



Norwich Western Link

Environmental Statement

Chapter 4: Reasonable Alternatives Considered

Appendix 4.1: A47 - A1067 Western Link Road - Sifting Matrix 2014

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1 Introduction

1.1.1 The tables below have been replicated from the Option Appraisal Report and have been adapted to conform to accessibility requirements.

Key to tables:

Code	Meaning
R	Red
A	Amber
G	Green
N/A	Not Applicable

Table 1-1 A47 - A1067 Western Link Road - Sifting Matrix 2014 (Accessible format) – 1. Strategic– Specific Local Objectives

Objective	Baseline	Public Transport	Purple 1	Purple 2	Brown	Red	Blue 1	Blue 2	Orange 1	Orange 2	Orange 3	Orange 4	Orange 5	Orange 6	Green
Objective	With completion of NDR DCO scheme	Provide orbital bus route between Taverham and the University of East Anglia / Science Park	A1067 Attlebridge, passing east of Weston Longville, to A47 west of Honingham at Wood Lane/Berrys Lane junction (2006 purple)	A1067 Attlebridge, passing east of Weston Longville, to A47 est of Honingham at Norwich Road roundabout. Model Run 4.	A1067 Attlebridge, passing east of Weston Longville, to A47 west of Easton (2005 Brown)	A1067 at NDR terminal, passing to the west of Ringland, to the A47 west of Easton (2006 Red(. Model Run 3	A1067 east of NDR terminal, passing south-east of Ringland, through Ringand Hills, to the A47 west of Easton (2006 Blue).	A1067 at NDR terminal, passing south-east of Ringland, through Ringland Hills to the A47 west of Easton.	A1067 east of NDR terminal, passing east of Ringland and west of Queens Hills, through Longwater Employment Area, to the A47/A1074 Longwater Interchange	As Orange 1 but connecting to A1067 at NDR terminal	A1067 east of NDR terminal, passing east of Ringland, between Queens Hills and Costessey, through Longwater Employment Area, to the A47/A1074 Longwater	As Orange 3 but connecting to A1067 at NDR terminal	A1067 east of NDR terminal, passing east of Ringland and between Queens Hills and Costessey, to the A1074 east of Longwater.	At Orange 5 but connecting to A1067 at NDR terminal	Proposed A143 NDR junction, passing north-west of Hellesdon to the A1067, and south of Costessey to the A1074 east of Longwater (2005 Green)
1a. Improve strategic connectivity	N/A	A	A	A	A	G	A	G	A	G	A	G	A	A	A

Objective	Baseline	Public Transport	Purple 1	Purple 2	Brown	Red	Blue 1	Blue 2	Orange 1	Orange 2	Orange 3	Orange 4	Orange 5	Orange 6	Green
1b. Reduce adverse impacts in Taverham/ Costessey area caused by traffic routeing between A47 and A1067	N/A	A	R	R	R	A	A	A	G	G	G	G	G	G	G
1c. Reduce adverse impacts in Ringland area caused by traffic routeing between A47 and A1067	N/A	R	A	A	A	G	G	G	G	G	G	G	G	G	G
1d. Reduce adverse impacts in Weston Longville/Hockering area caused by traffic routeing between A47 and A1067	N/A	R	G	G	G	G	G	G	G	G	G	G	G	G	G
1e. Accessibility for Queens Hills	N/A	R	R	R	R	R	A	R	G	G	G	G	G	G	A

Table 1-2 A47 - A1067 Western Link Road - Sifting Matrix 2014 (Accessible format) – 1. Strategic – Wider Transport and Government Objectives

Objective	Baseline	Public Transport	Purple 1	Purple 2	Brown	Red	Blue 1	Blue 2	Orange 1	Orange 2	Orange 3	Orange 4	Orange 5	Orange 6	Green
Objective	With completion of NDR DCO scheme	Provide orbital bus route between Taverham and the University of East Anglia / Science Park	A1067 Attlebridge, passing east of Weston Longville, to A47 west of Honingham at Wood Lane/Berrys Lane junction (2006 purple)	A1067 Attlebridge, passing east of Weston Longville, to A47 est of Honingham at Norwich Road roundabout. Model Run 4.	A1067 Attlebridge, passing east of Weston Longville, to A47 west of Easton (2005 Brown)	A1067 at NDR terminal, passing to the west of Ringland, to the A47 west of Easton (2006 Red(. Model Run 3	A1067 east of NDR terminal, passing south-east of Ringland, through Ringland Hills, to the A47 west of Easton (2006 Blue).	A1067 at NDR terminal, passing south-east of Ringland, through Ringland Hills to the A47 west of Easton.	A1067 east of NDR terminal, passing east of Ringland and west of Queens Hills, through Longwater Employment Area, to the A47/A1074 Longwater Interchange	As Orange 1 but connecting to A1067 at NDR terminal	A1067 east of NDR terminal, passing east of Ringland, between Queens Hills and Costessey, through Longwater Employment Area, to the A47/A1074 Longwater	As Orange 3 but connecting to A1067 at NDR terminal	A1067 east of NDR terminal, passing east of Ringland and between Queens Hills and Costessey, to the A1074 east of Longwater.	At Orange 5 but connecting to A1067 at NDR terminal	Proposed A143 NDR junction, passing north-west of Hellesdon to the A1067, and south of Costessey to the A1074 east of Longwater (2005 Green)

Objective	Baseline	Public Transport	Purple 1	Purple 2	Brown	Red	Blue 1	Blue 2	Orange 1	Orange 2	Orange 3	Orange 4	Orange 5	Orange 6	Green
1f. Sustainable travel opportunities - public transport, cycling, walking	N/A	G	A	A	A	A	A	A	A	A	A	A	A	A	A

Table 1-3 A47 - A1067 Western Link Road - Sifting Matrix 2014 (Accessible format) – 2. Economic

Objective	Baseline	Public Transport	Purple 1	Purple 2	Brown	Red	Blue 1	Blue 2	Orange 1	Orange 2	Orange 3	Orange 4	Orange 5	Orange 6	Green
Objective	With completion of NDR DCO scheme	Provide orbital bus route between Taverham and the University of East Anglia / Science Park	A1067 Attlebridge, passing east of Weston Longville, to A47 west of Honingham at Wood Lane/Berrys Lane junction (2006 purple)	A1067 Attlebridge, passing east of Weston Longville, to A47 east of Honingham at Norwich Road roundabout. Model Run 4.	A1067 Attlebridge, passing east of Weston Longville, to A47 west of Easton (2005 Brown)	A1067 at NDR terminal, passing to the west of Ringland, to the A47 west of Easton (2006 Red(. Model Run 3	A1067 east of NDR terminal, passing south-east of Ringland, through Ringland Hills, to the A47 west of Easton (2006 Blue).	A1067 at NDR terminal, passing south-east of Ringland, through Ringland Hills to the A47 west of Easton.	A1067 east of NDR terminal, passing east of Ringland and west of Queens Hills, through Longwater Employment Area, to the A47/A1074 Longwater Interchange	As Orange 1 but connecting to A1067 at NDR terminal	A1067 east of NDR terminal, passing east of Ringland, between Queens Hills and Costessey, through Longwater Employment Area, to the A47/A1074 Longwater	As Orange 3 but connecting to A1067 at NDR terminal	A1067 east of NDR terminal, passing east of Ringland and between Queens Hills and Costessey, to the A1074 east of Longwater.	At Orange 5 but connecting to A1067 at NDR terminal	Proposed A143 NDR junction, passing north-west of Hellesdon to the A1067, and south of Costessey to the A1074 east of Longwater (2005 Green)
2a. Connectivity - impact on journey times and distances	N/A	A	R	R	R	A	A	A	A	A	A	A	A	A	G
2b. Facilitate delivery of housing	N/A	R	R	R	A	A	A	A	R	R	R	R	R	R	R

Table 1-4 A47 - A1067 Western Link Road - Sifting Matrix 2014 (Accessible format) – 3. Carbon

Impacts	Baseline	Public Transport	Purple 1	Purple 2	Brown	Red	Blue 1	Blue 2	Orange 1	Orange 2	Orange 3	Orange 4	Orange 5	Orange 6	Green
Impacts	With completion of NDR DCO scheme	Provide orbital bus route between Taverham and the University of East Anglia / Science Park	A1067 Attlebridge, passing east of Weston Longville, to A47 west of Honingham at Wood Lane/Berrys Lane junction (2006 purple)	A1067 Attlebridge, passing east of Weston Longville, to A47 est of Honingham at Norwich Road roundabout. Model Run 4.	A1067 Attlebridge, passing east of Weston Longville, to A47 west of Easton (2005 Brown)	A1067 at NDR terminal, passing to the west of Ringland, to the A47 west of Easton (2006 Red(. Model Run 3	A1067 east of NDR terminal, passing south-east of Ringland, through Ringland Hills, to the A47 west of Easton (2006 Blue).	A1067 at NDR terminal, passing south-east of Ringland, through Ringland Hills to the A47 west of Easton.	A1067 east of NDR terminal, passing east of Ringland and west of Queens Hills, through Longwater Employment Area, to the A47/A1074 Longwater Interchange	As Orange 1 but connecting to A1067 at NDR terminal	A1067 east of NDR terminal, passing east of Ringland, between Queens Hills and Costessey, through Longwater Employment Area, to the A47/A1074 Longwater	As Orange 3 but connecting to A1067 at NDR terminal	A1067 east of NDR terminal, passing east of Ringland and between Queens Hills and Costessey, to the A1074 east of Longwater.	At Orange 5 but connecting to A1067 at NDR terminal	Proposed A143 NDR junction, passing north-west of Hellesdon to the A1067, and south of Costessey to the A1074 east of Longwater (2005 Green)
3a. Carbon emissions	N/A	A	A	A	A	A	A	A	A	A	A	A	A	A	A

Table 1-5 A47 - A1067 Western Link Road - Sifting Matrix 2014 (Accessible format) – 4. Socio-distributional impacts

Impacts	Baseline	Public Transport	Purple 1	Purple 2	Brown	Red	Blue 1	Blue 2	Orange 1	Orange 2	Orange 3	Orange 4	Orange 5	Orange 6	Green
Impacts	With completion of NDR DCO scheme	Provide orbital bus route between Taverham and the University of East Anglia / Science Park	A1067 Attlebridge, passing east of Weston Longville, to A47 west of Honingham at Wood Lane/Berrys Lane junction (2006 purple)	A1067 Attlebridge, passing east of Weston Longville, to A47 est of Honingham at Norwich Road roundabout. Model Run 4.	A1067 Attlebridge, passing east of Weston Longville, to A47 west of Easton (2005 Brown)	A1067 at NDR terminal, passing to the west of Ringland, to the A47 west of Easton (2006 Red(. Model Run 3	A1067 east of NDR terminal, passing south-east of Ringland, through Ringland Hills, to the A47 west of Easton (2006 Blue).	A1067 at NDR terminal, passing south-east of Ringland, through Ringland Hills to the A47 west of Easton.	A1067 east of NDR terminal, passing east of Ringland and west of Queens Hills, through Longwater Employment Area, to the A47/A1074 Longwater Interchange	As Orange 1 but connecting to A1067 at NDR terminal	A1067 east of NDR terminal, passing east of Ringland, between Queens Hills and Costessey, through Longwater Employment Area, to the A47/A1074 Longwater	As Orange 3 but connecting to A1067 at NDR terminal	A1067 east of NDR terminal, passing east of Ringland and between Queens Hills and Costessey, to the A1074 east of Longwater.	At Orange 5 but connecting to A1067 at NDR terminal	Proposed A143 NDR junction, passing north-west of Hellesdon to the A1067, and south of Costessey to the A1074 east of Longwater (2005 Green)
4a. Impact on accessibility for vulnerable groups	N/A	G	A	A	A	A	A	A	A	A	A	A	A	A	A

Table 1-6 A47 - A1067 Western Link Road - Sifting Matrix 2014 (Accessible format) – 5. Local Environment

Impacts	Baseline	Public Transport	Purple 1	Purple 2	Brown	Red	Blue 1	Blue 2	Orange 1	Orange 2	Orange 3	Orange 4	Orange 5	Orange 6	Green
Impacts	With completion of NDR DCO scheme	Provide orbital bus route between Taverham and the University of East Anglia / Science Park	A1067 Attlebridge, passing east of Weston Longville, to A47 west of Honingham at Wood Lane/Berrys Lane junction (2006 purple)	A1067 Attlebridge, passing east of Weston Longville, to A47 est of Honingham at Norwich Road roundabout. Model Run 4.	A1067 Attlebridge, passing east of Weston Longville, to A47 west of Easton (2005 Brown)	A1067 at NDR terminal, passing to the west of Ringland, to the A47 west of Easton (2006 Red(. Model Run 3	A1067 east of NDR terminal, passing south-east of Ringland, through Ringland Hills, to the A47 west of Easton (2006 Blue).	A1067 at NDR terminal, passing south-east of Ringland, through Ringland Hills to the A47 west of Easton.	A1067 east of NDR terminal, passing east of Ringland and west of Queens Hills, through Longwater Employment Area, to the A47/A1074 Longwater Interchange	As Orange 1 but connecting to A1067 at NDR terminal	A1067 east of NDR terminal, passing east of Ringland, between Queens Hills and Costessey, through Longwater Employment Area, to the A47/A1074 Longwater	As Orange 3 but connecting to A1067 at NDR terminal	A1067 east of NDR terminal, passing east of Ringland and between Queens Hills and Costessey, to the A1074 east of Longwater.	At Orange 5 but connecting to A1067 at NDR terminal	Proposed A143 NDR junction, passing north-west of Hellesdon to the A1067, and south of Costessey to the A1074 east of Longwater (2005 Green)
5a. Impact on River Wensum SAC/SSSI	N/A	G	A	A	A	R	R	R	R	R	R	R	R	R	N/A
5b. Impact on other Designated Sites	N/A	G	R	A	R	R	R	R	R	R	R	R	R	R	R
5c. Impact on heritage and landscape	N/A	G	R	A	R	R	R	R	R	R	R	R	R	R	R
5d. Impact on air quality and noise	N/A	G	A	A	A	A	A	A	A	A	R	R	R	R	R

Table 1-7 A47 - A1067 Western Link Road - Sifting Matrix 2014 (Accessible format) – 6. Well being

Objective/Impact	Baseline	Public Transport	Purple 1	Purple 2	Brown	Red	Blue 1	Blue 2	Orange 1	Orange 2	Orange 3	Orange 4	Orange 5	Orange 6	Green
Objective/Impact	With completion of NDR DCO scheme	Provide orbital bus route between Taverham and the University of East Anglia / Science Park	A1067 Attlebridge, passing east of Weston Longville, to A47 west of Honingham at Wood Lane/Berrys Lane junction (2006 purple)	A1067 Attlebridge, passing east of Weston Longville, to A47 est of Honingham at Norwich Road roundabout. Model Run 4.	A1067 Attlebridge, passing east of Weston Longville, to A47 west of Easton (2005 Brown)	A1067 at NDR terminal, passing to the west of Ringland, to the A47 west of Easton (2006 Red(. Model Run 3	A1067 east of NDR terminal, passing south-east of Ringland, through Ringland Hills, to the A47 west of Easton (2006 Blue).	A1067 at NDR terminal, passing south-east of Ringland, through Ringland Hills to the A47 west of Easton.	A1067 east of NDR terminal, passing east of Ringland and west of Queens Hills, through Longwater Employment Area, to the A47/A1074 Longwater Interchange	As Orange 1 but connecting to A1067 at NDR terminal	A1067 east of NDR terminal, passing east of Ringland, between Queens Hills and Costessey, through Longwater Employment Area, to the A47/A1074 Longwater	As Orange 3 but connecting to A1067 at NDR terminal	A1067 east of NDR terminal, passing east of Ringland and between Queens Hills and Costessey, to the A1074 east of Longwater.	At Orange 5 but connecting to A1067 at NDR terminal	Proposed A143 NDR junction, passing north-west of Hellesdon to the A1067, and south of Costessey to the A1074 east of Longwater (2005 Green)
6a. Severance	N/A	G	A	A	A	R	A	A	A	A	A	A	A	A	A
6b. Enabling access to good, services, people and places	N/A	A	A	A	A	G	G	G	G	G	G	G	G	G	G

Table 1-8 A47 - A1067 Western Link Road - Sifting Matrix 2014 (Accessible format) – 7. Managerial

Objective	Baseline	Public Transport	Purple 1	Purple 2	Brown	Red	Blue 1	Blue 2	Orange 1	Orange 2	Orange 3	Orange 4	Orange 5	Orange 6	Green
Objective	With completion of NDR DCO scheme	Provide orbital bus route between Taverham and the University of East Anglia / Science Park	A1067 Attlebridge, passing east of Weston Longville, to A47 west of Honingham at Wood Lane/Berrys Lane junction (2006 purple)	A1067 Attlebridge, passing east of Weston Longville, to A47 est of Honingham at Norwich Road roundabout. Model Run 4.	A1067 Attlebridge, passing east of Weston Longville, to A47 west of Easton (2005 Brown)	A1067 at NDR terminal, passing to the west of Ringland, to the A47 west of Easton (2006 Red(. Model Run 3	A1067 east of NDR terminal, passing south-east of Ringland, through Ringland Hills, to the A47 west of Easton (2006 Blue).	A1067 at NDR terminal, passing south-east of Ringland, through Ringland Hills to the A47 west of Easton.	A1067 east of NDR terminal, passing east of Ringland and west of Queens Hills, through Longwater Employment Area, to the A47/A1074 Longwater Interchange	As Orange 1 but connecting to A1067 at NDR terminal	A1067 east of NDR terminal, passing east of Ringland, between Queens Hills and Costessey, through Longwater Employment Area, to the A47/A1074 Longwater	As Orange 3 but connecting to A1067 at NDR terminal	A1067 east of NDR terminal, passing east of Ringland and between Queens Hills and Costessey, to the A1074 east of Longwater.	At Orange 5 but connecting to A1067 at NDR terminal	Proposed A143 NDR junction, passing north-west of Hellesdon to the A1067, and south of Costessey to the A1074 east of Longwater (2005 Green)
7a. Implementation timetable	N/A	G	R	R	R	R	R	R	R	R	R	R	R	R	R
7b. Public acceptability	N/A	G	A	A	A	A	A	A	A	A	R	R	R	R	R

Table 1-9 A47 - A1067 Western Link Road - Sifting Matrix 2014 (Accessible format) – 8. Financial Case

Objective	Baseline	Public Transport	Purple 1	Purple 2	Brown	Red	Blue 1	Blue 2	Orange 1	Orange 2	Orange 3	Orange 4	Orange 5	Orange 6	Green
Objective	With completion of NDR DCO scheme	Provide orbital bus route between Taverham and the University of East Anglia / Science Park	A1067 Attlebridge, passing east of Weston Longville, to A47 west of Honingham at Wood Lane/Berrys Lane junction (2006 purple)	A1067 Attlebridge, passing east of Weston Longville, to A47 est of Honingham at Norwich Road roundabout. Model Run 4.	A1067 Attlebridge, passing east of Weston Longville, to A47 west of Easton (2005 Brown)	A1067 at NDR terminal, passing to the west of Ringland, to the A47 west of Easton (2006 Red(. Model Run 3	A1067 east of NDR terminal, passing south-east of Ringland, through Ringland Hills, to the A47 west of Easton (2006 Blue).	A1067 at NDR terminal, passing south-east of Ringland, through Ringland Hills to the A47 west of Easton.	A1067 east of NDR terminal, passing east of Ringland and west of Queens Hills, through Longwater Employment Area, to the A47/A1074 Longwater Interchange	As Orange 1 but connecting to A1067 at NDR terminal	A1067 east of NDR terminal, passing east of Ringland, between Queens Hills and Costessey, through Longwater Employment Area, to the A47/A1074 Longwater	As Orange 3 but connecting to A1067 at NDR terminal	A1067 east of NDR terminal, passing east of Ringland and between Queens Hills and Costessey, to the A1074 east of Longwater.	At Orange 5 but connecting to A1067 at NDR terminal	Proposed A143 NDR junction, passing north-west of Hellesdon to the A1067, and south of Costessey to the A1074 east of Longwater (2005 Green)
8a. Capital Cost (£m)	N/A	N/A	£28m	£32m	£35m	£55m (single) / £85m (dual)	£54m (single) / £80m (dual)	£54m (single) / £81m (dual)	£69m (single) / £92m (dual)	£69m (single) / £93m (dual)	£74m (single) / £99m (dual)	£75m (single) / £100m (dual)	£79m (single) / £105m (dual)	£79m (single) / £106m (dual)	£79m (single) / £103m (dual)

Table 1-10 A47 - A1067 Western Link Road - Sifting Matrix 2014 (Accessible format) – 9. Commercial

Objective	Baseline	Public Transport	Purple 1	Purple 2	Brown	Red	Blue 1	Blue 2	Orange 1	Orange 2	Orange 3	Orange 4	Orange 5	Orange 6	Green
Objective	With completion of NDR DCO scheme	Provide orbital bus route between Taverham and the University of East Anglia / Science Park	A1067 Attlebridge, passing east of Weston Longville, to A47 west of Honingham at Wood Lane/Berrys Lane junction (2006 purple)	A1067 Attlebridge, passing east of Weston Longville, to A47 est of Honingham at Norwich Road roundabout. Model Run 4.	A1067 Attlebridge, passing east of Weston Longville, to A47 west of Easton (2005 Brown)	A1067 at NDR terminal, passing to the west of Ringland, to the A47 west of Easton (2006 Red(. Model Run 3	A1067 east of NDR terminal, passing south-east of Ringland, through Ringland Hills, to the A47 west of Easton (2006 Blue).	A1067 at NDR terminal, passing south-east of Ringland, through Ringland Hills to the A47 west of Easton.	A1067 east of NDR terminal, passing east of Ringland and west of Queens Hills, through Longwater Employment Area, to the A47/A1074 Longwater Interchange	As Orange 1 but connecting to A1067 at NDR terminal	A1067 east of NDR terminal, passing east of Ringland, between Queens Hills and Costessey, through Longwater Employment Area, to the A47/A1074 Longwater	As Orange 3 but connecting to A1067 at NDR terminal	A1067 east of NDR terminal, passing east of Ringland and between Queens Hills and Costessey, to the A1074 east of Longwater.	At Orange 5 but connecting to A1067 at NDR terminal	Proposed A143 NDR junction, passing north-west of Hellesdon to the A1067, and south of Costessey to the A1074 east of Longwater (2005 Green)
9a. Potential for government and/or developer funding	N/A	A	R	R	R	R	R	R	R	R	R	R	R	R	R