

A428 Black Cat to Caxton Gibbet improvements

TR010044

Volume 6

6.1 Environmental Statement

Chapter 16: Summary of Significant Effects

Planning Act 2008

Regulation 5(2)(a)

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

26 February 2021

Infrastructure Planning

Planning Act 2008

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

**A428 Black Cat to Caxton Gibbet
improvements**
Development Consent Order 202[]

Chapter 16: Summary of Significant Effects

Regulation Reference:	Regulation 5(2)(a)
Planning Inspectorate Scheme Reference	TR010044
Application Document Reference	TR010044/APP/6.1
Author	A428 Black Cat to Caxton Gibbet improvements Project Team, Highways England

Version	Date	Status of Version
Rev 1	26 February 2021	DCO Application

Table of contents

Chapter	Pages
16 Summary of significant effects	1
 Table of Tables	
Table 16.1: Summary of significant environmental effects	2

16 Summary of significant effects

- 16.1.1 The previous technical **Chapters 5 to 15**, of the Environmental Statement **[TR010044/APP/6.1]** present the assessments for the individual environmental impact assessment topics. Each assessment provides an assessment of the likely significant effects (with the implementation of mitigation measures i.e. residual effects). **Table 16-1** provides a high-level summary of the significant residual effects of the Scheme with mitigation in place.

Table 16-1: Summary of significant environmental effects

Chapter	Summary of significant (residual) environmental effects	
	Construction stage	Operational stage
Chapter 5 Air Quality	No significant effects	No significant effects
Chapter 6 Cultural Heritage	<p>Moderate adverse (permanent) effects:</p> <ul style="list-style-type: none"> a. Field 3 – Features of Iron Age and Roman date (Asset ID: EBB687, EBB688) b. Field 9 – Features of Late Iron Age and Early Roman date (Asset ID: 745) c. Field 34 and 35 – Features of Late Bronze Age, Iron Age and Roman date d. Field 44 – Iron Age and Roman farmstead (Asset ID: 16800, 16802) e. Field 53 – Features of Middle to Late Iron Age date f. Field 54 and 56 – Features of Iron Age date (Asset ID: MCB21136) g. Field 58 – Features of Iron Age and Roman date (Asset ID: MCB18833) h. Field 59 – Features of Iron Age date i. Field 65 – Roman farmstead and other features of Iron Age and Roman date (Asset ID: MCB18824) j. Field 73 and 74 – Features of Iron Age and Roman date k. Field 75 and 76 - Features of Iron Age and Roman date l. Field 77 - Features of Iron Age and Roman date (Asset ID: MCB24576) 	No significant effects

Chapter	Summary of significant (residual) environmental effects	
	Construction stage	Operational stage
	<ul style="list-style-type: none"> m. Field 90 – Grade II listed milestone (Asset ID: 1163534) n. Field 90 – Features of Iron Age date o. Field 92 - Features of Iron Age and Roman date (Asset ID: MCB24587, MCB24588) p. Field 92 - Grade II listed milepost (Asset ID: 1331394) q. Field 93 – Site of a windmill mound (Asset ID: 02463, 02541) r. Field 94, 95 and 96 - Features of Iron Age and Roman date s. Field 94, 95 and 96 - Grade II listed milepost (Asset ID: 1162760) t. Field 97 - Features of Iron Age and Roman date <p>Large adverse (permanent) effects:</p> <ul style="list-style-type: none"> a. Brook Cottages, Grade II listed building (Asset ID: 1311862) 	
Chapter 7 Landscape and Visual Effects	<p><u>Landscape effects:</u></p> <ul style="list-style-type: none"> a. Local Landscape Character Area (LLCA) 02: Settled Ouse Valley – Large adverse b. LLCA 03: Wyboston and Chawston – Moderate adverse c. LLCA 04: Ouse Valley Lakes - Moderate adverse d. LLCA 05: Biggin Wood Clay Vale - Moderate adverse e. LLCA 06: Alington Hill Clay Farmland – Very large adverse f. LLCA 08: Settled Clayland Valley – Large adverse g. LLCA 11: Wintringham and Weald Clay Farmland – Large adverse 	<p><u>Landscape effects:</u></p> <p>Year one of operation</p> <ul style="list-style-type: none"> a. LLCA 02: Settled Ouse Valley – Moderate adverse b. LLCA 03: Wyboston and Chawston – Moderate adverse c. LLCA 04: Ouse Valley Lakes - Moderate adverse d. LLCA 05: Biggin Wood Clay Vale - Moderate adverse e. LLCA 06: Alington Hill Clay Farmland – Large adverse

Chapter	Summary of significant (residual) environmental effects	
	Construction stage	Operational stage
	<p>h. LLCA 14: Western Claylands – Moderate adverse</p> <p>Visual effects:</p> <p>a. C01, C02, C03, C04, C18, C27, C29, H03, H05, H06, H07, P09, P10, P17, P18, P20, P21, P24, R01, R14, R22, R24, R25, R28, R35, R38, R43, R45, R48, R50, R56, R59, R63, R82, R91, R95, R102, R104, R105, R106, R107, R114 – Moderate adverse</p> <p>b. C14, P2, P3, P4, P6, P7, P8, P13, P14, P15, P16, P19, P22, P23, P25, R05, R06, R07, R08, R09, R10, R15, R16, R17, R18, R19, R20, R21, R27, R39, R40, R41, R42, R44, R46, R51, R53, R54, R57, R58, R61, R62, R66, R80, R81, R97, R98, R100, R108, R113 – Large adverse</p> <p>c. R11, R36, R37, R52 – Very large adverse</p>	<p>f. LLCA 08: Settled Clayland Valley – Large adverse</p> <p>g. LLCA 11: Wintringham and Weald Clay Farmland – Large adverse</p> <p>h. LLCA 14: Western Claylands – Moderate adverse</p> <p>Year 15 of operation</p> <p>a. LLCA 02: Settled Ouse Valley – Moderate adverse</p> <p>b. LLCA 06: Alington Hill Clay Farmland – Moderate adverse</p> <p>c. LLCA 08: Settled Clayland Valley – Moderate adverse</p> <p>d. LLCA 11: Wintringham and Weald Clay Farmland – Moderate adverse</p> <p>Visual effects:</p> <p>Year one of operation</p> <p>a. C03, C14, C18, C29, H03, P02, P03, P04, P06, P08, P10, P17, P18, P19, P20, P22, P23, P24, P25, R06, R09, R10, R15, R17, R20, R21, R22, R24, R27, R28, R35, R38, R39, R40, R41, R42, R43, R44, R46, R48, R50, R57, R63, R66, R80, R97, R98, R100, R102, R104, R108, R114 – Moderate adverse</p> <p>b. P07, P13, P14, P15, P16, R05, R07, R08, R11, R16, R18, R36, R51, R52, R53, R54, R61, R62, R81, R113 – Large adverse</p>

Chapter	Summary of significant (residual) environmental effects	
	Construction stage	Operational stage
		<p>c. R37 – Very large adverse</p> <p>Year 15 of operation</p> <p>a. P07, P08, P13, P14, P15, P22, P23, R05, R06, R07, R08, R11, R15, R16, R18, R20, R21, R27, R36, R51, R52, R53, R54, R61, R62, R81, R113 – Moderate adverse</p> <p>b. R37 – Large adverse</p>
Chapter 8 Biodiversity	No significant effects	No significant effects
Chapter 9 Geology and Soils	<p>Permanent loss of 37.17 ha of soil resources best and most versatile (BMV) agricultural land Grade 1 – Very Large adverse</p> <p>Permanent loss of 285.40 ha of soil resources BMV agricultural land Grade 2 – Very Large adverse</p> <p>Permanent loss of 26.37 ha of soil resources BMV agricultural land Grade 3 – Large adverse</p>	No significant effects
Chapter 10 Material Assets and Waste	No significant effects	No significant effects
Chapter 11 Noise and Vibration	<p><u>Noise</u></p> <p>Significant adverse construction noise effects are identified at the closest receptors to the construction works in the vicinity of the following receptors/locations:</p>	<p><u>Traffic noise</u></p> <p>Significant adverse operational noise effects are identified at the following receptors:</p> <p>a. 10 Roxton Road, Chawston (north of A421)</p> <p>b. The Bungalow, Roxton Garden Centre, Roxton</p>

Chapter	Summary of significant (residual) environmental effects	
	Construction stage	Operational stage
	<ul style="list-style-type: none"> a. A1 between 9 and 25 Great North Road; The Lane, Nagshead Lane and Chawston Lane in proximity to the Roxton Road Link between Roxton Road and The Lane. b. Roxton Road and Roxton Garden Centre in proximity to the north and south of the Roxton Road re-alignment. c. Greenacres. d. Bedford Road in the proximity of the western A421 works. e. School Lane in the proximity of the southern A1 works. f. Rectory Farm; Potton Road in proximity of the new dual carriageway. g. Cambridge Road and Wintringham Road in proximity of the Cambridge Road junction northern and southern alignment works. h. Ermine Street in proximity to the northern Caxton Gibbet dumbbell. i. St Neots Road in proximity to the tie-in point between the Scheme and the existing A428 at Caxton Gibbet east. <p><u>Vibration</u></p> <p>Significant adverse construction vibration effects are identified at the following locations where either moderate and major vibration annoyance impacts are predicted to occur:</p> <ul style="list-style-type: none"> a. 64 to 68 Great North Road (alongside southbound A1). b. Parallel to both sides of the A1 between The Lane and Black Cat junction. 	<ul style="list-style-type: none"> c. Isolated properties close to route between Black Cat junction and East Coast Mainline (1 and 2 The Barns, Little Barford Road and Rectory Farm, Little Barford Road) d. Isolated properties between East Coast Mainline and B1046 overbridge (Hill Farm, 5 residential properties at The Range, Rectory Farm, Orchard House, Parkers Farmhouse, The Bungalow at Parkers Farm, The Bramleys, Glen Eden, Rectory Farm Cottage) e. Cambridge Road: Tithe Farm and Wintringham Cottages (5 properties) f. Cambridge Road: North Farm Cottage and Weald Farm Cottage, North Farm Barn and North Farm (4 properties) g. Isolated properties in vicinity of Caxton Gibbet junction (Pastures Farm, The Dovecote at Pastures Farm, Pembroke Farmhouse, The Cow Shed (1 and 2 Pembroke Farm), New Bungalow, Oak Tree Cottage, 1-4 Common Farm Cottages and the Iway Inn) <p>Significant beneficial operational noise effects are identified at the following receptors:</p> <ul style="list-style-type: none"> a. Croxton including Eltisley Manor (52 residential properties, 1 care home and 1 community facility) b. Eltisley (North and West) (66 residential properties)

Chapter	Summary of significant (residual) environmental effects	
	Construction stage	Operational stage
	<ul style="list-style-type: none"> c. Along parts of The Lane, Nags Head Lane and Chawston Lane in proximity to the Roxton Road Link between Roxton Road and The Lane. d. Where the new Roxton Road re-alignment ties into the existing Roxton Road. e. Greenacres. f. Kelpie Marina. g. At the new turning head on School Lane. h. To the north-east of the new alignment of Little Barford Road. i. Along Potton Road in proximity to the new Scheme alignment. j. At the southern alignment of the new Cambridge Road junction. k. At the junction between Cambridge Road and Toseland Road. l. Along the A1198 to the north of the new Caxton Gibbet junction (Iway Inn). <p><u>Traffic noise</u></p> <p>Significant adverse construction traffic noise effects are identified at the following affected routes:</p> <ul style="list-style-type: none"> a. Bourn Road, Caxton between Caxton Road and Royston Road (Phase 4) 	<p><u>Affected routes</u></p> <p>Significant beneficial effects are anticipated in Yelling, Toseland, Gamlingay, and Abbotsley due to decreases in road traffic noise.</p>

Chapter	Summary of significant (residual) environmental effects	
	Construction stage	Operational stage
	<ul style="list-style-type: none"> b. Main Street, Caldecote between B1046 and approximately New Barns Farm, Caldecote (Phase 3 and Phase 4) c. Caxton Road between Alms Hill, Caxton End and Bourn Road, Caxton (Phase 3 and Phase 4) d. B1046 Meadow Road, Great Gransden (Phase 3 and Phase 4) <p>Significant adverse construction traffic noise effects are identified at all noise sensitive properties within 25m of the following proposed diversion routes:</p> <ul style="list-style-type: none"> a. Sandy to Black Cat: 89 residential properties along A603 between A421 and A1. b. Wyboston to Black Cat: 182 residential properties and 2 hotels along existing A428, A1198, A505 and A1. c. Renhold to Black Cat: 116 residential properties and 1 hotel along A1 and A603. d. Caxton to St Neots: 15 residential properties and 1 hotel along A1198 and A1. e. Girton to Caxton: 21 residential properties along existing A428, A14 and A1. 	

Chapter	Summary of significant (residual) environmental effects	
	Construction stage	Operational stage
Chapter 12 Population and Health	<p>A temporary moderate adverse effect upon recreational users of the River Great Ouse due to closure during construction</p> <p>A temporary moderate adverse effect upon users of public right of way (PRoW) 73/17 due to closure during construction Phase 2 of Caxton Gibbet junction</p>	No significant effects
Chapter 13 Road Drainage and the Water Environment	No significant effects	No significant effects
Chapter 14 Climate	No significant effects	No significant effects
Chapter 15 Assessment of Cumulative Effects	<p><u>In-combination construction assessment</u></p> <p>Moderate adverse (temporary) effects:</p> <ul style="list-style-type: none"> a. 15 - 39 (even nos.) - School Lane, MK44 3DR, residential properties, Landscape receptor: R5, Construction Noise Receptor: R03 b. Kelpie Marina, Great North Road, Roxton, Bedford, MK44 3DS, Landscape receptor: R7, Construction Noise Receptor: R07 c. Greenacres, Great North Road, Roxton, MK44 3DS, Landscape receptor: R8, Construction Noise Receptor: R06 d. 17 and Berlo House Spinney Road, residential properties, Landscape receptor: R10, Construction Noise Receptor: R08 	<p><u>In-combination operational assessment</u></p> <p>Moderate adverse (permanent) effects:</p> <ul style="list-style-type: none"> a. Hill Farm, Station Road, Tempsford, SG19 2BP, Landscape receptor: R50, Air quality receptor: N/A (reducing to slight adverse at year 15) b. 1-4 Wintringham Cottages, Toll Gate Cottage, Wintringham Road, PE19 6 SP, Wintringham – residential properties, Landscape receptor: R62, Air quality receptor: R168 c. Weald Farm Cottages, North Farm Cottage, Cambridge Road, PE19 6SR, Landscape receptor: R80, Air quality receptor: R167

Chapter	Summary of significant (residual) environmental effects	
	Construction stage	Operational stage
	<ul style="list-style-type: none"> e. Field Cottage, Scuttle Cottage, Russet House - Nagshead Lane, MK44 3AN, residential properties, Landscape receptor: R15, Construction Noise Receptor: R11 f. Ferndale, Wycombe House, Mandeville House - Chawston Lane, MK44 3BH, residential properties, Landscape receptor: R16, Construction Noise Receptor: R10 g. 8, 9 – Great North Road, MK44 3BD, residential properties, Landscape receptor: R17, Construction Noise Receptor: R15A & R15B h. 1 - 9 – Great North Road, MK44 3BD Chawston, residential properties, Landscape receptor: R19, Construction Noise Receptor: R15A & R15B i. 2 Thatch Cottage, Little Thatch, Freora - Nagshead Lane, MK44 3AN, residential properties, Landscape receptor: R20, Construction Noise Receptor: R11 and R12 j. 1 Great North Road, MK44 3AJ, residential properties, Landscape receptor: R21, Construction Noise Receptor: R11 and R12 k. Wait for The Wagon, Great North Road, Wyboston, MK44 3AJ, residential properties, Landscape receptor: R22, Construction Noise Receptor: R13 l. 19 - 25 (odd nos.) - Great North Road, MK44 3AJ, 1A, 1, - 4, Waddon Lodge - The Lane, MK44 3AP, Wyboston – residential properties, Landscape receptor: R24, Construction Noise Receptor: R12 and R13 m. Rectory Farm Cottage, Potton Road, PE19 6XJ, residential properties, Landscape receptor: R53, Construction Noise Receptor: R21 and R22 	<ul style="list-style-type: none"> d. North Farm, Cambridge Road, PE19 6SR, Eynesbury – residential property, Landscape receptor: R81, Air quality receptor: R241 e. Pastures Farm, Ermine Street, CB23 3PF, residential properties, Landscape receptor: R102, Air quality receptor: N/A (reducing to slight adverse at year 15) f. Oak Tree Cottage, New Bungalow – St Neots Road, CB23 2PH, residential property, Landscape receptor: R105, air quality receptor: R96 g. The Range, Potton Road, Abbotsley, PE19 6XJ, residential properties, Landscape Receptor R114, Air quality receptor: R240 (reducing to slight adverse at year 15) h. Papworth Hotel, Ermine Street South, CB23 3PB, commercial property, Landscape receptor: C29, Air quality receptor: N/A (reducing to slight adverse at year 15) <p>Large adverse (permanent) effects:</p> <ul style="list-style-type: none"> a. 10 Roxton Road, MK44 3BP, residential properties, Landscape receptor: R11, Air quality receptor: R53 b. 1 The Barns, 2 The Barns - Little Barford Road, PE19 6YF, residential properties, Landscape receptor: R36, Air quality receptor: R209 c. Rectory Farm, Little Barford Road, PE19 6YF, residential properties, Landscape receptor: R37, Air quality receptor: N/A

Chapter	Summary of significant (residual) environmental effects	
	Construction stage	Operational stage
	<ul style="list-style-type: none"> n. 1 and 2 Rectory Farm Cottage, Potton Road, PE19 6XJ, residential properties, Landscape receptor: R54, Construction Noise Receptor: R23A and R23B o. Greyholme, Tithe Farm, Cambridge Road, PE19 6SW, residential property, Landscape receptor: R61, Construction Noise Receptor: R25 p. 1-4 Wintringham Cottages, Toll Gate Cottage, Wintringham Road, PE19 6 SP, residential properties, Landscape receptor: R62, Construction Noise Receptor: R27 q. Wintringham Lodge, Wintringham Farm, Wintringham Farmhouse, Wintringham Hall, Wintringham Road, Wintringham, PE19 6SP, residential properties, Landscape receptor: R63, Construction Noise Receptor: R28 r. Oak Tree Cottage, New Bungalow - St, Neots Road, CB23 3PH, residential properties, Landscape receptor: R105, Construction Noise Receptor: R42 s. Papworth Hotel / Iway Inn, Ermine Street South, CB23 3PB, commercial property, Landscape receptor: C29, Construction noise receptor: R40B <p>Large adverse (temporary) effects:</p> <ul style="list-style-type: none"> a. 7 - 10 Roxton Road, MK44 3BP, residential properties, Landscape receptor: R11, Construction Noise Receptor: R08 b. 1 The Barns, 2 The Barns - Little Barford Road, PE19 6YF, residential properties, Landscape receptor: R36, Construction Noise Receptor: R16 	<ul style="list-style-type: none"> d. Orchard House, Potton Road, PE19 6XJ, residential property, Landscape receptor: R51, Air quality receptor: R240 e. Glen Eden, The Bramleys, Parkers Farmhouse, The Bungalow, Eynesbury Warehouse - Potton Road, PE19 6XJ, Abbotsley – residential properties, Landscape receptor: R52, Air quality receptor: R240 f. Rectory Farm and Rectory Farm Cottage, Potton Road, PE19 6XJ, residential properties, Landscape receptor: R53, Air quality receptor: R84 g. Tithe Farm, Cambridge Road, PE19 6SW, residential property, Landscape receptor: R66, Air quality receptor: R170 (reducing to moderate adverse at year 15) <p>Moderate beneficial (permanent) effects:</p> <ul style="list-style-type: none"> a. Whitehall Farm House, Cambridge Road, PE19 6SS, residential property, Landscape receptor: R82, Air quality receptor: R242

Chapter	Summary of significant (residual) environmental effects	
	Construction stage	Operational stage
	<ul style="list-style-type: none"> c. Rectory Farm, Little Barford Road, PE19 6YF, residential properties, Landscape receptor: R37, Construction Noise Receptor: R17 d. Glen Eden, The Bramleys, Parkers Farmhouse, The Bungalow, Eynesbury Warehouse - Potton Road, PE19 6XJ, residential properties, Landscape receptor: R52, Construction Noise Receptor: R20 <p><u>Assessment of other developments:</u></p> <p>ID004: Wintringham – 17/02308/OUT</p> <ul style="list-style-type: none"> a. Temporary moderate adverse cumulative landscape effect on the local landscape b. Temporary moderate adverse cumulative construction noise effect at Greyholme, Cambridge Road (receptor R25) <p>ID005: Cambourne – S/2903/14/OL</p> <ul style="list-style-type: none"> a. Temporary moderate adverse cumulative landscape effect on the local landscape b. Moderate adverse cumulative visual effect on Swansley Farm (receptor R104) c. Temporary moderate adverse cumulative visual effect on 1 - 4 Common Farm Cottages (receptor R108) <p>ID007: Loves Farm – 1300388OUT and 0101550OUT</p> <ul style="list-style-type: none"> a. Moderate adverse cumulative visual effect on the residents of Tithe Farm (receptor R66) 	