

Н	—	8	B

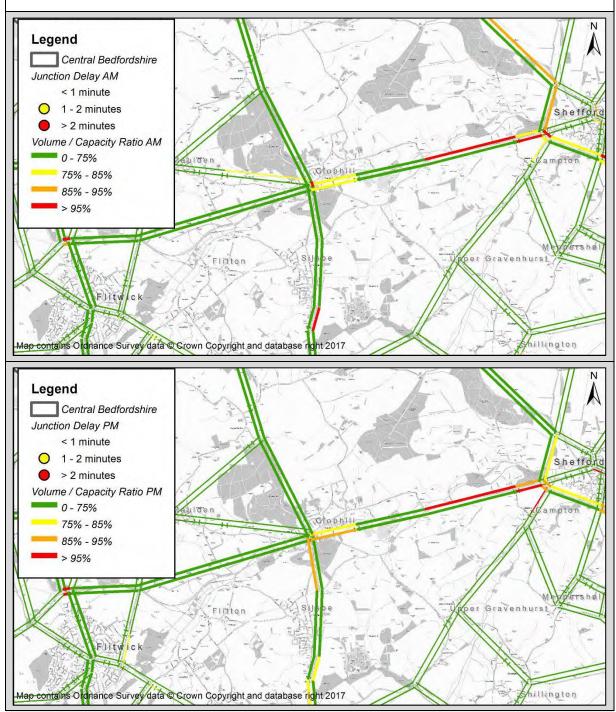
A6/A507 – Conversion of roundabout to signalised junctions

Location Map		Des	Description of Issues					
Legend Central Bedfordshire Hotspot 8B - A6/A507	way betw the The app ope Plar can	 This hotspot is formed of the A6/A507 give-way roundabout and the priority T-junction between the A6 and Clophill Road, north of the roundabout. The A6 and Clophill Road southbound approaches to the A507/A6 roundabout operate at or over capacity for 2035 Local Plan scenario and the southbound queues can extend to Clophill Road which affects the operation of this junction. 						
	Greenfield	TONE			2025	2035		
		1 m	X	Sca	le of	RC	3 <mark>/ 10</mark>	5 / 10
Map contains Ordnance Survey dat	a © Crown Copy	right and d	latabase nght 2017	Im	oact	LP	4 / 10	5 / 10
Scheme Concept								
Scheme Concept Sketc	h			Des	cript	ion of Sch	neme Con	cept
Clophill Road			INDICATIVE SKET	reur Botti to 2 facili 4 a ahe only This cap con Note emai Stal	Adaboi A A6 a lanes itate r pproa ad mc retair new acity gestio Scher , 7 Dec ceholo	configuratio of the ju n. me design (NF 2017) ders: CB 2 Delivery	signalised kits would b approach s to A507 EB allocated 2 ligh street e in should in unction an	junctions. e widened lip road to & WB. All lanes for xit left turn crease the d reduce
Relevant Strategic I	Dovelopr	nont S	litos		escal	e:		
N/A	Developi	nent a						
Assessment								
Congestion	High	Growth		Low	D	eliverability		Medium
Environment	Negative	Risk &	Uncertainties	Mediur	ı			
Indicative Cost Ran	ige							
£0-£500k £500k-£1	m £1-£	2.5m	£2.5m-£5m	£5m-	£10m	£10m-£	25m Ov	ver £25m



Link stress and node delays

The southbound approach to the junction operates over capacity in the AM peak, and during the PM peak, link stress (V/C) for the northbound and westbound approaches is close to capacity (CBLTM 2035 Local Plan scenario).





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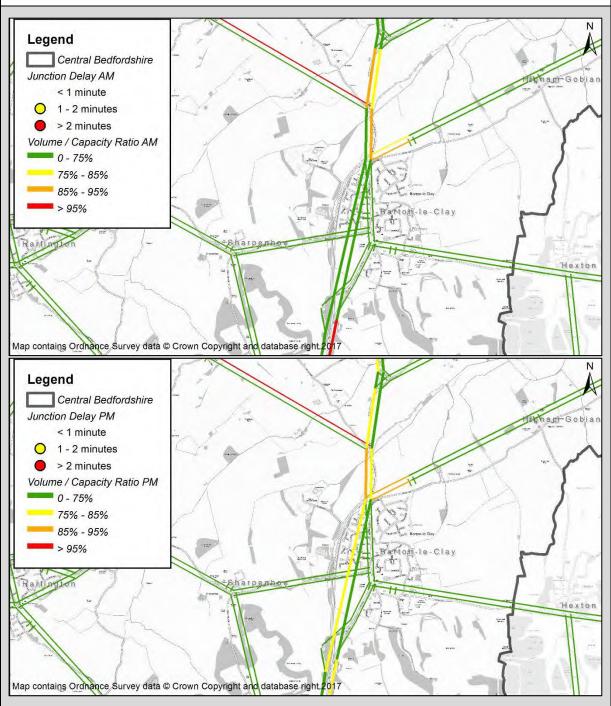
A6/Barton Road/Higham Road – Road widening and review of lane allocation

		Ĩ	and revie	w or ia	ie a	anocati	on	
Location Map				Desc	ripti	on of Issu	ies	
Legend Central Bedfordshire Hotspot 8C - A6/Barton Rd/	Higham Rd		Chick Clophill -te-Clar	For the Battor of the battor o	on an ounda ne A junc th A Plan ne A aches over c	d the A6/Hi about juncti 6/Barton R Road appr tion operate M and PM scenario. 6/Higham I s except B capacity.	igham Roa on. road priorit roach (fron es at or ov peaks for Road roun redford Ro	a priority T- d is a give- ty junction, n Pulloxhill) er capacity r the 2035 dabout, all ad operate nant flow is 2035
Map contains Ordnance Survey data	n a © Crown Cop	yright and o	database right 2017	Scale	of	RC	5 / 10	5 / 10
				Impa	ct	LP	5 / 10	6 / 10
Scheme Concept					<u> </u>			
Scheme Concept Sketc	h			Desc	ripti	on of Sch	eme Con	cept
	Bluesky, The Geoinf	ormation Grou	INDICATIVE SKET	the s northballow be ma the A6 For the will be mover Lane 2 This in for the reduc The r lane a improver Stake	chem ound the A de fr sout sout e A6 cha nent 2. hterve e A6 s cha nent 2. und cha sout de cha nent 4. cha sout de fr sout de fr de fr sout de fr sout de fr sout de fr sout de fr sout de fr sout de fr sout de fr fr sout de fr sout de fr fr sout de fr sout de fr de fr sout de fr de fr fr sout de fr sout de fr sout d	e consists roundabou 6-to-A6 not om both La h-western a northern app nged to allo to be made ention would straight ahe ongestion. about lane ions should required. ers: CB Delivery	of wideni t exit to 2 rthbound m ne 1 and L pproach. proach, lane ow the A6 from both d increase ad movem widths and also be re	capacity
Relevant Strategic I	Develop	ment S	Sites					
N/A								
Assessment								
Congestion	Low	Growth		Low	De	liverability		High
Environment	Neutral	Risk &	Uncertainties	Low				
Indicative Cost Ran £0-£500k £500k-£1		2.5m	£2.5m-£5m	£5m-£	10m	£10m-£	25m O	ver £25m
		= =						



Link stress and node delays

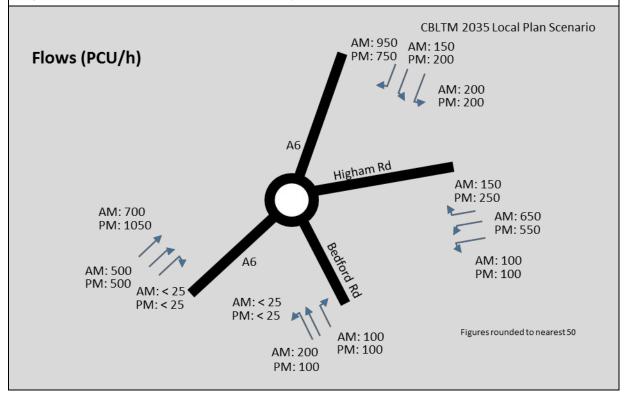
Congestion at this junction occur mainly for the southbound in the AM peak and northbound in the PM peak (CBLTM 2035 Local Plan scenario).





Flow diagram

The flow diagram shows that the predominant movements at this junction are along the A6, and the proposed mitigation scheme aims to provide additional capacity for these movement.





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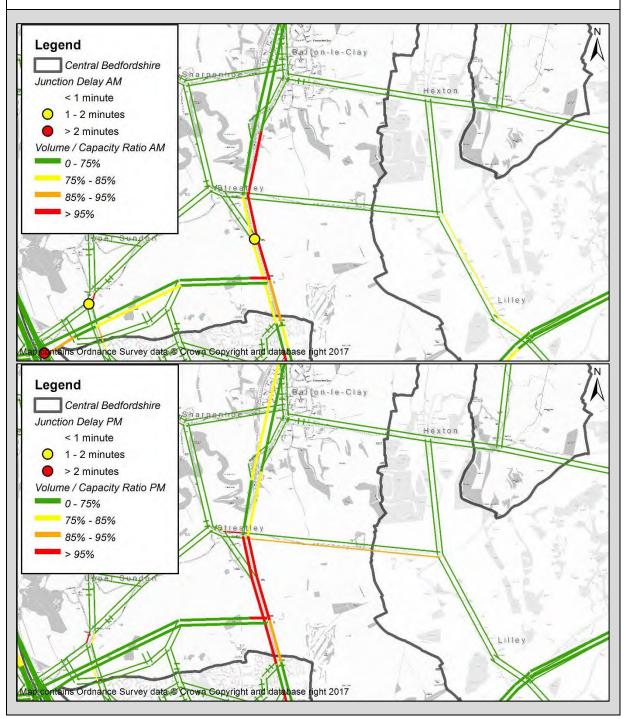
A6/Church Road – Dualling

Location Map					Descri	ptio	on of Issu	ies					
Legend Central Bedfordshire Hotspot 8D - A6/Church Rd Barton+fe-Clar							 This junction is a give-way roundabour junction. The predominant movement is the A6 straight ahead through traffic. The modelling suggests that for the 2038 Local Plan scenario, the A6 approaches will operate at or over capacity. For the A6 southbound exit from the junction, the merge from 2 to 1 lane downstream from the roundabout junction will also cause further congestion. 						
Stanbridge			5					2025	2035				
-	<	Luton			Scale o	of	RC	5 / 10	6 / 10				
Map contains Ordnance Survey data	a © Crown Copy	nght and da	atabase right 2017		Impac	t	LP	8 / 10	9 / 10				
Scheme Concept													
Scheme Concept Sketc	h				Descri	ptio	on of Sch	eme Co	ncept				
Church Road	AG	Lille	INDICATIVE SKE		south o in both This int the 6A the both	f the dire erve sou tlene	e junction to ctions. ention would th of the ju	o the new d increase unction, a l by the m	g of the A6 M1-A6 Link e capacity at nd eliminate lerging from				
					Stakeh	olde	ers: CB	C HE	Other				
			napping plc, Infoterra Lto p, Map data ©2017 Goo		Indicat Timesc		Delivery :	2025	2035				
Relevant Strategic	Developr	nent S	lites										
N/A													
Assessment													
Congestion	High	Growth			ow	De	liverability		Medium				
Environment	Negative	Risk &	Uncertainties	Me	dium								
Indicative Cost Ran £0-£500k £500k-£1	<u> </u>	2.5m	£2.5m-£5m	£	5m-£10)m	£10m-£	25m (Over £25m				



Link stress and node delays

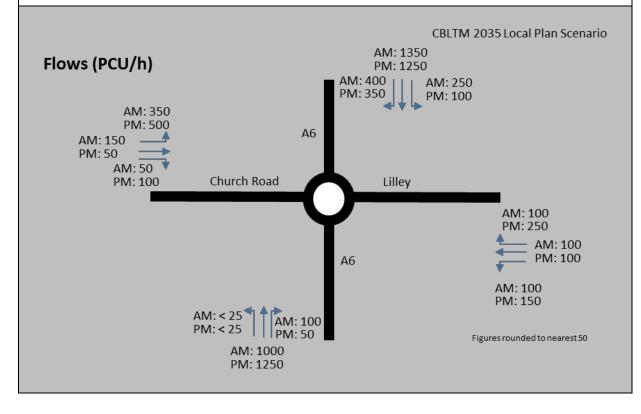
Link stress (V/C) of over 85% are predicted for both A6 northbound and southbound for both AM and PM peak (CBLTM 2035 Local Plan scenario).





Flow diagram

The flow diagram shows that the predominant movements at this junction are the north-south movements, and the proposed mitigation scheme aims to provide additional capacity for these movements.



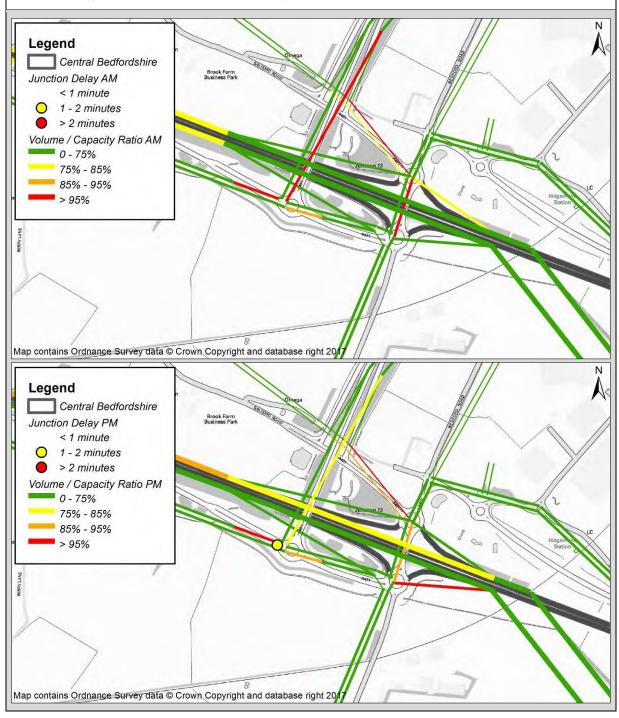


H – 10A	м	1 Jun	ction 13	– J	unct	ion imp	rovem	ents
Location Map					Descr	iption of Is	sues	
Legend		***	\mathbf{X}	Z	This ho the M1		sponds to .	Junction 13 on
Central Bedfordshire Hotspot 10A - M1 J13		6		Z	M1, the			connecting the ford Road and
Milton Keynes								mainly located the northern
200		Ser.	FILM				2025	2035
A Sta	File and		X	NICK	Scale o	of RC	9 / 10	10 / 10
Map contains Ordnance Survey dat	a © Crown Cop	yright and d	atabase right 2017	7-5	Impact	t LP	9 / 10	10 / 10
Scheme Concept								
Scheme Concept Sketc	h				Descr	iption of S	cheme C	oncept
This scheme consists of a package capacity improvement schemes at Junction 13 to accommodate the addition demand in the forecast years.								
	ine		and the second		Junction	13 (pba) (from	CBC, 18-Dec	2017)
	il .	and the second	- Alexandre	the second	Stakeh	nolders:	СВС	HE Other
			napping plc, Infoterra Lto p, Map data ©2017 Goo		Indicat Times	tive Deliver cale:	2025	2035
Relevant Strategic I	Developi	nent S	ites					
Marston Valley; Marston Ga	te							
Assessment	Meril	Orea II				Delivery	6 .	N#11
Congestion Environment	Medium Neutral	Growth Risk & I	Incertainties		High edium	Deliverabili	ιy	Medium
Indicative Cost Ran		rtiok & t		111	caram			
£0-£500k £500k-£1		2.5m	£2.5m-£5m		£5m-£1	0m £10	n-£25m	Over £25m



Link stress and node delay

M1 Junction 13 operates with high link stress (V/C) and delays. The A421 roundabout and the dumbbell roundabouts at junction 13 operate close to capacity (CBLTM 2035 Local Plan scenario).





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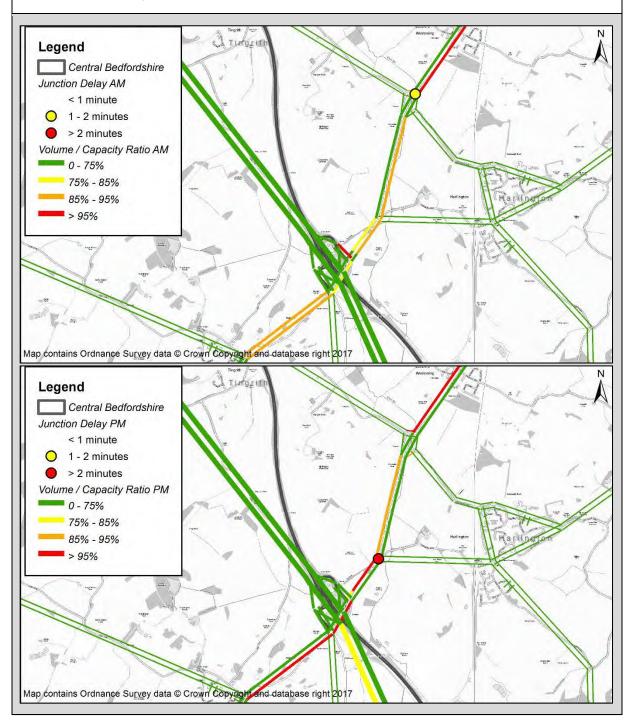
M1 Junction 12 – Do Nothing

Leastion Mar					Decert	atic -	oflee			
Location Map					Descri	otion	ot issu	es		
Legend Central Bedfordshire Hotspot 10B - A5120 (M1 J12)		This hotspot corresponds to Junction 12 of the M1. This junction presents congestion issues for both AM and PM peaks. For the 2035 Local Plan scenario, the modelling shows that Harlington Road is close to or over capacity in both directions for both AM and PM peaks. Note: The 'Scale of Impact' accounts for the whole extension of the hotspot. The severity of congestion issues identified at each junction should be lower that the overall 'Scale of Impact'.								
PAND		h C						2025	5	2035
ohton		5		3	Scale of	:	RC	7 / 1	0	7 / 10
Map contains Ordnance Survey data ©	Crown Cop	yright and o	database right 2017		Impact		LP	8 / 1	0	8 / 10
Scheme Concept										
Scheme Concept Sketch					Descrij	otion	of Sch	eme C	onc	ept
			resembled		Junction capacity Harlingto to traffic	12 , and it on Roa having the	genera t is belie ad are n g to slov Todding	illy op wed tha nainly g v down	erate it del jeom and	the M1 es within lays along netric, due negotiate Harlington
		M			Stakeho	ders	СВ	C I	HE	Other
			mapping plc, Infoterra Lt up, Map data ©2017 Goo		Indicati [.] Timesca		ivery	2025		2035
Relevant Strategic De	velop	nent S	Sites							
N/A										
Assessment										
Congestion	N/A	Growth				Deliver	rability			N/A
Environment	N/A	Risk &	Uncertainties	ľ	N/A					
Indicative Cost Range £0-£500k £500k-£1m	£1-£2.	5m	£2.5m-£5m	C F	m-£10m	2	:10m-£2	5m	0.40	r £25m
20-2000K 2000K-21M	えーたく.	JIII	2.2.3111 -2.5 111	Z.J	m-z tum	t	. 10111-2.2	JIII	ove	1 22311]



Link stress and node delays

M1 Junction 12 does not present congestion issues. Congestion occurs along the A5120; towards Junction 12 in the AM peak and leaving Junction 12 in the PM peak. (CBLTM 2035 Local Plan scenario).





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			-	_		

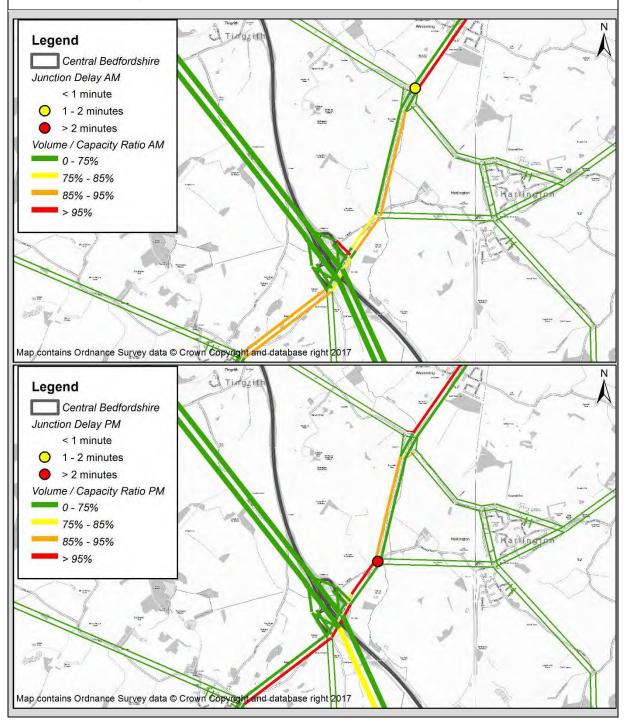
A5120/Westoning Road – Do Nothing

Location Map			Decorint	ion of loc:	100				
				ion of Issu					
Legend Central Bedfordshire Hotspot 10B - A5120 (M1 J12)	Am	This hotspot corresponds to Junction 12 or the M1. This junction is located just north of the hotspot and presents congestion issues for both AM and PM peaks. For the 2035 Local Plan scenario, the modelling shows that A5120 is close to o over capacity in both directions for both AM and PM peaks. Note: The 'Scale of Impact' accounts for the whole extension of the hotspot. The severity of congestion issues identified at each junction should be lower than the overall 'Scale of Impact'.							
ghton	5	5-72	1		2025	2035			
Map contains Ordnance Survey data	Crown Copy	Scale of	RC	7 / 10	7 / 10				
			Impact	LP	8 / 10	8 / 10			
Scheme Concept									
Scheme Concept Sketch			Descript	ion of Sch	neme Cono	cept			
1 22 2	1 18		The suggested approach is to Do Nothing.						
	1 1 1 1 1 1 1					-			
	Westonin	4510 8 Rd	traffic ma junction.	elling sugges ke use of ti Increasing o g, which is r	he minor ar capacity co	ms at this uld induce			
	Westonin	45-510 10-Re	traffic ma junction.	ke use of th Increasing o g, which is r	he minor ar capacity co not encouraç	ms at this uld induce			
	Westonin	45100 6.82	traffic ma junction. rat-runnin Stakehole	ke use of the Increasing of g, which is r ders: CE	he minor ar capacity co not encouraç	ms at this uld induce ged.			
Relevant Strategic D		1-4	traffic ma junction. rat-runnin Stakehole Indicative	ke use of the Increasing of g, which is r ders: CE	he minor ar capacity co not encouraç C HE	ms at this uld induce ged.			
N/A		1-4	traffic ma junction. rat-runnin Stakehole Indicative	ke use of the Increasing of g, which is r ders: CE	he minor ar capacity co not encouraç C HE	ms at this uld induce ged.			
N/A Assessment	evelopr	ment Sites	traffic ma junction. rat-runnin Stakehole Indicative Timescale	ke use of the Increasing of g, which is r ders: CE Delivery e:	he minor ar capacity co not encouraç C HE	ms at this uld induce ged. Other 2035			
N/A Assessment Congestion	evelopr N/A	ment Sites Growth	traffic ma junction. rat-runnin Stakehold Indicative Timescale N/A	ke use of the Increasing of g, which is r ders: CE Delivery	he minor ar capacity co not encouraç C HE	ms at this uld induce ged.			
N/A Assessment	evelopr N/A N/A	ment Sites	traffic ma junction. rat-runnin Stakehole Indicative Timescale	ke use of the Increasing of g, which is r ders: CE Delivery e:	he minor ar capacity co not encouraç C HE	ms at this uld induce ged. Other 2035			



Link stress and node delays

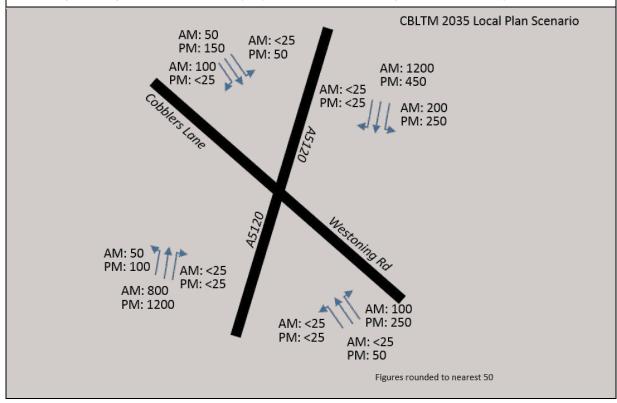
M1 Junction 12 does not present congestion issues. Congestion occurs along the A5120; towards Junction 12 in the AM peak and leaving Junction 12 in the PM peak. (CBLTM 2035 Local Plan scenario).





Flow diagram

The turning flow diagram shows that the majority of traffic makes a through movement at this junction.



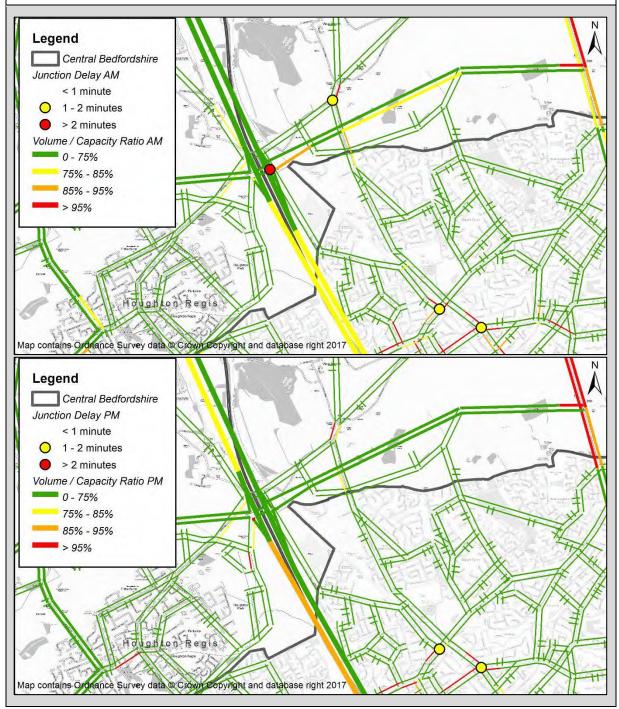


H – 10C		N	/11 Juncti	on	11a -	Do	Not	hing	
Location Map					Descri	ption	of Issu	ues	
Legend Central Bedfordshire Hotspot 10C - M1 J11a	AL	This hotspot corresponds to Junction 11a of the M1. For the 2035 Local Plan scenario, th modelling shows that congestion is locate at eastern junction, specifically the M1-A Link approach to the junction.							
A CAST		2						2025	2035
Eaton		4. 7			Scale		RC	2 / 10	2 / 10
Map contains Ordnance Survey data	Crown Cop	yright and d	atabase right 2017	9	of Impac	t	LP	6 / 10	6 / 10
Scheme Concept									
Scheme Concept Sketch	l				Descri	ption	of Sch	neme Co	ncept
AS		signalise the exi junction design approac	I Jun ed jur isting has may th ove	nction is dumbb not bee yet ch er and a	a propose ell juncti n constru ange, a	ced capacity d upgrade to on. As this cted and the Do Nothing at is already age.			
Nood		11-	SU		Stakeho	olders	S: CB	BC HE	E Other
			napping plc, infoterra Ltd o, Map data ©2017 Goog		Indicati Timesc		elivery	2025	2035
Relevant Strategic D North of Luton; Sundon Rail	-								
Assessment Congestion	N/A	Growth		N	N/A	Deliv	erability		N/A
Environment	N/A		Uncertainties		N/A	2011	2. a.s.inty		
Indicative Cost Rang									
£0-£500k £500k-£1m	£1-3	£2.5m	£2.5m-£5m	- 1	£5m-£10)m	£10m-	£25m	Over £25m



Link stress and node delays

Link stress (V/C) is predicted to be over 85% for the M1-A6 Link approach for the AM peak (CBLTM 2035 Local Plan scenario).



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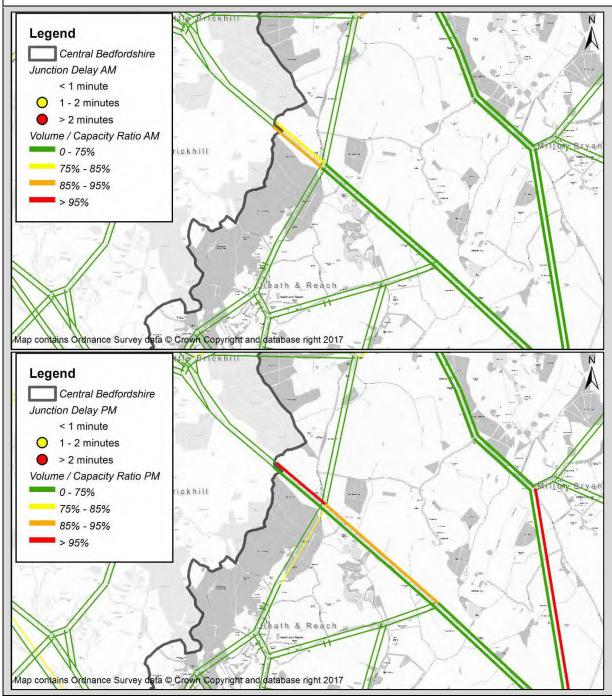
A5/Woburn Road – Widening of roundabout exits

Location Map				Desc	ripti	on of Issu	ies	
Legend Central Bedfordshire Hotspot 12 - A5/Woburn Rd			Firth	junctic lane e predoi traffic. The P and th southt	n wit ntries minai M pe e mo pound	on is a give- th two circu s for all app nt moveme ak is the m odelling sug d arm will b the 2035 L	latory lanes roaches. T nt is the A5 ore conges gests that e operating	s, and two he through ted peak the A5 over
and the second	3 Contraction	12)4	Toddington	-			2025	2035
	K	X		Scale	of	RC	3 / 10	4 / 10
Map contains Ordnance Survey-data	a Crown Copy	right and d	atabase right 2017	Impa	ct	LP	3 / 10	4 / 10
Scheme Concept								
Scheme Concept Sketc	h			Desc	ripti	on of Sch	eme Con	cept
85		Sheep Lan		rounda lane s traffic. bound widen This in for the mover	about traigh Lanc ary n ed ca nterve A5 s nents	e consists of t exits for the nat ahead module d outside of nay be requ arriageways ention would straight ahe s, which sho (Flow Diag	the A5 to all povement fo the existin uired to acc s. d increase ad through powed to be	ow a two r the A5 g highway ommodate capacity the main
Peou unnqoy	10		85	Stake	hold	ers: CB	C HE	Other
Indow			mapping pic, Infoterra p, Map data ©2017 Goo	Indica Times		Delivery :	2025	2035
Relevant Strategic I	Developr	nent S	ites					
N/A								
Assessment								
Congestion	Medium	Growth		Low	De	liverability		Medium
Environment	Negative	Risk & I	Uncertainties	High				
Indicative Cost Ran	ge							
£0-£500k £500k-£1	m £1-£		£2.5m-£5m	£5m-£1		£10m-£		



Link stress and node delays

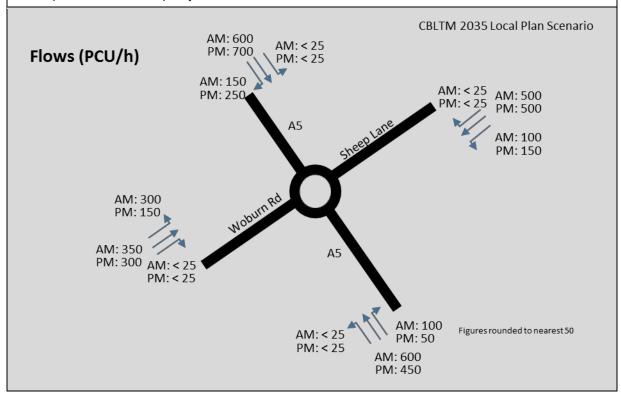
The link stress (V/C) for the A5 southbound approach to the A5/Woburn Road junction is over 95% (CBLTM 2035 Local Plan scenario, PM peak).





Flow diagram

The flow diagram show that the predominant flows are the A5 movements, and the proposed mitigation scheme aims to provide additional capacity for these movements.



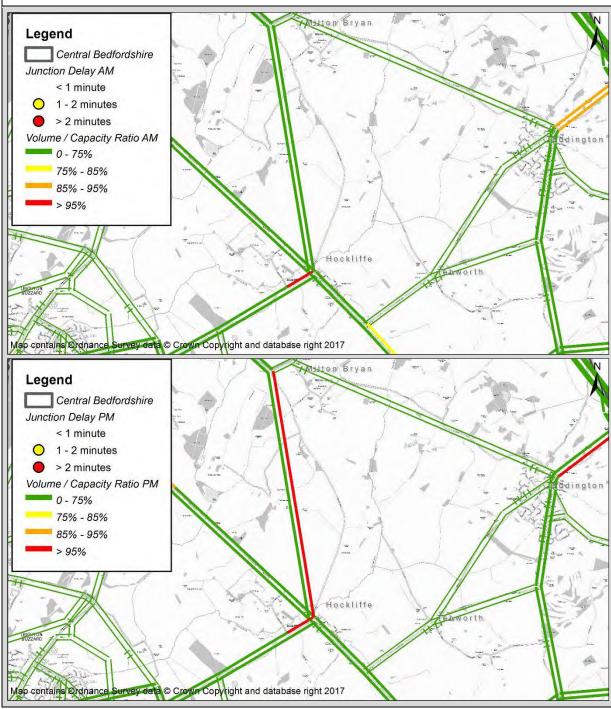


H – 12A		A5/	A4012 (H	ocl	kliffe)	– Do N	othing		
Location Map					Descri	ption of Iss	ues		
Legend Central Bedfordshire Hotspot 12A - A5/A4012		T	oddington	Z A A A A A A A A A A A A A A A A A A A	centre of offset of staggero For the staggero The jun widening	012 intersec of the village f 40m along ed junction is e 2035 Loca ed junction is ction is phys g of the ca al lanes is no	e of Hockli the A5. Th fully signal al Plan so over capao sically cons arriageway	ffe, with an e A5/A4012 ised. cenario, the city. strained and	
	X	and the second	Dunstäble	uton			2025	2035	
		ton		-	Scale of RC 5/10 6				
Map contains Ordnance Survey data	Crown Co	ovright and c	latabase right 2017	$\mathcal{K}_{\mathbb{C}}$	Impact	LP	4 / 10	6 / 10	
Scheme Concept									
Scheme Concept Sketch					Description of Scheme Concept				
	- The second sec		INDICATIVE SKET	TCH	sides w pedestri carriage	e is physica <i>v</i> ith frontage	access a ngs. Wi de addition	nd at-grade dening of al lanes and	
2 1/ 3			k		Stakeho	olders: C	вс не	Other	
			mapping plc, Infoterra Ltd ıp, Map data ©2017 Goog	d & gle	Indicati Timesc	ve Delivery ale:	2025	2035	
Relevant Strategic D	evelop	ment S	Sites						
N/A									
Assessment									
Congestion	N/A	Growth				Deliverability		N/A	
Environment	N/A	Risk &	Uncertainties		N/A				
Indicative Cost Rang									
£0-£500k £500k-£1m	1 £1-	£2.5m	£2.5m-£5m	£	£5m-£10	m £10m-	£25m (Over £25m	



Link stress and node delays

Congestion at the A5/A4012 junction (CBLTM 2035 Local Plan scenario).





Physical constrains

The A5/A4012 junction is physically constrained on all sides.



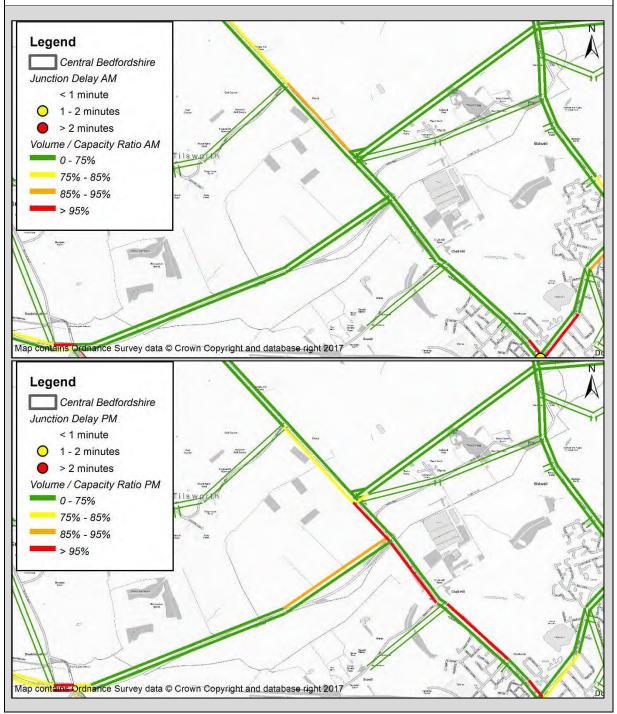


H – 12B		A5/A505 – Dur (Dunstable) – R				
Location Map			Descri	ption of Is	sues	
Legend Central Bedfor Hotspot 12B - A5/A5	140	Barton-le-C	Norther Norther For the all app	roundabout n Bypass bout. A505 / Wa ction operat roaches fo o, particular	atling Street ies close to r the 2035 ly for the PM	5-Dunstable ing Street roundabout, capacity for Local Plan peak.
Leighton Buzzard	Eaton	Luton	between Bypass, located	n Watling S , and cong	main move Street and the estion at this southern ar	ne Northern s junction is
Map contains Ordnance Su	Bray	pyright and database right 2017-	\ —		2025	2035
		17 all meaning and a	Scale	-	1 / 10	5 / 10
			Impac	LP	<mark>3</mark> / 10	<mark>4</mark> / 10
Scheme Conce	pt					
Scheme Concept	Sketch		Descri	ption of S	cheme Co	ncept
15	O worker of the second	INDICATIVE SKET	roundative reallocative ahead, made from the second	oout exit f tions to er ents (A518 and A5 to om both La cheme als	3 South to A505 right ne 1 and Lar	5 and lane of the key A5 straight- turn) to be the 2. of partial
	In Street A.	AZ	<u> </u>	roundabo	ut for the	ble Northern congested
	In Street Arminis		Bypass approac	roundabo ches.	ut for the	congested
		Igina(Globe, Getmapping plc, Infoterra Lto formation Comp. Mon abit (2017) Com	Bypass approad Stakehe	roundabo ches. olders:	ut for the	congested Other
Relevant Strate	Bluesky, The Geoir	nformation Group, Map data ©2017 Goog	Bypass approad Stakeho & Indicati	roundabo ches. olders:	ut for the	congested
Relevant Strate	Bluesky, The Geoir	nformation Group, Map data ©2017 Goog	Bypass approad Stakehe	roundabo ches. olders:	ut for the	congested Other
	Bluesky, The Geoir	nformation Group, Map data ©2017 Goog	Bypass approad Stakehe	roundabo ches. olders:	ut for the	congested Other
N/A	Bluesky, The Geoir	nformation Group, Map data ©2017 Goog	Bypass approad Stakeho Indicati Timesc	roundabo ches. olders:	ut for the CBC HE 2025	congested Other
N/A Assessment	Bluesky, The Geoir	nformation Group, Map data ©2017 Goog	Bypass approad Stakeho Indicati Timesc	roundabo ches. olders: ive Delivery ale:	ut for the CBC HE 2025	congested Other 2035
N/A Assessment Congestion	Bluesky, The Geoir egic Develop Medium Neutral	oment Sites	Bypass approad Stakeho Indicati Timesc	roundabo ches. olders: ive Delivery ale:	ut for the CBC HE 2025	congested Other 2035



Link stress and node delays

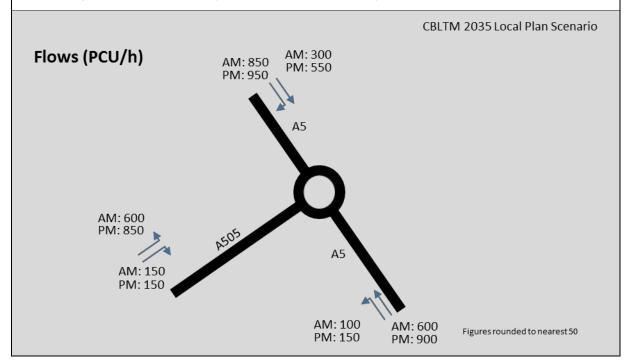
For the A5/ Dunstable Northern Bypass roundabout, the northbound and westbound approach present link stress (V/C) of over 75% (CBLTM 2035 Local Plan scenario, PM peak).





Flow diagram

The flow diagram below shows the key movements for the A5/A505 junction.



Н	-	1	2	С

A505 (Dunstable) – Do Nothing

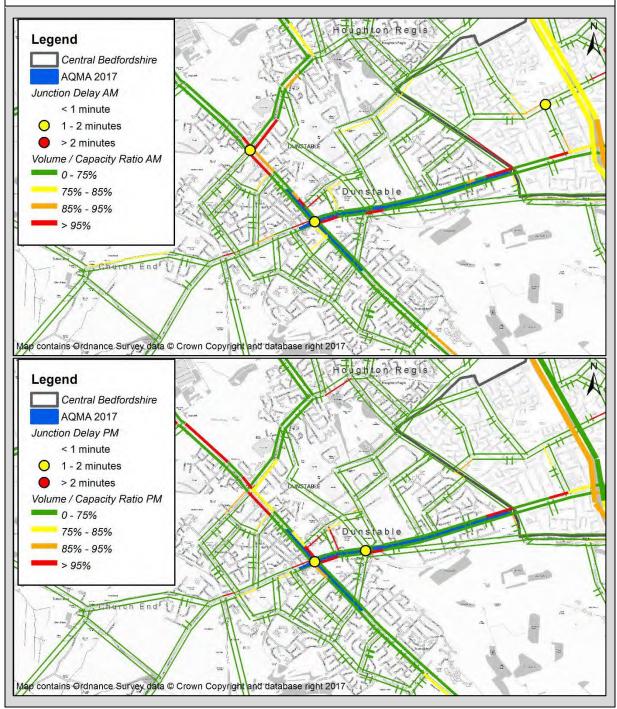
							-	
Location Map	•			De	escript	ion of Issu	ues	
Legend Central Bedfordshire Hotspot 12C - A505 (Dunst	e n		Barton de Cla	Du B5 Kir Rc So Ma Fo me	instable 120, ngsway, bad. Th outh anagem r the 20 entioned	pot is loca and inclu Queenswa Station is hotspot Bedfordshi ent Area. 035 Local P d above n issues.	udes the , y, Church Road and is partially ire Air	A505, the Street, Poynters within the Quality b, the links
Eaton Bray	12	for the	1	~		1	2025	2035
X		AU		2 4	cale of	RC	8 / 10	8 / 10
Map contains Ordnance Survey dat	a © Crown Cör	byright and d	latabase right 2017	i a	npact	LP	8 / 10	8 / 10
Scheme Concept								
Scheme Concept Sketc	h			De	escript	ion of Sch	neme Con	cept
SPA TACA	S.	VY	INDICATIVE SKE	TCH DC	Nothin	g.		
	1			ca		is physica improveme	-	
				ma thi be	ay attra s locati tween	icity improve ct further tr on which n motorise ns along Du	raffic demai nay increas d vehicl	nd through e conflicts es and
NOV A			Church Street	St.	akehol	ders: CE	C HE	Other
	Imagery ©2017 Di Bluesky, The Geoin	ginalGlobe, Geti formation Grou	church mapping plc, Infoterra Lto Ip, Map data ©2017 Gooj		dicative nescal	e Delivery	2025	2035
Relevant Strategic	Develop	ment S	Sites					
N/A								
Assessment								
Congestion	N/A	Growth		N/A	De	eliverability		N/A
Environment	N/A	Risk &	Uncertainties	N/A	\			
Indicative Cost Ran	ge							
£0-£500k £500k-£1		£2.5m	£2.5m-£5m	£5n		1		





Link stress and node delays

Link stress (V/C) and delays are significant for the A505 for both AM and PM peaks (CBLTM 2035 Local Plan scenario).



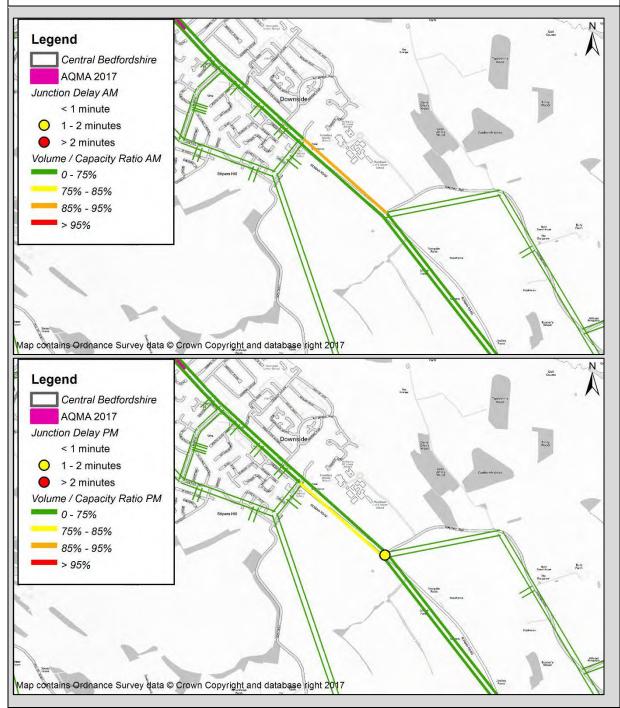


H – 12D		A518	33/Dunstat	ole Roa	ad –	Do N	lothing	I
Location Map				Descr	iptior	n of Issu	les	
Legend Hotspot 12D - A5183/Dunstab Central Bedfordshire	ele Rd			A5183 (minor the mo junctior Left tu has lim traffic v	(majo arm). st sign is A5 rning ited st olume I the	r arm) m The mo nificant m 183 (Nord traffic m tacking c and con flare and	aking this sequently l	where the table Road ggests that through the table Road. movement ative to the blocks back 83 (North)
1		A.	may				2025	2035
AVEN	Y		7	Scale of	of	RC	3 / 10	3 / 10
Map contains Ordnance Survey data	a © Crown Cop	yright and c	latabase right 2017	Impac	t	LP	3 / 10	4 / 10
Scheme Concept								
Scheme Concept Sketc	h			Descr	iptior	n of Sch	eme Con	cept
			INDICATIVE SKETC	The sug	ggeste	ed approa	ach is Do N	lothing.
	r F		Dan ande Rid	high ar	nd the	modellin		otspot is not s that Local nificantly.
				Stakeh	older	s: CB	C HE	Other
	Google	imagery ©2017 Dig Bluesky, The Geoin	sinalGlobe, Getmapping plc, Infoterra Ltd & formation Group, Map data ©2017 Google	Indicat Timeso		elivery	2025	2035
Relevant Strategic	Develop	ment \$	Sites					
N/A								
Assessment								
Congestion	N/A	Growth	In a sub-in Cara	N/A	Delive	erability		N/A
Environment Indicative Cost Ran	A/N	KISK &	Uncertainties	N/A				
£0-£500k £500k-£1	<u> </u>	2.5m	£2.5m-£5m	£5m-£1(Dm	£10m-£	25m 0	ver £25m



Link stress and node delays

Link stress (V/C) along the A5183 southbound on the north approach to the A5183/Dunstable Road junction is over 85% in the AM Peak (CBLTM 2035 Local Plan scenario).

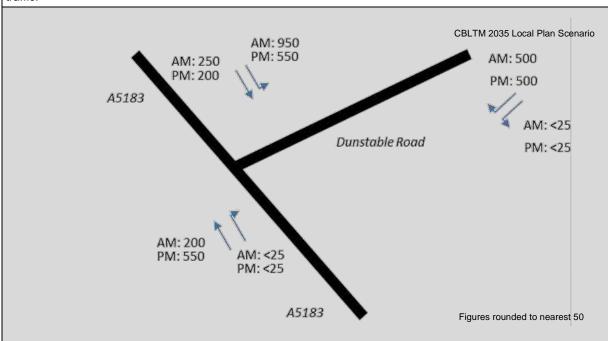






Flow diagram

The flow diagram shows that the A5183 (North) to Dunstable Road is the movement with the highest volume of traffic.





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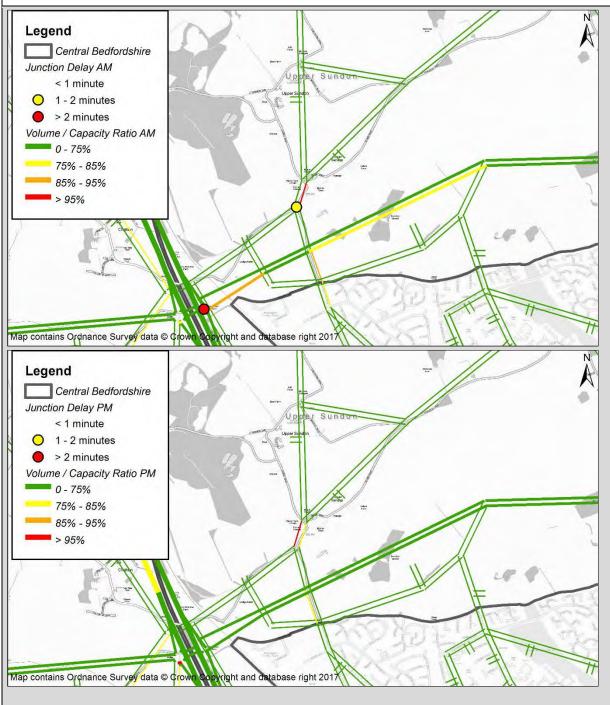
North of Luton – Sundon Road/Church Road – Do Nothing

Location Map						Descrip	tion of Iss	ues	
Legend Central Bedfe Hotspot 13 - North c				Barton Te Ch		planned N The moo delays fo between Road for AM peak PM peak The traff relatively the tight	pot is locate North of Luto delling sugg or the stret Manor Roa the southb and northb for the 2035 fic demand low and the alignment apacity of th	on urban exp gests that tch of Sun ad and Sun oound direct bound direc	there are don Road ndon Park ion in the tion in the scenario. ocation is caused by
No-	- 1	T	Luton					2025	2035
Map contains Ordnance Si	urvey data © C	Crown Copy		atabase right 2017	6	Scale of	RC	7 / 10	7 / 10
						Impact	LP	5 / 10	6 / 10
Scheme Conce	ept								
Scheme Concept	Sketch					Descrip	tion of Sch	neme Con	cept
	an noved			Manor Rd		more attra and attra location.	improvemer active and c ct further t Due to the r encouraged	ould cause raffic dema ural nature	rat-running nd to this
- ndon Rd			nalGlobe, Getn	napping plc, Infoterra Ltd	&		e Delivery	3C HE 2025	Other 2035
Curdon Rd	Bluesk	ry ©2017 Digin y, The Geoinfo	nalGlobe, Getn prmation Grou	o, Map data ©2017 Goog	&		e Delivery		
Relevant Strate	egic Dev	ry ©2017 Digir y, The Geoinfo Velopr	nalGlobe, Getn prmation Grou	o, Map data ©2017 Goog	&	Indicativ	e Delivery		
Relevant Strate	egic Dev	ry ©2017 Digir y, The Geoinfo Velopr	nalGlobe, Getn prmation Grou	o, Map data ©2017 Goog	&	Indicativ	e Delivery		
Relevant Strate Sundon Rail Freight Assessment	egic Dev	ry ©2017 Digir y, The Geoinfo Velopr	nalGlobe, Getn prmation Grou	o, Map data ©2017 Goog	& ie	Indicativ Timesca	e Delivery		
Relevant Strate Sundon Rail Freight Assessment Congestion Environment	egic Dev	ry ©2017 Digin y, The Geoinfo velopr e	nalGlobe, Getn ment S Growth	o, Map data ©2017 Goog	& le	Indicativ Timesca	e Delivery le:		2035
Relevant Strate Sundon Rail Freight Assessment Congestion	Bluesk	ry ©2017 Digin y, The Geoinfo velopr e N/A N/A	nalGlobe, Getn ment S Growth	o, Map data ©2017 Goog	& le	Indicativ Timescal	e Delivery le:		2035



Link stress and node delays

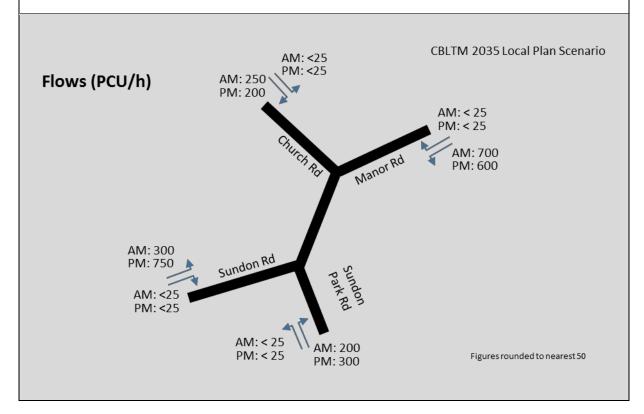
Link stress (V/C) for the stretch of Sundon Road between Manor Road and Sundon Park Road is over 95% for the southbound in the AM peak and northbound in the PM peak (CBLTM 2035 Local Plan scenario).





Flow diagram

The flow diagram shows that the demand for Sundon Road is not high (CBLTM 2035 Local Plan scenario).



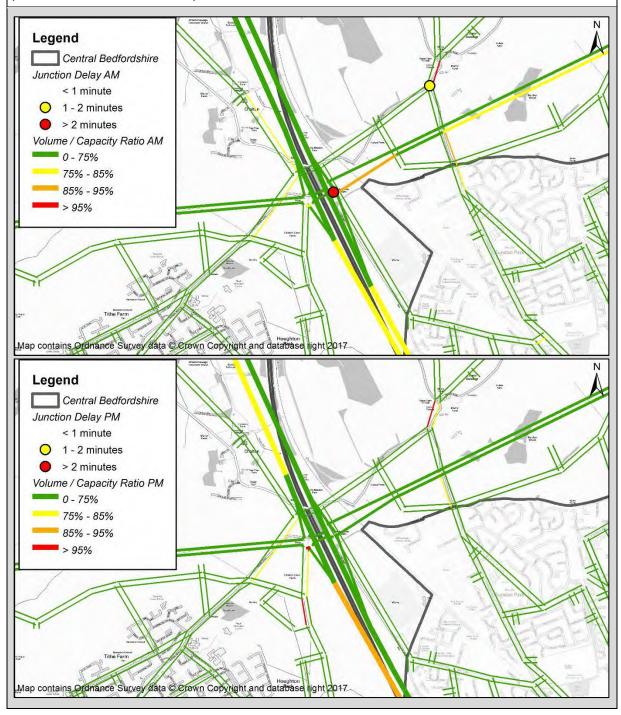


H – 13 – b	North	ו of L	uton – Sı [don R Noth		d/Woo	dside	Link –
Location Map					Descr	iptio	n of Issu	ies	
Legend Central Bedfordshire Hotspot 13 - North of Luton			Barton De Ch	A	planned The mo southbe southw Woods	d Nor odellin ound est o ide L	th of Luton ng sugges approacl f M1 J11A	n urban exp sts that Su hing the p A, connecti	dge of the bansion. ndon Road roundabout ng with the n the 2035
		REAL		1				2025	2035
		Luton	Station Al	L	Scale o		RC	7 / 10	7 / 10
Map contains Ordnance Survey data	© Crown Cop	yright and d	latabase right 2017	216	Impac	t	LP	5 / 10	6 / 10
Scheme Concept									
Scheme Concept Sketch	1				Descr	iptio	n of Sch	eme Con	cept
					Local F arm of due to flow is	odelli Plan s the ju high not	scenario, t unction is demand, l significan	he norther approachir however th	r the 2035 n approach ng capacity e opposing Do Nothing cation.
med				OUZ	Stakeh	olde	rs: CB	C HE	Other
			napping plc, Infoterra Lto p, Map data ©2017 Goo		Indicat Timeso		elivery	2025	2035
Relevant Strategic D	evelopi	ment S	lites						
Sundon Rail Freight Intercha	nge								
Assessment	N1/A	Orres II			NI/A	D-"	(arel-11)		N/A
Congestion	N/A N/A	Growth	Uncertainties		N/A N/A	Deliv	verability		N/A
Environment Indicative Cost Rang		TISK &	uncertainties		N/A				
£0-£500k £500k-£1n		2.5m	£2.5m-£5m		£5m-£1(Dm	£10m-£	25m O	ver £25m



Link stress and node delays

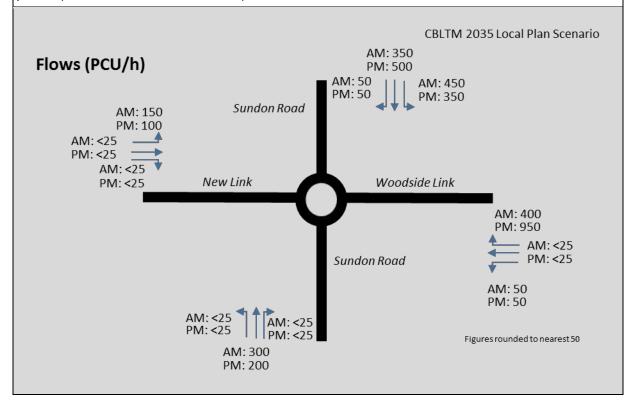
Link Stress (V/C) along the Sundon Road (North) arm southbound is above 75% in both AM and PM peaks. (CBLTM 2035 Local Plan scenario).





Flow diagram

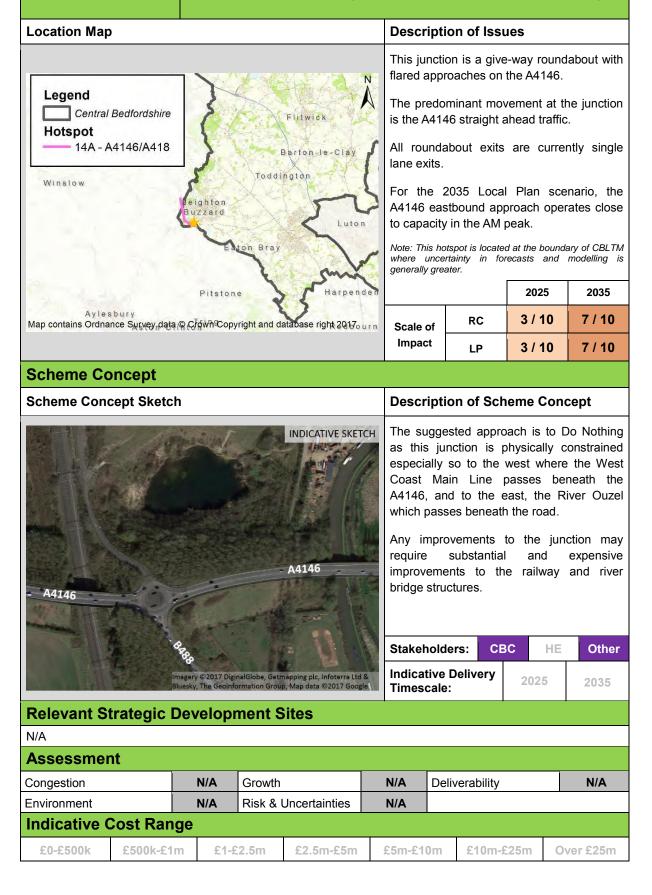
The flow diagram shows that the flow opposing the Sundon Road (North) arm is not significant in both peak periods (CBLTM 2035 Local Plan scenario).



Н —	1	44
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A4146/A418 (Leighton Buzzard) – Do Nothing

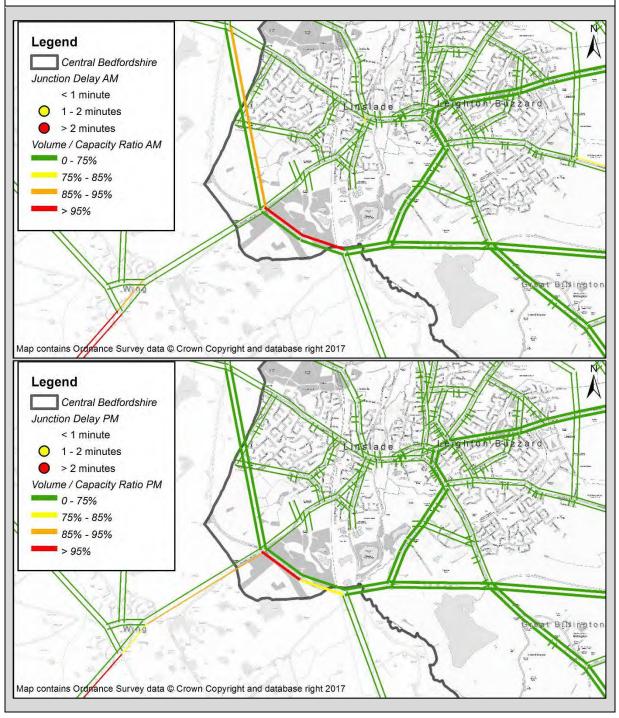
AECOM





Link stress and node delays

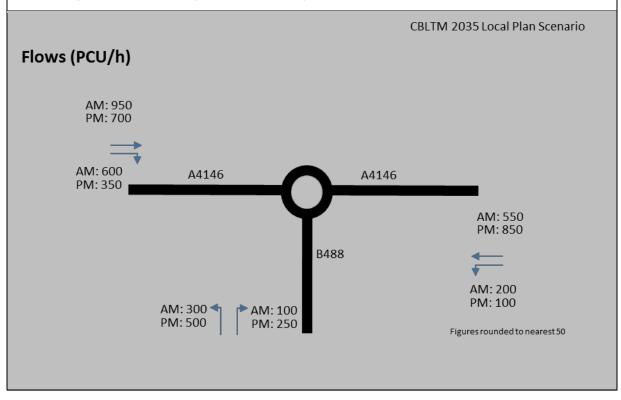
The A4146/A418 roundabout operates at or over capacity (CBLTM 2035 Local Plan scenario).





Flow diagram

The flow diagram shows the turning movements at this junction (CBLTM 2035 Local Plan scenario).



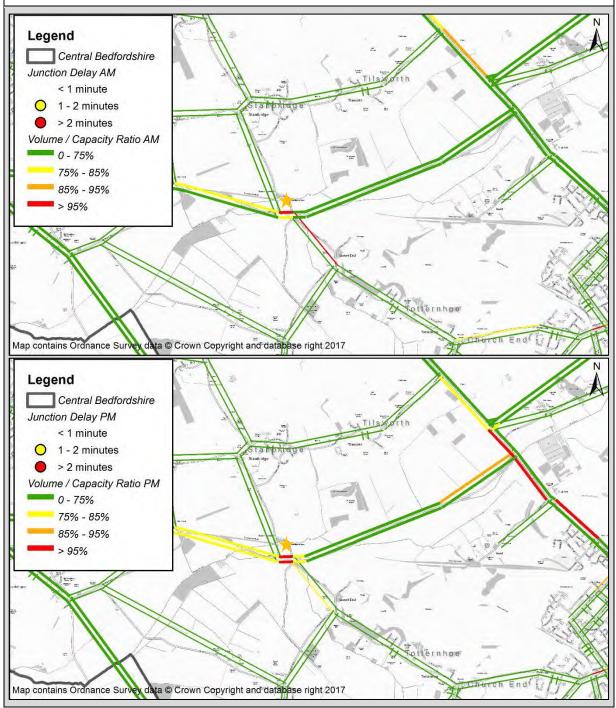


H – 14B		A505/Stanbridge Road – "Long-about"										
Location Map				Desci	Description of Issues							
Legend Central Bedfordshire Hotspot 14B - A505/Stanbridge Rd Toddington Leighton Buzzard					way priority T-junction. For the 2035 Local Plan scena modelling suggests that right turni							
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Eaton Bray							2035				
118 81	1			Scale	of	RC	5 / 10	7 / 10				
Map contains Ordnance Survey da	Map contains Ordnance Survey data © Crown Copyright and database right 2017				ct	LP	6 / 10	7 / 10				
Scheme Concept												
Scheme Concept Sketch					Description of Scheme Concept							
Station Road	existin about" This in capaci traffic, at thi below) Land bound rounda	g giv (an e nterve ty an in co s jur outsi ary m abouts <b>nolde</b>	ve-way ju longated r ention wo d give pr nsistency nction (S de of th ay be requ s at either	nctions roundabo uld incre- riority to with the elect Li ne exist uired to a end.	enverting the to a "long- but). ease junction right turning turning flows nk Analysis, ing highway accommodate E Other							
Delevent Ctreterie			up, Map data ©2017 Goo	Times	Timescale: 2025 2035							
Relevant Strategic N/A Assessment	Developi	ment S	bites									
Congestion	Medium	Growth		Low	Deli	verability		Medium				
Environment	Neutral	Risk &	Uncertainties	Medium		-						
Indicative Cost Rar												
	iye											



## Link stress and node delays

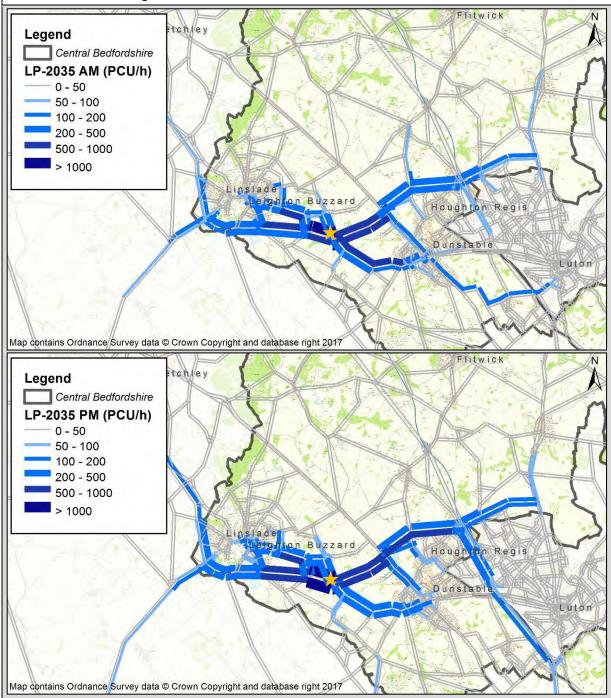
The stretch of the A505 between Station Road and Stanbridge Road is at or over capacity (CBLTM 2035 Local Plan scenario).



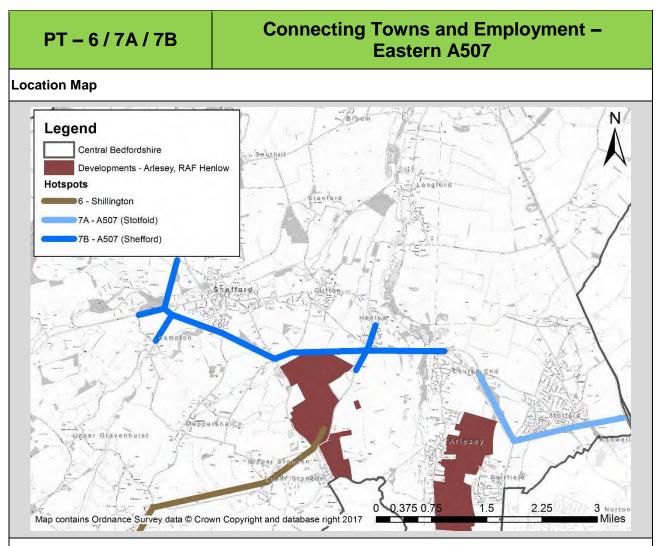


### Select Link Analysis

Select Link Analysis for the A505 suggests that there is a high proportion of the turning traffic for this section of the A505 to/from Stanbridge Road and Station Road.







#### **Description of Issues**

Shillington Road and High Road from Henlow Camp to Apsley End has been identified as Hotspot 6. The A507 from the north-west of Stotfold to the east of Stotfold has been identified as Hotspot 7A. The A507 between the west of Shefford and north of Arlesey has been identified as Hotspot 7B. Arlesey, Stotfold, Henlow and Shefford all lie to the north and south of the A507, between Biggleswade and Letchworth Garden City.

While Arlesey has a national rail station to the north of the town served by Great Northern services operating between London King's Cross, Huntingdon and Peterborough, the surrounding towns are not served directly by rail. Trains from Arlesey serve Stevenage, King's Cross and Peterborough approximately every 30 minutes each way. Approximately 750 regular commuting trips are made by rail from Arlesey, Stotfold, Henlow and Shefford (Census 2011 Flow Data - Commute).

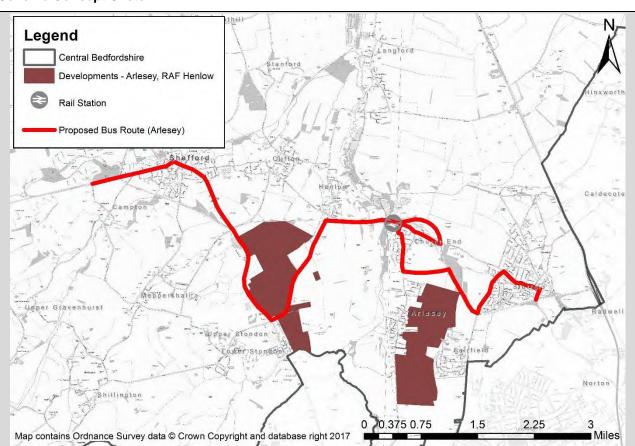
Redevelopment of the RAF Henlow site would provide mixed-use redevelopment including employment and new homes to the south of A659 Hitchin Rd. Currently only one bus service (Bedford to Hitchin) serves RAF Henlow. The scale of the new mixed use site is an opportunity to provide sustainable travel to and from this site.

East of Arlesey has a provision of 1,150 new homes within the Local Plan period. Arlesey train station is located approximately 2.5 km from the southern portion of the new development.



### **Scheme Concept**

#### Scheme Concept Sketch



#### **Description of Scheme Concept**

A new bus service is proposed, running through the planned new developments at RAF Henlow and Arlesey, to connect them to Arlesey rail station and other nearby towns. The route starts by the Chicksands employment site, continues on through Shefford town centre, then to the redeveloped RAF Henlow site. The service will route broadly through the development before re-joining the A507 towards Arlesey (stopping at the rail station), then to the Arlesey developments* (Arlesey Cross and East of Arlesey) and towards Stotfold.

Therefore, the route would connect the urban centres and employment locations to Arlesey rail station and potentially reduce demand on the A507.

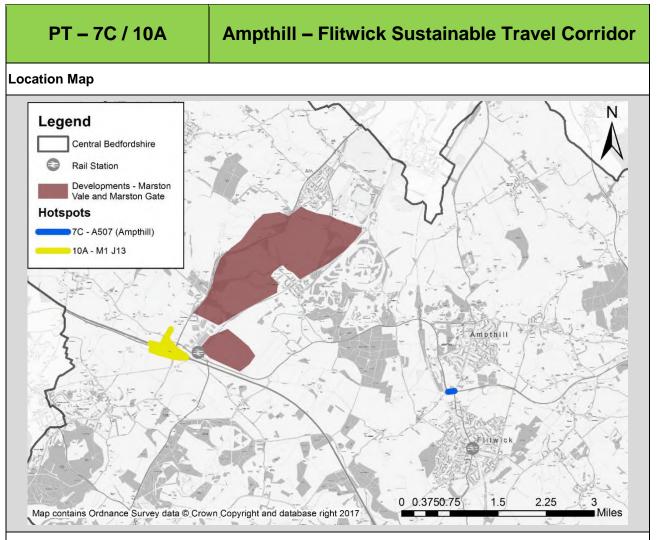
Indicative cost range is £1 m-£2.5 m. This represents the operating cost of a bus service with a 30 minute headway and 12-hour span for two years, on the basis that this service would be self-funding after this time.

*The proposed route is indicative at this stage. The proposed route is anticipated to be reviewed and revised when more information on the internal transport infrastructure of developments become available, and be routed through the developments.



Stakeholders:			CE	СВС НЕ			HE Other									
Indicative Delive	ery Time	escale:		2025		2035								2035		
Relevant Strategic Development Sites																
East of Arlesey; F	RAF Her	nlow														
Assessment	t															
Congestion		Low	Growth		Lo	w	Delivera	oility			Medium					
Environment		Positive	Risks & Unce	rtainties	Med	lium										
Indicative C	ost Ra	ange														
£0-£500k	£500	k-£1m	£1m-£2.5m	£2.5m-£	5m	£5r	n-£10m	£10r	n-£25m	Ov	er £25m					
Indicative Funding Sources																
[To be provided b	by CBC]															

ΑΞϹΟΜ



#### **Description of Issues**

Ampthill and Flitwick lie to the north and south of the A507, between Bedford and Luton. The A507 / Flitwick Road / Ampthill Road junction which connects the two towns has been identified as Hotspot 7C and currently comprises a small roundabout.

M1 Junction 13 which connects part of Central Bedfordshire to Milton Keynes has been identified as hotspot 10A.

While Flitwick has a national rail station in the centre of the town served by Thameslink services, Ampthill is not served by rail. Trains from Flitwick serve London St Pancras, Luton, Bedford (approximately every 15 minutes) and Brighton (approximately every 30 minutes). Approximately 700 regular commuting trips are made by rail from Flitwick and Ampthill (Census 2011 Flow Data - Commute).

Redborne Upper School and Community College is located immediately to the north of the A507. Trips are expected between Flitwick and Ampthill to access education, shopping and health services.

Bus services linking Ampthill and Flitwick are relatively infrequent and restricted to limited periods of time, with a maximum service span of only 12 hours. Therefore, there is scope to improve sustainable transport access between these two adjacent towns. Increased sustainable travel between these towns has the potential to reduce congestion at the A507 roundabout, as well as bring public health benefits and improve access to services by sustainable modes for residents.

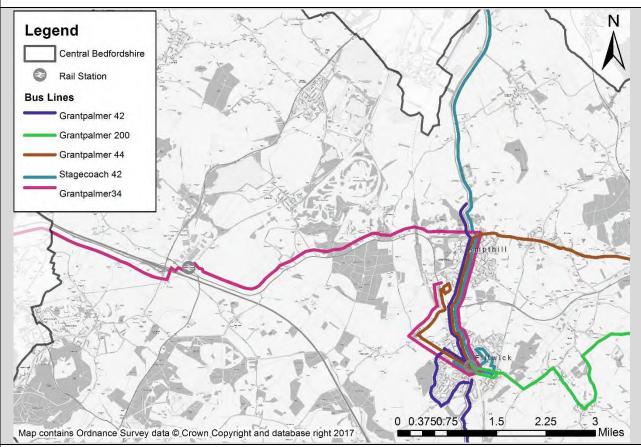
Development of Marston Vale and Marston Gate will provide up to 3,700 homes and 2,000 jobs within the Local Plan period, and would likely increase traffic movements through both of the hotspots identified (7C and 10A).

There is an opportunity to provide an improved bus service linking the towns of Flitwick and Ampthill to the Marston Gate employment site and East-West rail at Ridgmont station.



### **Scheme Concept**

#### Scheme Concept Sketch



#### **Description of Scheme Concept**

Please refer to Pro forma H – 7C for details of the proposed highway improvements at the A507 / Flitwick Rd / Ampthill Rd junction, including the potential for improved at-grade pedestrian and cycle crossings as part of the sustainable travel improvement between Flitwick and Ampthill. This pro forma presents the public transport improvements. The table below summarises the current bus services provided in this area. Note: these routes may change in future years as a result of changes in subsidy and/or commercial decisions by operators.

Route	Route No.	Average Weekday Headway	First Bus	Last Bus
Bedford – Dunstable	42 (Grant Palmer)	30 mins	09:26	16:42
Bedford – Flitwick	42 (Stagecoach)	40 mins to 2 hours	06:17	18:30
Bedford – Ampthill Heights	44 (Grant Palmer)	60 mins	07:18	14:39
Flitwick – Biggleswade	200 (Grant Palmer)	2 hours	07:24	17:36
Milton Keynes – Ampthill Heights	34 (Grant Palmer)	2 hours	09:10	16:39

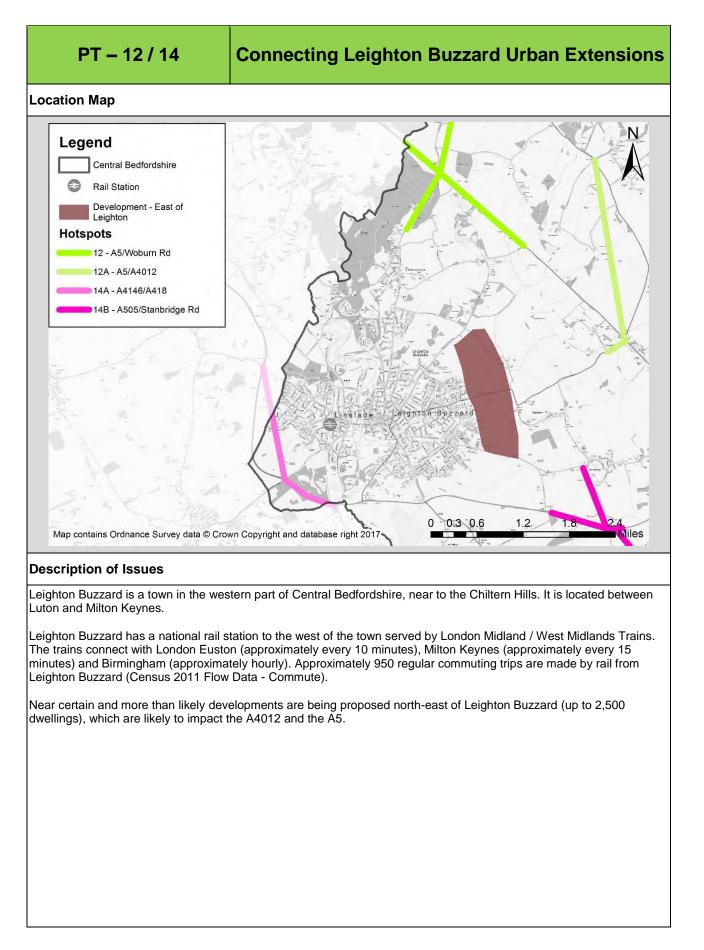
The scheme proposes a reduction in headway of the 34 Grant Palmer service from 2 hours to 15 minutes in order to increase the attractiveness of using this route for journeys between Ampthill and Flitwick, and improve connectivity between Ampthill, Flitwick, Marston Gate and East-West Rail stations. The 34 route connects Ampthill and Flitwick to Milton Keynes via Ridgmont station. This improved service would connect with the proposed new business park in Marston Vale to the north of Ridgmont station.

Indicative cost range is £2.5 m-£5 m. This represents the change in operating costs resulting from a reduction in headway from 2 hours to 15 minutes over a 12-hour span for two years, on the basis that this service would be fully self-funding after this time.



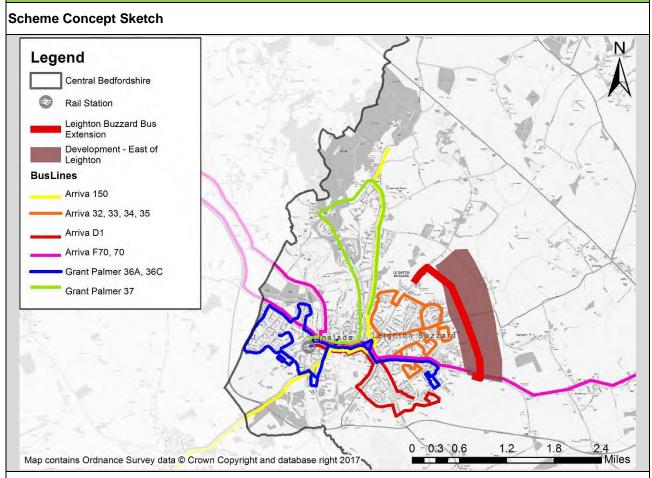
Stakeholders:		CI	СВС			HE Other				er				
Indicative Delivery	Timescale:		2025			2035				2035				
Relevant Strategic Development Sites														
Marston Gate														
Assessment														
Congestion	Low	Grow	Growth		w		Delivera	ability		Medium				
Environment	Positive	Risks & Und	certainties	Medi	ium									
Indicative Cos	st Range													
£0-£500k	£500k-£1m	£1m-£2.5m	£2.5m-£	£5m £5m-£10m £10m-£25m Over £2				ver £25m						
Indicative Fur	nding Sourc	ces												
[To be provided by	CBC]													

ΑΞϹΟΜ



# ΑΞϹΟΜ

## **Scheme Concept**



### **Description of Scheme Concept**

The table below summarises the current bus services provided in this area. Note: these routes may change in future years as a result of changes in subsidy and/or commercial decisions by operators.

Route	Route No	Average Weekday Headway	First Bus	Last Bus
Aylesbury to Milton Keynes	150 (Arriva)	Hourly	06:00	19:00
Leighton Buzzard (Linslade Circular)	36A/36C (Grant Palmer)	Every 30 mins	08:00	17:15
Leighton Buzzard (Plantation Rd)*	37 (Grant Palmer)	Every 30 mins	06:45-07:35	18:25–19:25
Leighton Buzzard (Linslade)	36C (Grant Palmer)	Hourly	09:15	16:15
Leighton Buzzard Town Service	32, 33, 34, 35 (Arriva)	Every 30 mins	07:50	17:50
Sandhills to Leighton Buzzard	D1 (Arriva)	Every 30 mins	06:17	20:25
Luton to Milton Keynes	70, F70 (Arriva)	Every 30 mins	05:03	20:30
*Peak hour service				

The proposed scheme is to divert the bus service 70 and F70 which currently passes through western Leighton Buzzard, in order to serve the proposed urban expansions to the north east of Leighton Buzzard. Extension of current bus routes through Leighton Buzzard would connect the new development to the town centre and the train station, but also to Milton Keynes, Dunstable and Luton.

Indicative cost range for this scheme is £0-£500 k, assuming that there would be no increase in regular operating costs for the bus service operator, including those arising from an increase in journey lengths to such an extent that additional vehicles are required in order to maintain the service frequency and headway.



Stakeholders:		CI	вС		HE Other					er					
Indicative Delivery	Timescale:		2025			2035					2035				
Relevant Strat	egic Develo	pment Site	es												
N/A															
Assessment															
Congestion	Low	Growth		Lo	w	Deliverab	ility			Medium					
Environment	Positive	Risks & Unce	ertainties	Mec	lium										
Indicative Cos	t Range														
£0-£500k	£500k-£1m	£1m-£2.5m	£2.5m-	£5m	£51	m-£10m	£10	m-£25m	0	/er £25m					
Indicative Fun	ding Sourc	es													
[To be provided by C	CBC]														