

A47 Wansford to Sutton Dualling

Scheme Number: TR010039

Volume 7

7.10 Scheme Assessment Report 2018

Appendices

APFP Regulation 5(2)(q)

Planning Act 2008

Infrastructure Planning (Applications: Prescribed
Forms and Procedure) Regulations 2009

August 2021

Infrastructure Planning

Planning Act 2008

**The Infrastructure Planning
(Applications: Prescribed Forms and
Procedure) Regulations 2009**

The A47 Wansford to Sutton
Development Consent Order 202[x]

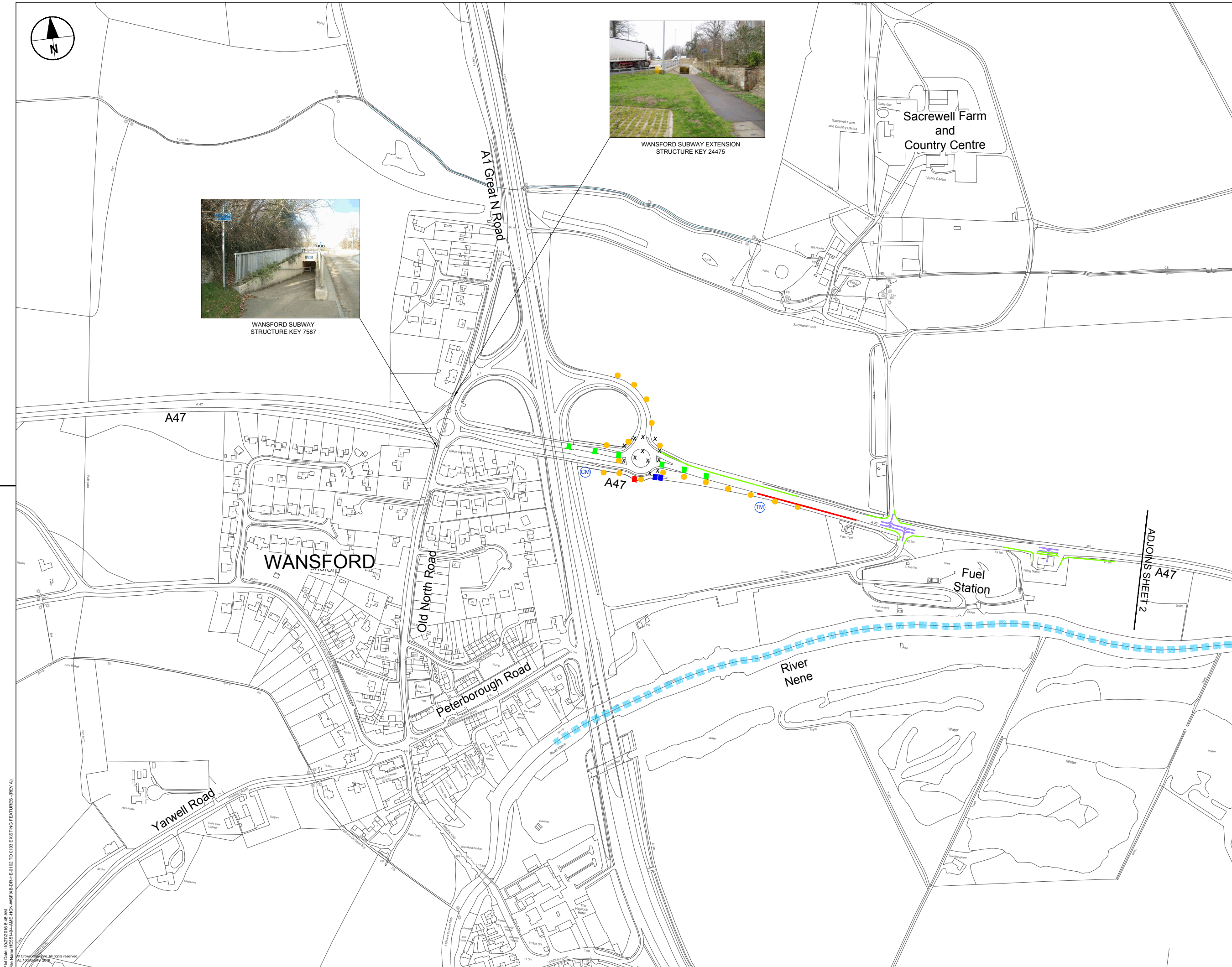
**7.10 SCHEME ASSESSMENT REPORT 2018
APPENDICES**

Regulation Number:	Regulation 5(2)(q)
Planning Inspectorate Scheme Reference	TR010039
Application Document Reference	TR010039/APP/7.10
BIM Document Reference	
Author:	A47 Wansford to Sutton Dualling Project Team, Highways England

Version	Date	Status of Version
Rev 0	August / 2021	Application Issue

Appendix A: Existing Features of Road Section

Plot Date: 10/07/2016 8:48 AM
File Name: H551494-AME-HGN-WSFIXB-DR-HE-0102 TO 0103 EXISTING FEATURES (REV A)



NOTES

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LEGEND

JUNCTIONS AND ACCESSES

- In/out junction
- Lay-by

KERBS AND DRAINAGE

- Kerb line

SAFETY BARRIER

- Safety barrier

LIGHTING COLUMNS

- Lighting column

STRUCTURES

- Bridge
- Culvert

OTHER FEATURES

- Solar panel pole
- CCTV camera mast
- Traffic Master (Redundant)
- Traffic Loops
- street lighting feeder pillar and pecu
- Traffic Signal feeder pillar
- Traffic signal pole

WATER COURSES

- MAJOR RIVER
- DRAINS AND OTHER MINOR COURSES

TECHNOLOGY ADDED		MV	JOC	27/10/16	A
Revision Details		By	Check	Date	Suffix

Purpose of issue

INITIAL STATUS OR WIP

Client
Highways England
Woodlands
Manton Lane
Bedford
MK41 7LW

Project Title

A47 CORRIDOR STAGE 1

Drawing Title

**A47 SCHEMES
WANSFORD TO SUTTON
EXISTING FEATURES
SHEET 1 OF 2**

Designed GC	Drawn MV	Checked JOC	Approved DH	Date 30/06/2016
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Scale @ A1
1:2500

Suitability
S0

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Drawing Number	Rev
H551494-AME-HGN-WSFIXB-DR-HE-0102	A



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LEGEND

JUNCTIONS AND ACCESSES

- In/out junction
- Lay-by

KERBS AND DRAINAGE

- Kerb line

SAFETY BARRIER

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- Lighting column

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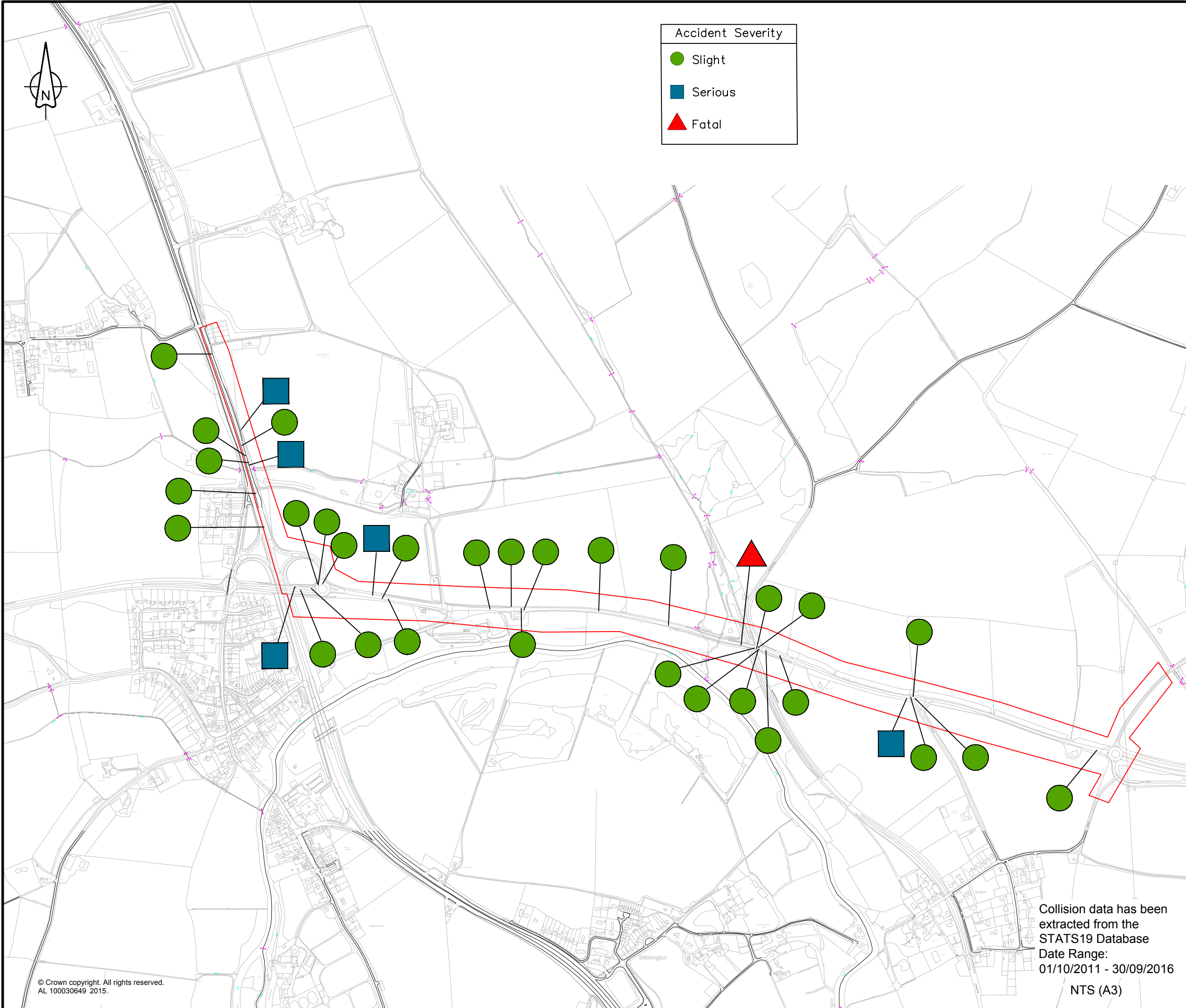
WATER COURSES

- MAJOR RIVER
- DRAINS AND OTHER MINOR COURSES

TECHNOLOGY ADDED	MV JOC	27/10/16	A
Revision Details	By Check	Date	Suffix
Purpose of issue			
INITIAL STATUS OR WIP			
Client Highways England Woodlands Manton Lane Bedford MK41 7LW			
Project Title			
A47 CORRIDOR STAGE 1			
Drawing Title			
A47 SCHEMES WANSFORD TO SUTTON EXISTING FEATURES SHEET 2 OF 2			
Designed GC	Drawn MV	Checked JOC	Approved DH
Scale @ A1 1:2500		Suitability S0	
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Drawing Number			Rev
HE551494-AME-HGN-WSFIXB-DR-HE-0103			A

Appendix B: Collision Data

Project Management Initials: Designer: Checked: Verified: Approved: ISO A3 297mm x 420mm
Last saved by: 46379(2018.01.15) Last Picked: 2018.01.15
Filename: I:\HRS001\TRAFFICDATA\01 - PROJECTS\01 - AMEY JOBS\01 - TRANSPORTATION PLANNING\AM 206 - RSA 4 COLLISION REQUESTS T7 - DOCUMENTS AND REPORTS IN PROGRESS\AUTOCAD WANSFORD ROUTE 2\WANSFORD TO SUTTON SEVERITY PLOT.DWG (CV).DWG



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AL 100030649 2015.

Collision data has been
extracted from the
STATS19 Database
Date Range:
01/10/2011 - 30/09/2016
NTS (A3)

PROJECT

RIS Schemes East Area 6
A47 Corridor

CLIENT

Working on behalf of



Customer Contact Centre: 0300 123 5000
www.highways.gov.uk

CONSULTANT



ISSUE/REVISION

R	15/01/18	Updated Date Range
I/R	DATE	DESCRIPTION

PROJECT NUMBER

COCDFL1PSF01

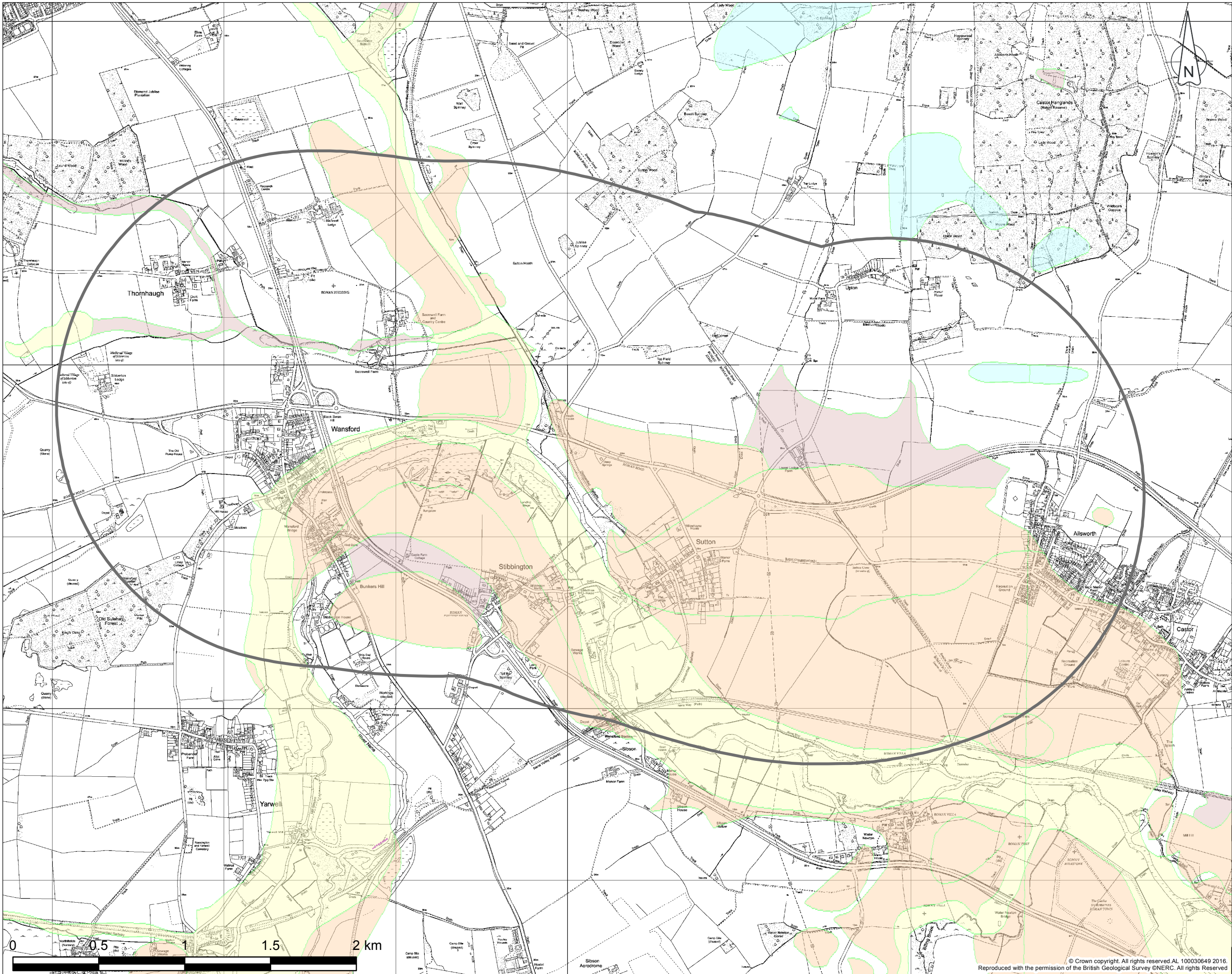
SHEET TITLE

A47 Wansford to Sutton
Collision Locations

SHEET NUMBER

A47IMP-AME-WS-ZZ-DO-J-0009-02

Appendix C: Geology Maps



Legend

Study Area

GBR BGS 1:50K Superficial Deposits

- River Terrace Deposits, 1 - Sand and Gravel
- Alluvium - Clay, Silt, Sand and Gravel
- Head - Clay, Silt, Sand and Gravel
- Oadby Member - Diamicton
- Glaciofluvial Deposits, Mid Pleistocene - Sand and Gravel

Revision Details By Check Date Suffix

Purpose of the issue DRAFT

Client : Higways England Woodlands Manton Lane Bedford MK41 7LW Working on behalf of highways england

Project Name : A47 CORRIDOR STAGE 1

Drawing Title : A47 WANSFORD TO SUTTON SUPERFICIAL DEPOSITS

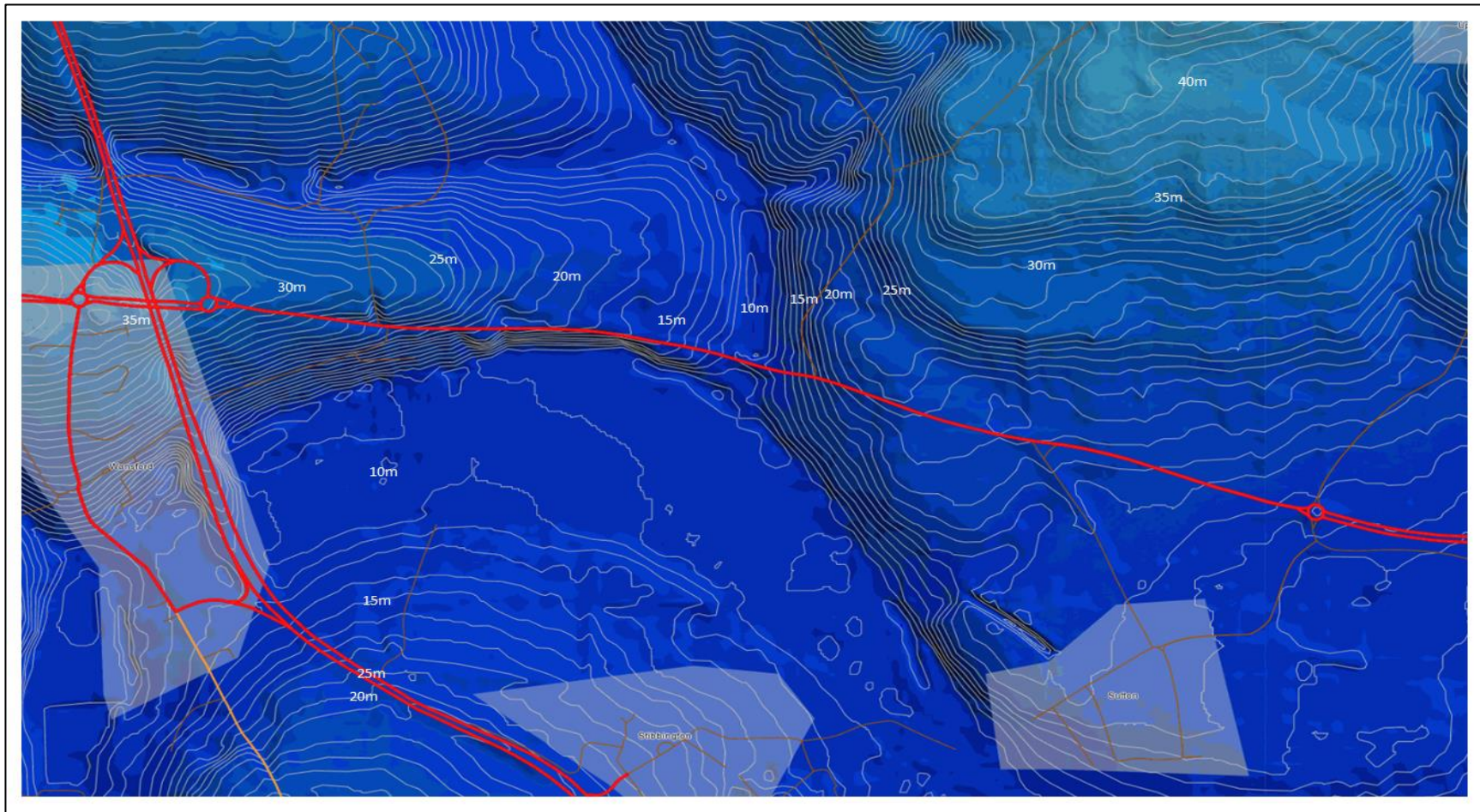
Designed ACT Drawn ACT Checked HC Approved AW Date 24/10/2016 Scale @ A3 1:25,000 Suitability SO Page PAGE 1 of 1

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Figure No Figure 2.11.2

Drawing No HE551494-AME-EGT-WS-DR-EN-0002 Rev -



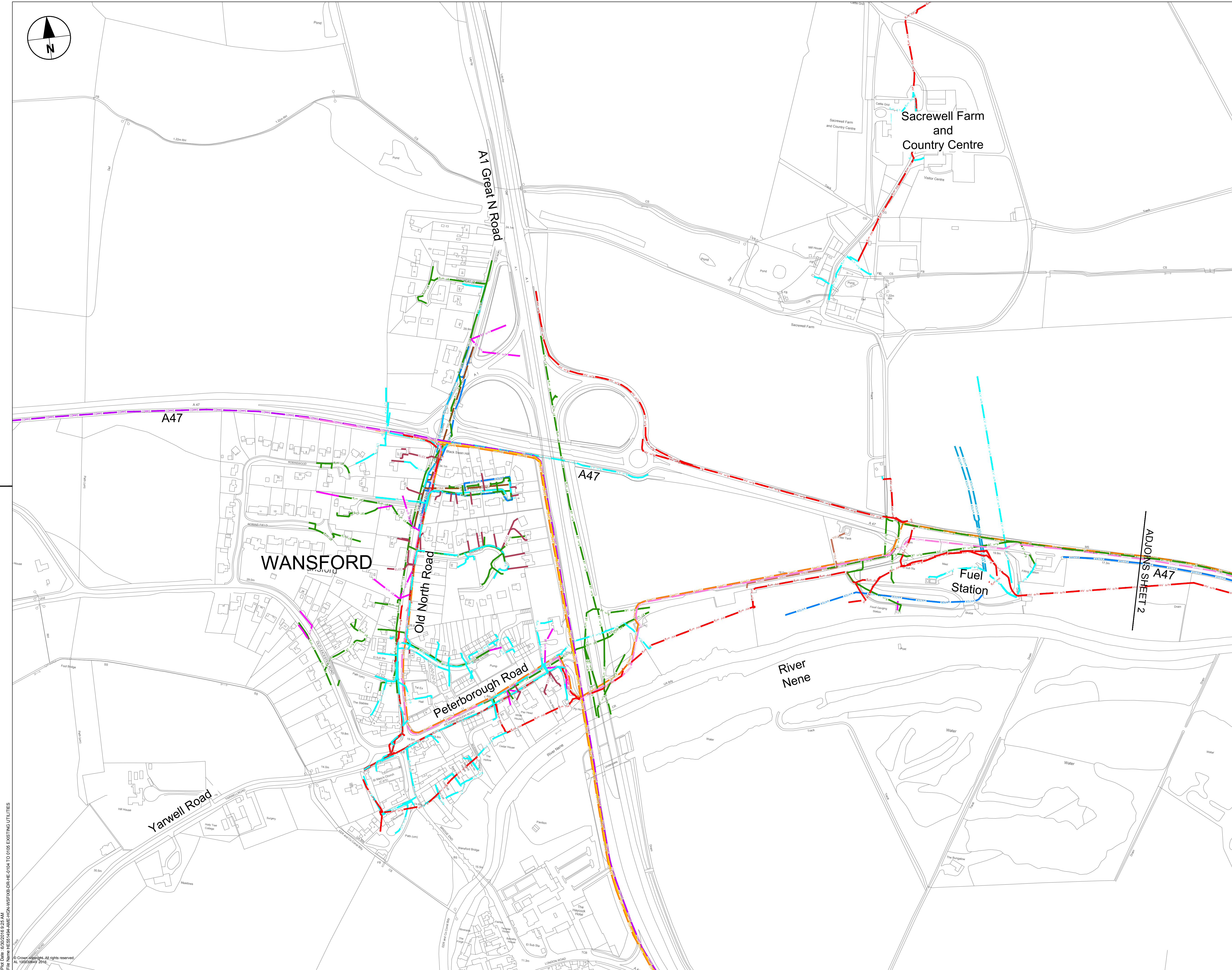
1 Kilometre

Data provided by HAGDMS

Project:	A47 Wansford to Sutton	Report Reference:	A47 IMPS1-AME-WS-ZZ-DO-J-0032	
Report:	Technical Appraisal Report	Figure Reference:	Appendix C: Figure 3	
Title:	Topography			

Appendix D: Utilities Plan

Plot Date: 03/06/2016 12:05 AM
File Name: HE551494-AME-HGN-WSFIXB-DR-HE-0104 TO 0105 EXISTING UTILITIES



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- LEGEND**
- BT UNDERGROUND CABLES
 - BT OVERHEAD CABLES
 - HIGH VOLTAGE OVERHEAD CABLES
 - WESTERN POWER HIGH VOLTAGE UNDERGROUND
 - LOW VOLTAGE OVERHEAD CABLES
 - WESTERN POWER LOW VOLTAGE UNDERGROUND
 - WESTERN POWER SERVICE LINE
 - UK POWER NETWORK
 - ANGLIAN CLEAN WATER STANDARD PIPES
 - ANGLIAN DECOMMISSIONED WATER PIPES
 - ANGLIAN WASTE WATER STANDARD PIPES
 - NATIONAL GRID HP GAS MAIN
 - VIRGIN MEDIA CABLES
 - INTERROUTE CABLES
 - INSTALCOM CABLES
 - VODAFONE CABLES

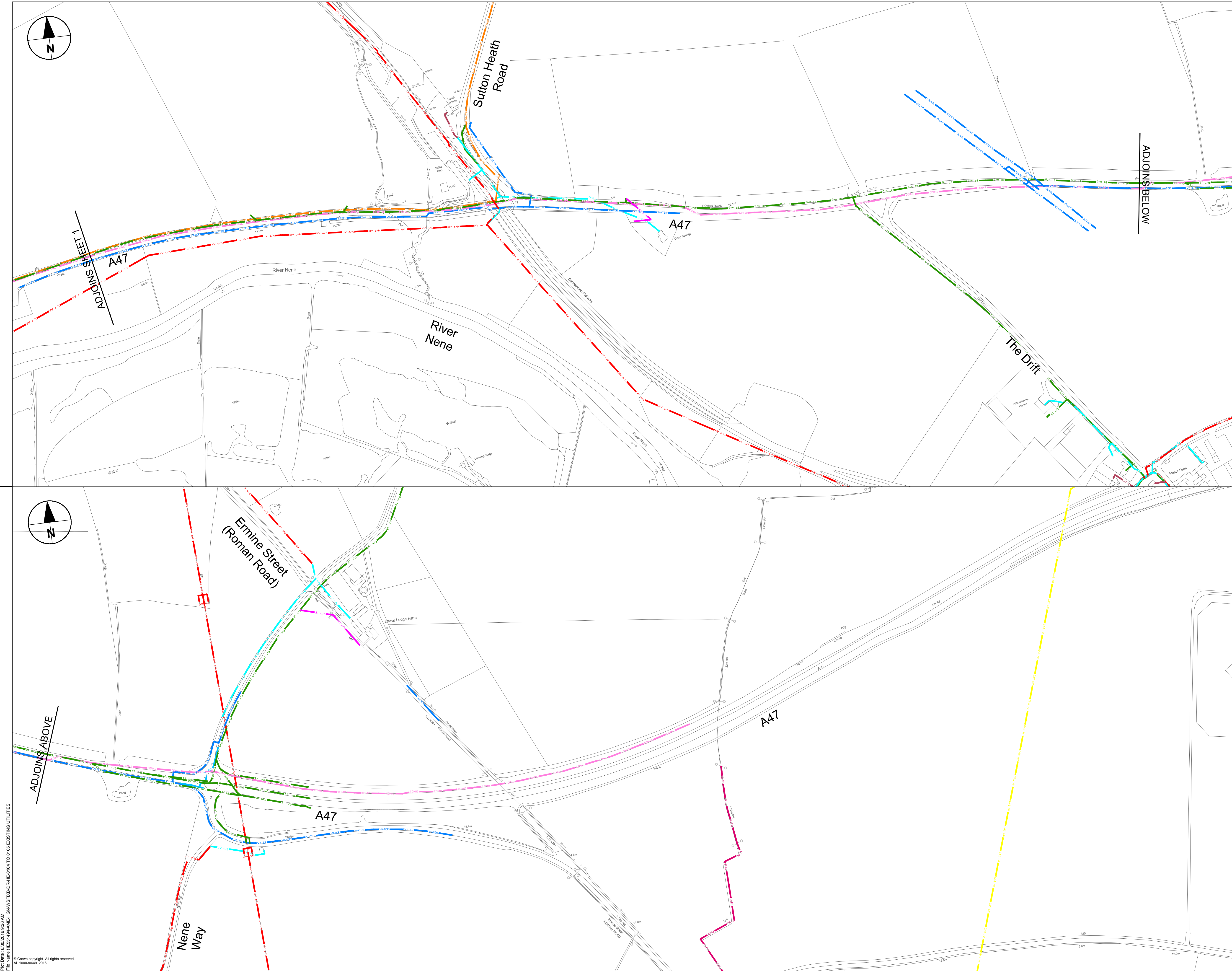
IMPORTANT WARNING

The information concerning the location of the public utility apparatus is furnished as a general guide only and no warranty as their correctness is given or implied.

This drawing should not be relied upon in the event of excavations or other works made near to the apparatus, which may exist at various depths and may deviate from the marked route.

It should be noted that a line shown on the plan may indicate the presence of more than one cable.

INITIAL STATUS		<div>ZZZ</div>		
Revision Details		By	Date	Suffix
Purpose of issue		<div>Check</div>		
INITIAL STATUS OR WIP				
Client		Working on behalf of		
Highways England		<div> highways england</div>		
Woodlands				
Manton Lane				
Bedford				
MK41 7LW				
Project Title				
A47 CORRIDOR STAGE 1				
Drawing Title				
A47 SCHEMES WANSFORD TO SUTTON EXISTING UTILITIES SHEET 1 OF 2				
Designed GC	Drawn MV	Checked JOC	Approved DH	Date 30/06/2016
Scale @ A1 1:2500		Suitability S0		
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<div><div>AECOM</div><div></div></div>				
Drawing Number				Rev
HE551494-AME-HGN-WSFIXB-DR-HE-0104				-



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- LEGEND**
- BT UNDERGROUND CABLES
 - BT OVERHEAD CABLES
 - HIGH VOLTAGE OVERHEAD CABLES
 - WESTERN POWER HIGH VOLTAGE UNDERGROUND
 - LOW VOLTAGE OVERHEAD CABLES
 - WESTERN POWER LOW VOLTAGE UNDERGROUND
 - WESTERN POWER SERVICE LINE
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 - ANGLIAN DECOMMISSIONED WATER PIPES
 - ANGLIAN WASTE WATER STANDARD PIPES
 - NATIONAL GRID HP GAS MAIN
 - VIRGIN MEDIA CABLES
 - INTERROUTE CABLES
 - INSTALCOM CABLES
 - VODAFONE CABLES

IMPORTANT WARNING

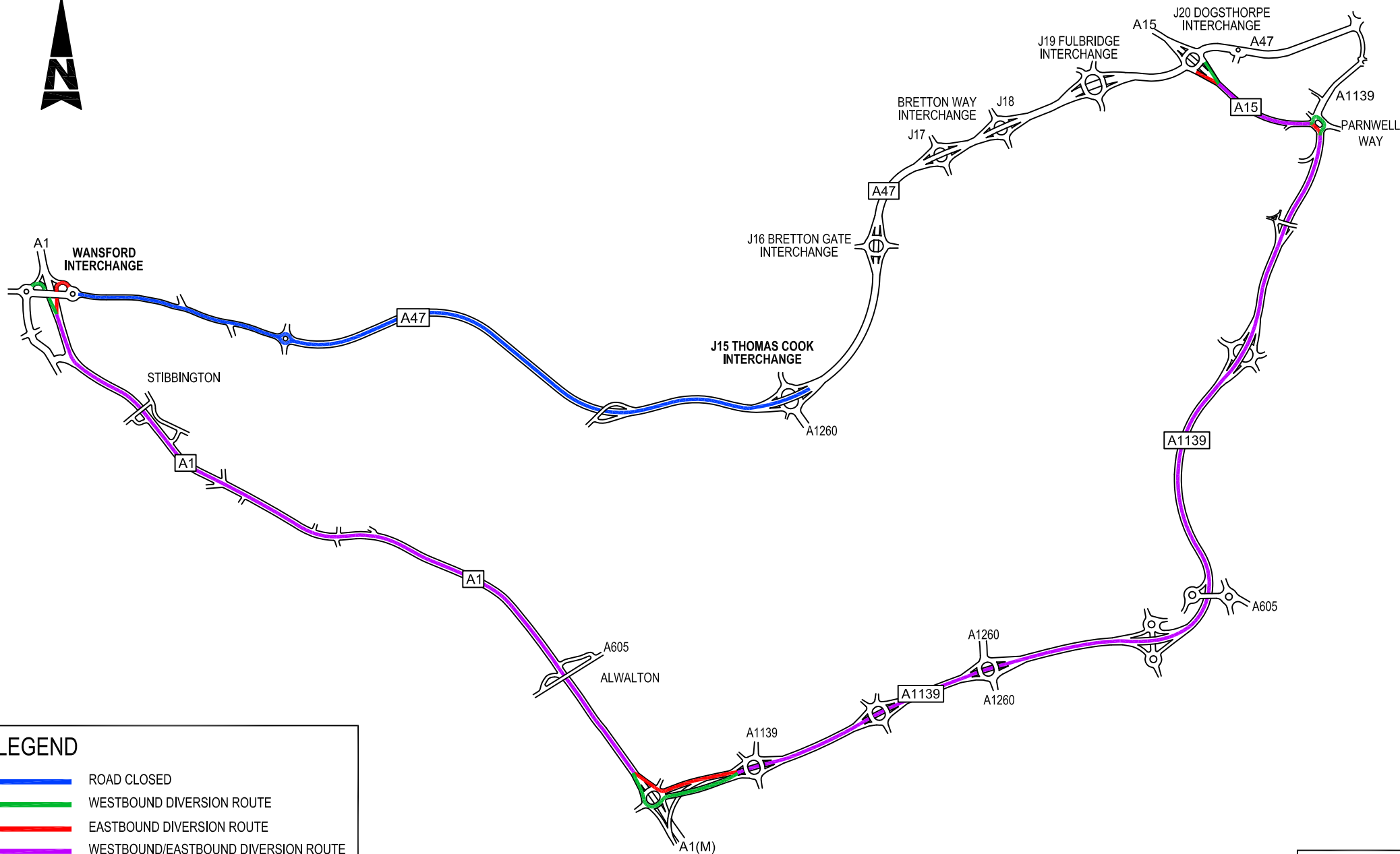
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This drawing should not be relied upon in the event of excavations or other works made near to the apparatus, which may exist at various depths and may deviate from the marked route.

It should be noted that a line shown on the plan may indicate the presence of more than one cable.

INITIAL STATUS		ZZZ		-
Revision Details		By	Date	Suffix
Purpose of issue		Check		
INITIAL STATUS OR WIP				
Client		Working on behalf of		
Highways England				
Woodlands				
Manton Lane				
Bedford				
MK41 7LW				
Project Title				
A47 CORRIDOR STAGE 1				
Drawing Title				
A47 SCHEMES WANSFORD TO SUTTON EXISTING UTILITIES SHEET 2 OF 2				
Designed	Drawn	Checked	Approved	Date
GC	MV	JOC	DH	30/06/2016
Scale @ A1		Suitability		
1:2500		S0		
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Drawing Number				Rev
HE551494-AME-HGN-WSFIXB-DR-HE-0105				-

Appendix E: Existing Area 6 Diversion Route



LEGEND

- ROAD CLOSED
- WESTBOUND DIVERSION ROUTE
- EASTBOUND DIVERSION ROUTE
- WESTBOUND/EASTBOUND DIVERSION ROUTE

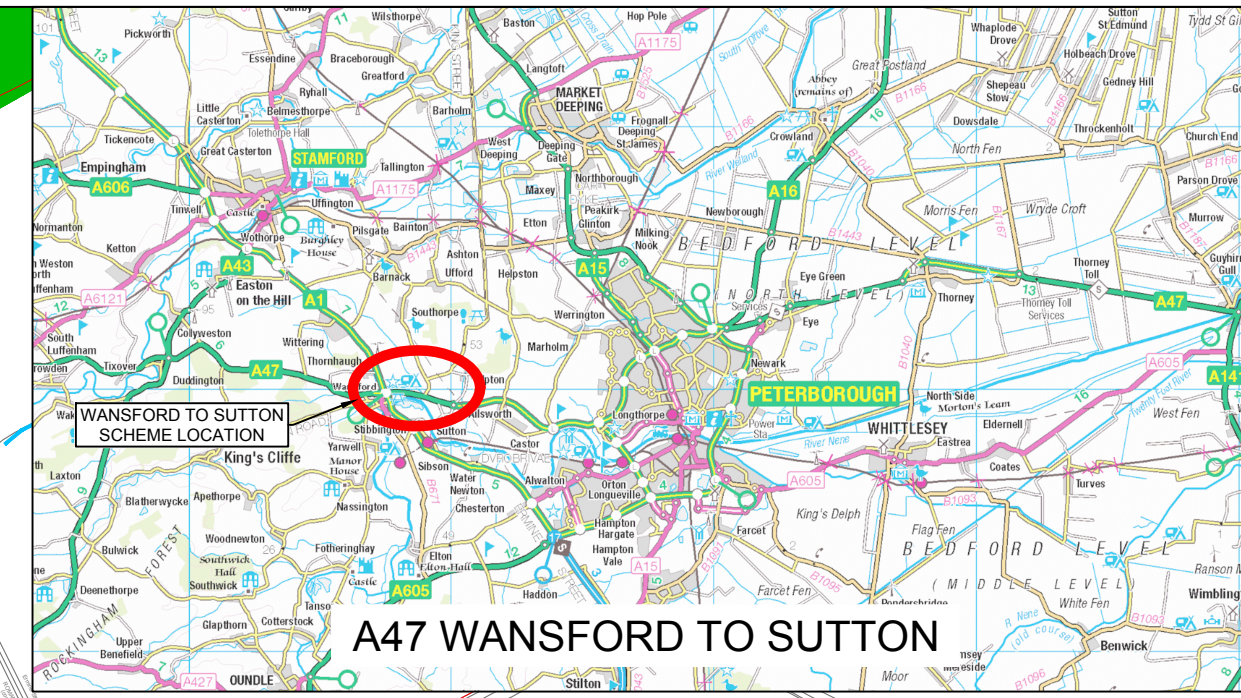
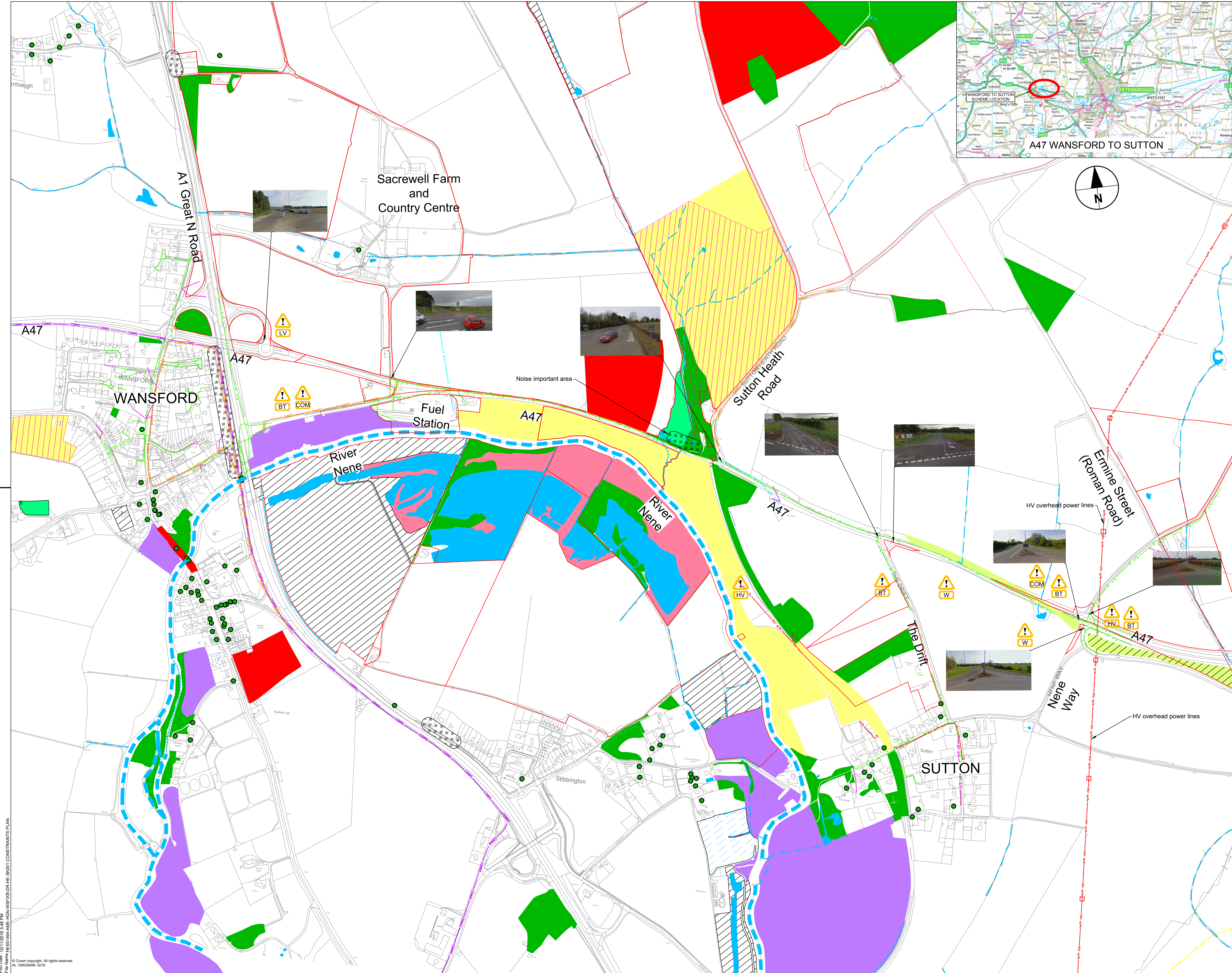
SEPT 2013

SKANSKA

A47 Route 1
A1 Wansford Interchange to J15 Thomas Cook Interchange

HIGHWAYS
AGENCY

Appendix F: Constraints Plan



NOTES

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LEGEND

LAND REGISTRY PLOTS WITH OWNERSHIP REFERENCE NUMBER

HAZARDS

HV o/h

LV o/h

G

W

BT

COM

= HIGH VOLTAGE ELECTRICITY

= LOW VOLTAGE ELECTRICITY

= GAS

= WATER

= TELECOMMUNICATIONS

= COMMUNICATIONS

CULTURAL HERITAGE

LISTED BUILDING

SCHEDULED MONUMENT

ENVIRONMENTAL CONSTRAINTS

SITE OF SPECIAL SCIENTIFIC INTEREST (SSSI)

WATER COURSES

MAJOR RIVER

DRAINS AND OTHER MINOR COURSES

PONDS AND OTHER ACCUMULATION AREAS

NOISE IMPORTANT AREAS

UK BIODIVERSITY ACTION PLAN (BAP) PRIORITY HABITATS

COASTAL AND FLOODPLAIN GRAZING GRASSLAND

DECIDUOUS WOODLAND

LOWLAND CALCAREOUS GRASSLAND

LOWLAND FENS

LOWLAND MEADOWS

REEDBEDS

TRADITIONAL ORCHARDS

NO DOMINANT PRIORITY HABITAT PRESENT*

*ADDITIONAL PRIORITY HABITATS MAY BE PRESENT, BUT OF LOWER CONFIDENCE OF DETERMINATION AND MAPPING.

INITIAL STATUS	222		
Revision Details	By	Check	Date
Purpose of issue			

WORK IN PROGRESS

Client

Highways England

Woodlands

Manton Lane

Bedford

MK41 7LW

Working on behalf of

highways england

Project Title

A47 CORRIDOR STAGE 1

Drawing Title

A47 SCHEMES WANSFORD TO SUTTON CONSTRAINTS

Designed	GC	Drawn	MV	Checked		Approved		Date	11/10/2016
Scale @ A1	1:5000					Suitability	S0		

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Drawing Number

HE551494-AME-GEN-DR-HE-SK001

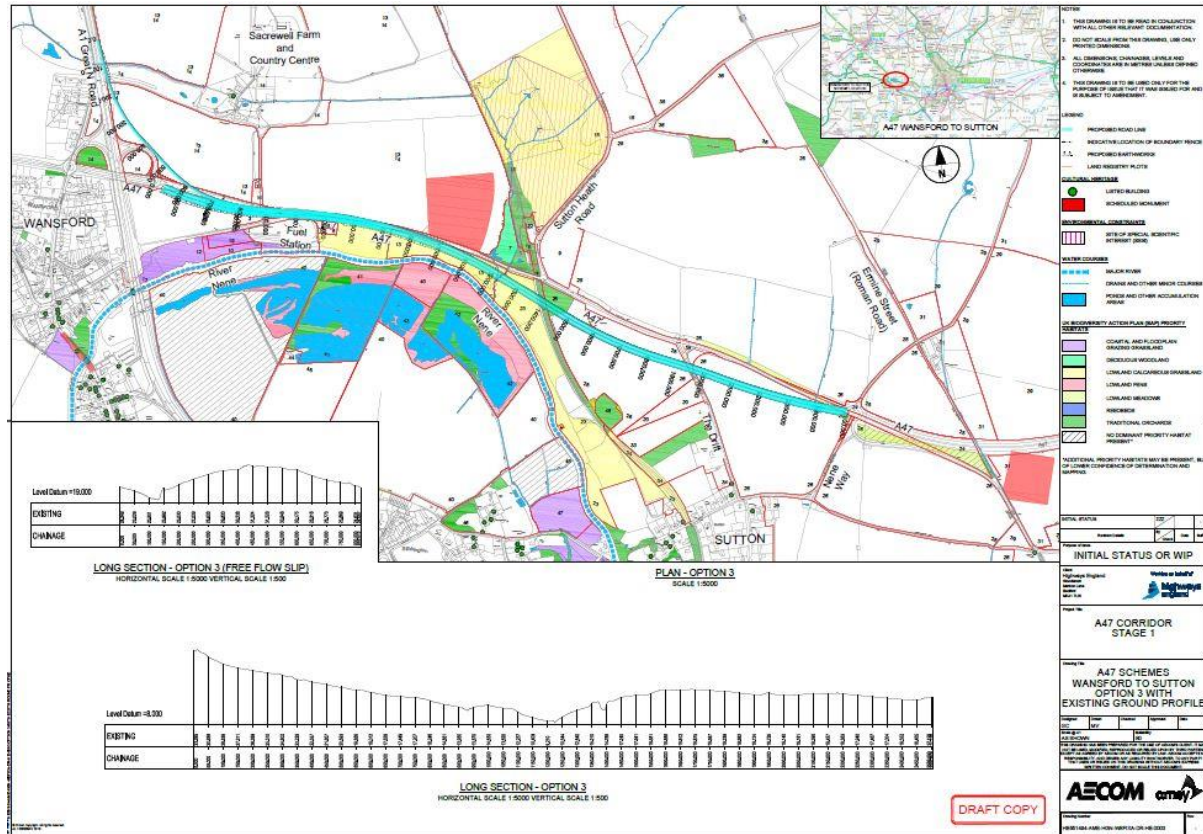
Rev

-

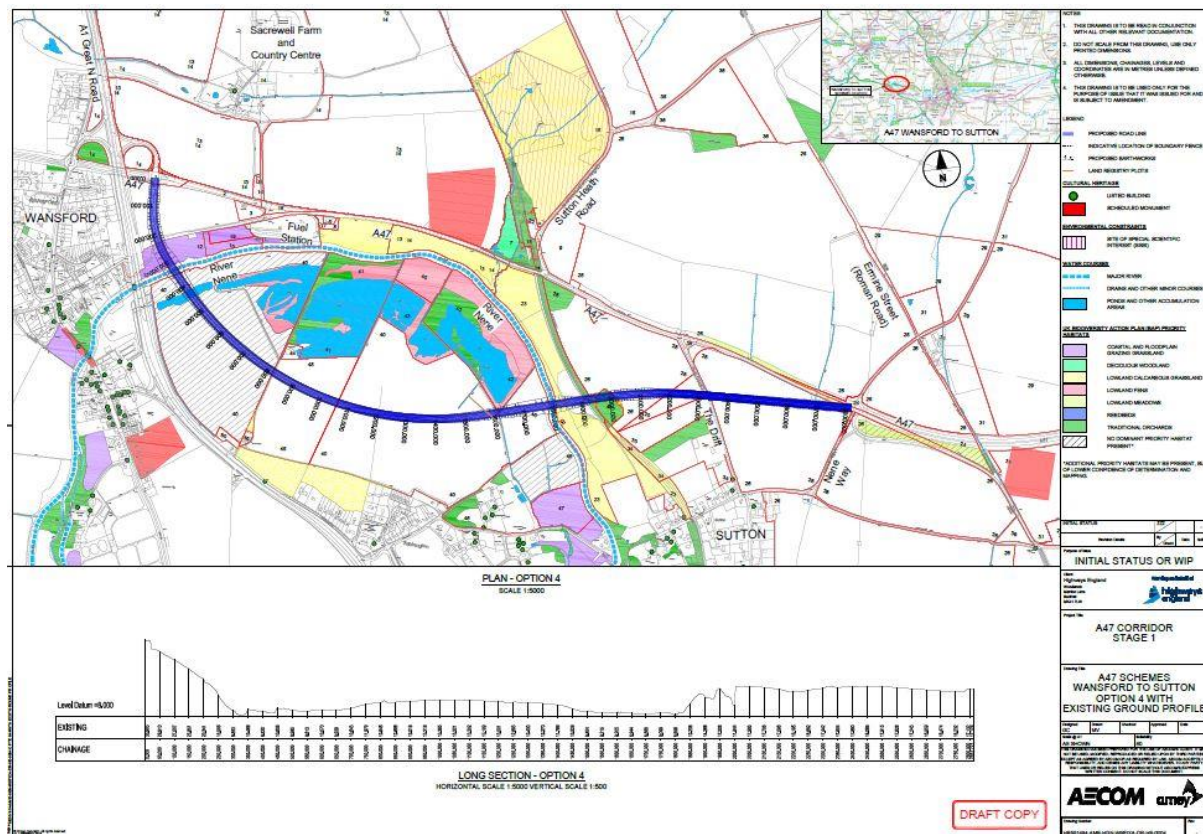
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© Crown copyright. All rights reserved.
File Name: HE551494-AME-GEN-DR-HE-SK001 CONSTRAINTS PLAN
AL 100030649 2016

Appendix G: Detailed Options 1 to 9

Option 3



Option 4



Appendix H: EAST Assessment Methodology and Results

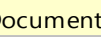
Early Assessment and Sifting Tool (EAST)

Change text size

This tool aims to help you to record and compare data on your options. Below is a summary of all saved options.
To add a new option: click on the 'Add New Option' button above and complete the assessment sheet.
To view a saved option: click on its name in the 'Name/No.' column below.
To delete a saved option: click on the 'Delete' hyperlink to the left of its name below.
To read further guidance on how to use this tool, please double-click on the 'Tool User Guide' icon above.



← To read the user guide to the tool, please double-click on this icon



9 option(s) have been saved in total. 9 is/are currently visible.

Document

Unique Ref. No.	Delete option?	Overall			Strategic				Economic							Managerial						Financial					Commercial					
		Name/No.	Date	Description	Identified problems and objectives of the option	Scale of impact	Fit with wider transport and government objectives	Fit with other objectives	Key uncertainties	Degree of consensus over outcomes?	Economic Growth	Carbon emissions	Socio-distributional impacts and the regions	Local environment	Well being	Expected VM Category	Implementation timetable	Public acceptability	Practical feasibility	What is the quality of the supporting evidence?	Key risks	Affordability	Capital Cost (£m)?	Revenue Costs (£m)?	Cost Profile	Overall cost risk	Other costs	Flexibility of option	Where is funding coming from?	Any income generated? (Y/N)	If yes, how much income generated (£m)?	
1	Delete Option 1	14/04/2016	Free flow from A1 South	This section of single carriageway is operating over capacity with a history of accidents. The objectives of the scheme are to reduce journey times, unlock economic and housing growth in the area, improve connectivity for NMUs and improve safety.	3	4	4	Change of Government, Don't know	4. Amber	3. Amber	6. No Impa	3. Amber	4. Amber	4. Low	1-1. 6. 5-10	yes	4	2	3	SSSI, Scheduled monum	5. Affordab	06. 50-10C	Don't know	Costs include	implements	3		2	Funding committed in RfE	No		
2	Delete Option 3	14/04/16	Free flow from A1 South	This section of single carriageway is operating over capacity with a history of accidents. In line with the Road Investment Strategy (RIS), the objectives of the scheme are to reduce journey times, unlock economic and housing growth in the area, improve connectivity for NMUs and improve safety.	4	4	4	Change of Government, Don't know	4. Amber	3. Amber	6. No Impa	3. Amber	4. Amber	4. Low	1-1. 6. 5-10	yes	4	3	3	River Nene in very close	5. Affordab	06. 50-10C	Don't know	Costs include	implements	3	Flood defence	2	Funding committed in RfE	No		
3	Delete Option 4	29/02/2016	Off line to the South avo	This section of single carriageway is operating over capacity with a history of accidents. In line with the Road Investment Strategy (RIS), the objectives of the scheme are to reduce journey times, unlock economic and housing growth in the area, improve connectivity for NMUs and improve safety.	3	3	3	Change of Government, Don't know	4. Amber	3. Amber	6. No Impa	2. Red	4. Amber	5. Poor	<1 6. 5-10	yes	2	2	3	Option crosses lowland c	3	07. 100-25	Don't know	Costs include	implements	1. High	risk	2	Funding committed in RfE	No		
4	Delete Option 5	03/01/2016	Free flow from A1 Southb	This section of single carriageway is operating over capacity with a history of accidents. In line with the Road Investment Strategy (RIS), the objectives of the scheme are to reduce journey times, unlock economic and housing growth in the area, improve connectivity for NMUs and improve safety.	4	3	4	Change of Government, B Don't know	4. Amber	3. Amber	6. No Impa	3. Amber	4. Amber	4. Low	1-1. 6. 5-10	yes	3	3	3	SSSI, Scheduled monum	3	06. 50-10C	Don't know	Costs include	implements	2		2	Funding committed in RfE	No		
5	Delete Option 6	03/01/2016	Free flow from A1 Southb	This section of single carriageway is operating over capacity with a history of accidents. In line with the Road Investment Strategy (RIS), the objectives of the scheme are to reduce journey times, unlock economic and housing growth in the area, improve connectivity for NMUs and improve safety.	4	4	3	Change of Government, Don't know	4. Amber	3. Amber	6. No Impa	2. Red	4. Amber	4. Low	1-1. 6. 5-10	yes	2	1. Low	3	Scheduled monument an	3	07. 100-25	Don't know	Costs include	implements	1. High	risk	2	Funding committed in RfE	No		
6	Delete Option 7	03/02/2016	Free flow from A1 Southb	This section of single carriageway is operating over capacity with a history of accidents. In line with the Road Investment Strategy (RIS), the objectives of the scheme are to reduce journey times, unlock economic and housing growth in the area, improve connectivity for NMUs and improve safety.	4	3	3	Change of Government, Don't know	4. Amber	3. Amber	6. No Impa	3. Amber	4. Amber	5. Poor	<1 6. 5-10	yes	2	3	3	The route would go throu	3	07. 100-25	Don't know	Costs include	implements	1. High	risk	2	Funding committed in RfE	No		
7	Delete Option 9	03/02/2016	Free flow from A1 Southb	This section of single carriageway is operating over capacity with a history of accidents. In line with the Road Investment Strategy (RIS), the objectives of the scheme are to reduce journey times, unlock economic and housing growth in the area, improve connectivity for NMUs and improve safety.	4	3	4	Change of Government, Don't know	4. Amber	3. Amber	6. No Impa	3. Amber	4. Amber	4. Low	1-1. 6. 5-10	yes	4	3	3	SSSI, Scheduled monum	5. Affordab	06. 50-10C	Don't know	Costs include	implements	3		2	Funding committed in RfE	No		
11	Delete Option 2	14/04/2016	Free flow from A1 Southb	This section of single carriageway is operating over capacity with a history of accidents. In line with the Road Investment Strategy (RIS), the objectives of the scheme are to reduce journey times, unlock economic and housing growth in the area, improve connectivity for NMUs and improve safety.	3	4	4	Brexit, change of Govern	Don't know	4. Amber	3. Amber	6. No Impa	3. Amber	4. Amber	3. Medium	6. 5-10	yes	5. High	2	3	SSI, Scheduled monume	5. Affordab	06. 50-10C	Don't know	Costs include	implements	3		2	Funding committed in RfE	No	
12	Delete Option 8	14/04/2016	Free flow from A1 Southb	This section of single carriageway is operating over capacity with a history of accidents. In line with the Road Investment Strategy (RIS), the objectives of the scheme are to reduce journey times, unlock economic and housing growth in the area, improve connectivity for NMUs and improve safety.	4	4	4	Brexit, change of Govern	Don't know	4. Amber	3. Amber	6. No Impa	3. Amber	4. Amber	3. Medium	6. 5-10	yes	5. High	2	3	SSSI, Scheduled monum	5. Affordab	06. 50-10C	Don't know	Costs include	implements	3		2	Funding committed in RfE	No	

Appendix I: Environmental and Engineering Ranking Tables

A47 Wansford to Sutton Appendix I

Environmental Ranking

		Option 1	Option 2	Option 3	Option 4	Option 5	Option 6	Option 7	Option 8	Option 9
Environmental Topic	Noise	Neutral	Slight Adverse	Neutral	Slight Adverse	Slight Adverse	Slight Beneficial	Slight Beneficial	Neutral	Slight Beneficial
	Air Quality	Neutral	Neutral	Neutral	Neutral	Slight Adverse	Neutral	Slight Beneficial	Neutral	Neutral
	Greenhouse gases	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
	Landscape	Slight adverse	Slight Adverse	Slight Adverse	Large Adverse	Neutral	Moderate Adverse	Moderate Adverse	Slight Adverse	Slight Adverse
	Townscape	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
	Historic Environment	Large Adverse	Large Adverse	Slight Adverse	Slight Adverse	Large Adverse	Slight Adverse	Slight Adverse	Slight Adverse	Large Adverse
	Biodiversity	Slight Adverse	Slight Adverse	Large Adverse	Large Adverse	Slight Adverse	Large Adverse	Slight Adverse	Large Adverse	Moderate Adverse
	Water Environment	Neutral	Neutral	Slight Adverse	Moderate Adverse	Neutral	Slight Adverse	Neutral	Slight Adverse	Slight Adverse
Environmental Ranking		2	3	3	9	3	3	1	3	3

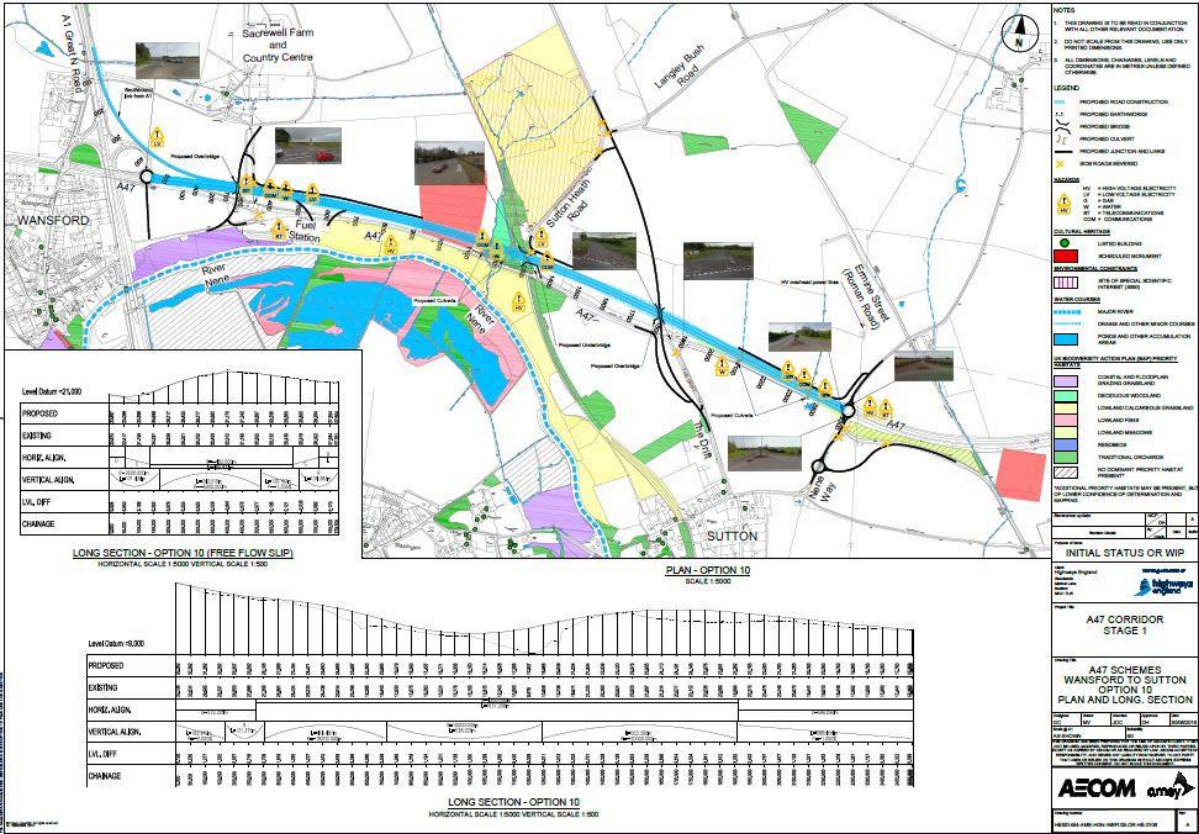
Engineering Ranking

		Option 1	Option 2	Option 3	Option 4	Option 5	Option 6	Option 7	Option 8	Option 9
Engineering Topic	Construction Impact	8	6	3	8	3	1	1	3	6
	Landtake	2	3	4	6	9	1	4	8	7
	General Alignment	7	1	3	7	1	5	7	3	5
	Accommodation works	2	2	2	1	2	2	2	2	2
	Geotechnical	1	5	4	8	5	7	8	2	2
	Structures	8	3	3	9	3	1	1	3	3
	Impact on Stats	5	5	5	1	4	1	1	5	5
Engineering Ranking		8	4	2	9	6	1	2	5	7
RAG Rating		7 to 9	4 to 6	1 to 3						

Appendix J: Detailed Options 10, 1a, 1b

Appendix K: Options 1, 8, 10 with Indicative Side Roads and Junctions

Option 10



Appendix L: AST for Option 10

Appraisal Summary Table PCF Stage 1			Date Produced	11/11/2016	Cont
Name of scheme	A47 Wansford to Sutton Dualling - Option 10			Name	
Description of scheme	This scheme involves dualling 2.5km of the A47 between the A1 Wansford Junction in the west and Nene Way Roundabout in the east. In addition there is a free-flow lane from the southbound A1 to the eastbound A47. It is assumed that the dualling will be constructed offline.			Organisation	
				Role	

Impacts		Summary of key impacts	Assessment		
			Quantitative	Qualitative	Monetary
					£(NPV)
Economy	Business users & transport providers	The increased capacity of the A47 and the free-flow lane result in substantial journey time benefits	2036 Journey times: A1 (N) to A47 (E) reduces 251s AM, 74s IP, 170s PM. A47 (W) to A47 (E) reduces 871s AM, 62s IP, 157s PM	Highly Beneficial	£61.736 million
	Reliability impact on Business users	The difference between peak hour and interpeak journey times is substantially reduced, particularly due to the reduction in AM peak period queues at Wansford roundabout and on the A1 southbound offslip. There are also benefits from the increase in capacity on the A47 and the reduction in delays at intermediate junctions.	2036 Journey times: AM to IP difference A1(N) to A47(E) 232s drops to 55s. A47(W) to A47 (E) 859s drops to 50s	Highly Beneficial	NA
	Regeneration	The site is in existing use so the scheme will not have any regeneration effects. The site is not located within a regeneration area.	NA	Neutral	NA
	Wider Impacts	It is anticipated that a reduction in transport cost through journey time improvements will allow companies to profitably increase output. This output change owing to imperfect competition provides an economic benefit estimated at 10% of all journey time benefits for business users as per WebTAG A2.1 Paragraph 4.1.9. Overall it is anticipated that there will be a slight economic benefit for the wider area. The scheme will provide additional transport capacity to support new development along this part of the A47 and A1	NA	Moderate Beneficial	£6.174 million
Environmental	Noise	The alignment of option 10 moves the proposed route marginally north of the existing A47 alignment and as such will have only local effects on property along the existing A47. Option 10 would move the road alignment closer to Sacrewell Farm and Country Centre (approximately 250m north of the proposed alignment) and further away from the 24 hour service station (approximately 60m south of the proposed alignment). This alignment change is not significant for either property. There are two Noise Important Areas located within 300m of the proposed option. The alignment of option 10 will move the alignment away from the noise important area at Sutton Heath Road but it does so by directly impacting the property to which this NIA applies. It also moves the alignment closer to the second property on Sutton Heath Rd.	NA	Minor Adverse	NA
	Air Quality	Option 10 would not result in any additional air quality receptors. As the purpose of the proposed offslip is to divert some of the traffic off the A1 and to relieve congestion, this may have a negligible beneficial effect - especially for those properties at Thackers Close, Wansford. However the primary influence on air quality here will remain the A1 traffic. The remaining property on Sutton Heath Road, if it is retained, will experience a negative air quality impact due to proximity, however it moves away from other properties. Option 10 will shift the route closer to the Sutton Heath and Bog SSSI (within approximately 50m). It is not considered that the change in air quality will have any additional impacts on this habitat. There are no Air Quality Management Areas (AQMAs) recorded within the study area, thus the proposed scheme is not expected to adversely impact on any AQMAs. The proposed scheme is not expected to result in the exceedance of air quality objectives (neutral impact).	NA	Minor Adverse	NA
	Greenhouse gases	Whilst traffic volumes and speed are expected to increase as a result of the proposed option, it is considered unlikely that there would be any significant change in the emissions of greenhouse gases.	NA	Neutral	NA
	Landscape	The landscape in the vicinity of the scheme is typical of the wider area and characteristic of the National Character Area. The local landscape comprises broad, gently undulating hills that are dissected by the River Nene at the point where it descends from the rolling Northamptonshire landscape to the flat fenland. The proposed alignment of option 10 is primarily offline to the north - the extent of the offline will result in significant impacts on hedgerows and woodland copses. The location of the off slip is already dominated by junction infrastructure. The overall landscape impact is slight adverse. The link roads will have a local landscape impact but this is comparable across the options. Option 10 would move the route alignment closer to a visual receptor immediately north of the A47 (negative impact) and further away from a visual receptor to the south of the A47 (positive impact) in the vicinity of Sutton Heath Road.	NA	Minor Adverse	NA
	Townscape	Although the proposed alignment of option 10 moves the route within 50m of the margins of the nearest town, it does not encroach on it. Thus it will have no significant impact on the townscape.	NA	Neutral	NA
	Historic Environment	The study area is considered to contain substantial archaeological and heritage resources. There are 5 Scheduled Monuments within 1km of the route. Option 10 will have a very substantial and direct impact on the monument - the Bronze Age Cropmarks (NHLE No. 1006796). As a consequence the impact is very significant. The National Planning Policy Framework states that "Where a proposed development will lead to substantial harm to or total loss of significance of a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or loss is necessary to achieve substantial public benefits that outweigh that harm or loss," (Paragraph 133). The proposed option is expected to have neutral impacts on the other scheduled monuments. There is one Listed Building (Grade II) within 300m of the proposed alignment - Sacrewell Mill and Mill House and Stables (NHLE No. 1127493). The alignment is unlikely to effect the setting of this building.	NA	Highly Adverse	NA
	Biodiversity	The proposed alignment of option 10 would move the route closer to the main grassland feature of Sutton Heath and Bog SSSI and have a slight direct impact on the thin area of wooded stream valley which forms the southern tapered boundary of the SSSI. The option has no effect on the Wansford Pastures SSSI (asset is within approximately 620m south west of proposed alignment). Thus the impact on designated sites would be Moderate. Option 10 would result in the loss of some deciduous woodland and agricultural land to the north of the A47. It will also have a direct and permanent impact on the woodland and ponds to the west of Sutton Heath Road and potentially associated protected species. Thus it is anticipated that the route would have a negative impact on the habitats and protected species. Due to option 10 moving the route to the north, impacts on the habitat that falls within the Nene Valley NIA (lands to the south of the A47 and to the north of the River Nene are classified as County Wildlife Site and priority habitat for coastal and floodplain grazing marsh) are anticipated to be neutral/slight positive.	NA	Moderate Adverse	NA
	Water Environment	The alignment of option 10 would move the proposed scheme further away from the River Nene (asset is within approximately 70m of proposed alignment). As a result there would be a neutral impact on the local water environment. There will be culvert widening required at the A1 offslip and Sutton Heath Road which may increase flood risk, but this is comparable across the options. The scheme does not encroach on a groundwater protection zone.	NA	Neutral	NA
Social	Commuting and Other users	The free-flow lane from the southbound A1 brings substantial journey time benefits to commuters to Peterborough during the AM peak period. The overall journey time improvements bring benefits to other road users as well.	See above under Economy	Highly Beneficial	£67.385 million
	Reliability impact on Commuting and Other users	There is currently significant variability in journey times with peak hour journeys taking substantially longer than off-peak journeys. The scheme substantially reduces this variability thus producing more reliable journey times. This improvement is particularly noticeable during the AM commuting period for journeys into Peterborough.	See above under Economy	Highly Beneficial	NA
	Physical activity	The scheme will have no significant negative impact on physical activity. If the new road is built offline then the detrunked A47 may be available for walkers, cyclists and equestrian traffic.	NA	Slightly Beneficial	NA
	Journey Quality	The reduction in peak period congestion will significantly reduce driver stress and therefore improve journey quality.	NA	Highly Beneficial	NA
	Accidents	The number of accidents reduce as the result of safer overtaking opportunities on the dualled A47 and improvements to the junctions. The free-flow lane substantially improves safety at Wansford roundabout.	Reduces accidents by 236.5 over 60 years	Moderate Beneficial	£18.480 million
	Security	No security impacts are anticipated.	NA	Neutral	NA
	Access to services	The scheme will improve access to services within Peterborough from villages to the east of the A1 and from various towns and villages to the west of the A1.	NA	Moderate Beneficial	NA

	Affordability	The scheme will have a slight benefit in affordability due to the increase in transport efficiency but the impact will be broadly neutral.	NA	Neutral	NA
	Severance	The side road access has still to be finalised. Nevertheless, the scheme is likely to remove the direct access between a number of side roads and the A47. However, the high level of traffic on the existing A47 causes severance issues at these junctions. The scheme is likely to divert these roads to join the A47 at improved and safer junctions. The longer journey distance will be offset by lower delays at the junctions.	NA	Moderate Beneficial	NA
	Option and non-use values	The scheme will not change the availability of transport services.	NA	Neutral	NA
Public Accounts	Cost to Broad Transport Budget	Construction costs will be charged to Central Government's broad transport budget. The area of road surface to maintain will increase, but the reduced age of the new infrastructure will reduce the amount of maintenance or renewal that is required.	NA	Moderate Adverse	£76.117 million
	Indirect Tax Revenues	The increased speed on the A47 increases the amount of fuel used and thus increases the tax revenue, whereas the reduction in congestion reduces the amount of fuel used and thus reduces revenues. The net result is a small increase in indirect tax revenues.	NA	Neutral	£0.498 million

fact
David Low
Amey

7 point scale
3
+3
0
+2
-1
-1
0
-1
0
-3
-2
0
+3
+3
+1
+3
+2
0
+2

0
+2
0
-2
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Appendix M: Options 1, 2, 3 with Indicative Side Roads and Junctions

File ref: \\dhhrs001\consdata\cdfs\17\corridor\cad stage 2\wansford\disciplines\wip\1 live drgs\highways\he551494-amy-hgn-ws_stg2-dr-he-021 revised option 2 plan and long section.dwg



NOTES
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DOCUMENTATION.
2. DO NOT SCALE FROM THIS DRAWING, USE ONLY PRINTED DIMENSIONS.
3. ALL DIMENSIONS, CHAINAGES, LEVELS AND COORDINATES ARE IN METRES UNLESS DEFINED OTHERWISE.

LEGEND
[Green line] PROPOSED ROAD CONSTRUCTION
[Yellow line] PROPOSED EARTHWORKS
[Black line] PROPOSED BRIDGE
[Orange line] PROPOSED CULVERT
[Black line] PROPOSED JUNCTION AND LINKS
[Orange X] SIDE ROADS SEVERED

HAZARDS
[Yellow triangle with exclamation mark] HV = HIGH VOLTAGE ELECTRICITY
[Yellow triangle with exclamation mark] LV = LOW VOLTAGE ELECTRICITY
[Yellow triangle with exclamation mark] G = GAS
[Yellow triangle with exclamation mark] W = WATER
[Yellow triangle with exclamation mark] BT = TELECOMMUNICATIONS
[Yellow triangle with exclamation mark] COM = COMMUNICATIONS

CULTURAL HERITAGE
[Green circle] LISTED BUILDING
[Red rectangle] SCHEDULED MONUMENT

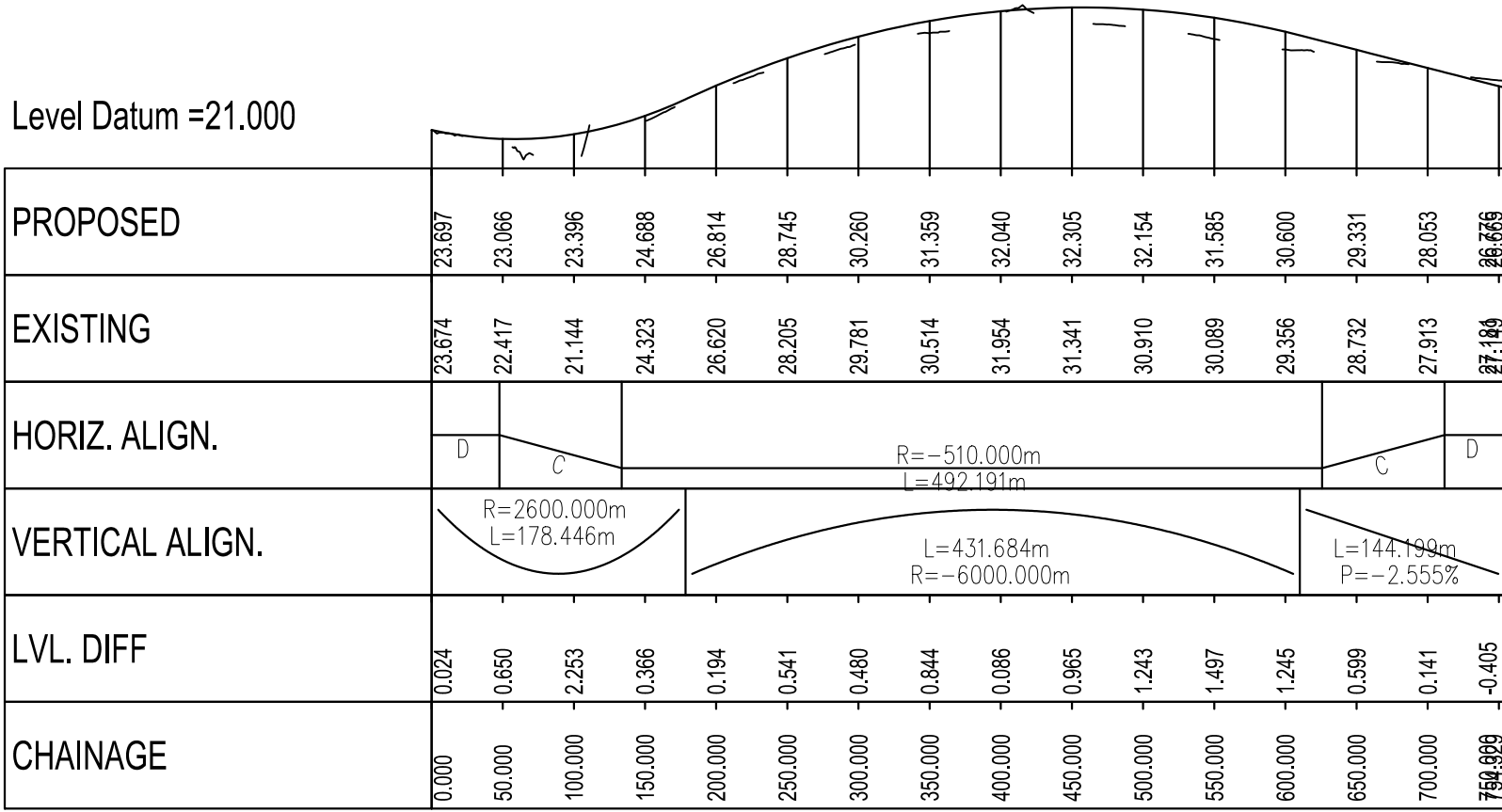
ENVIRONMENTAL CONSTRAINTS
[Pink rectangle] SITE OF SPECIAL SCIENTIFIC INTEREST (SSSI)

WATER COURSES
[Blue line] MAJOR RIVER
[Blue dashed line] DRAINS AND OTHER MINOR COURSES
[Blue rectangle] PONDS AND OTHER ACCUMULATION AREAS

UK BIODIVERSITY ACTION PLAN (BAP) PRIORITY HABITATS
[Purple rectangle] COASTAL AND FLOODPLAIN GRAZING GRASSLAND
[Green rectangle] DECIDUOUS WOODLAND
[Yellow rectangle] LOWLAND CALCAREOUS GRASSLAND
[Pink rectangle] LOWLAND FENS
[Light green rectangle] LOWLAND MEADOWS
[Blue rectangle] REEDBEDS
[Dark green rectangle] TRADITIONAL ORCHARDS
[White rectangle with diagonal lines] NO DOMINANT PRIORITY HABITAT PRESENT*

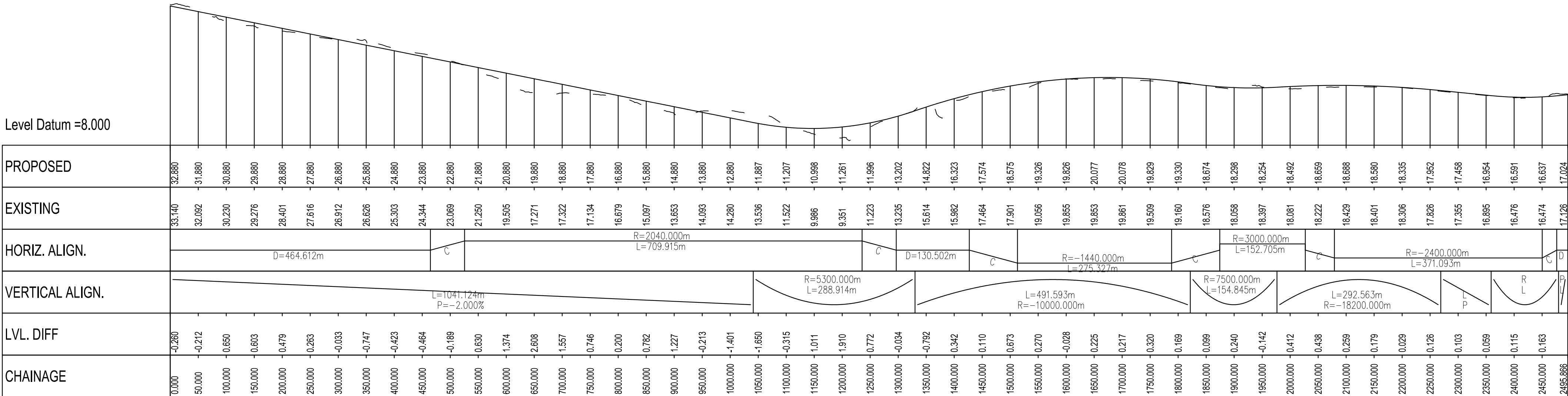
*ADDITIONAL PRIORITY HABITATS MAY BE PRESENT, BUT OF LOWER CONFIDENCE OF DETERMINATION AND MAPPING.

Rev	Revision details	Drwn	Chkd	Appd	Date
1	Designed: JOC				
2	Drawn: MV				
3	Checked: DH				
4	Approved: DH				



LONG SECTION - OPTION 2 (FREE FLOW SLIP)
HORIZONTAL SCALE 1:5000 VERTICAL SCALE 1:500

PLAN - OPTION 2
SCALE 1:5000



LONG SECTION - OPTION 2
HORIZONTAL SCALE 1:5000 VERTICAL SCALE 1:500

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Client
Highways England
Woodlands
Manton Lane
Bedford
MK41 7LW

Working on behalf of

Project Name
A47 CORRIDOR - STAGE 2

Drawing Title
**A47 SCHEMES
WANSFORD TO SUTTON
OPTION 2 ROUNDABOUT AT THE
DRIFT PLAN AND LONG SECTION**

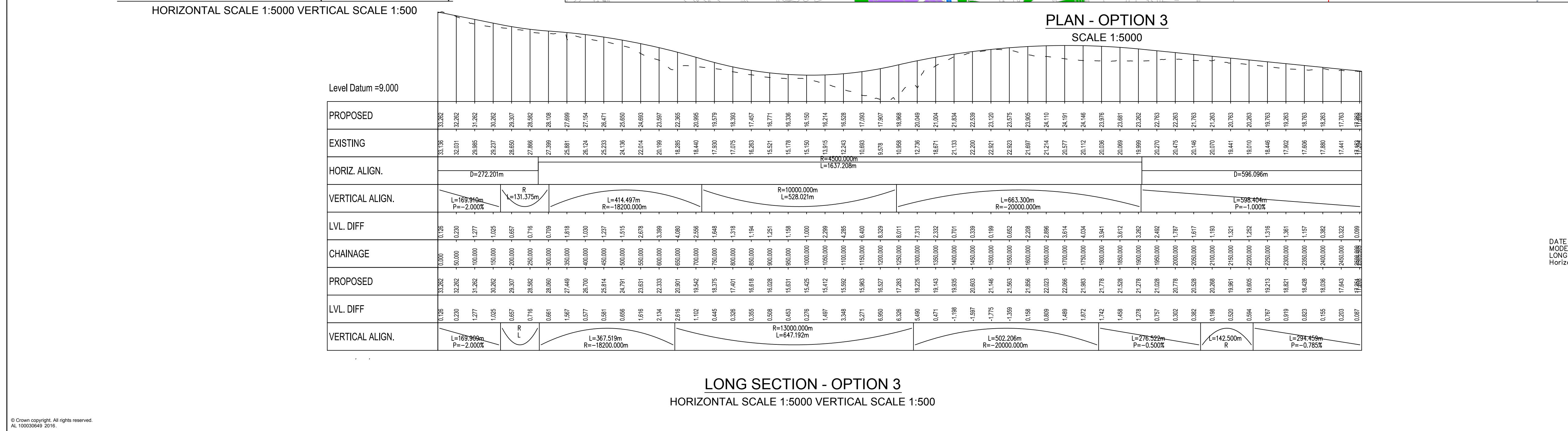
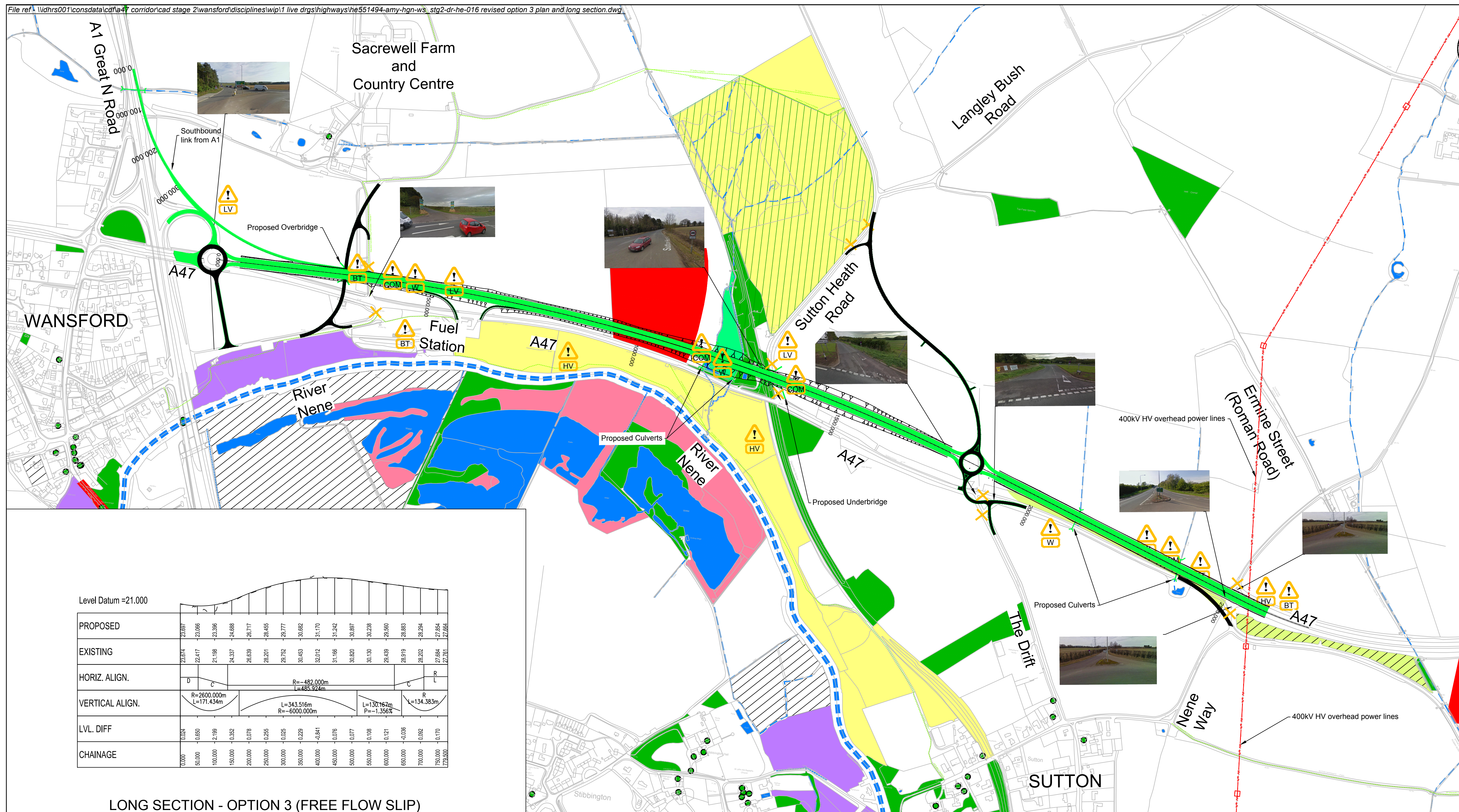
Original Drawing Size: A1
Scale: AS SHOWN
Dimensions: -

Drawing Status
WORK IN PROGRESS



Suitability
S0

Drawing No
HE551494-AMY-HGN-WS_STG2-DR-HE-021

Rev
-



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LEGEND					
	PROPOSED ROAD CONSTRUCTION				
	PROPOSED EARTHWORKS				
	PROPOSED BRIDGE				
	PROPOSED CULVERT				
	SIDE ROADS SEVERED				
HAZARDS					
	HV	= HIGH VOLTAGE ELECTRICITY			
	LV	= LOW VOLTAGE ELECTRICITY			
	G	= GAS			
	W	= WATER			
	BT	= TELECOMMUNICATIONS			
	COM	= COMMUNICATIONS			
CULTURAL HERITAGE					
	LISTED BUILDING				
	SCHEDULED MONUMENT				
ENVIRONMENTAL CONSTRAINTS					
	SITE OF SPECIAL SCIENTIFIC INTEREST (SSSI)				
WATER COURSES					
	MAJOR RIVER				
	DRAINS AND OTHER MINOR COURSES				
	PONDS AND OTHER ACCUMULATION AREAS				
UK BIODIVERSITY ACTION PLAN (BAP) PRIORITY HABITATS					
	COASTAL AND FLOODPLAIN GRAZING GRASSLAND				
	DECIDUOUS WOODLAND				
	LOWLAND CALCAREOUS GRASSLAND				
	LOWLAND FENS				
	LOWLAND MEADOWS				
	REEDBEDS				
	TRADITIONAL ORCHARDS				
	NO DOMINANT PRIORITY HABITAT PRESENT*				
*ADDITIONAL PRIORITY HABITATS MAY BE PRESENT, BUT OF LOWER CONFIDENCE OF DETERMINATION AND MAPPING.					
Rev	Revision details	Dwn	Chkd	Appd	Date
Designed:	PWB				Date:
Drawn:	PWB				Date:
Checked:	DH				Date:
Approved:	DH				Date:

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<p>Client</p> <p>Highways England Woodlands Manton Lane Bedford MK41 7LW</p>	<p>Working on behalf of</p> 
<p>Project Name</p> <p>A47 CORRIDOR - STAGE 2</p>	
<p>Drawing Title</p> <p>A47 SCHEMES WANSFORD TO SUTTON OPTION 3: ROUNDABOUT AT THE DRIFT PLAN & LONG SECT.</p>	
Original Drawing Size : A1	Scale : AS SHOWN
Dimensions : -	
<p>Drawing Status</p> <p>WORK IN PROGRESS</p>	<p>Suitability</p> <p>S0</p>
<p>Drawing No</p> <p>HE551494-AMY-HGN-WS_STG2-DR-HE-016</p>	<p>Rev</p> <p>-</p>

Appendix N: Exceptions and Limitations Document

Key Assumptions

Delivery for PRD, Interim SGAR and Final SGAR will against V42 of the Product Matrix. Subsequent updates to the matrix will not be accounted for.

TRADITIONAL MATRIX VERSION 42 1ST MARCH 2017		Status of Product at PRD inc. Limitations & Exceptions
		Wansford
Scope	Client Scheme Requirements	Product reviewed during PCF Stage 2. Live document
	Appraisal Specification Report	COMPLETE
Cost Estimating	Options Estimate	Product refined in line with PCF Stage 2 requirements.
Risk	Risk Management Plan	Product updated during PCF Stage 2. Live document
	Risk Register	Product refined during PCF Stage 2. Live document
Business Case & Funding	Economic Assessment Report	Product refined during PCF Stage 2. Report submitted using Paramics Model and Stage 1 costs. Report will be updated with SATURN model and Stage 2 costs for final SGAR 2
	Appraisal Summary Table	Product refined during PCF Stage 2. Submission based on Paramics Model and Stage 1 costs. Need's updating with Stage 2 costs for Interim SGAR if cost estimates available. Further update required for Final SGAR 2 using SATURN model results once Traffic forecasting complete. Where quantitative data was not available then qualitative information was utilised. Distributional Impacts Appraisal Matrix and the 'Distributional Impacts Report have not been completed
	Traffic Data Collection Report	Product submitted in PCF Stage 1. Subject to final review and sign off in PCF Stage 2
	Traffic Forecasting Report	Product refined during PCF Stage 2. Submission based on Paramics Model. Further update required for Final SGAR 2 using SATURN model results
	Local Model Validation Report	Product refined during PCF Stage 2. Submission based on Paramics Model. Further update required for Final SGAR 2 using SATURN model results
	Business Case	Product refined in line with PCF Stage 2 requirements based on agreement to use Feasibility Report instead of SOBC (for Stages 0 and 1). OBC to be produced later in PCF Stage 2 to fully reflect economic status of the Preferred Route.
	Investment Submission	This product is an internal funding request facilitator.
Value Management	Value Management Plan	Product updated to include the planned approach to PCF Stage 2. The Product will be further reviewed and updated prior to final PCF Stage 2 SGAR
	Efficiency Register	Product refined during PCF Stage 2.

TRADITIONAL MATRIX VERSION 42 1ST MARCH 2017		Status of Product at PRD inc. Limitations & Exceptions
		Wansford
		Live document
	Value Management Workshop Report	Product to be produced prior to final PCF Stage 2 SGAR
Specification Requirements & Design	Scheme Assessment Report	Product produced in PCF Stage 2 This is a draft document for interim SGAR Document currently includes information based on the TAR produced for Stage 1 and commentary on the Public Consultation The later assessment sections on the 3 options will be added to with additional content and review following the interim SGAR 2 (including cost estimate information) The document will be updated and completed prior to the final SGAR 2.
	Report on Public Consultation	Product produced in PCF Stage 2 This is a draft document for interim SGAR Following interim SGAR the document will be reviewed, updated and completed prior to final SGAR 2 Appendices have not been included with this submission but will be available for final submission. Data from Dialogue by Design is at this stage draft only, to be finalised before final SGAR. Final Conclusions / Recommendations will be completed before Interim & Final SGAR
	Tunnel Design Authority Report (Tunnel Only)	NOT REQUIRED
	Safety Plan	Product produced in PCF Stage 2 This is a draft document for interim SGAR Following interim SGAR the safety plan will be reviewed updated and completed prior to final SGAR 2 Client Scheme Requirements content to be embedded in Product
Managing Change	Change Request Log	Product produced in PCF Stage 2 For interim SGAR the change request log has been populated with a list of current early warnings as of the 25-05-2017 For final PCF Stage 2 SGAR the early warning log will be updated
	Change Request Form	Product produced in PCF Stage 2 Template Completed
	Exception Report	Product produced at the end of PCF Stage 2 Template has been prepared and will be populated for final SGAR 2
Project Management	End of Stage Report	Product produced at the end of PCF Stage 2 Template has been prepared and will be populated for final SGAR 2
	Product Checklist	Product updated during PCF Stage 2. Live document
	Project Management Plan	

TRADITIONAL MATRIX VERSION 42 1ST MARCH 2017		Status of Product at PRD inc. Limitations & Exceptions
		Wansford
		Product updated during PCF Stage 2. Live document
	Project Schedule	Product refined during PCF Stage 2. Live document
	Regular Reporting	Product produced during PCF Stage 2. Live document
	Stage Gate Assessment Review Certificate	Product produced at the end of PCF Stage 2
	Lessons Learnt Log	Product updated during PCF Stage 2. Live document
	Equality Impact Assessment (EqIA) Screening, Analysis and Monitoring	Product refined in line with PCF Stage 2 requirements. Subject to final review and sign off
	Integrated Assurance and Approvals Plan	Product reviewed during PCF Stage 2. Live document
Procurement	Project Level Procurement Strategy	Product to be produced by end of PCF Stage 2 to inform route to deliver PCF Stage 3 onwards
Health & Safety	Pre-construction Information	Product produced at the end of PCF Stage 2 Template has been prepared and will be populated for final SGAR 2
	F10 Notification of Construction Project	COMPLETE
	Health & Safety File	Product produced at the end of PCF Stage 2 Template has been prepared and will be populated for final SGAR 2
	Maintenance and Repair Strategy Statement	Product produced at the end of PCF Stage 2 Template has been prepared and will be populated for final SGAR 2
PTS Approvals	Preliminary Sources Study	Product produced in line with PCF Stage 2 requirements. Subject to final review and sign off following PRD and any amendments to the design
Public Consultation	Public Consultation Leaflet	COMPLETE
	Public Consultation Publicity Checklist	COMPLETE
	Public Consultation Exhibition Checklist	COMPLETE
	Statement of Results of Public Consultation Checklist	Product produced in line with PCF Stage 2 requirements. Skeleton document issued and will be completed once Preferred route decision is made
	Route Protection - Notification of	

TRADITIONAL MATRIX VERSION 42 1ST MARCH 2017		Status of Product at PRD inc. Limitations & Exceptions
		Wansford
	Development / Safeguarding	Product produced in line with PCF Stage 2 requirements. To be completed on determination of preferred route
	Section 85 Notice	Product produced in line with PCF Stage 2 requirements. To be completed on determination of preferred route
Orders (Highways Act 1980)	Land - Gaining Access For Surveys	NOT REQUIRED – Scheme Progressing through Planning Act
	Planning Statement	NOT REQUIRED – Scheme Progressing through Planning Act
	Information and Justification to support Compulsory Purchase	NOT REQUIRED – Scheme Progressing through Planning Act
Orders (Planning Act 2008)	DCO Application - Land Referencing & Book of Reference	Product refined in line with PCF Stage 2 requirements. For Interim SGAR the book of reference has been presented as a landownership list based on an area which covers the wider area of the options still under consideration The current book of reference is not a complete record of landownership and is based on details from land registry only at this stage The ownership list can be refined once the preferred route has been determined prior to the end of PCF Stage 2
	Land - Gaining Access For Surveys	Product refined during PCF Stage 2. Live document
	DCO Application - Planning Statement & National Policy Statement Accordance	Product produced at the end of PCF Stage 2 Template has been prepared and will be populated for final SGAR 2
Standards & Specification	Departures from Standards Checklist	Product produced during PCF Stage 2. Live document
	Implementation Report For New Standards	Product produced during PCF Stage 2. Live document
Communications	Communication Planning for Major Projects	Product updated in line with PCF Stage 2 requirements. Subject to final review and sign off
Works Procurement	Statutory Undertakers Estimate	Product refined during PCF Stage 2. Live document
Environmental	EIA Screening (Determination)	Product produced in line with PCF Stage 2 requirements. Skeleton document issued and will be completed once Preferred route decision is made
	Habitat Regulations Assessment	Product produced in line with PCF Stage 2 requirements. Draft document issued for Interim SGAR and will be completed once Preferred route decision is made
	Environmental Scoping Report	Descope from PCF Stage 2. To be completed early in PCF Stage 3

TRADITIONAL MATRIX VERSION 42 1ST MARCH 2017		Status of Product at PRD inc. Limitations & Exceptions
		Wansford
	Environmental Assessment Report / Environmental Statement	Product refined during PCF Stage 2. Live document Surveys on-going, assessment has only been partially completed

Appendix O: PRD Minutes

RIS SCHEMES A47 Improvements

Minutes of Meeting V0.5

Meeting	A47 Preferred Route Decision – Wansford to Sutton	
Venue & Date	Woodlands Lime 15 June 2017 12pm-3:30pm	
	Role	
Chairperson	Phil Davie HE Programme Leader (PL)	
Attendees	HE Project Manager (PM)	
	HE Senior Environmental Advisor (EA)	
	HE DCO & Statutory Process Manager (DCO)	
	Amey Programme Manager (APL)	
	Amey Project Manager (APM)	
	Amey Highway Technical Lead (ATL)	
	Amey Environmental Coordinator (AEC)	
	Amey Stakeholder Manager (ASM)	
	MMS Project Manager (MPM)	
	MMS Operations Manager (MOM)	
Apologies		
Distribution		
Acronyms	As they appear chronologically in the minutes	
	Preferred Route Decision	PRD
	Product Control Framework	PCF
	Preferred Route Announcement	PRA
	Appraisal Specification Report	ASR
	HSE works duration notification form	F10
	Department for transport	DfT
	Road Investment Strategy	RIS
	Key Performance Indicators	KPI's
	Site Special Scientific Interest	SSSI
	LiDAR	Light Detection and Ranging
	Non-Motorised User	NMU's
	Appraisal Summary Table	AST
	BCR	Benefit Costs Ratio
	VfM	Value for Money

Minutes

		Action by	Date
1.0	<p>Introductions</p> <p>Chair, Phil Davie, thanked everyone for attending, adding that the previous day's PRD Meetings with AECOM went well and gave confidence for going forward.</p> <p>The Chair highlighted that the discussions and outcome would be based not on PCF Stages running consecutively as time constraints have resulted in some overlapping of the PCF Stages and that this approach was instigated by Highways England.</p> <p>As a result, some of the information being presented and discussed will be incomplete and/or have limitations. Highways England acknowledged that this is a risk but are prepared to accept that risk in order to deliver to the required timescales.</p> <p>The Amey team highlighted these areas as information was presented and discussed (see also section 4.0).</p> <p>Everyone introduced themselves in the room</p>	-	-
2.0	<p>Health & Safety Moment</p> <p>Hazards of using mobile phones whilst walking – inherent danger. Links below show consequences.</p> <p>http://www.dailymail.co.uk/video/news/video-1480483/Shocking-moment-woman-falls-trapdoor-texting.html</p> <p>http://www.dailymail.co.uk/news/article-4580328/Woman-hit-train-Mumbai-survives.html</p>		
3.0	<p>Purpose of PRD Session</p> <p>Ensure all evidence presented and discussed with all views aired and recorded, including expectations for Preferred Route Announcement (PRA).</p> <ul style="list-style-type: none"> ○ The meeting should conclude with an unqualified decision on the preferred route ○ Last opportunity to ensure all views are aired prior to route decision being made 		
4.0	<p>Available Information to Inform Decision</p> <p>Due to the timing of the PRD being part way through PCF Stage 2 all of the PCF Stage 2 information assessments and reporting were not available to inform the meeting. A list of PCF Stage 2 Products and their</p>		

	<p>status was tabled and discussed. The table shows the status of each of the products which are complete, incomplete including limitations. See Attachment A - Exceptions and Limitations Document - A3 - Rev A</p> <p>Apart from the ASR and F10 notification of construction project all other PCF products are incomplete.</p>		
5.0	Present Information		
5.1	<p>Supplier Scheme Overview</p> <p>APM presented detail of the scheme constraints and traffic problem:</p> <p>RIS Statement</p> <p>In December 2014 the DfT published the RIS for 2015-2020 which sets out the list of schemes that are to be developed by Highways England over the period of April 2015 to March 2020. The RIS confirmed Highways England's commitment to six schemes along the A47 corridor with Wansford to Sutton scheme being one of them.</p> <p>The RIS announced the scheme as "dualling of the A47 between the A1 and the dual carriageway section west of Peterborough".</p> <p>Scheme Overview</p> <p>The Wansford to Sutton scheme is the single carriageway section of the A47 that runs from the A1 in the west (near Wansford) to the dual carriageway section near the village of Sutton (a distance of 2.5 km) to the east. It is approximately 9km west of Peterborough. There are a number of side roads joining the A47 along the scheme length, via at grade priority, simple and right turn lane T junctions. From west to east the following side roads and junction types are noted:</p> <ul style="list-style-type: none"> ○ Access to Sacrewell Farm and Country Centre – T junction; ○ Access to riverside parking and a pumping station – ghost island junction; ○ Petrol filling station – ghost island junction; ○ Sutton Heath Road – ghost island junction; and ○ The Drift – double T-junction. ○ There are a number of farm and field accesses and direct property accesses present on both sides of the A47. <p>Key Problems</p> <p>A1/A47 Wansford to Sutton Section is operating over capacity for both east and westbound traffic</p> <p>Accidents for the single carriageway section of the A47 between the A1 and the Sutton Roundabout is</p>		

	<p>particularly high compared to other sections of the A47. Within a 5 year period between 1st July 2011 and 30th June 2016, 41 accidents were recorded along this section of the A47. These included: 2 fatal accidents, 5 serious accidents and 34 Slight accidents.</p> <p>Option Sifting and Review Feasibility work undertaken in PCF Stage 0 identified dualling of the A47 Wansford to Sutton scheme as representing a potential solution to the identified transportation problem. In Stage 1 a number of defined route options were developed and numbered 1 to 10. Each of the options were assessed using the Highways England objectives and KPI's to ensure that they represented solutions which would solve the problem based on desktop information and a walk through. There was very little difference in these assessments therefore a more detailed assessment was carried out using Engineering parameters, Environmental factors, Transportation and high level Economics. Option sifting resulted in 3 options - options 1, 8 and 10 being taken forward to Stage 2. These options were later renumbered 1, 2 and 3 and taken forward for public consultation at the non-statutory Public Information Events in March/April 2017.</p>		
5.2	<p>Identify Constraints APM/AEC/ATL presented on constraints in the area. Refer to Attachment B – Wansford Environmental Constraints Map.</p> <p>Environmental Constraints</p> <ul style="list-style-type: none"> ○ Scheduled Monument (cropmarks) to the north adjacent to existing carriageway and is a designated site ○ There are other cropmarks and potential heritage sites in the vicinity at the eastern end of the scheme to the north and south of the existing A47 ○ Sutton Heath and Bog SSSI to the north ○ A number of County Wildlife sites alongside the A47 ○ River Nene to the south ○ Number of Listed Buildings ○ Areas of potential ecological importance ○ Two noise important areas: one at the junction of the A47 and Sutton Heath Road and another At Wansford along the A1 from the dumb bell roundabout extending South to where the A1 crosses the river. <p>Engineering Constraints</p> <ul style="list-style-type: none"> ○ There are statutory undertakers in the existing verges (including fibre optics) and 11kV overhead lines in the area. 		

	<ul style="list-style-type: none"> ○ Wansford Pumping Station at the western end of the scheme just south of the existing A47 ○ Pumping main (1800mm diameter) running directly north from the pumping station passing east of Sacrewell farm to a reservoir 14km to the north ○ Ground Conditions – there is a risk of differential settlement of earthworks along the whole area south of the A47 around the River Nene. Ground Investigation is needed. <p>Existing Properties and Buildings</p> <ul style="list-style-type: none"> ○ Villages of Wansford to the west & Sutton to the south east ○ Fuel Station at the western end of the scheme ○ Picnic Area to the West ○ 3 Properties of which 2 are directly accessed from the A47 ○ Sacrewell Farm and Country Centre – tourist attraction attracting over 100,000 visitors a year. <p>The scheduled monument is a key constraint and was discussed in more detail; as summarised below.</p> <p>National Policy Statement for National Networks (NPSNN) states: “Substantial harm to or loss of designated assets of the highest significance, including World Heritage Sites, Scheduled Monuments, grade I and II* Listed Buildings, Registered Battlefields, and grade I and II* Registered Parks and Gardens should be wholly exceptional.”</p> <p>In order for the route to go through the scheduled monument we would have to demonstrate a wholly exceptional case.</p> <p>The whole study area has a risk of archeological finds. There are further cropmarks at the eastern end of the scheme to the north and south. Geophysical surveys were carried out in the area of scheduled monument which confirmed and mapped the cropmarks, identifying seven ring-ditches of varying size.</p> <p>LiDAR survey assessed existing datasets of the area. There were no unexpected finds.</p> <p>Awaiting Aerial Photography survey data analysis to confirm presence of further cropmarks</p>		
5.3	<p>Description of Each Option</p> <p>Option 1 – online dualling plus free flow slip road from A1 southbound. See Attachment C - Revised Option 1</p>		

	<p>Option 2 – Part online to the north, part offline to the south plus free flow slip road from A1 southbound. See Attachment D - Revised Option 2</p> <p>Option 3 – Offline to the north plus free flow slip road from A1 southbound. See Attachment E - Revised Option 3</p> <p>ATL commented that the access into Sacrewell Farm has now been re-engineered to be an underpass rather than overbridge for all options.</p> <p>Potential issue with effect on fuel station was noted as it will lose trade from traffic travelling eastbound. This needs further discussion with HE Lands and DVS in Stage 3.</p>	PM	
6.0	<p>Assess the Options</p> <p>A number of assessments have been made of the 3 options in order to inform the meeting and assist in the choice of a preferred route</p> <p>The results of these assessments are presented and discussed in sections 6.1 – 6.7 below</p>		
6.1	<p>Strategic Outcomes & KPIs</p> <p>Each Option was assessed with regards to Alignment to Highways England's Delivery Plan – see Attachment F KPIs Wansford Results.</p> <p>Options 2 and 3 perform marginally better than Option 1 for:</p> <ul style="list-style-type: none"> ○ Improved user satisfaction ○ Supporting the smooth flow of traffic ○ Helping cyclist, walkers and other vulnerable users <p>This is because Option 1 is online resulting in delays during construction. Options 2 and 3 are mostly off line so the existing route can be used for NMUs.</p> <p>Option 1 performs better for:</p> <ul style="list-style-type: none"> ○ Delivering better environmental outcomes <p>as it has the least impact on designated sites. APM to change score from 3 to 4.</p>	APM	
6.2	<p>AST for Each Option</p> <p>ASTs were prepared for each option – see Attachment G – Wansford Draft AST</p> <p>For ease of assessment each parameter was summarised using RAG rating.</p> <p>For the Social section of the AST there was a lack of</p>		

	<p>confidence in the way the results had been interpreted. It was agreed that a colour ranking system is used similar to environment assessment in the EAR. APM to update AST. The updated summary of the ranking is in Attachment H – Wansford Summary AST</p> <p>The AST comparison table was reviewed line by line in the meeting key points of note:</p> <p><u>Economy</u> There were no discernible differences between the 3 options in terms of economic categories. All options showed a beneficial rating when assessed against the economy criteria.</p> <p><u>Environment</u> For the Environment section, noise, greenhouse gases and Townscape to be left blank rather than neutral. APM to update table.</p> <p><i>Air Quality</i> Option 1 ranked best as it is online with no unacceptable exposures to new or existing sensitive receptors. Option 3 ranked the worst as it is closer to the property “Heath House”.and to Sacrewell Farm</p> <p><i>Landscape</i> Option 1 is the most preferred from a landscape point of view as it will affect the least number of receptors relative to options 2 and 3. As it is an online widening, there will be no significant change in the number of receptors affected by the widening compared to the existing conditions. With the offline sections of options 2 and 3, this introduces new features into the landscape and moves the road closer to receptors that currently have no or limited view of the road. Option 2 the least preferred as it has the greatest potential landscape and visual effects and goes through County Wildlife Site</p> <p><i>Historic Environment</i> Option 3 goes through the scheduled monument and requires demolition of The Old Station House which is of historic interest so is the least preferred option. Option 2 ranks the best as it moves away from these 2 receptors.</p> <p>With regards to non-designated sites NSPNN states: “Non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to Scheduled Monuments,should be considered subject to the policies for designated heritage assets. The absence of designation for such heritage assets does not indicate lower significance.” “The Secretary of State should also consider the impacts</p>	<p>APM</p> <p>APM</p>	
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	<p>on other non-designated heritage assets (as identified either through the development plan process by local authorities, including 'local listing', or through the nationally significant infrastructure project examination and decision making process) on the basis of clear evidence that the assets have a significance that merit consideration in that process, even though those assets are of lesser value than designated heritage assets"</p> <p>A discussion was held regarding whether all options going through crop circles including those outside of the scheduled monument should be categorised as large adverse impact. AEC stated he was happy with the current assessment showing Option 1 to be moderate adverse and option 2 to be slight adverse.</p> <p><i>Biodiversity</i></p> <p>Option 3 ranks worst as it is closer to Sutton Heath and Bog SSSI and has potential impact on the critical hydrology of the SSSI. Option 1 ranks best as it has neutral impact on the SSSI and does not require significant landtake from priority habitats.</p> <p><i>Water Environment</i></p> <p>Option 2 ranks worst as it has a greater percentage of the route alignment into the Planning Flood Zones associated with the River Nene and the Wittering Brook. Options 1 and 2 would fall within 1 in 1000 year flood area. A flood risk assessment would be required in Stage 3.</p> <p>Option 1 ranks best and Option 3 second best.</p> <p><i>Overall from an Environment perspective Option 1 ranks best, Option 2 second and Option 3 worst.</i></p> <p><u>Social</u></p> <p>There would be an improvement in journey quality and accidents for all options.</p> <p>It was agreed that Severance should be ranked as beneficial on all 3 options as the provision of a bridge linking to Sacrewell farm would benefit all users.</p> <p>All options would be affected similarly by access to services, affordability and security in a beneficial manner.</p> <p>For Physical activity Option 1 ranks worst as it is online. Option 3 ranks best as it is completely offline with the possibility of leaving the existing route for NMUs.</p> <p><u>Public Accounts</u></p> <p>The cost to Broad Transport Budget and indirect revenues were similar for all 3 options as these figures are based on one cost estimate provided at Stage 1.</p>		
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	These figures will be updated with costs received for the 3 options.		
6.3	<p>PIE Summary</p> <p>TB summarised responses: 170 responses were received following Public Consultation. There were 152 responses to the question: “Do you think improvements are needed to the A47 Wansford to Sutton Route?” Of these, 147 responded yes and 5 responded no.</p> <p>Option 3 was the most favoured option with 64 strongly in favour and 23 somewhat in favour. Respondents feel it is the best option for addressing congestion and welcome the conversion of the old A47 route into a route for local traffic including cyclists. Respondents say this northerly option will take noise and air pollution away from Sutton and be at less of a risk from flooding. Those who oppose this option are concerned about the land-take required and the impacts on Sacrewell Farm and local heritage assets such as Bronze Age crop marks and the old railway station.</p> <p>Option 1 was the second favoured option with 34 strongly in favour and 26 somewhat in favour. The main reason for support for Option 1 by respondent is that it follows the existing road layout, minimising the land-take and environmental impact and not leaving a ‘dead road’ behind. Others argue this option will cause disruption during construction, force agricultural traffic to mix with long-distance traffic and create ‘rat-runs’ through local villages. Concerns are also expressed about flooding and damage to local habitats as well as the impact on existing junctions and the turning over the old railway.</p> <p>Option 2 was the least favoured option with 13 strongly in favour and 23 somewhat in favour. Support for Option 2 comes from those who believe it will have the least impact during construction and allow Sutton Heath Road to connect directly to the Sutton roundabout using the old A47 road. Respondents would welcome the removal of a lay-by/truck stop close to the A1 which is a location for criminal activity. Those who oppose this option are concerned about its proximity to Sutton and the impact on local residents and businesses. They also say this route could be at risk from flooding and will remove valuable farmland and wildlife habitats.</p> <p>Key Stakeholder Preference</p> <p>There were mixed feelings from key stakeholders such as local councils and parishes, land owners and cycling groups – refer to Attachment I - Wansford Key</p>		

	Stakeholder Preferences. Overall Option 3 rank better.		
6.4	<p>Buildability Analysis</p> <p>APL gave a high level overview from information provided by Taylor Woodrow:</p> <p>Construction programs included in cost estimates are robust. Option 1 – 18 months, Option 2 – 16 months and Option 3 – 16 months (Amey assumed 15 months)</p> <p>Option 3 has least issues for construction and traffic management as it is offline for the whole route, Option 1 has highest as it is online for the whole route.</p> <p>Additional environmental issues for option 2 (County Wildlife Sites) and option 3 (Bronze age cropmarks, loss of woodland). Flood risk assessment required for option 2.</p> <p>Option 1 has greatest impact on Statutory Undertakers.</p>		
6.5	<p>Key Risks & Opportunities</p> <p>Benefits & Opportunities</p> <ul style="list-style-type: none"> ○ Meets RIS commitment ○ A safe and serviceable network by reducing accidents ○ A more free-flowing network with more reliable journey times ○ Supports economic growth by increasing capacity ○ Improved accessibility for NMUs. Consultations have taken place with local cycling group ○ Opportunity to work with land owners, Homes & Communities Agency (HCA) <p>Issues & Risks</p> <ul style="list-style-type: none"> ○ Line of Preferred Route – Potential objections from local residents & business users (including Petrol station) ○ Proximity of Scheduled Monument and the possibility of archaeological finds in the area ○ River Nene close by ○ Sutton County Wildlife site adjacent to carriageway. ○ SSSI in the vicinity. 		
6.6	<p>Cost & BCR</p> <p>APM stated only Option 3 was costed at Stage 1 with most likely cost of £113.75 million and BCR of 1.94. This is considerably higher than the RIS budget of £79 million so a Value Engineering exercise was carried out to</p>		

	<p>reduce scheme costs. This involved removal of the proposed overbridge connecting Sutton Heath Road and The Drift and various other measures such as reduced earthworks, Drainage changed from a positive system with kerbs and gullies to an over the edge Sustainable Drainage (SUDs) solution, Kerbs reduced to 20% to reflect over the edge drainage rather than positive drainage etc.</p> <p>These measures were implemented for all 3 options and sent to HE Commercial for cost estimates. Unapproved costs received from HE Commercial on 14/06/17 are:</p> <p>Option 1 Min £58.24m, Most Likely £88.83m, Max £141.30m</p> <p>Option 2 Min £54.42m, Most Likely £81.16m, Max £129.45m</p> <p>Option 3 Min £51.53m, Most Likely £75.11m, Max £127.40m</p> <p>Post Meeting Note: The above costs have been confirmed by Highways England Commercial.</p> <p>Value for money is currently high for all three options. BCRs below were calculated using Paramics model only and most likely costs: Option 1 – 3.34 Option 2 – 3.56 Option 3 – 3.80</p> <p>Option 3 has the highest BCR followed by Option 2. Option 1 has the lowest BCR. The BCRs are expected to reduce for all options once construction delay modelling is taken into account, however Option 1 BCR is expected to reduce the most as it is online along the whole route causing major disruption during construction.</p>		
7.0	<p>Scoring Matrix/Decision Live. Agree & complete options scoring Matrix</p>		
	<p>The assessments overall were discussed and the following were agreed in the room.</p> <p><u>Alignment to Strategic Outcomes & KPIs</u> The high level strategic assessment of KPIs aligned to the Delivery Plan showed Options 2 and 3 to be marginally better than option 1 as they have offline sections that could be used for NMUs and for local traffic during construction whereas Option 1 is online along the whole route.</p> <p><u>AST comparison</u> The only real differentiation from the AST was within the environmental section. The AST showed Option 1 to be the best as it has the least impact on environment and designated sites and option 3 the worst as it goes</p>		

	<p>through the scheduled monument and has a potential impact on the SSSI.</p> <p><u>Consultation Feed back</u></p> <p>Option 3 was the most favoured option by the public as they welcome the conversion of the old A47 route into a route for local traffic including cyclists. It was also felt this northerly option will take noise and air pollution away from Sutton and be at less of a risk from flooding.</p> <p>Option 2 was the least favoured option as it is closer the village of Sutton and to the river with higher risk of flooding. It also affects valuable wildlife habitat.</p> <p><u>Buildability</u></p> <p>Option 3 ranks best as it is offline, Option 2 ranks second and Option 1 ranks worst as it is online along the whole route</p> <p><u>Costs & BCR</u></p> <p>Option 3 is cheapest and within RIS budget and has the highest BCR (based on Paramics model). Option 1 is the most expensive and has the lowest BCR Option 2 is just above the RIS budget.</p> <p><u>Preferred Route Decision</u></p> <p>A discussion took place on the impact of going through the scheduled monument.</p> <p>It was agreed that although the whole area is of archeological interest, the scheduled monument is a designated site.</p> <p>Geophysical surveys confirmed that we cannot rule out significant archaeological remains within the scheduled monument. There is a risk that Historic England will object to the route going through the scheduled monument as there are 2 other viable routes avoiding the scheduled monument with less impact on the designated site where the identified engineering and environmental issues can be resolved.</p> <p>Therefore we cannot demonstrate a wholly exceptional case for progressing with Option 3. Option 3 was rejected on these grounds.</p> <p>Option 1 was ruled out due to higher cost, VfM and potential delays due to construction/traffic management and lack of suitable diversionary routes.</p> <p>Option 2 has the second highest VfM. It is just above the RIS budget cost.</p> <p>There is still a risk of hitting archeological remains but the risk of doing so is less than Option 3 which is a designated scheduled monument.</p> <p>It was agreed that Option 2 would be taken forward as the preferred route.</p>		
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	<p>At Public Consultation residents of Sutton expressed concern about Option 2 being closer to their village. It also goes through the County Wildlife Site and is too close to the river. It was therefore agreed that the route is to be re-aligned as far north as possible after passing online at the scheduled monument acknowledging that this would require demolition of the property Deep Springs See Attachment J – Wansford Preferred Route Alignment Drawing.</p>		
8.0	<p>Preferred Route Viability Determine & confirm including justifications and reasons for not promoting discarded options</p>		
	<p>Summary Option 1 Pros</p> <ul style="list-style-type: none"> ○ Has least impact on environment and designated sites <p>Cons</p> <ul style="list-style-type: none"> ○ Online so big impact during construction – no easy diversion routes. ○ Highest cost ○ Lowest indicative BCR <p>Option 2 Pros</p> <ul style="list-style-type: none"> ○ Moves away from scheduled monument ○ Cost only slightly over from budget ○ Good indicative BCR ○ Sections of the existing route could be used for NMUs <p>Cons</p> <ul style="list-style-type: none"> ○ Goes through Sutton Meadows CWS. ○ Route too close to river - to be re-aligned so it's closer to existing carriageway ○ Requires demolition of the property "Deep Springs" ○ Least preferred route by public <p>Option 3 Pros</p> <ul style="list-style-type: none"> ○ Completely offline so easier to construct ○ Existing route could be used for NMUs ○ Cheapest of the 3 options ○ Best indicative BCR <p>Cons</p> <ul style="list-style-type: none"> ○ Goes through scheduled monument – cannot demonstrate "wholly exceptional case" ○ Affects southernmost tip of SSSI ○ Requires demolition of the property "Old Station House" which is of historic interest 		

Appendix P: Preferred Route Alignment

File ref: I:\cad stage 2\wansford\disciplines\wip\1 live drgs\highways\he551494-amy-hgn-ws_stg2-dr-he-032 option 2 realigned pra variant.dwg



- NOTES**
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DOCUMENTATION.
 - DO NOT SCALE FROM THIS DRAWING. USE ONLY PRINTED DIMENSIONS.
 - ALL DIMENSIONS, CHAINAGES, LEVELS AND COORDINATES ARE IN METRES UNLESS DEFINED OTHERWISE.

- LEGEND**
- PROPOSED ROAD CONSTRUCTION
 - PROPOSED EARTHWORKS
 - PROPOSED JUNCTION AND LINKS
 - SIDE ROADS SEVERED

- HAZARDS**
- HV = HIGH VOLTAGE ELECTRICITY
 - LV = LOW VOLTAGE ELECTRICITY
 - G = GAS
 - W = WATER
 - BT = TELECOMMUNICATIONS
 - COM = COMMUNICATIONS

- CULTURAL HERITAGE**
- LISTED BUILDING
 - SCHEDULED MONUMENT

- ENVIRONMENTAL CONSTRAINTS**
- SITE OF SPECIAL SCIENTIFIC INTEREST (SSSI)

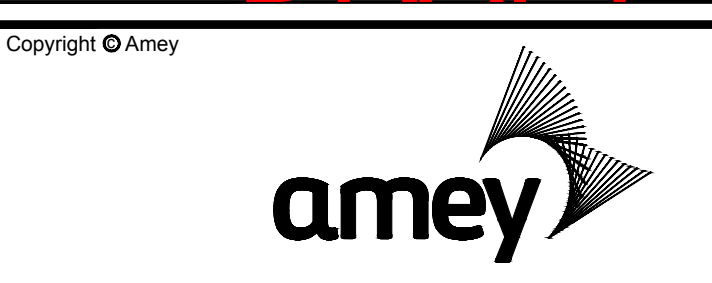
- WATER COURSES**
- MAJOR RIVER
 - DRAINS AND OTHER MINOR COURSES
 - PONDS AND OTHER ACCUMULATION AREAS

- UK BIODIVERSITY ACTION PLAN (BAP) PRIORITY HABITATS**
- COASTAL AND FLOODPLAIN GRAZING GRASSLAND
 - DECIDUOUS WOODLAND
 - LOWLAND CALCAREOUS GRASSLAND
 - LOWLAND FENS
 - LOWLAND MEADOWS
 - REEDBEDS
 - TRADITIONAL ORCHARDS
 - NO DOMINANT PRIORITY HABITAT PRESENT*

*ADDITIONAL PRIORITY HABITATS MAY BE PRESENT, BUT OF LOWER CONFIDENCE OF DETERMINATION AND MAPPING.

Rev	Revision details	Drwn	Chkd	Appd	Date

Designed: GC	Date: .
Drawn: MV	Date: .
Checked: DH	Date: .
Approved: DH	Date: .



Client
Highways England
Woodlands
Manton Lane
Bedford
MK41 7LW

Project Name
A47 CORRIDOR - STAGE 2

Drawing Title
**A47 SCHEMES
WANSFORD TO SUTTON -
OPTION 2 (PRA VARIATION)
PLAN AND LONG SECTION**

Original Drawing Size: A1
Dimensions: -
Scale: AS SHOWN

Drawing Status
WORK IN PROGRESS

Drawing No
HE551494-AMY-HGN-WS_STG2-DR-HE-032
Suitability
S0
Rev
-

Level Datum =21.000

PROPOSED	23.697	23.066	23.396	24.688	26.758	26.544	29.875	30.752	31.174	31.160	31.029	30.887	30.694	30.247	28.559	28.298
EXISTING	23.674	22.417	21.438	24.575	26.526	28.414	29.845	30.501	31.386	31.171	30.831	30.106	29.533	28.761	27.983	27.234
HORIZ. ALIGN.	D=100.909m R=2600.000m L=174.544m R=-360.000m L=173.337m R=-360.000m L=114.778m															
VERTICAL ALIGN.	R=2600.000m L=174.544m L=261.363m R=-5500.000m L=126.068m P=-0.263%															
LVL. DIFF	0.024	0.650	1.960	0.113	-0.168	0.129	0.031	0.251	-0.194	-0.011	0.198	0.791	1.341	1.467	1.577	1.392
CHAINAGE	0+000	50+000	100+000	150+000	200+000	250+000	300+000	350+000	400+000	450+000	500+000	550+000	600+000	650+000	700+000	750+000

LONG SECTION - VARIANT TO OPTION 2 (FREE FLOW SLIP)
HORIZONTAL SCALE 1:5000 VERTICAL SCALE 1:500

PLAN - VARIANT TO OPTION 2

Level Datum =9.000

PROPOSED	33.389	32.410	31.695	31.176	30.532	29.752	28.834	27.778	26.591	25.309	25.255	23.788	22.188	21.158	20.441	19.375	18.743	17.527	16.808	16.297	15.795	15.273	14.761	14.250	13.738	13.224	12.705	12.188	11.674	11.156	10.638	10.114	9.594	9.074	8.554	8.034	7.514	6.994	6.474	5.954	5.434	4.914	4.394	3.874	3.354	2.834	2.314	1.794	1.274	0.754	0.234	-0.286	-0.806	-1.326	-1.846	-2.366	-2.886	-3.406	-3.926	-4.446	-4.966	-5.486	-6.006	-6.526	-7.046	-7.566	-8.086	-8.606	-9.126	-9.646	-10.166	-10.686	-11.206	-11.726	-12.246	-12.766	-13.286	-13.806	-14.326	-14.846	-15.366	-15.886	-16.406	-16.926	-17.446	-17.966	-18.486	-19.006	-19.526	-20.046	-20.566	-21.086	-21.606	-22.126	-22.646	-23.166	-23.686	-24.206	-24.726	-25.246	-25.766	-26.286	-26.806	-27.326	-27.846	-28.366	-28.886	-29.406	-29.926	-30.446	-30.966	-31.486	-32.006	-32.526	-33.046	-33.566	-34.086	-34.606	-35.126	-35.646	-36.166	-36.686	-37.206	-37.726	-38.246	-38.766	-39.286	-39.806	-40.326	-40.846	-41.366	-41.886	-42.406	-42.926	-43.446	-43.966	-44.486	-45.006	-45.526	-46.046	-46.566	-47.086	-47.606	-48.126	-48.646	-49.166	-49.686	-50.206	-50.726	-51.246	-51.766	-52.286	-52.806	-53.326	-53.846	-54.366	-54.886	-55.406	-55.926	-56.446	-56.966	-57.486	-58.006	-58.526	-59.046	-59.566	-60.086	-60.606	-61.126	-61.646	-62.166	-62.686	-63.206	-63.726	-64.246	-64.766	-65.286	-65.806	-66.326	-66.846	-67.366	-67.886	-68.406	-68.926	-69.446	-69.966	-70.486	-71.006	-71.526	-72.046	-72.566	-73.086	-73.606	-74.126	-74.646	-75.166	-75.686	-76.206	-76.726	-77.246	-77.766	-78.286	-78.806	-79.326	-79.846	-80.366	-80.886	-81.406	-81.926	-82.446	-82.966	-83.486	-84.006	-84.526	-85.046	-85.566	-86.086	-86.606	-87.126	-87.646	-88.166	-88.686	-89.206	-89.726	-90.246	-90.766	-91.286	-91.806	-92.326	-92.846	-93.366	-93.886	-94.406	-94.926	-95.446	-95.966	-96.486	-97.006	-97.526	-98.046	-98.566	-99.086	-99.606	-100.126	-100.646	-101.166	-101.686	-102.206	-102.726	-103.246	-103.766	-104.286	-104.806	-105.326	-105.846	-106.366	-106.886	-107.406	-107.926	-108.446	-108.966	-109.486	-110.006	-110.526	-111.046	-111.566	-112.086	-112.606	-113.126	-113.646	-114.166	-114.686	-115.206	-115.726	-116.246	-116.766	-117.286	-117.806	-118.326	-118.846	-119.366	-119.886	-120.406	-120.926	-121.446	-121.966	-122.486	-123.006	-123.526	-124.046	-124.566	-125.086	-125.606	-126.126	-126.646	-127.166	-127.686	-128.206	-128.726	-129.246	-129.766	-130.286	-130.806	-131.326	-131.846	-132.366	-132.886	-133.406	-133.926	-134.446	-134.966	-135.486	-136.006	-136.526	-137.046	-137.566	-138.086	-138.606	-139.126	-139.646	-140.166	-140.686	-141.206	-141.726	-142.246	-142.766	-143.286	-143.806	-144.326	-144.846	-145.366	-145.886	-146.406	-146.926	-147.446	-147.966	-148.486	-149.006	-149.526	-150.046	-150.566	-151.086	-151.606	-152.126	-152.646	-153.166	-153.686	-154.206	-154.726	-155.246	-155.766	-156.286	-156.806	-157.326	-157.846	-158.366	-158.886	-159.406	-159.926	-160.446	-160.966	-161.486	-162.006	-162.526	-163.046	-163.566	-164.086	-164.606	-165.126	-165.646	-166.166	-166.686	-167.206	-167.726	-168.246	-168.766	-169.286	-169.806	-170.326	-170.846	-171.366	-171.886	-172.406	-172.926	-173.446	-173.966	-174.486	-175.006	-175.526	-176.046	-176.566	-177.086	-177.606	-178.126	-178.646	-179.166	-179.686	-180.206	-180.726	-181.246	-181.766	-182.286	-182.806	-183.326	-183.846	-184.366	-184.886	-185.406	-185.926	-186.446	-186.966	-187.486	-188.006	-188.526	-189.046	-189.566	-190.086	-190.606	-191.126	-191.646	-192.166	-192.686	-193.206	-193.726	-194.246	-194.766	-195.286	-195.806	-196.326	-196.846	-197.366	-197.886	-198.406	-198.926	-199.446	-199.966	-200.486	-201.006	-201.526	-202.046	-202.566	-203.086	-203.606	-204.126	-204.646	-205.166	-205.686	-206.206	-206.726	-207.246	-207.766	-208.286	-208.806	-209.326	-209.846	-210.366	-210.886	-211.406	-211.926	-212.446	-212.966	-213.486	-214.006	-214.526	-215.046	-215.566	-216.086	-216.606	-217.126	-217.646	-218.166	-218.686	-219.206	-219.726	-220.246	-220.766	-221.286	-221.806	-222.326	-222.846	-223.366	-223.886	-224.406	-224.926	-225.446	-225.966	-226.486	-227.006	-227.526	-228.046	-228.566	-229.086	-229.606	-230.126	-230.646	-231.166	-231.686	-232.206	-232.726	-233.246	-233.766	-234.286	-234.806	-235.326	-235.846	-236.366	-236.886	-237.406	-237.926	-238.446	-238.966	-239.486	-240.006	-240.526	-241.046	-241.566	-242.086	-242.606	-243.126	-243.646	-244.166	-244.686	-245.206	-245.726	-246.246	-246.766	-247.286	-247.806	-248.326	-248.846	-249.366	-249.886	-250.406	-250.926	-251.446	-251.966	-252.486	-253.006	-253.526	-254.046	-254.566	-255.086	-255.606	-256.126	-256.646	-257.166	-257.686	-258.206	-258.726	-259.246	-259.766	-260.286	-260.806	-261.326	-261.846	-262.366	-262.886	-263.406	-263.926	-264.446	-264.966	-265.486	-266.006	-266.526	-267.046	-267.566	-268.086	-268.606	-269.126	-269.646	-270.166	-270.686	-271.206	-271.726	-272.246	-272.766	-273.286	-273.806	-274.326	-274.846	-275.366	-275.886	-276.406	-276.926	-277.446	-277.966	-278.486	-279.006	-279.526	-280.046	-280.566	-281.086	-281.606	-282.126	-282.646	-283.166	-283.686	-284.206	-284.726	-285.246	-285.766	-286.286	-286.806	-287.326	-287.846	-288.366	-288.886	-289.406	-289.926	-290.446	-290.966	-291.486	-292.006	-292.526	-293.046	-293.566	-294.086	-294.606	-295.126	-295.646	-296.166	-296.686	-297.206	-297.726	-298.246	-298.766	-299.286	-299.806	-300.326	-300.846	-301.366	-301.886	-302.406	-302.926	-303.446	-303.966	-304.486	-305.006	-305.526	-306.046	-306.566	-307.086	-307.606	-308.126	-308.646	-309.166	-309.686	-310.206	-310.726	-311.246	-311.766	-312.286	-312.806	-313.326	-313.846	-314.366	-314.886	-315.406	-315.926	-316.446	-316.966	-317.486	-318.006	-318.526	-319.046	-319.566	-320.086	-320.606	-321.126	-321.646	-322.166	-322.686	-323.206	-323.726	-324.246	-324.766	-325.286	-325.806	-326.326	-326.846	-327.366	-327.886	-328.406	-328.926	-329.446	-329.966	-330.486	-331.006	-331.526	-332.046	-332.566	-333.086	-333.606	-334.126	-334.646	-335.166	-335.686	-336.206	-336.726	-337.246	-337.766	-338.286	-338.806	-339.326	-339.846	-340.366	-340.886	-341.406	-341.926	-342.446	-342.966	-343.486	-344.006	-344.526	-345.046	-345.566	-346.086	-346.606	-347.126	-347.646	-348.166	-348.686	-349.206	-349.726	-350.246	-350.766	-351.286	-351.806	-352.326	-352.846	-353.366	-353.886	-354.406	-354.926	-355.446	-355.966	-356.486	-357.006	-357.526	-358.046	-358.566	-359.086	-359.606	-360.126	-360.646	-361.166	-361.686	-362.206	-362.726	-363.246	-363.766	-364.286	-364.806	-365.326	-365.846	-366.366	-366.886	-367.406	-367.926	-368.446	-368.966	-369.486	-370.006	-370.526	-371.046	-371.566	-372.086	-372.606	-373.126	-373.646	-374.166	-374.686	-375.206	-375.726	-376.246	-376.766	-377.286	-377.806	-378.326	-378.846	-379.366	-379.886	-380.406	-380.926	-381.446	-381.966	-382.486	-383.006	-383.526	-384.046	-384.566	-385.086	-385.606	-386.126	-386.646	-387.166	-387.686	-388.206	-388.726	-389.246	-389.766	-390.286	-390.806	-391.326	-391.846	-392.366	-392.886	-393.406	-393.926	-394.446	-394.966	-395.486	-396.006	-396.526	-397.046	-397.566	-398.086	-398.606	-399.126	-399.646	-400.166	-400.686	-401.206	-401.726	-402.246	-402.766	-403.286	-403.806	-404.326	-404.846	-405.366	-405.886	-406.406	-406.926	-407.446	-407.966	-408.486	-409.006	-409.526	-410.046	-410.566	-411.086	-411.606	-412.126	-412.646	-413.166	-413.686	-414.206	-414.726	-415.246	-415.766	-416.286	-416.806	-417.326	-417.846	-418.366	-418.886	-419.406	-419.926	-420.446	-420.966	-421.486	-422.006	-422.526	-423.046	-423.566	-424.086	-424.606	-425.126	-425.646	-426.166	-426.686	-427.206	-427.726	-428.246	-428.766	-429.286	-429.806	-430.326	-430.846	-431.366	-431.886	-432.406	-432.926	-433.446	-433.966	-434.486	-435.006	-435.526	-436.046	-436.566	-437.086	-437.606	-438.126	-438.646	-439.166	-439.686	-440.206	-440.726	-441.246	-441.766	-442.286	-442.806	-443.326	-443.846	-444.366	-444.886	-445.406	-445.926	-446.446	-446.966	-447.486	-448.006	-448.526	-449.046	-449.566	-450.086	-450.606	-451.126	-451.646	-452.166	-452.686	-453.206	-453.726	-454.246	-454.766	-455.286	-455.806	-456.326	-456.846	-457.366	-457.886	-458.406	-458.926	-459.446	-459.966	-460.486	-461.006	-461.526	-462.046	-462.566	-463.086	-463.606	-464.126	-464.646	-465.166	-465.686	-466.206	-466.726	-467.246	-467.766	-468.286	-468.806	-469.326	-469.846	-470.366	-470.886	-471.406	-471.926	-472.446	-472.966	-473.486	-474.006	-474.526	-475.046	-475.566	-476.086	-476.606	-477.126	-477.646	-478.166	-478.686	-479.206	-479.726	-480.246	-480.766	-481.286	-481.806	-482.326	-482.846	-483.366	-483.886	-484.406	-484.926	-485.446	-485.966	-486.486	-487.006	-487.526	-488.046	-488.566	-489.086	-489.606	-490.126	-490.646	-491.166	-491.686	-492.206	-492.726	-493.246	-493.766	-494.286	-494.806	-495.326	-495.846	-496.366	-496.886	-497.406	-497.926	-498.446	-498.966	-499.486	-500.006
EXISTING	33.136	32.065	30.162	28.234	26.444	27.663	26.946	26.581	25.309	24.430	23.071	21.158	19.375	17.174	17.004	16.086	15.164	14.369	12.628	13.954	14.216	13.537	11.596	10.086	9.240	11.416	13.892	12.804	16.924	19.708	20.058	20.444	26.323	26.520	26.309	20.034	19.523	19.081	19.546	18.902	19.157	19.217	19.217	19.217	1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								

Appendix Q: Response to Filtered Public Comments

Document	A47_Wansford - Raw Data by Code Applied
Client	Amey and Highways England
Company	Dialogue by Design
Title	Raw Data by Code Applied Stage 2 Consultation March/April 2017
Subtitle	
Date	07/07/2017
Status	Final
Classification	Restricted External
Project Code	AMEY1
Main point of contact	Barry Grimes
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This report shows all coded response data sorted by Theme, Code, Consultation Question, User ID, Organisation, Coded Text, during the Stage 2 Consultation March/April 2017.

This can be used to review all the response text according to the codes applied. If you wish to examine the detail of responses coded as 'SCH - Concern - value for money', you can do so by filtering the data in this spreadsheet for that code.

To attribute a response to a respondent, look for the User ID in the document 'A47_Wansford - User List'.

Wansford SAR Appendix Q Responses to Filtered Public Comments by Design/Route

Theme	Code	Coded Text	SAR Response
General (GE)	GE - Design / route	The proposed junction at the foot of the Upton minor, 'Farm' road is not viable. This should be shut to all vehicles except farm access possibly.Ø	side road / junction comment which will be reviewed during PCF Stage 3 as part of the preliminary design.
		Upton access to Langley Bush Road is via a very small minor road which is suitable for farm traffic and local residents	
General (GE)	GE - Design / route	The slip road from the southbound A1 to the eastbound A47 is a joke (based on the diagrams provided). It needs to be several times longer. Compare the slip roads at Carpenters Lodge, with the slip road from the A1M southbound to the A14 spur. The new slip road needs to be similar to the A1M/ A14 spur. I am sure that vehicle counts would show which is the busier junction	side road / junction comment which will be reviewed during PCF Stage 3 as part of the preliminary design
		You will be aware that the Parish Council has considerable reservations as to the efficacy of the A1/A47 western flyover roundabout junction which I fully agree with	
General (GE)	GE - Design / route	Barnack Parish Council is particularly concerned that apart from option 2, and if there is a flyover on option 3 (not shown) there appears to be no facility for traffic from Sutton Heath Road to join the A47 or for traffic from the A47 to join the Sutton Heath Road	side road / junction comment which will be reviewed during PCF Stage 3 as part of the preliminary design
		We are concerned to see that apart from the slip road from the A1 no proposals are shown to address the problems of long tailbacks which occur during peak times in both directions on the A47 itself	
General (GE)	GE - Design / route - lorry park	Access to the informal Lorry park should be signposted and its existence recognised (dead end road south of A47 at this point)	Opportunities to use designated funds to make improvements to the Lorry Park will be investigated in PCF Stage 3
		You have not included reference to the Lorry Park/ driver rest area/picnic spot as part of your scope (its the dead end road to the south, between the A47 and the Nene).Ø	
General (GE)	GE - Design / route - lorry park	This is a well used lorry park (a rare thing) , is a driver rest area, has a closed public toilet, poor litter control, a beautiful view of the River Nene eastwards - there appear to be scope for physical improvement on the back of your A47 scheme.Ø	Opportunities to use designated funds to make improvements to the Lorry Park will be investigated in PCF Stage 3
		I suggest you recognising continued safe access is needed and its value to lorry parking and public recreation	
General (GE)	GE - Design / route - lorry park	Whilst dealing with the road also deal with the lorry park area near the petrol station which is really unsavoury and attracts some very dubious people. whatever happens do not enhance it as a destination where it becomes even more off the beaten track and just then encourages more activity	Opportunities to use designated funds to make improvements to the Lorry Park will be investigated in PCF Stage 3
		1. It appears that all 3 options would make a dead end of Sutton Heath Road. There have been many fatalities at its junction with the A47 and drivers should be made to turn left and then right at the Sutton Junction	
General (GE)	GE - Design / route - Sutton Heath Road Junction	From my parish council's point of view we need to retain an access to replace the one from Sutton Heath Road. The best solution would be to abandon the Eastern/Sutton/Upton Roundabout and to connect Sutton Heath road to the drift at a new roundabout to the West	side road / junction comment which will be reviewed during PCF Stage 3 as part of the preliminary design
		Roundabout at Sutton Heath Road would reduce accidents and could improve flow during Burghley Horse Trials (September annually)	
General (GE)	GE - Design / route - Sutton Heath Road Junction	There is nothing on any of the 3 options that explains how the Sutton Heath junction will be incorporated	side road / junction comment which will be reviewed during PCF Stage 3 as part of the preliminary design
		The possibility of moving the roundabout at Sutton back towards Wansford to the Sutton Heath road (as discussed at one of the consultation meetings) would seem to be a good solution, and could provide better access into Sacrewell if the entrance came from the Sutton Heath road across the fields	
General (GE)	GE - Design / route - Sutton Heath Road Junction	Although it seems that little thought has been given to the 'proposed junctions' and the junction with the Sutton Heath Road and access for the people of Sutton, the problems are the same for all three proposed options, as are those for Sacrewell Farm Centre, the filling station, the Wansford - Stamford railway crossing and the Wansford Picnic area	side road / junction comment which will be reviewed during PCF Stage 3 as part of the preliminary design
		The justification for the potential relocation of this junction that it would permit the closure of the existing priority junctions where Sutton HeathØ	
General (GE)	GE - Design / route - Sutton Heath Road Junction	Road and The Drift meet the A47 is understood	side road / junction comment which will be reviewed during PCF Stage 3 as part of the preliminary design
		As shown in the HE Options document there would need to be a new round-a-bout at the Sutton Heath Road junction, too close to the existing Sutton/Upton round-about and, potentially, a new round-a-bout at The Drift into Sutton. Three round-a-bouts within a very short distance	

Theme	Code	Coded Text	
Option 1 (O1)	O1 - Design / route	The existing road is straight enough for people to be lulled into overtaking but not straight enough to give a clear line of vision. When I'm cycling along the new road I would like to be visible from a long way away	Visibility and line of vision will be considered as the design develops in later PCF Stages
		To keep existing route without disrupting the bungalow on right side as you go towards Peterborough before the Sutton turn to the right. Likewise the house on the left.Ø	
Option 1 (O1)	O1 - Design / route	I believe part of the old railway building near the bridge as you go towards Peterborough.Ø	Every effort will be made to minimise impact on properties, however inevitably there may be demolition of property depending on which route is selected as preferred route
		To spend less money on re-routing	
Option 1 (O1)	O1 - Design / route	Too many round-a-bouts needed in a short distance	side road / junction comment which will be reviewed during PCF Stage 3 as part of the preliminary design
		If the junction from the drift was closer it would be better	
Option 1 (O1)	O1 - Design / route	The western section of the road will have to be moved somewhat north in any event as it is embanked to the south.Ø	Option preference comment
		To expand this embankment would impinge on the river Nene's floodplain and be unnecessarily costly	
Option 1 (O1)	O1 - Design / route	Still not straight	Option preference comment
		It does seem logical to follow the existing route but the bridge over the old railway does have a poor angle to get between the two properties either side. Ø	
Option 1 (O1)	O1 - Design / route	The western side will have to be moved more into Sacrewell farm (North of road) as south is unstable land	Ground Investigations will be carried out early in PCF Stage 3 as part of preliminary design.
		The biggest plan would be the old railway bridge how to remove the twist and turn if on the same route I am concerned that there is no detail on the proposed junction at the eastern end which would not be able to cope in its current roundabout configuration. If left as a roundabout it would quickly become congested and dangerous for traffic using the side roads getting onto the A47	
Option 1 (O1)	O1 - Design / route	The existing alignment has numerous bends in the road	Option preference comment
		It has the key features of an A1 freeflow slip road and dualling to Sutton roundabout	
Option 1 (O1)	O1 - Design / route	Also I don't think the line of the existing road is suitable as a dual carriage way	Option preference comment
		The road is also too close to the river and hence the existing is subject to landslip	
Option 1 (O1)	O1 - Design / route	It is not a practical solution as the twisting alignment at the old railway bridge needs to be addressed	Option preference comment
		1. The route is described as 'on the line' of the existing road but in fact it will need to have a far wider profile to accommodate 4 lanes and reservations and earthworks etc. Ø	
Option 1 (O1)	O1 - Design / route - Sutton Heath Road Junction	2. The road should be constructed by excavating the land to the north to avoid it being on the horizon. All surplus soil should be formed into a bank so protecting Sacrewell from the sight and noise of the road	Option preference comment
		I think the proposed junction Sutton/Upton is not good	
Option 1 (O1)	O1 - Design / route - Sutton Heath Road Junction	What will happen to the Sutton Heath road junction	side road / junction comment which will be reviewed during PCF Stage 3 as part of the preliminary design
		It appears to do nothing to improve the junction of the A47 with Sutton Heath Road	
Option 1 (O1)	O1 - Design / route - Sutton Heath Road Junction	Sutton Heath Road or the Drift and the roundabout not sure how this would be addressed	side road / junction comment which will be reviewed during PCF Stage 3 as part of the preliminary design

Theme	Code	Coded Text	
Option 2 (O2)	O2 - Design / route	Not sure about this - seems to be too much weaving about and leaves some strange left over old A47 and junctions	side road / junction comment which will be reviewed during PCF Stage 3 as part of the preliminary design
		the bungalow on the south lane which is now in an incongruous place and could do away with the trucker's lay-by which has been a long term problem for crime and an embarrassment to local walkers, cyclists and runners who frequently get an eye full	
Option 2 (O2)	O2 - Design / route	Too costly and too many round-a-bouts needed	side road / junction comment which will be reviewed during PCF Stage 3 as part of the preliminary design
		The west section heavily impacts on Sacrewell and also brings it closer to Windgate Way which is already badly affected by the proximity of the A1 and the A47	
Option 2 (O2)	O2 - Design / route	ROAD STARTING TO LOOK LIKE A DOGS HIND LEG !!! THE ROMANS INTRODUCED STRAIGHT ROADS AND THIS HAS GONE AWAY FROM THAT	Option preference comment
		ROUTES MUCH CLOSER TO SUTTON VILLAGE WITH THE NOISE DISTURBANCE AND ALSO VERY CLOSE TO THE RIVER NENE	
Option 2 (O2)	O2 - Design / route	THERE IS A LARGE POND AREA CLOSE TO EASTERN ROUNDABOUT AND THIS ROUTE GOES STRAIGHT THROUGH IT. THIS POND DRAINS ALL THE LAND TO THE NORTH OF THE EXISTING A47	Option 2 has been re-aligned so is as close to the existing route as possible
		The proposed route, has an area near to the River Nene, which floods regularly. To prevent the new carriage way being flooded, it would need to be embanked, and in the medium term, settlement could result in extra repair costs, and congestion during the remedial work	
Option 2 (O2)	O2 - Design / route	Option 2 is unsuitable as it will require the acquisition of new land at significant cost and still leaves us with too many round-a-bouts	Option preference comment
		However unless there is a junction or flyover, which is not shown to the west, the traffic is unable to join the A1 unless it goes East first	
Option 2 (O2)	O2 - Design / route	We have also taken into consideration that option 2, by building some of the new carriage way south of the existing road might involve considerable difficulties in its construction	Ground Investigations will be carried out early in PCF Stage 3 as part of preliminary design.
		Comment on Option 2 Ø	
Option 2 (O2)	O2 - Design / route - Sutton Heath Road Junction	1. The alignment of this route is closer to and will cause more noise/ visual intrusion/ pollution to Sutton village and Sacrewell	Option 2 has been re-aligned so is as close to the existing route as possible moving away from Sutton Village
		It also appears to provide a means of safely connecting the southern end of Sutton Heath Road with the A47 Sutton roundabout using a section of the 'old' A47 to connect directly with the Sutton roundabout	
Option 2 (O2)	O2 - Design / route - too far south	It drops to far south	Option preference comment
		I do not see the point of taking a more southerly route for the A47 to Wansford	
Option 2 (O2)	O2 - Design / route - too far south	To take the road south brings the road too near the village of Sutton. This will cause unnecessary pollution in the village, which would be avoided by taking the road to the North	Option 2 has been re-aligned so is as close to the existing route as possible moving away from Sutton Village
		Do not want the road any more south than it already is	

Theme	Code	Coded Text	
Option 3 (O3)	O3 - Design / route	Land in use better than other options ie not near sites or the subsidence that occurred at garage/ pumping station	Option preference comment
		Land to north of existing road appears to be on stone!Ø	
Option 3 (O3)	O3 - Design / route	Leaves the existing carriageway open to Wansford!Ø	side road / junction comment which will be reviewed during PCF Stage 3 as part of the preliminary design
		New junction required (roundabout?) for the Southorpe exit	
Option 3 (O3)	O3 - Design / route	Two, to allow the state, flow of traffic eastbound from Sutton Heath Road and Langley Bush Road. The entry to the A47 from three roads should only be westbound. Currently the junction is lethal. It is sited on a bend, and on a hill!	side road / junction comment which will be reviewed during PCF Stage 3 as part of the preliminary design
		A good sweeping curve, away from Sutton, and North of the old station (unless that can be moved) into agricultural land away from settlements	
Option 3 (O3)	O3 - Design / route	It also avoids the area closer to the river to the south which does tend to flood in heavy rains	Option preference comment
		ROUTE IS FURTHER AWAY FROM SUTTON VILLAGE. IT IS A STRAIGHT ROAD	
Option 3 (O3)	O3 - Design / route	Ability to design good new junctions and make use of existing road as cycleway/local service road	Option preference comment
		This is the sensible choice with changes to the southorpe / Sutton heath junction to allow access from both directions	
Option 3 (O3)	O3 - Design / route	Will go over open land and should not disrupt the traffic and local wildlife area	Option preference comment
		however protection of the woodland should also mean the road is brought south a little more at that point	
Option 3 (O3)	O3 - Design / route	Appears to be the most direct alignment, and potentially avoids flooding from the River Nene (or reduces mitigation measures required of the scheme)	Option preference comment
		Option 3 is the correct solution as I believe that the A47 northern shelter belt is HE property and little new land would be required. This Option also offers the opportunity to remove an accident black spot (A47/Sutton Heath junction) and improve access and traffic flows.Ø	
Option 3 (O3)	O3 - Design / route	As shown in the HE Options document there would need to be a new round-a-bout at the Sutton Heath Road junction, too close to the existing Sutton/Upton round-about and, potentially, a new round-a-bout at The Drift into Sutton. Three round-a-bouts within a very short distance.Ø	Option preference comment.
		Re-routing the Sutton Heath Road to the SE to a new round-a-bout on the proposed dualled A47 provides access to both Sutton and the Sutton Heath Road. This allows the removal of the existing Sutton round-a-bout and the use of the existing A47 as the local service road. One round-a-bout instead of 3 and a solution to the A47/Sutton Heath Road junction accident black spot as shown in Drawing No.1	
Option 3 (O3)	O3 - Design / route	Option 3 Ø	side road / junction comment which will be reviewed during PCF Stage 3 as part of the preliminary design
		Build a new Dual Carriage way to the north of the existing A47 Ø	
Option 3 (O3)	O3 - Design / route	- Complete new positioning of Dual carriage way	Option preference comment

Appendix R: ASTs for Options 1, 2, 3

Appraisal Summary Table				Date produced:		27/11/2017					Contact:			
Name of scheme:			A47 Wansford to Sutton Dualling - Option 1								Name	Brian Smith		
Description of scheme:			This option relates to the A47 between the A1 and Sutton. The section of single carriageway between Wansford and Sutton would be improved to current dual carriageway standard. The western end of Option 1 incorporates a free flow link from A1 South to A47 East. The alignment of the new dual carriageway would be on the line of the existing carriageway.								Organisation	Amey		
											Role	Transport Planner		
Impacts			Summary of key impacts				Assessment							
Economy			The scheme results in significant journey time benefits for most users. At 2036 traffic levels the scheme benefits all journeys from the A1 north by up to 8 minutes, from the A47 west by up to 11 minutes and from Sutton Heath Road by up to 8 minutes. 57% of Transport Economic Efficiency (TEE) falls on business users. Option 1 has the shortest A47 link from Wansford to Sutton and therefore the lowest average journey times and largest TEE.				Quantitative		Qualitative	Monetary £(NPV)	Distributional 7-pt scale/ vulnerable grp			
							Value of journey time changes(£)		£146.0m	Large Beneficial	£146.0m	Benefits are proportional to deprivation decile for all users		
							Net journey time changes (£)							
							0 to 2min	2 to 5min	> 5min					
							£35.6m	£39.5m	£70.9m					
Reliability impact on Business users			Reliability impact cannot be quantified for a rural single carriageway using MyRIAD or methodologies from WebTAG Unit A1.3. Qualitative scores have been based on day-to-day variability (DDV) calculated in WebTAG's Scheme Assessment Report (SAR) Worksheet and incident-related variability (IRV) calculated from the COBALT accident analysis. The scheme results in additional link capacity on the A47 and junction capacity at Wansford; the dual carriageway also improves route resilience so the effect on reliability is positive.				DDV: 8,115 PCU per week benefit from congestion relief in opening year. IRV: 1,682 accidents prevented over appraisal period		Large Beneficial					
Regeneration			The expected journey time benefits are likely to support planned regeneration in the Peterborough area, with associated reductions in unemployment levels.						Slight Beneficial					
Wider Impacts			Reductions in user costs through journey time improvements will allow companies to profitably increase output. This output change owing to imperfect competition provides an economic benefit estimated at 10% of all journey time benefits for business users as per WebTAG A2.1 Paragraph 4.1.9. There will be a slight economic benefit for the wider area.						Slight Beneficial	£14.6m				
Environmental			Noise				Households experiencing increased daytime noise in forecast year: 90 Households experiencing reduced daytime noise in forecast year: 1 Households experiencing increased night time noise in forecast year: 55 Households experiencing reduced night time noise in forecast year: 0		Slight Adverse	Cost £0.4m	Moderate adverse for vulnerable groups			
			Air Quality				Assessment Score PM10 = +72 NOx = -37 Emissions NOx (opening year) = 52.9 tonnes NOx (opening year change) = -3.4 tonnes		Slight Adverse	Cost £0.1m	For the opening year, there are adverse impacts for NO2, and beneficial impacts for PM10 in the 60-80% quintile and the 80-100% quintile. The presence of adverse effects in the higher category can have a disproportionate adverse impact on the lower category. This results in an overall neutral impact for this assessment year. For the operational year, there are beneficial impacts only for NO2 to the 80-100% quintile. This is offset by adverse impacts in all other categories and quintiles. This results in an overall moderate adverse impact for this assessment year. Adverse effects within the study area have a disproportionate effect on the young population in the area due to their increase vulnerability. The overall impact is moderate adverse.			
			Greenhouse gases				Change in non-traded carbon over 60y (CO2e)		Not yet calculated	Neutral	Not calculated at this stage			
							Change in traded carbon over 60y (CO2e)		Not yet calculated					
			Landscape						Slight Adverse					
			Townscape				All options are located to the east of the A1, so the changes will not have an effect on Wansford; and none of the options will affect the physical townscape of Sutton.		Neutral					
			Historic Environment				At this stage, it is assumed that Option 1 will not impact upon the Scheduled Monument, but this would require review should road-widening of the east-bound carriageway be proposed. It will have a direct impact upon undesignated potentially nationally and regionally important archaeological assets. It would have a direct adverse impact upon a structure (the historic bridge) which currently carries the A47 across the disused railway line. Option 1 could have a possible indirect adverse impact upon the settings of the Listed Buildings, though it would probably be of negligible significance. The overall impact upon the historic environment, taking into account the effects upon the archaeological resource would be a Moderate Adverse impact.		Moderate Adverse					
Biodiversity				Option 1 has been identified as the preferred option when considering ecological receptors as a result of its being primarily online. It will have a moderate adverse impact on A47/A1 Interchange Road Verges County Wildlife Site (CWS), a slight impact on Sutton Meadows North and local temporary effects on otter and bat species. It is considered that all of these can be mitigated or compensated. Overall Minor adverse.		Slight Adverse								
Water Environment				Option 1 has the potential to result in minor adverse impacts on the surface water features/abstractions within the study area and have a minor adverse impact fluvial flooding upstream and downstream of the structures. Overall Minor adverse.		Slight Adverse								
Social			Commuting and Other users				Value of journey time changes(£)		£101.6m	Large Beneficial	£101.6m	Benefits are proportional to deprivation decile for all users		
							Net journey time changes (£)							
							0 to 2min	2 to 5min	> 5min					
							£27.3m	£29.8m	£44.6m					
			Reliability impact on Commuting and Other users				Reliability impact cannot be quantified for a rural single carriageway using MyRIAD or methodologies from WebTAG Unit A1.3. Qualitative scores have been based on DDV calculated in WebTAG's SAR Worksheet and IRV calculated from the COBALT accident analysis. The scheme results in additional link capacity on the A47 and junction capacity at Wansford; the dual carriageway also improves route resilience so the effect on reliability is positive.		DDV: 8,115 PCU per week benefit from congestion relief in opening year. IRV: 1,682 accidents prevented over appraisal period		Large Beneficial			
			Physical activity				There is limited use of the route by non-motorised users (NMUs) at present. This option has no effect on the Wansford to Sutton corridor. The repositioning of Sutton Roundabout increases the journey time on the cycle route between Sutton and Upton, but most users are unaffected.				Neutral			
			Journey quality				The reduction in queues and at-grade traffic conflicts reduces both driver frustration and the fear of accidents. Provision of a dual carriageway A47 allows vehicles to overtake safely, also reducing both frustration and fear of accidents. There is a slight disbenefit in that A47 eastbound travellers can no longer access the services east of Sacrewell and must U-turn at The Drift.				Moderate to Large Beneficial			
			Accidents				The number of accidents within the scheme extents is reduced by 54%. Removing conflicts for at-grade junctions on the A47, improving the A47 alignment to a modern standard and reducing queues on the A1 southbound mainline at Wansford generates significant road user safety benefits. As the A47 link is shortest in Option 1 this contributes to a reduced accident rate there relative to Options 2 and 3.		191 injury accidents and 1,492 damage-only accidents prevented. 7 fatal, 42 serious and 269 slight casualties prevented		Large Beneficial	£14.5m	Greater benefits for young road users who suffer disproportionately from injuries at present	
			Security				The realigned A47 allows for slightly improved sightlines. A reduction in vehicle idling reduces vulnerability to roadside crime but the risk at present is minimal. The overall magnitude of impacts is negligible.				Neutral		No impacts on NMUs measured	
			Access to services				No changes in access to services are expected.				Neutral		No impacts on any user group	
Affordability				Personal affordability is slightly improved as vehicle operating costs are reduced due to an overall fall in fuel use but the benefit per journey is negligible.		£0.1 million of private user VOC benefits		Neutral		Benefits per journey are negligible				
Severance				The provision of an overbridge at Sacrewell Farm allows NMUs to safely cross the A47 and provides additional links to Peterborough, Sutton and Wansford, but the lack of an improved onward link adjacent to the A47 limits benefits.				Slight Beneficial		Number of no-car households below average but no significant distributional impacts				
Option and non-use values				The scheme does not involve the loss or introduction of a new mode of transport. Option values are unaffected.				Neutral						
Public Accounts			Cost to Broad Transport Budget				£68.7 million cost to central government's broad transport budget			Cost £68.7m				
			Indirect Tax Revenues				£0.2 million benefit to wider public finances			£0.2m				

Appraisal Summary Table				Date produced:		27/11/2017						Contact:			
Name of scheme:			A47 Wansford to Sutton Dualling - Option 2									Name		Brian Smith	
Description of scheme:			This option relates to the A47 between the A1 and Sutton. The section of single carriageway between Wansford and Sutton would be improved to current dual carriageway standard. The western end of Option 2 incorporates a free flow link from A1 South to A47 East. The alignment of the new dual carriageway would be part offline to the north and part offline to the south of the existing carriageway.									Organisation		Amey	
												Role		Transport Planner	
Impacts			Summary of key impacts				Assessment								
							Quantitative			Qualitative		Monetary £(NPV)		Distributional 7-pt scale/ vulnerable grp	
Economy	Business users & transport providers	The scheme results in significant journey time benefits for most users. At 2036 traffic levels the scheme benefits all journeys from the A1 north by up to 8 minutes, from the A47 west by up to 11 minutes and from Sutton Heath Road by up to 8 minutes. 57% of Transport Economic Efficiency (TEE) falls on business users. Option 2 has the longest A47 link from Wansford to Sutton, and average journey times are a few seconds longer than in Option 1, resulting in slight reductions in benefits.	Value of journey time changes(£)		£145.0m		Large Beneficial		£145.0m	Benefits are proportional to deprivation decile for all users					
			Net journey time changes (£)												
			0 to 2min		2 to 5min						> 5min				
			£33.3m		£39.1m						£72.7m				
	Reliability impact on Business users	Reliability impact cannot be quantified for a rural single carriageway using MyRIAD or methodologies from WebTAG Unit A1.3. Qualitative scores have been based on day-to-day variability (DDV) calculated in WebTAG's Scheme Assessment Report (SAR) Worksheet and incident-related variability (IRV) calculated from the COBALT accident analysis. The scheme results in additional link capacity on the A47 and junction capacity at Wansford; the dual carriageway also improves route resilience so the effect on reliability is positive.	DDV: 8,110 PCU per week benefit from congestion relief in opening year. IRV: 1,660 accidents prevented over appraisal period				Large Beneficial								
	Regeneration	The expected journey time benefits are likely to support planned regeneration in the Peterborough area, with associated reductions in unemployment levels.					Slight Beneficial								
	Wider Impacts	Reductions in user costs through journey time improvements will allow companies to profitably increase output. This output change owing to imperfect competition provides an economic benefit estimated at 10% of all journey time benefits for business users as per WebTAG A2.1 Paragraph 4.1.9. There will be a slight economic benefit for the wider area.					Slight Beneficial		£14.5m						
Environmental	Noise	The proposed horizontal realignment associated with Option 2 is expected to result in a change in noise levels at some of the representative receptors including Deep Springs Old Leicester Road, Old Station House Sutton Heath Road and Heath House Sutton Heath Road. Option 2 moves the traffic noise source further away from Old Station House and Heath House potentially causing a reduction in noise levels at these receptors; similarly, there will be a beneficial effect at the Noise Important Area (NIA). One of the receptors (Old Station House) is potentially above the Significant Observed Adverse Effect Level (SOAEL) but Heath House is likely to be below the SOAEL. Option 2 is expected to significantly increase noise levels at the southwest façade of Deep Springs which is currently the relatively quiet façade but will become the noisy façade as a result of the proposals. The significance of effect for Option 2 is also expected to be between neutral and slight adverse as the proposals are expected to cause an increase in noise levels at sensitive receptors already above the SOAEL.	Households experiencing increased daytime noise in forecast year: 102 Households experiencing reduced daytime noise in forecast year: 1 Households experiencing increased night time noise in forecast year: 61 Households experiencing reduced night time noise in forecast year: 0				Slight Adverse		Cost £0.5m	Moderate adverse for vulnerable groups					
	Air Quality	Option 2 is considered to be the preferred option. Like option 1 the route provides no reason to acquire properties and no unacceptable exposures at new or existing sensitive receptors. The scores for option 2 are lower and this option has the highest beneficial impact of which is moderate at the commercial receptor R8 Snax 24. The overall impact is assessed as slight adverse.	Assessment Score PM10 = +72 NOx = -43 Emissions NOx (opening year) = 52.9 tonnes NOx (opening year change) = -3.4 tonnes				Slight Adverse		Cost £0.1m	For the opening year, there are adverse impacts for NO2, and beneficial impacts for PM10 in the 60-80% quintile and the 80-100% quintile. The presence of adverse effects in the higher category can have a disproportionate adverse impact on the lower category. This results in an overall neutral impact for this assessment year. For the operational year, there are beneficial impacts only for NO2 to the 80-100% quintile. This is offset by adverse impacts in all other categories and quintiles. This results in an overall moderate adverse impact for this assessment year. Adverse effects within the study area have a disproportionate effect on the young population in the area due to their increase vulnerability. The overall impact is moderate adverse					
	Greenhouse gases	Greenhouse gas emissions are related to traffic flows and traffic speed, based on the amount of fuel consumed and the amount of vehicle kilometres travelled. Whilst traffic volumes and speed are expected to increase as a result of the option, congestion would be reduced. It is considered unlikely that there would be any significant change in the emissions of greenhouse gases.	Change in non-traded carbon over 60y (CO2e)		Not yet calculated		Neutral		Not calculated at this stage						
	Change in traded carbon over 60y (CO2e)		Not yet calculated												
	Landscape	Option 2 proposes an offline realignment with land take to the south of the existing road resulting in impacts upon the River Nene valley and the long-distance walking route of Nene Way. In the context of national and local landscape character the option will result in impacts within a very small geographical area that will not affect key characteristics to the degree that distinctiveness or identity of character areas will be significantly affected.					Moderate Adverse								
	Townscape	All options are located to the east of the A1, so the changes will not have an effect on Wansford; and none of the options will affect the physical townscape of Sutton.					Neutral								
	Historic Environment	Option 2 avoids effects upon the Scheduled Monument, but will directly impact upon undesignated potentially nationally and regionally important archaeological assets. The option will require the removal of the undesignated Royal Observer Corps bunker. It could result in a minor indirect adverse impact upon the setting of listed buildings and the Conservation Area, although overall it would probably be of slight significance. The overall impact upon the historic environment, taking into account the effects upon the archaeological resource would be a Moderate Adverse impact.					Moderate Adverse								
	Biodiversity	Option 2 has been identified as the second preferred option when considering ecological receptors. Land-take from A47/A1 Interchange Road Verges County Wildlife Site (CWS), Sutton Disused Railway CWS and Sutton Meadows North CWS is significant and likely to impact the local biodiversity of these sites resulting in an over Moderate adverse score. It is not considered that there will be any impact on the Site of Special Scientific Interest (SSSI) or associated Desmoulin's Whorl Snail population. Other impacts are local and temporary.					Moderate Adverse								
	Water Environment	Option 2 will result in a significant infringement into the planning flood zones alongside the River Nene, hence Option 2 could have a potential moderate adverse impact on flood risks. Proximity of earthworks and embankment construction to the River Nene increases risk of pollution events. Overall moderate adverse					Moderate Adverse								
Social	Commuting and Other users	The scheme results in significant journey time benefits for most users. At 2036 traffic levels the scheme benefits all journeys from the A1 north by up to 8 minutes, from the A47 west by up to 11 minutes and from Sutton Heath Road by up to 8 minutes. 17% of TEE falls on commuters and 26% on non-commuting consumers. Option 2 has the longest A47 link from Wansford to Sutton, and average journey times are a few seconds longer than in Option 1, resulting in slight reductions in benefits.	Value of journey time changes(£)		£101.6m		Large Beneficial		£101.6m	Benefits are proportional to deprivation decile for all users					
			Net journey time changes (£)												
			0 to 2min		2 to 5min						> 5min				
			£25.1m		£30.1m						£45.7m				
	Reliability impact on Commuting and Other users	Reliability impact cannot be quantified for a rural single carriageway using MyRIAD or methodologies from WebTAG Unit A1.3. Qualitative scores have been based on DDV calculated in WebTAG's SAR Worksheet and IRV calculated from the COBALT accident analysis. The scheme results in additional link capacity on the A47 and junction capacity at Wansford; the dual carriageway also improves route resilience so the effect on reliability is positive.	DDV: 8,110 PCU per week benefit from congestion relief in opening year. IRV: 1,660 accidents prevented over appraisal period				Large Beneficial								
	Physical activity	There is limited use of the route by non-motorised users (NMUs) at present. The routing of the A47 dual carriageway severs the old route so no new connectivity between Wansford and Sutton is permitted. The repositioning of Sutton Roundabout increases the journey time on the cycle route between Sutton and Upton, but most users are unaffected.					Neutral								
	Journey quality	The reduction in queues and at-grade traffic conflicts reduces both driver frustration and the fear of accidents. Provision of a dual carriageway A47 allows vehicles to overtake safely, also reducing both frustration and fear of accidents. There is a slight disbenefit in that A47 eastbound travellers can no longer access the services east of Sacrewell and must U-turn at The Drift.					Moderate to Large Beneficial								
	Accidents	The number of accidents within the scheme extents is reduced by 54%. Removing conflicts for at-grade junctions on the A47, improving the A47 alignment to a modern standard and reducing queues on the A1 southbound mainline at Wansford generates significant road user safety benefits. Option 2 has the longest A47 link and because vehicles spend longer on the link, the accident rate is slightly greater than the other options.	189 injury accidents and 1,473 non-injury accidents prevented. 6 fatal, 41 serious and 266 slight casualties prevented				Large Beneficial		£14.3m	Greater benefits for young road users who suffer disproportionately from injuries at present					
	Security	The realigned A47 allows for slightly improved sightlines. A reduction in vehicle idling reduces vulnerability to roadside crime but the risk at present is minimal. The overall magnitude of impacts is negligible.					Neutral			No impacts on NMUs measured					
	Access to services	No changes in access to services are expected.					Neutral			No impacts on any user group					
Affordability	Personal affordability is slightly improved as vehicle operating costs are reduced due to an overall fall in fuel use but the benefit per journey is negligible.	£0.2 million of private user VOC benefits				Neutral			Benefits per journey are negligible						
Severance	The provision of an overbridge at Sacrewell Farm allows NMUs to safely cross the A47 and provides additional links to Peterborough, Sutton and Wansford, but the lack of an improved onward link adjacent to the A47 limits benefits. The detrunked A47 does not impact severance as it is severed where the new dual carriageway crosses.					Slight Beneficial			Number of no-car households below average but no significant distributional impacts						
Option and non-use values	The scheme does not involve the loss or introduction of a new mode of transport and option values are unaffected.					Neutral									
Public Accounts	Cost to Broad Transport Budget	Costs of £63.0 million (at 2010 prices and values) are estimated and account for construction, but not maintenance, of the scheme. These costs are met directly from central government's broad transport budget. Option 2 is intermediate in terms of cost; it is constructed offline but construction is required to cross the existing carriageway while it remains open.	£63.0 million cost to central government's broad transport budget						Cost £63.0m						
	Indirect Tax Revenues	Indirect tax revenues to the Exchequer are increased due to overall increases in fuel use due to higher vehicle speeds.	£0.3 million benefit to wider public finances						£0.3m						

Appraisal Summary Table				Date produced:		27/11/2017				Contact:			
Name of scheme:			A47 Wansford to Sutton Dualling - Option 3							Name		Brian Smith	
Description of scheme:			This option relates to the A47 between the A1 and Sutton. The section of single carriageway between Wansford and Sutton would be improved to current dual carriageway standard. The western end of Option 3 incorporates a free flow link from A1 South to A47 East. The alignment of the new dual carriageway would be offline to the North of the existing A47.							Organisation		Amey	
										Role		Transport Planner	
Impacts			Summary of key impacts				Assessment						
							Quantitative		Qualitative	Monetary £(NPV)	Distributional 7-pt scale/ vulnerable grp		
Economy	Business users & transport providers	The scheme results in significant journey time benefits for most users. At 2036 traffic levels the scheme benefits all journeys from the A1 north by up to 8 minutes, from the A47 west by up to 11 minutes and from Sutton Heath Road by up to 8 minutes. 57% of Transport Economic Efficiency (TEE) falls on business users. The link length from Wansford to Sutton in Option 3 is intermediate between those of Options 1 and 3 and therefore so is the TEE benefits.	Value of journey time changes(£)		£145.3m		Large Beneficial	£145.3m	Benefits are proportional to deprivation decile for all users				
			Net journey time changes (£)										
			0 to 2min		2 to 5min					> 5min			
			£33.1m		£39.6m					£72.5m			
	Reliability impact on Business users	Reliability impact cannot be quantified for a rural single carriageway using MyRIAD or methodologies from WebTAG Unit A1.3. Qualitative scores have been based on day-to-day variability (DDV) calculated in WebTAG's Scheme Assessment Report (SAR) Worksheet and incident-related variability (IRV) calculated from the COBALT accident analysis. The scheme results in additional link capacity on the A47 and junction capacity at Wansford; the dual carriageway also improves route resilience so the effect on reliability is positive.	DDV: 8,095 PCU per week benefit from congestion relief in opening year. IRV: 1,694 accidents prevented over appraisal period				Large Beneficial						
	Regeneration	The expected journey time benefits are likely to support planned regeneration in the Peterborough area, with associated reductions in unemployment levels.					Slight Beneficial						
	Wider Impacts	Reductions in user costs through journey time improvements will allow companies to profitably increase output. This output change owing to imperfect competition provides an economic benefit estimated at 10% of all journey time benefits for business users as per WebTAG A2.1 Paragraph 4.1.9. There will be a slight economic benefit for the wider area.					Slight Beneficial	£14.5m					
Environmental	Noise	Option 3 is predominantly offline and is located approximately 50m to the north of the existing A47. Option 3 moves the A47 traffic around 40m to the north of the existing A47 thereby potentially causing a reduction in noise levels at some representative receptors to the south of the existing A47 while increasing noise levels at some representative receptors to the north of the A47. The significance of effect for Option 3 is also expected to be between neutral and slight adverse as the proposals are expected to cause an increase in noise levels at sensitive receptors already above the Significant Observed Adverse Effect Level (SOAEL).	Households experiencing increased daytime noise in forecast year: 84 Households experiencing reduced daytime noise in forecast year: 2 Households experiencing increased night time noise in forecast year: 59 Households experiencing reduced night time noise in forecast year: 1				Slight Adverse	Cost £0.5m	Moderate adverse for vulnerable groups				
	Air Quality	Option 3 is considered to be the least favoured option because it would require the removal of R6 (Old Station House) on Sutton Heath Road where a major adverse impact is predicted. There are exceedances of the Air Quality Strategy objective for NOx predicted in the Sutton Heath and Bog Site of Special Scientific Interest (SSSI). Option 3 provides the lowest net route assessment because it has one fewer receptor than options 1 and 2 in the 150-200m. The overall impact is assessed as slight adverse.	Assessment Score PM10 = +51 NOx = -43 Emissions NOx (opening year) = 52.9 tonnes NOx (opening year change) = -3.4 tonnes				Slight Adverse	Cost £0.1m	For the opening year, there are adverse impacts for NO2, and beneficial impacts for PM10 in the 60-80% quintile and the 80-100% quintile. The presence of adverse effects in the higher category can have a disproportionate adverse impact on the lower category. This results in an overall neutral impact for this assessment year. For the operational year, there are beneficial impacts only for NO2 to the 80-100% quintile. This is offset by adverse impacts in all other categories and quintiles. This results in an overall moderate adverse impact for this assessment year. Adverse effects within the study area have a disproportionate effect on the young population in the area due to their increase vulnerability. The overall impact is moderate adverse.				
	Greenhouse gases	Greenhouse gas emissions are related to traffic flows and traffic speed, based on the amount of fuel consumed and the amount of vehicle kilometres travelled. Whilst traffic volumes and speed are expected to increase as a result of the option, congestion would be reduced. It is considered unlikely that there would be any significant change in the emissions of greenhouse gases.	Change in non-traded carbon over 60y (CO2e)		Not yet calculated		Neutral	Not calculated at this stage					
			Change in traded carbon over 60y (CO2e)		Not yet calculated								
		Landscape	Option 3 goes entirely offline within land to the north of the existing A47, affecting mostly arable fields in addition to hedges and small areas of woodland. In the context of national and local landscape character the option will result in impacts within a very small geographical area that will not affect key characteristics to the degree that distinctiveness or identity of character areas will be significantly affected.					Slight Adverse					
		Townscape	All options are located to the east of the A1, so the changes will not have an effect on Wansford; and none of the options will affect the physical townscape of Sutton.					Neutral					
		Historic Environment	Option 3 will have a direct adverse impact upon the Scheduled Monument and upon other undesignated archaeological assets including those potentially of national and also of regional interest. It will have a direct impact upon the undesignated Station House. Option 3 could have an indirect adverse impact upon the settings of the Listed Buildings, though it would probably be of negligible significance. Taking into account the effects upon the archaeological resource in particular Option 3 would have an overall Large Adverse impact.					Large Adverse					
		Biodiversity	Option 3 will have a very significant direct impact on Sutton Heath and Bog Site of Special Scientific Interest (SSSI) (and associated aquatic invertebrate species including the population of Desmoulin's Whorl Snail) - this directs the requirement for Large Adverse as this is contrary to the National Planning Policy Framework, National Networks National Policy Statement and wildlife legislation.					Large Adverse					
	Water Environment	Option 3 will comprise culvert over the Wittering Brook upstream of the current A47 culvert. This will be within flood zone 2; a Flood Risk Assessment will be required but it is anticipated that culvert sizing and drainage design will ensure no increase in flooding. The culverting works associated with Option 3 are expected to have a temporary adverse impact on the aquatic ecology due to loss or changes to the local biodiversity. Overall slight adverse.					Slight Adverse						
Social	Commuting and Other users	The scheme results in significant journey time benefits for most users. At 2036 traffic levels the scheme benefits all journeys from the A1 north by up to 8 minutes, from the A47 west by up to 11 minutes and from Sutton Heath Road by up to 8 minutes. 17% of TEE falls on commuters and 26% on non-commuting consumers. The link length from Wansford to Sutton in Option 3 is intermediate between those of Options 1 and 3 and therefore so is the TEE benefits.	Value of journey time changes(£)		£101.3m		Large Beneficial	£101.3m	Benefits are proportional to deprivation decile for all users				
			Net journey time changes (£)										
			0 to 2min		2 to 5min					> 5min			
			£25.4m		£30.0m					£45.9m			
		Reliability impact on Commuting and Other users	Reliability impact cannot be quantified for a rural single carriageway using MyRIAD or methodologies from WebTAG Unit A1.3. Qualitative scores have been based on DDV calculated in WebTAG's SAR Worksheet and IRV calculated from the COBALT accident analysis. The scheme results in additional link capacity on the A47 and junction capacity at Wansford; the dual carriageway also improves route resilience so the effect on reliability is positive.	DDV: 8,095 PCU per week benefit from congestion relief in opening year. IRV: 1,694 accidents prevented over appraisal period				Large Beneficial					
		Physical activity	There is limited use of the route by non-motorised users (NMUs) at present. The detrunked A47 has the potential to improve NMU route from Wansford to Sutton, potentially attracting more users. The repositioning of Sutton Roundabout increases the journey time on the cycle route between Sutton and Upton.					Moderate Beneficial					
		Journey quality	The reduction in queues and at-grade traffic conflicts reduces both driver frustration and the fear of accidents. Provision of a dual carriageway A47 allows vehicles to overtake safely, also reducing both frustration and fear of accidents. There is a slight disbenefit in that A47 eastbound travellers can no longer access the services east of Sacrewell and must U-turn at The Drift.					Moderate to Large Beneficial					
		Accidents	The number of accidents within the scheme extents is reduced by 54%. Removing conflicts for at-grade junctions on the A47, improving the A47 alignment to a modern standard and reducing queues on the A1 southbound mainline at Wansford generates significant road user safety benefits. The benefits in Option 3 are effectively identical to those in Option 1.	191 injury accidents and 1,492 non-injury accidents prevented. 7 fatal, 42 serious and 269 slight casualties prevented				Large Beneficial	£14.5m	Greater benefits for young road users who suffer disproportionately from injuries at present			
		Security	The realigned A47 allows for slightly improved sightlines. A reduction in vehicle idling reduces vulnerability to roadside crime but the risk at present is minimal. The overall magnitude of impacts is negligible.					Neutral		No impacts on NMUs measured			
	Access to services	No changes in access to services are expected.					Neutral		No impacts on any user group				
	Affordability	Personal affordability is slightly improved as vehicle operating costs are reduced due to an overall fall in fuel use but the benefit per journey is negligible.	£0.3 million of private user VOC benefits				Neutral		Benefits per journey are negligible				
	Severance	The provision of an overbridge at Sacrewell Farm allows NMUs to safely cross the A47 and provides additional links to Peterborough, Sutton and Wansford. There is the potential to bring the old A47 alignment into use to reduce NMU severance between Wansford and Sutton.					Moderate Beneficial		Number of no-car households below average but no significant distributional impacts				
	Option and non-use values	The scheme does not involve the loss or introduction of a new mode of transport and option values are unaffected.					Neutral						
Public Accounts	Cost to Broad Transport Budget	Costs of £58.3 million (at 2010 prices and values) are estimated and account for construction, but not maintenance, of the scheme. These are met directly from central government's broad transport budget. Option 3 is the lowest cost option as it can be constructed almost entirely without interaction with the existing carriageway.	£58.3 million cost to central government's broad transport budget					Cost £58.3m					
	Indirect Tax Revenues	Indirect tax revenues to the Exchequer are increased due to overall increases in fuel use due to higher vehicle speeds.	£0.2 million benefit to wider public finances					£0.2m					

Appendix S: Preferred Route Announcement

Preferred Route Announcement

A47 Wansford to Sutton

August 2017



Improving the A47

The A47 is an important connection linking the cities of Norwich and Peterborough, the towns of Wisbech, Kings Lynn, Dereham, Great Yarmouth and Lowestoft and a succession of villages in what is largely a rural area.

As part of a £15.1 billion investment to improve journeys on England's major A roads and motorways, the Government announced a package of 6 schemes on the 115 mile stretch of the A47 between Peterborough and Great Yarmouth. Together, the proposals will relieve congestion and improve the reliability of journey times for drivers.

The schemes include converting almost 8 miles of single carriageway to dual carriageway and improving key junctions along the route.

Improving the A47 from Wansford to Sutton

The section of the A47 between Wansford and Sutton is still a single carriageway. This acts as a bottleneck, resulting in congestion, leading to longer journey times and a poor safety record. The proposed scheme will relieve congestion, reduce journey times, encourage economic growth and improve our customers' experience.

Scheme objectives:

- Supporting economic growth
- A safe and serviceable network
- A more free-flowing network
- Improved environment
- An accessible and integrated network
- Value for money



Public consultation

From 13 March to 21 April, we ran a public consultation to gain people's feedback on our proposals and help shape our plans at an early stage of the scheme's development.

We publicised the consultation widely, with posters, leaflets and letters to local communities and stakeholders as well as gaining coverage in the press and other media. Information was available on our website, public libraries and community halls.

There were also 3 exhibitions for the public to attend and view our plans.

Options taken to public consultation

We presented 3 options to upgrade the single carriageway to a high-quality dual carriageway between Wansford and Sutton.

The options were:

- Option 1 - dualling the existing A47.
- Option 2 - building a new dual carriageway partly to the north and also to the south of existing A47.
- Option 3 - building a new dual carriageway to the north of the existing A47.

Responses to the public consultation

Over 171 people attended the exhibitions and we received 170 responses to the consultation.

Around 86% supported the need to improve the section and agreed our proposals would be beneficial in reducing congestion and improving journey times.

Concerns were raised about access to Sacrewell Farm and the villages of Wansford and Sutton, the need for infrastructure to support the local cycling community and the potential for noise and disruption to traffic during construction.

Going forward, we will consider your concerns and responses and address them as part of the final design and construction plan.

The Preferred Route - Option 2

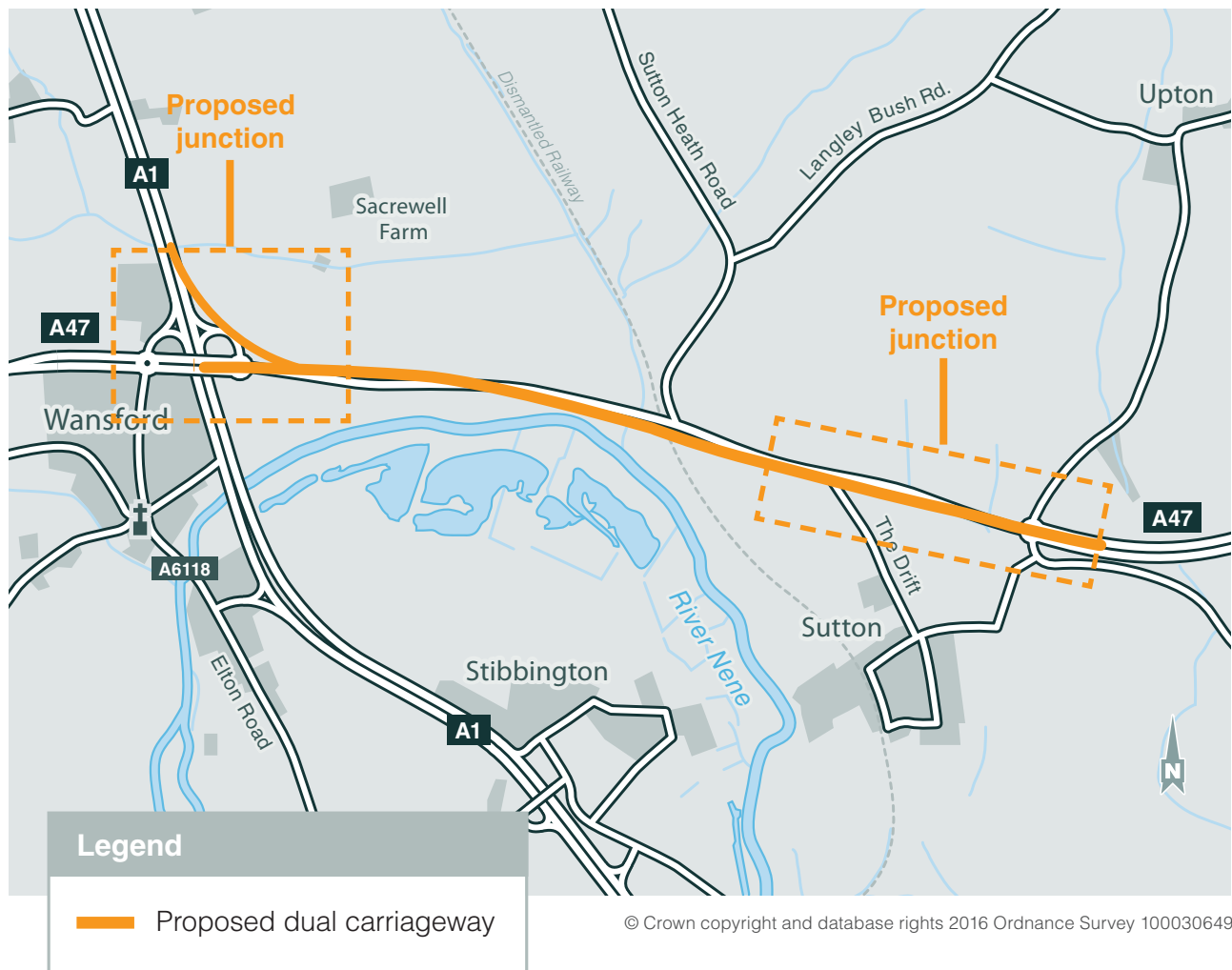
Having reviewed the feedback following the consultation, and completed a number of other assessments, we are proceeding with an amended version of Option 2 presented at consultation.

Option 2 solves the main traffic and safety problems along the route. It has significant advantages in terms of environmental impact when compared to Option 3 and will have less impact during construction when compared to Option 1.

Key concerns raised in the consultation have influenced an amendment to the original proposal. The new dual carriageway will be moved as close as possible to the southern edge of the existing A47 at the eastern end of the scheme. This would:

- Increase the distance from the new road to both the River Nene and the village of Sutton.
- Reduce the amount of land take required.
- Allow for the easiest connection of existing side roads to the new A47.
- Allow for most of the existing A47 to remain in place for local traffic and non-motorised groups such as pedestrians, cyclists and equestrians.

This will now be developed further before statutory consultation.





What happens next?

Our team will continue to develop the design of the preferred route, working closely with key stakeholders including local authorities, parish councils, statutory environmental bodies and the emergency services. We will also contact any affected land owners to discuss the details of the scheme and how it may impact on their property or interests.

This scheme is classed as a Nationally Significant Infrastructure Project under the Planning Act 2008. As such, we are required to make an application for a Development Consent Order in order to obtain permission to construct the scheme. The application will be made to

the Planning Inspectorate who will examine the application in public hearings and then make a recommendation to the Secretary of State for Transport who will decide on whether the project will go ahead.

Prior to the application, you will have another opportunity to have your say during a public consultation on our detailed design proposals.

More information about the Development Consent Order process can be found on the Planning Inspectorate's website:

<http://infrastructure.planningportal.gov.uk>

View a hard copy of the public consultation report at:

Peterborough Town Hall

Town Hall,
Bridge Street,
Peterborough, PE1 1HF

Sacrewell Farm

Thornhaugh
Peterborough
PE8 6HJ

Our public consultation report shows all the feedback to our consultation and is available at the above venues for 6 weeks

Further information

For further information on the scheme and copies of the public consultation report:

@ A47WansfordtoSuttonRIS@highwaysengland.co.uk

☎ 0300 123 5000

www <http://www.highways.gov.uk/a47Improvement>