEET 2 OF 2**

Scale: 1:25,000	By: EB	Checked: AK	Approved: JP	Authorised: SW
Original Size: A3	Date: 19/08/19	Date: 19/08/19	Date: 19/08/19	Date: 19/08/19
Drawing Number: HE551506 - ARP	HE PIN: X_XX_XXXX_X	Originator: -DR	Volume: -LE	Revision: 000006
Location: P04	Type: LE	Role: 000006	Number: P04	



This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the controller of Her Majesty's Stationery Office. © Crown Copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. CLIENT NAME: Highways England LICENCE NUMBER: 100030649 [2019] © Gloucestershire County Council 2019 Contains public sector information licensed under the Open Government Licence v3.0.

LEGEND	
	CORE STUDY AREA
	WIDER STUDY AREA
	ESCARPMENT
	HIGH WOLD
	HIGH WOLD VALLEY
	SETTLED UNWOODED VALE

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION	
IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS (REFERENCE SHALL ALSO BE MADE IN THE DESIGN HAZARD LOG)	
CONSTRUCTION	NONE
MAINTENANCE / CLEANING	NONE
USE	NONE
DECOMMISSIONING / DEMOLITION	NONE

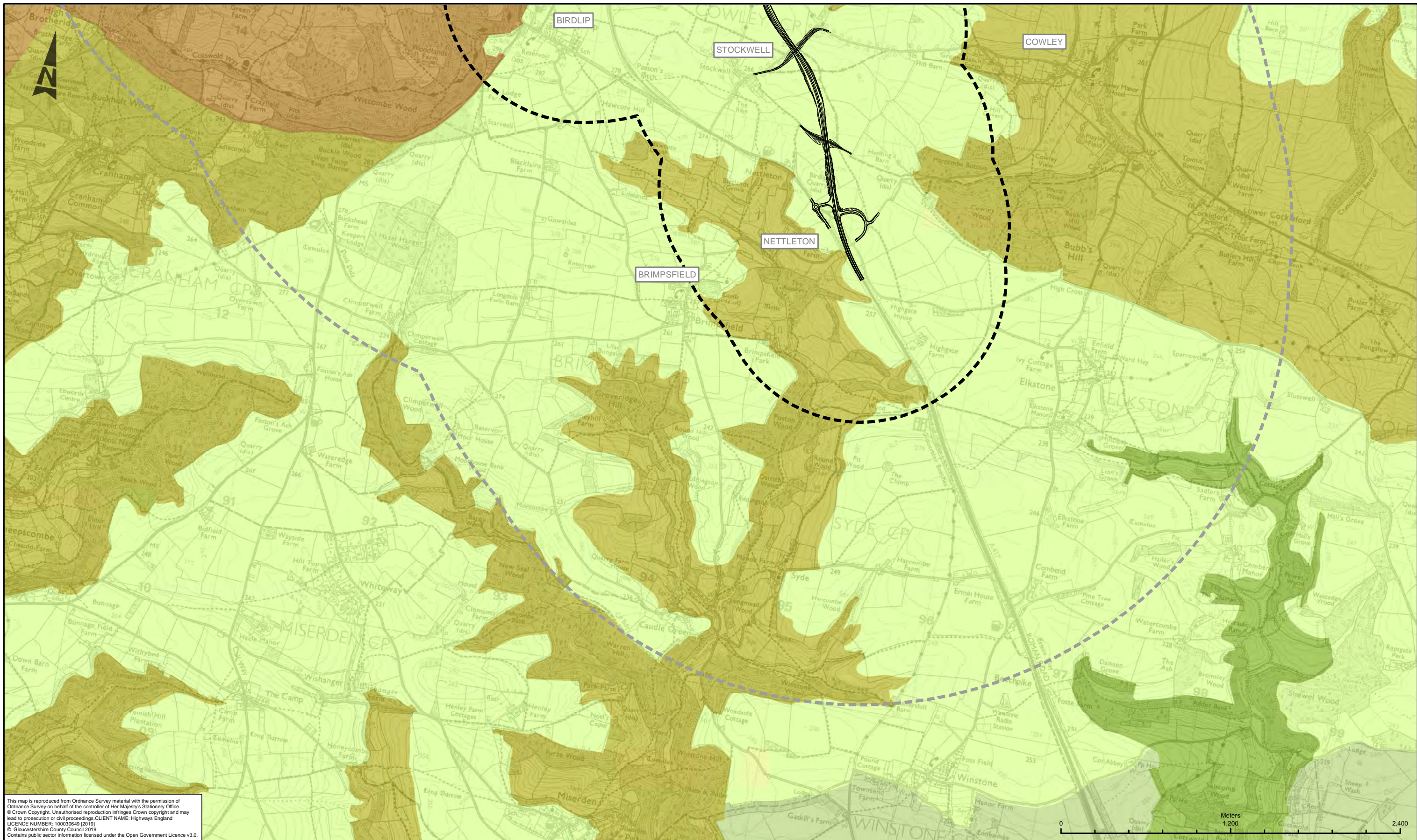
Rev.	Date	Description	By	Chkd	Appd	Autd
P04	19/08/19	UPDATED FIGURE NUMBER	EB	AK	JP	SW

Suitability: S4
 Drawing Status: SUITABLE FOR STAGE APPROVAL

ARUP

Client: **highways england**

Project Title				
A417 MISSING LINK				
Drawing Title				
FIGURE 7.4 AONB LANDSCAPE CHARACTER TYPES SHEET 1 OF 2				
Scale: 1:25,000	By: EB	Checked: AK	Approved: JP	Authorised: SW
Original Size: A3	Date: 19/08/19	Date: 19/08/19	Date: 19/08/19	Date: 19/08/19
Drawing Number: HE PIN	Originator: ARUP	Volume: ELS	Revision: P04	
HE551506 - ARP	-DR - LE - 000005	-DR - LE - 000005	Type	Role



This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the controller of Her Majesty's Stationery Office. © Crown Copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. CLIENT NAME: Highways England
 LICENCE NUMBER: 100030649 (2019)
 © Gloucestershire County Council 2019
 Contains public sector information licensed under the Open Government Licence v3.0.

LEGEND	
	CORE STUDY AREA (1KM)
	WIDER STUDY AREA (3KM)
	ESCARPMENT
	HIGH WOLD
	HIGH WOLD VALLEY
	HIGH WOLD DIP-SLOPE
	HIGH WOLD DIP-SLOPE VALLEY

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION	
IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS (REFERENCE SHALL ALSO BE MADE IN THE DESIGN HAZARD LOG)	
CONSTRUCTION	
NONE	
MAINTENANCE / CLEANING	
NONE	
USE	
NONE	
DECOMMISSIONING / DEMOLITION	
NONE	

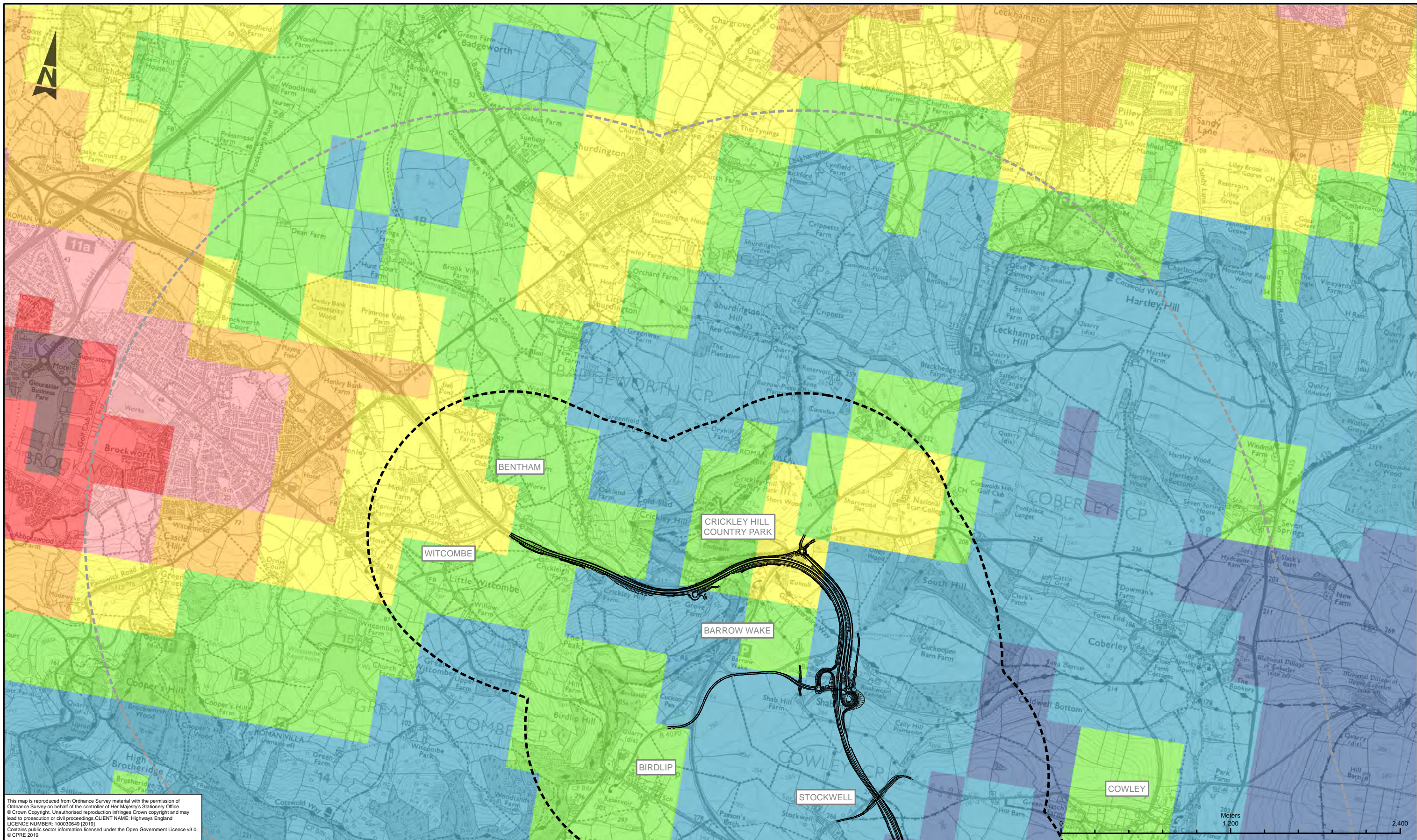
Rev.	Date	Description	By	Chkd	Appd	Autd
P04	19/08/19	UPDATED FIGURE NUMBER	EB	AK	JP	SW

Suitability: **S4** Drawing Status: **SUITABLE FOR STAGE APPROVAL**

ARUP

Client: **highways england**

Project Title		Drawing Title	
A417 MISSING LINK		FIGURE 7.4 AONB LANDSCAPE CHARACTER TYPES SHEET 2 OF 2	
Scale	By	Checked	Approved
1:25,000	EB	AK	JP
Original Size	Date	Date	Date
A3	19/08/19	19/08/19	19/08/19
Drawing Number	HE PIN	Originator	Volume
HE551506 - ARP		ARP	ELS
X_XX_XXXX_X	-DR	LE	000007
Location	Type	Role	Number
Revision	Authorised		
	SW		
	P04		



This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the controller of Her Majesty's Stationery Office. © Crown Copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. CLIENT NAME: Highways England LICENCE NUMBER: 100030649 (2019) Contains public sector information licensed under the Open Government Licence v3.0. © CPRE 2019

LEGEND	
NIGHT LIGHTS (NANOWATTS / CM2 /SR)	
>32 (HIGH)	4 - 8
16 - 32	2 - 4
8 - 16	1 - 2
	0.5 - 1
	0.25 - 0.5
	CORE STUDY AREA (1KM)
	WIDER STUDY AREA (3KM)

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION	
IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS (REFERENCE SHALL ALSO BE MADE IN THE DESIGN HAZARD LOG)	
CONSTRUCTION	
NONE	
MAINTENANCE / CLEANING	
NONE	
USE	
NONE	
DECOMMISSIONING / DEMOLITION	
NONE	

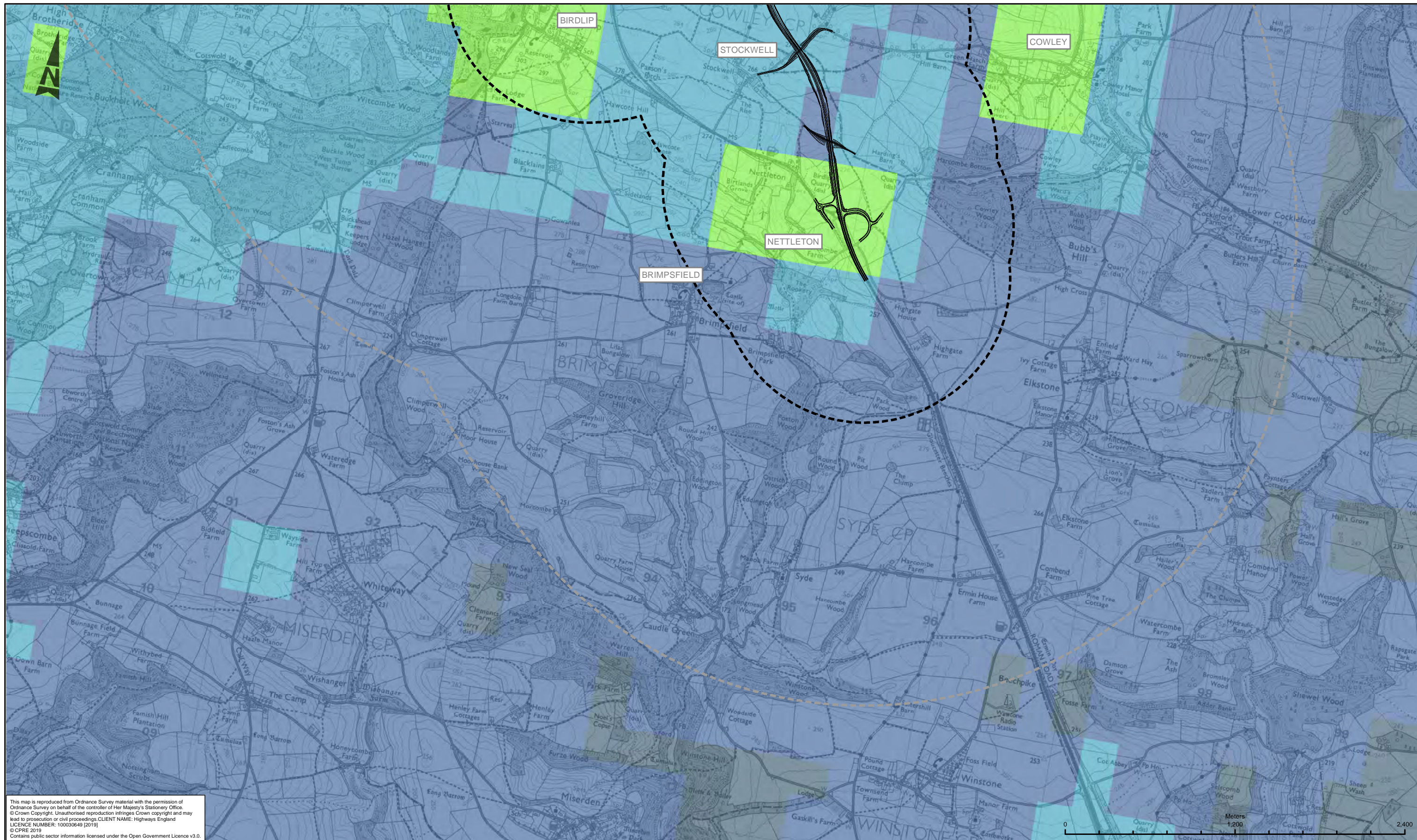
Rev.	Date	Description	By	Chkd	Appd	Autd
P04	19/08/19	UPDATED FIGURE NUMBER	EB	AK	JP	SW

Suitability: S4
 Drawing Status: SUITABLE FOR STAGE APPROVAL

ARUP

Client: **highways england**

Project Title		Drawing Title	
A417 MISSING LINK		FIGURE 7.7 CPRE DARK SKIES MAPPING SHEET 1 OF 2	
Scale: 1:25,000	By: EB	Checked: AK	Approved: JP
Original Size: A3	Date: 19/08/19	Date: 19/08/19	Date: 19/08/19
Drawing Number: HE PIN	Originator: ARP	Volume: ELS	Authorised: SW
HE551506 - ARP	-DR - LE - 000008		P04
Location: X_XX_XXXX_X	Type: DR	Role: LE	Number: 000008



This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the controller of Her Majesty's Stationery Office. © Crown Copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. CLIENT NAME: Highways England LICENCE NUMBER: 100030649 [2019] © CPRE 2019. Contains public sector information licensed under the Open Government Licence v3.0.

LEGEND	
NIGHT LIGHTS (NANOWATTS / CM ² / SR)	CORE STUDY AREA (1KM)
1 - 2	WIDER STUDY AREA (3KM)
0.5 - 1	
0.25 - 0.5	
< 0.25 (LOW)	

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS (REFERENCE SHALL ALSO BE MADE IN THE DESIGN HAZARD LOG)	
CONSTRUCTION	NONE
MAINTENANCE / CLEANING	NONE
USE	NONE
DECOMMISSIONING / DEMOLITION	NONE

Rev.	Date	Description	By	Chk'd	App'd	Aud'td
P04	19/08/19	UPDATED FIGURE NUMBER	EB	AK	JP	SW

Suitability: **S4** Drawing Status: **SUITABLE FOR STAGE APPROVAL**

ARUP

Client: **highways england**

Project Title: A417 MISSING LINK				
Drawing Title: FIGURE 7.7 CPRE DARK SKIES MAPPING SHEET 2 OF 2				
Scale: 1:25,000	By: EB	Checked: AK	Approved: JP	Authorised: SW
Original Size: A3	Date: 19/08/19	Date: 19/08/19	Date: 19/08/19	Date: 19/08/19
Drawing Number: HE551506 - ARP - ELS	HE PIN: X_XX_XXXX_X	Originator: -DR-	Role: -LE-	Number: 000010
				Revision: P04

DO NOT SCALE

0 10 100
Millimetres



GREEN BRIDGE (INDICATIVE LOCATION)
 PROPOSED GREEN BRIDGE LINKING CRICKLEY HILL AND BARROW WAKE TO PROVIDE BENEFITS FOR USERS OF THE COTSWOLD WAY AND TO RECONNECT SSSI HABITATS PREVIOUSLY SEVERED BY THE EXISTING A417. FOOTPATH LINK TO BE REALIGNED KEEPING THE COTSWOLD WAY ON THE RIDGE. GREEN BRIDGE TO FEATURE A WIDE DECK NOTIONALLY THIS CURRENTLY SET AT 50M AS REFERENCE DESIGN WIDTH SO THAT THE BRIDGE APPEARS LIKE A 'PIECE OF LAND'. THE BRIDGE WILL FEATURE SOME WIDENING AT THE ABUTMENTS TO FACILITATE FUNNELLING OF WILDLIFE AND INCREASE AREAS OF PROPOSED HABITAT. SPACE ON THE BRIDGE WILL BE DESIGNED TO CATER FOR WALKERS AND OTHER USERS OF THE COTSWOLD WAY ALONG WITH QUIETER AREAS (ONE SIDE OF THE BRIDGE) TO FACILITATE WILDLIFE CORRIDORS. GREEN BRIDGE PLANTING IS TO BE DEVELOPED BUT IS LIKELY TO FEATURE A MOSAIC OF HABITATS, INCLUDING PREDOMINATELY CALCAREOUS GRASSLAND, WITH SOME GROUND COVER SHRUB AND SMALL TREE/SCRUB TO SUPPORT WILDLIFE MOVEMENT BETWEEN AND PHYSICALLY CONNECT CRICKLEY HILL AND BARROW WAKE SSSIS. THE PATHWAY WILL FORM PART OF THE COTSWOLD WAY AND WOULD BE DESIGNED TO ALLOW VIEWS OUT IN PLACES TO THE COTSWOLD AONB LANDSCAPE. OPPORTUNITIES WILL BE EXPLORED TO INCREASE AREAS OF EXPOSED GEOLOGY, ALONG WITH CALCAREOUS GRASSLAND AND WOODLAND TO ENHANCE THE SSSIS.

CRICKLEY HILL
 ALL RETAINING STRUCTURES ALONG THE BOUNDARY WITH CRICKLEY HILL ARE TO BE OF LOCAL CHARACTER USING STONE FACING. FACING TO INCLUDE AREAS FOR COLONISATION WITH LOCAL SPECIES. REPLACEMENT AND INTEGRATION PLANTING TO MATCH EXISTING CHARACTER OF CRICKLEY HILL USING CALCAREOUS GRASSLAND AND NATIVE WOODLAND TREE AND SCRUB SPECIES. PROTECT AND ENHANCE NATIONALLY IMPORTANT ROCK EXPOSURES.

A417 SOUTH
 REPLACEMENT WOODLAND PLANTING WILL BE CARRIED OUT TO THE SOUTH TO MITIGATE FOR LOST WOODLAND AREAS DUE TO WIDENING. REPLACEMENT OF FIELD BOUNDARY HEDGEROW PLANTING AND NEW FIELD BOUNDARIES OF LOCAL DRYSTONE TO RESTORE AND STRENGTHEN LOCAL LANDSCAPE CHARACTER. THE ROUTE ALIGNMENT WILL MINIMISE IMPACTS ON RIDGE AND FARROW FEATURES TO ADJACENT HISTORIC FIELD PATTERN.

ENHANCED DIPLOPE
 PROPOSED HEDGEROW AND DRYSTONE WALLING TO ENHANCE QUALITY OF HISTORIC FIELD BOUNDARIES. PROTECT AREAS OF HISTORIC INTEREST SUCH AS RIDGE AND FURROW FIELD PATTERN.

DETRUNKED SECTIONS OF A417
 DETRUNKED SECTIONS OF THE A417 ARE TO BE REDUCED TO A 'PURPOSE-DESIGNED' WIDTH FOR FOOTPATH, BRIDLEWAY AND CYCLE ACCESS. FORMER ROAD TO BE RESURFACED WITH LOCALLY APPROPRIATE TOPPING. LARGE AREA OF CALCAREOUS GRASSLAND TO BE PROVIDED CONNECTING UP EXISTING SSSI HABITAT. EXISTING HEDGEROW AND/OR WOODLAND LINEAR TREE PLANTING TO BE EXTENDED ACROSS THE DEMOLISHED SECTION OF ROAD TO INCREASE BIODIVERSITY AND CREATE ADDITIONAL WILDLIFE HABITAT. LEVELS OF THE OLD ALIGNMENT ARE TO BE RATIONALISED IN PLACES THROUGH INFILLING USING EXCAVATED MATERIALS TO RESTORE LAND TO ORIGINAL GRADES. HEDGEROW AND TREE PLANTING AND NEW FIELD BOUNDARIES OF LOCAL STONE AS REQUIRED TO RESTORE LANDSCAPE TO ORIGINAL CHARACTER AND CONDITION.

BIRD LIP TO SHAB HILL SIDE ROAD
 PROTECT AND RETAIN EXISTING TREE LINED BOUNDARY FEATURES (LINEAR BEECH WOODLAND). NEW FIELD BOUNDARIES ARE TO FEATURE A COMBINATION OF DRY STONE WALLING, NATIVE HEDGEROW AND TREE PLANTING TO STRENGTHEN LOCAL LANDSCAPE CHARACTER AND NEW FIELD BOUNDARIES.

LINK TO BARROW WAKE
 DETRUNKED SECTIONS OF THE OLD A417 ARE TO BE REDUCED TO A 'PURPOSE-DESIGNED' WIDTH FOR FOOTPATH, BRIDLEWAY AND CYCLE ACCESS. RETAIN SOME CAR PARKING BUT CONTROL ACCESS TO REDUCE OPPORTUNITIES FOR ANTI-SOCIAL BEHAVIOUR. FORMER ROAD TO BE RESURFACED WITH LOCALLY APPROPRIATE TOPPING. CALCAREOUS GRASSLAND TO BE PLANTED PROVIDING CONNECTIONS WITH EXISTING SSSI HABITAT. EXISTING HEDGEROW AND/OR WOODLAND LINEAR TREE PLANTING TO BE EXTENDED ACROSS THE DEMOLISHED SECTION OF ROAD TO INCREASE BIODIVERSITY AND CREATE ADDITIONAL WILDLIFE HABITAT.

DETRUNKED SECTIONS OF A417
 DETRUNKED SECTIONS OF THE A417 ARE TO BE REDUCED TO A 'PURPOSE-DESIGNED' WIDTH FOR FOOTPATH, BRIDLEWAY AND CYCLE ACCESS. FORMER ROAD TO BE RESURFACED WITH LOCALLY APPROPRIATE TOPPING. LARGE AREA OF CALCAREOUS GRASSLAND TO BE PROVIDED CONNECTING UP EXISTING SSSI HABITAT. EXISTING HEDGEROW AND/OR WOODLAND LINEAR TREE PLANTING TO BE EXTENDED ACROSS THE DEMOLISHED SECTION OF ROAD TO INCREASE BIODIVERSITY AND CREATE ADDITIONAL WILDLIFE HABITAT. LEVELS OF THE OLD ALIGNMENT ARE TO BE RATIONALISED IN PLACES THROUGH INFILLING USING EXCAVATED MATERIALS TO RESTORE LAND TO ORIGINAL GRADES. HEDGEROW AND TREE PLANTING AND NEW FIELD BOUNDARIES OF LOCAL STONE AS REQUIRED TO RESTORE LANDSCAPE TO ORIGINAL CHARACTER AND CONDITION.

COWLEY ROUNDABOUT
 JUNCTION TO BE INTEGRATED INTO THE LANDSCAPE USING A COMBINATION OF WOODLAND PLANTING WITH LANDSCAPE EARTHWORKS TO CREATE VISUAL SCREENING (USING EXCAVATED MATERIALS). EXISTING WOODLAND TO THE WEST OF THE JUNCTION TO BE RETAINED AND PROTECTED. NEW FIELD BOUNDARIES ARE TO BE LOCAL DRYSTONE TO MATCH EXISTING BOUNDARIES.

A417 STEEP CUTTINGS AND RETAINING STRUCTURES
 RETAINING STRUCTURES ARE TO BE DESIGNED TO BE SYMPATHETIC TO THE CHARACTER OF THE COTSWOLD AONB. A RANGE OF FACING MATERIALS ARE TO BE EXPLORED TO INCLUDE LOCAL STONE FACINGS USING COTSWOLD STONE AND EXPOSED ROCK FACES. FACING MAY ALSO INCLUDE AREAS FOR COLONISATION WITH LOCAL SPECIES TO VISUALLY BREAK UP THE SURFACES. THE DESIGN OF THE CUTTING SLOPES WILL BE CONSIDERED AND MEASURES EXPLORED TO PROVIDE NOISE MITIGATION. ROUTES TO EAST AND WEST TO BE CONTAINED WITHIN LARGE SCALE NATIVE WOODLAND PLANTING THAT WILL PROVIDE LANDSCAPE INTEGRATION AND VISUAL SCREENING. PLANTING PROPOSALS TO LINK WITH EXISTING GRASSLAND, HEDGEROW AND WOODLAND BLOCKS TO UNIFY AND LINK HABITATS IN THE AREA.

SHAB HILL JUNCTION
 JUNCTION TO BE INTEGRATED INTO THE LANDSCAPE USING A COMBINATION OF WOODLAND, HEDGEROW AND LANDSCAPE EARTHWORKS DESIGN (USING EXCAVATED MATERIALS) TO RATIONALISE THE LEVELS AROUND THE JUNCTION. FALSE CUTTINGS TO BE INVESTIGATED TO CREATE VISUAL SCREENING. PLANTING GROUPS WILL BE DESIGNED TO MATCH EXISTING LANDSCAPE CHARACTER AND MERGE WITH EXISTING WOODLAND AND HEDGEROW FEATURES IN THE AREA. NEW FIELD BOUNDARIES ARE TO BE LOCAL STONE TO MATCH EXISTING BOUNDARIES. AREA OF CALCAREOUS GRASSLAND TO STEEP BANKS.

MAIN A417 LINE ROUTE
 PROPOSED A417 ALIGNMENT TO BE INTEGRATED USING LANDSCAPE EARTHWORKS WHERE REQUIRED TO RATIONALISE LEVELS. GRADING OUT TO ALLOW AGRICULTURAL LAND TO BE RETURNED UP TO THE HIGHWAY BOUNDARY. THE INTRODUCTION OF NEW WOODLAND BLOCKS AND/OR HEDGEROW PLANTING AS APPROPRIATE WILL CREATE NEW FIELD BOUNDARIES THAT WILL PROVIDE VISUAL SCREENING OF THE ROAD. NEW PLANTING AREAS WILL LINK WITH EXISTING WOODLAND AND HEDGEROWS TO UNIFY AND LINK HABITATS IN THE AREA.

STOCKWELL LANE OVERBRIDGE
 BRIDGE TO BE INTEGRATED THROUGH LANDSCAPE EARTHWORKS GRADING OUT EMBANKMENTS TO ALLOW RETURN TO AGRICULTURAL USE. THIS WILL BE COMBINED WITH NEW TREE AVENUE PLANTING TO REPLACE TREES LOST DUE TO THE OVERBRIDGE APPROACH EARTHWORKS. PROTECT AND RETAIN NORTH WESTERN LINE OF EXISTING AVENUE TREES AND EXTEND MIXED DECIDUOUS (PREDOMINATELY LIME) AVENUE NORTH EASTWARDS ACROSS THE NEW A417 ALIGNMENT TO MUDDYPATH TO BE CONSIDERED. NEW FIELD BOUNDARIES ARE TO FEATURE BOUNDARIES OF LOCAL DRYSTONE TO MATCH EXISTING.

COWLEY BRIDLEWAY OVERBRIDGE
 BRIDGE TO BE INTEGRATED THROUGH LANDSCAPE EARTHWORKS GRADING OUT EMBANKMENTS TO ALLOW RETURN TO AGRICULTURAL USE. NEW FIELD BOUNDARIES ARE TO FEATURE NATIVE HEDGEROW AND TREE PLANTING TO STRENGTHEN LOCAL LANDSCAPE CHARACTER.

LANDSCAPE EARTHWORKS
 ROUTE OF A417 BETWEEN COWLEY ROUNDABOUT AND SHAB HILL TO BE INTEGRATED INTO SURROUNDING LANDSCAPE BY INCLUDING SOFT ENGINEERED SLOPES (USING EXCAVATED MATERIALS) AND FALSE CUTTINGS TO SCREEN THE ROAD AND HELP REDUCE VISUAL IMPACTS OF TRAFFIC MOVEMENTS. NEW FIELD BOUNDARIES ARE TO BE LOCAL DRYSTONE TO MATCH EXISTING BOUNDARIES.

- NOTES**
- THE LANDSCAPE DESIGN WILL BE SYMPATHETIC TO THE LOCAL CHARACTER AND VERNACULAR OF THE COTSWOLD AONB AND WILL FOLLOW DMRB 10.
 - ALL PLANT SPECIES, TREES, SCRUB AND HEDGEROW AND CALCAREOUS GRASSLAND SEED MIXES WILL BE NATIVE AND APPROPRIATE TO THE LOCALITY. TAKING CLIMATE CHANGE AND KNOWN DISEASES AND PESTS INTO CONSIDERATION.
 - ROAD VERGE PLANTING WILL BE CALCAREOUS/LIMESTONE GRASSLAND MIXES.
 - NEW FIELD BOUNDARIES ARE TO BE LOCAL DRYSTONE WITH VERTICAL COPINGS TO MATCH EXISTING BOUNDARIES. OTHER COMPONENTS NECESSARY FOR FOOTPATH DIVERSIONS AND RESTORATION OF THE LANDSCAPE INCLUDING FOOTPATH SURFACING, KERBS, GATES, STYLES ETC WILL MATCH LOCAL STYLE AND MATERIALS THAT FORM THE CHARACTER OF THE COTSWOLD AONB.
 - EARTHWORKS DESIGN WILL RESPOND TO THE CHARACTER OF THE LOCAL CONTOUR PATTERNS.
 - RETAINING WALLS WILL BE OF LOCAL STONE.
 - COMPONENTS THAT FORM PART OF THE A417 SCHEME WILL BE DESIGNED TO FIT WITH LOCAL CHARACTER INCLUDING FIELD BOUNDARIES, STYLES, GATES, FENCES

- LEGEND**
- DRAFT DCO BOUNDARY
 - PROPOSED GREEN BRIDGE (INDICATIVE LOCATION)

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS (REFERENCE SHALL ALSO BE MADE TO THE DESIGN HAZARD LOG).

CONSTRUCTION	MAINTENANCE / CLEANING	USE	DECOMMISSIONING / DEMOLITION
(ENTER "NONE" IF APPLICABLE)	(ENTER "NONE" IF APPLICABLE)	(ENTER "NONE" IF APPLICABLE)	(ENTER "NONE" IF APPLICABLE)
P01 14/06/19 ISSUE FOR DESIGN FIX 2			
P02 14/06/19 ISSUE FOR DESIGN FIX 2			
P03 22/08/19 ISSUE			
P04 22/08/19 ISSUE			
Rev.	Date	Description	By Chk'd App'd Auth'd

S4 SUITABLE FOR STAGE APPROVAL

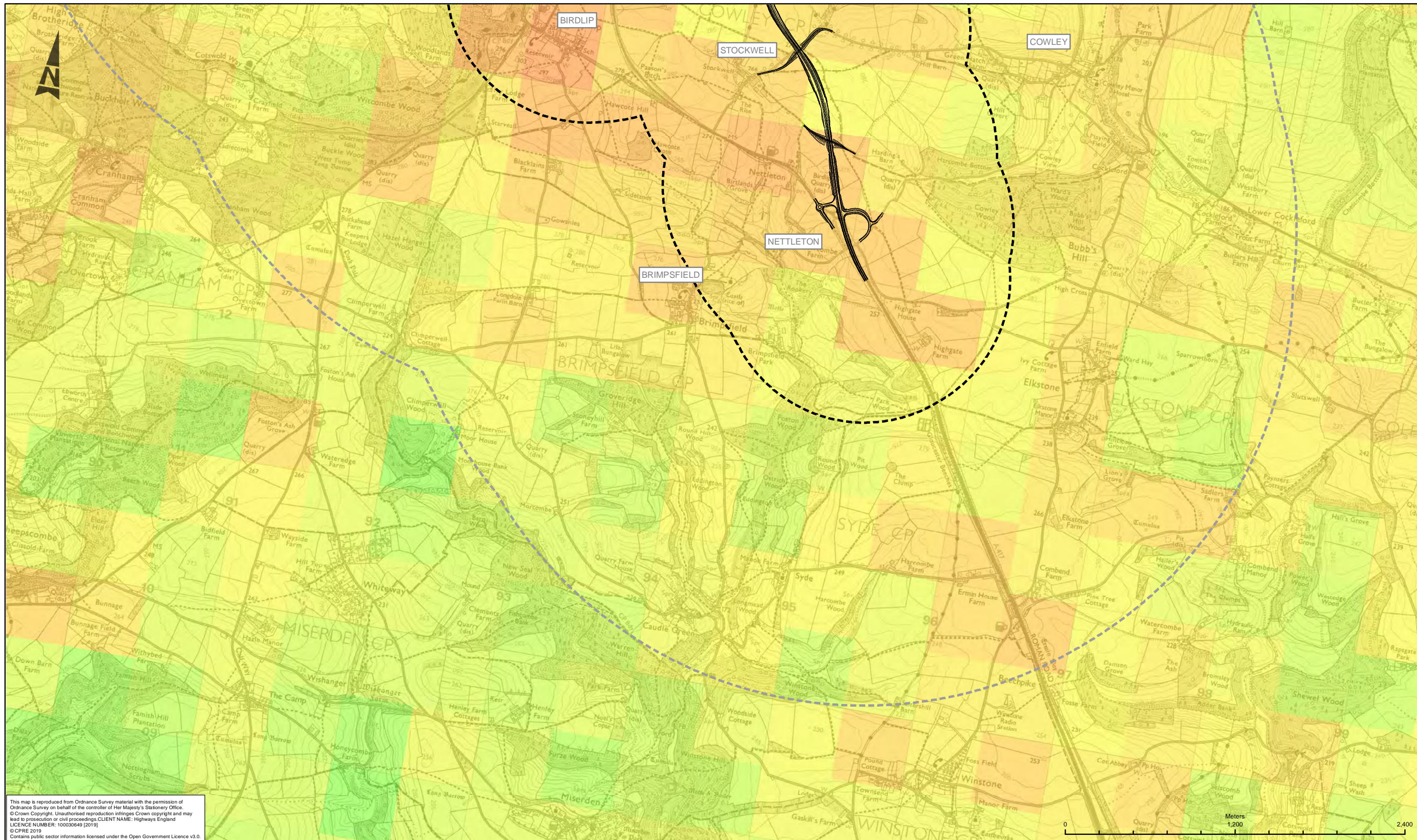
ARUP



A417 MISSING LINK

FIGURE 7.8 LANDSCAPE DESIGN APPROACH

Scale	By	Checked	Approved	Authorised
1:10000	MK	NM	JP	SW
Original Size	Date	Date	Date	Date
A1	22/08/19	22/08/19	22/08/19	22/08/19
Drawing Number	HE PIN	Originator	Volume	Revision
HE551505 - ARP		ELS		P04
X_XX_XXXX_X		-DR - LE -000003		
Location	Type	Role	Number	



This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the controller of Her Majesty's Stationary Office. © Crown Copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. CLIENT NAME: Highways England LICENCE NUMBER: 100030649 [2019] © CPRE 2019. Contains public sector information licensed under the Open Government Licence v3.0.



SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS (REFERENCE SHALL ALSO BE MADE IN THE DESIGN HAZARD LOG)

CONSTRUCTION	MAINTENANCE / CLEANING	USE	DECOMMISSIONING / DEMOLITION
NONE	NONE	NONE	NONE
P02	30/08/19	FIRST ISSUE	EB AK JP SW
Rev.	Date	Description	By Chk'd App'd Auth'd

Subsidiary Drawing Status: S4 SUITABLE FOR STAGE APPROVAL



Project Title: A417 MISSING LINK

Drawing Title: FIGURE 7.9 TRANQUILITY MAPPING SHEET 2 OF 2

Scale	By	Checked	Approved	Authorised
1:25,000	EB	AK	JP	SW
Original Size	Date	Date	Date	Date
A3	30/08/19	30/08/19	30/08/19	30/08/19
Drawing Number	HE PIN	Originator	ELS	Revision
HE551506 - ARP		DR	LE - 000059	P02
X_XX_XXXX_X				
Location	Type	Role	Number	