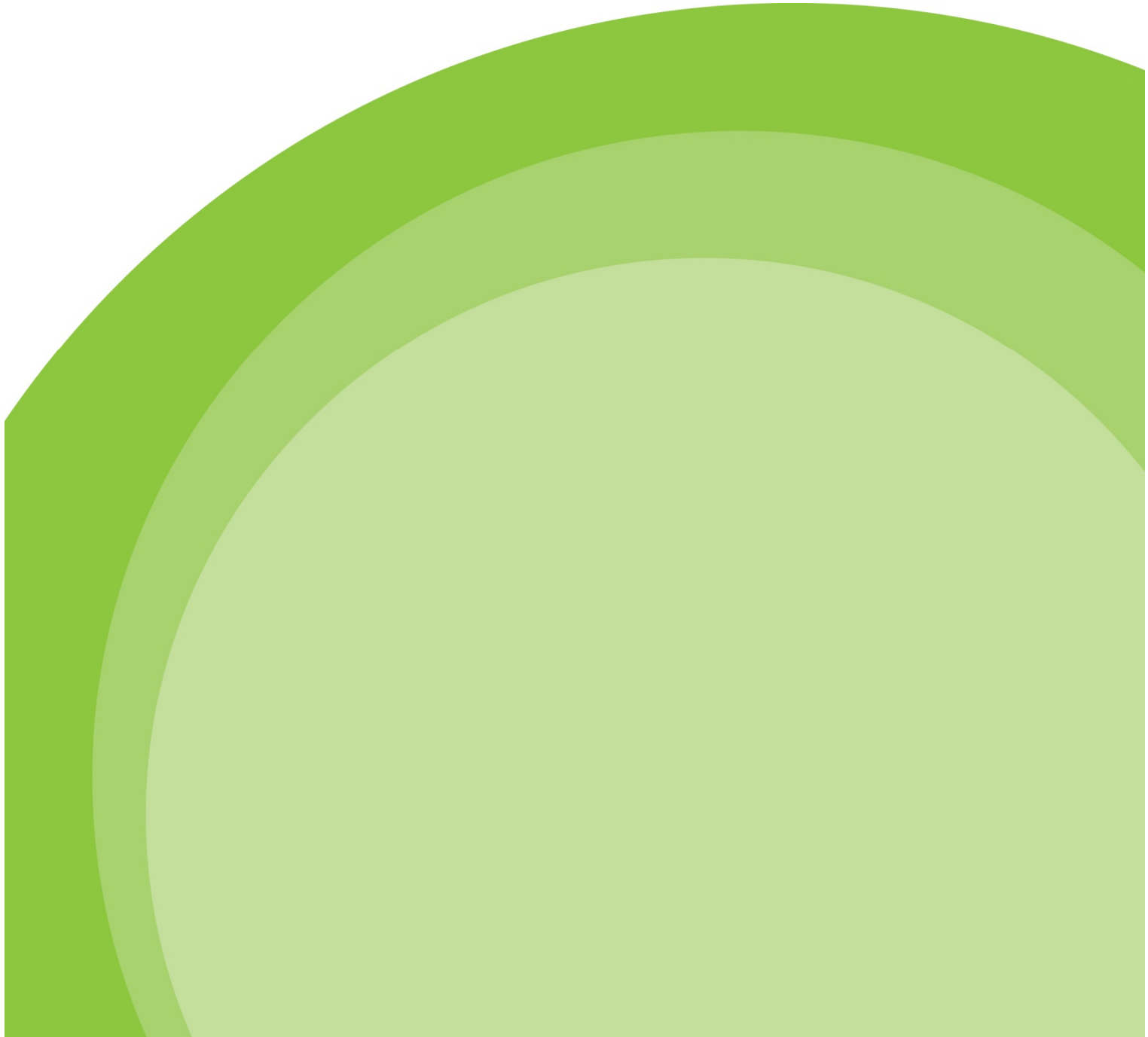


North Central Bedfordshire Growth Options Study Appendix 5 part 1

July 2017

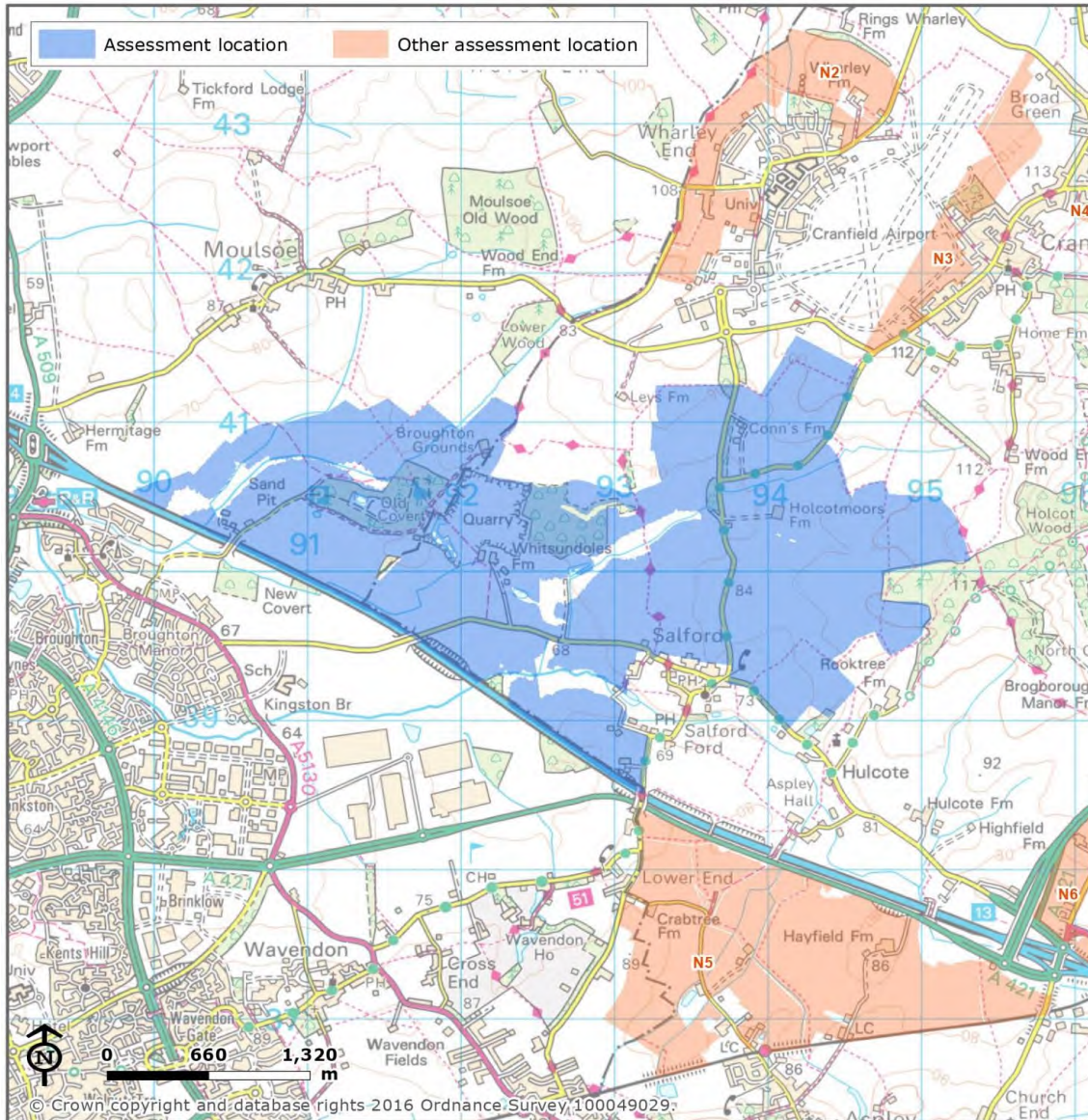


Appendix 5

Location assessment forms

Location ID: N1 Name: Salford

Location area:	662.4 hectares
Proportion within Study Area:	77%
Typology:	Large new settlement / village extension, not in close proximity to public transport
Assumed net density:	44 dwellings per hectare
Assumed total net capacity:	17,487 dwellings
Estimated net capacity 2015-2035:	2,500 dwellings



Spatial options

Which spatial options does the location meet the criteria for?

New settlements	(>1 km from existing top-tier settlement and >2000 capacity)	✓
Village extensions	(<100 m from existing non top-tier settlement)	✓
Growth in transport corridors	(<1.2km from railway stn, guided busway stop or park & ride facility, or <1km from A-road or motorway)	✓
Urban extensions	(<100 m from top tier settlement and not within urban area)	✗
Urban intensification around public transport hubs	(<1.2 km from railway stn, guided busway stop or park & ride facility)	✗

Constraints

Which types of secondary constraint are present within the location?

Historic environment	Listed Building	No
Historic environment	Conservation Area	No
Biodiversity	Priority Habitat Inventory	Yes
Biodiversity	Locally designated wildlife site	Yes
Biodiversity	Local Nature Reserve	No
Biodiversity	Local geological site	No
Landscape	Locally identified sensitive landscape	No
Air quality	Air Quality Management Area	No
Soil quality	Grade 1, 2 or 3 agricultural land	Yes
Water quality	Source Protection Zone 1 or Zone 1c	No
Flood risk	Flood Zone 2	Yes
Flood risk	Flooding from surface water (1 in 100 year)	Yes
Energy infrastructure	High voltage electricity line 400 m buffer zone	No
Mineral resources	Mineral Safeguarding Area	Yes
Open space, sport & recreation	Sustrans national cycle route	Yes
Open space, sport & recreation	Publicly accessible open space	No

Access to services and facilities

Which services and facilities are present within indicative walking distance of the location?

Railway stations, guided busway stops and park and ride facilities (1.2 km)	No
Major employment areas (2.0 km)	Yes
Town centres and major out of centre retail parks (0.8 km)	No
Publicly accessible open spaces (1.2 km)	Yes
Secondary or upper schools and further or higher education establishments (2.0 km)	Yes
Lower, middle or primary schools (1.0 km)	Yes
Local / neighbourhood centres (0.4 km)	No
NHS primary healthcare (GPs) and hospitals (1.2 km)	Yes
Bus stops, inc. stops on non-guided sections of guided busway (0.8 km)	Yes

Deliverability

Is the location likely to be available for development and is there a reasonable prospect of delivery of the site within the time period?

Highly likely

The entirety of the growth location comprises sites submitted by promoters through the Call for Sites process.

Is there a reasonable prospect that required strategic infrastructure can be delivered within the time period?

Less likely

Not within 1.2km of existing public transport interchange, but within 1.0km of existing strategic road, and close to M1 J14. Development of this scale is likely to require significant improvements to existing transport infrastructure, even after taking into account the planned Oxford-Cambridge Expressway (Medium/50% likelihood of delivery by 2035). Any known critical strategic utilities requirements are significantly funded.

Is there likely to be current demand for this scale of development in this location?

Highly likely

Location offers good access to quality of life attractions (cultural, sports, leisure and/or natural assets), and highly convenient access to employment and amenities. These factors are not fully reflected in what are moderate average local residential sales values.

Is there likely to be potential future demand for this scale of development in this location, if planned regeneration, employment, and infrastructure projects are delivered?

Highly likely (no change from current assessment)

Housing demand may increase in line with employment opportunities associated with this large site, as well as the Bedford & Milton Keynes Waterway (Medium/50% likelihood of delivery by 2035), the Oxford-Cambridge Expressway (Medium/50% likelihood of delivery by 2035), and employment growth in Milton Keynes. There may be some demand for a more aspirational housing offer relative to the current area.

OVERALL DELIVERABILITY ASSESSMENT (see decision flowchart in Methodology section)

Low

Viability

Viability of cleared and serviced development parcel

Highly likely

High level viability modelling suggests that development at the assumed density with policy compliant affordable housing exceeds the Threshold Land Value at current costs and values. Assumed density: 44 dwellings per net developable hectare (Large new settlement / village extension, not in close proximity to public transport interchange)

Is there a reasonable prospect that required local infrastructure and abnormal cost items can be delivered within the time period?

Highly likely

All of the growth location is understood to be greenfield High level viability modelling suggests that development at the assumed density with policy compliant affordable housing could offer contributions towards local infrastructure and abnormal cost items of over £30,000 per residential unit / £750,000 per net developable hectare.

OVERALL VIABILITY ASSESSMENT

High

Transport

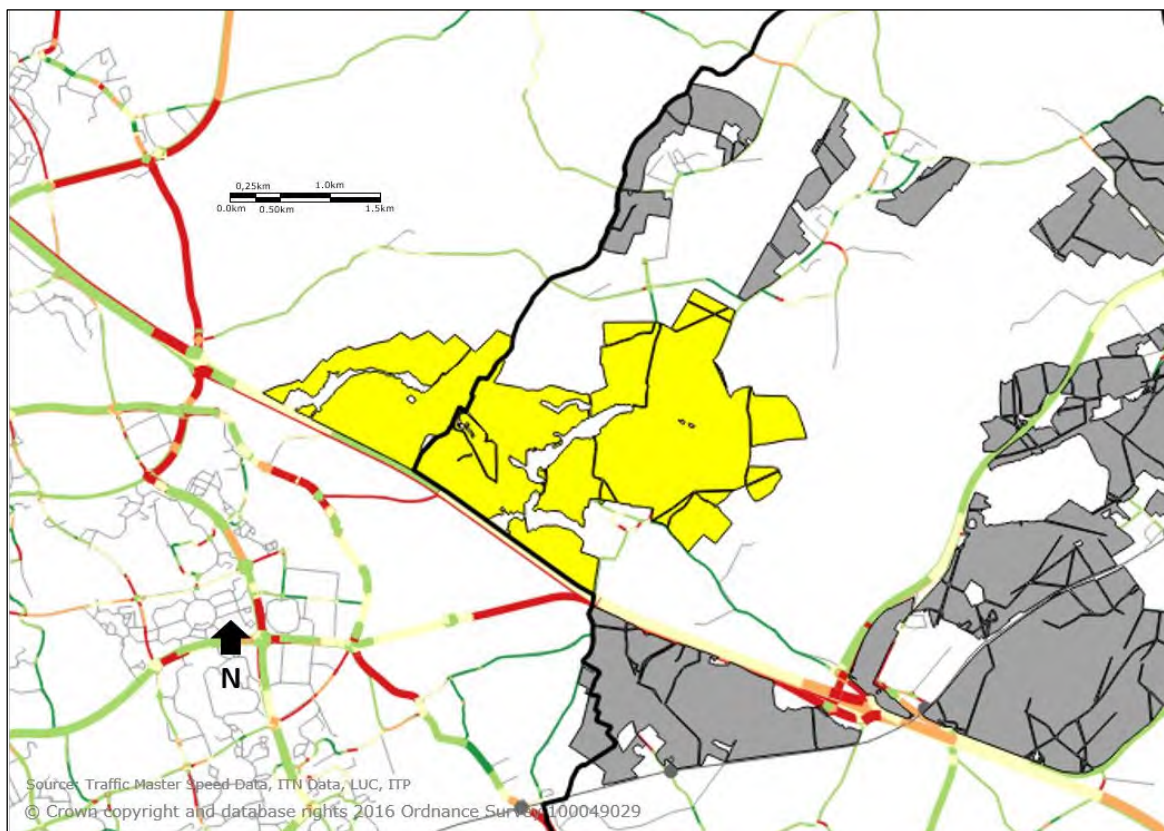
Large new settlement/village extension (666.9 ha) south of Cranfield and west of Salford. The south-western side of this potential growth option is placed adjacent to the M1. This site is largely served by minor roads.











The western side of this option lies outside Central Bedfordshire within the Borough of Milton Keynes. This option is approximately 3.0 km from Ridgmont Train Station, which is currently managed by London Midland and offers low-frequency train services along the Marston Vale line between Bedford and Bletchley.

The National Cycle Network (NCN) route 51 is located to the south of this option.

Indicative traffic conditions

This potential growth option is accessible via Broughton Road, Cranfield Road and Wavendon Road towards the centre and east. Close to the centre of Salford, Cranfield Road and Wavendon Road reveals speed reductions greater than or equal to 30%. Additionally, Broughton Road reveals the same magnitude of speed reductions, near the junction with Newport Road, to the east of Milton Keynes. Speed reductions are also observed on the M1, close to the junctions of 13 and 14, and also on the A421 close to the M1 Junction 13.



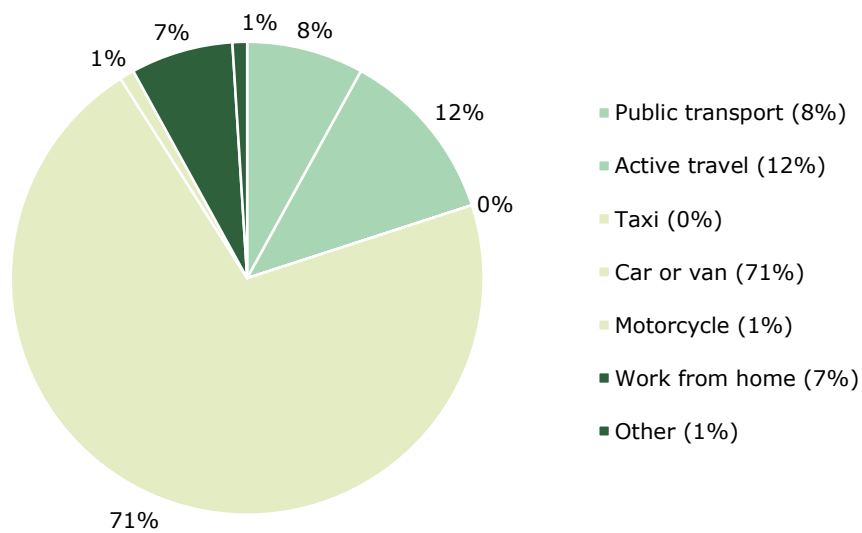
					
Speed differentials	≥ 30% speed reduction	20% ≤ speed reduction < 30%	10% ≤ speed reduction < 20%	10% < speed reduction	No speed reduction
Road type	 Motorway	 A Road	 B Road	 Minor Road	 Other Road

Recorded journey to work O-D movements in the vicinity of this location suggest that car/van trips are likely to be added to the road network as shown below:

Route	Traffic distribution ¹	Main roads likely to be affected
Western routes towards Milton Keynes	39%	A421, A509
Eastern routes	28%	A421, A507
North-Eastern routes towards Bedford	14%	A421
South-Eastern routes towards North Hertfordshire, Stevenage, Luton and St Albans	14%	A507, M1, A6
North-Western routes towards Northampton	2%	M1, A509
Southern routes towards Dacorum	2%	M1
South-Western routes towards Aylesbury Vale	1%	A421
Northern routes	0%	N/A

¹ Based on at least 75% of car/van trips originating in Central Bedfordshire Middle Super Output Area 007.

Commuter travel mode split



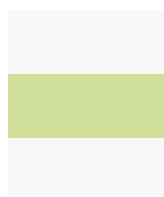
Indicative number of jobs within 60 minutes by public transport in relation to the closest bus stop to the potential housing area:

Based on existing conditions:

0 - 60,000

60,000 - 120,000

> 120,000

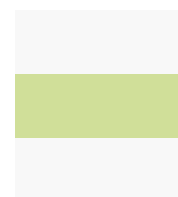


Based on assumed future conditions:

0 - 60,000

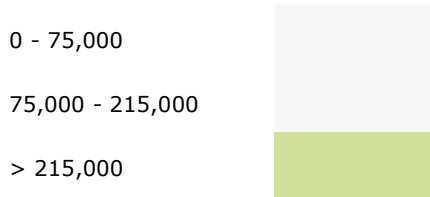
60,000 - 120,000

> 120,000

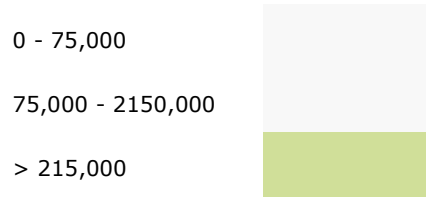


Indicative number of jobs within 30 minutes by road in relation to the centre of the potential housing area:

Based on existing conditions:



Based on assumed future conditions:



Personal Injury Collisions (PICs) ¹

	Perimeter (200mt) ²		Perimeter (1,000mt) ²
Fatal	3 (0.00 collisions per ha)	Fatal	4 (0.01 collisions per ha)
Serious	9 (0.01 collisions per ha)	Serious	22 (0.03 collisions per ha)
Slight	67 (0.10 collisions per ha)	Slight	171 (0.26 collisions per ha)

¹ Years reviewed: 2011, 2012, 2013, 2014 and 2015.

² PICs on existing road network within a perimeter that is set 200 and 1,000 metres outside each housing area.

Transport infrastructure investment

Key transport infrastructure investment for which it is likely to be a relationship with this growth option:

ID	Name	Likelihood of delivery by 2035
R4	A421 Magna Park to J13 M1	Confirmed (100%)
R7	M1 J13 to J16 Smart Motorway	Confirmed (100%)
R8	M1 J10 to J13 Smart Motorway	Confirmed (100%)
P2	East West Rail (Western Section – Phase 2)	High (75%)
P3	East West Rail (Central Section)	Medium (50%)
P10	Interchange at Ridgmont	High (75%)

The upgrading of the A421 between Magna Park and Junction 13 of the M1 (R4) which would be part of the Oxford to Cambridge Expressway scheme, is likely to result in an improved transport connection to and from Milton Keynes, linking closely with housing delivery at this location. Further, this location is also likely to benefit from existing improvements on the M1 to the south (R8).

In addition to this location benefitting from planned interchange improvements at Ridgmont (P10), there is also an opportunity at this location to link to both the M1 improvements (R7) and East West Rail (P2 and P3). The East West Rail scheme in particular will provide a rail link across Central Bedfordshire, between Oxford and Cambridge, which is presently non-existent.

Potential transport interventions

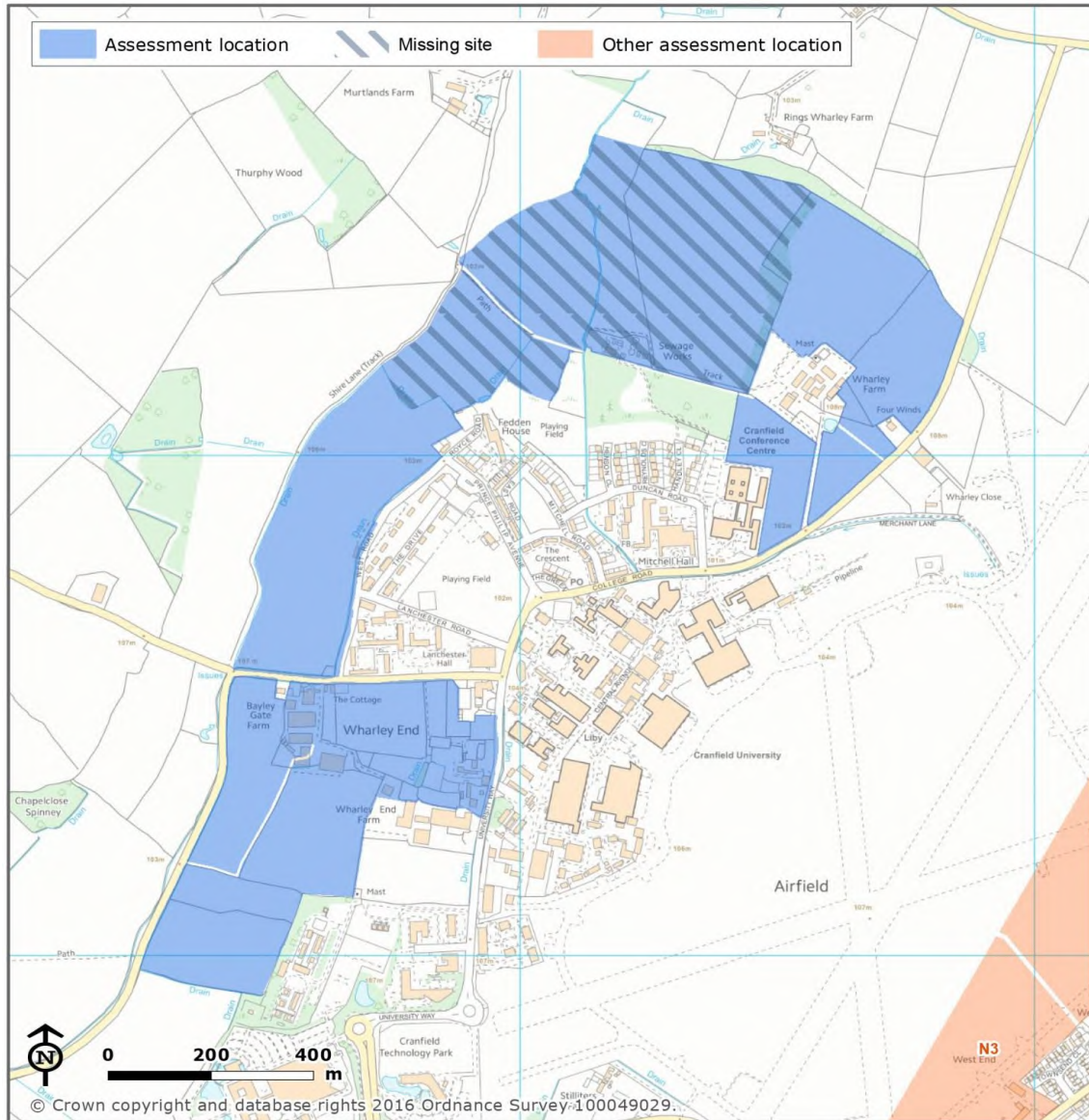
Potential transport interventions to improve the relative performance of this growth option are shown below:

- Bus network review with a view to enhancing connectivity between Bedford and Milton Keynes via Cranfield and providing a connection to Ridgmont station.
- Provide a cycle connection to the National Cycle Route 51 and Ridgmont station.
- Improved cycle parking facilities at existing and future public transport interchanges.

Location ID: N2

Name: Wharley End West

Location area:	75.4 hectares
Proportion within Study Area:	100%
Typology:	Small village extension, not in close proximity to public transport interchange
Assumed net density:	30 dwellings per hectare
Assumed total net capacity:	1,357 dwellings
Estimated net capacity 2015-2035:	1,357 dwellings



Spatial options

Which spatial options does the location meet the criteria for?

New settlements	(>1 km from existing top-tier settlement and >2000 capacity)	✘
Village extensions	(<100 m from existing non top-tier settlement)	✓
Growth in transport corridors	(<1.2km from railway stn, guided busway stop or park & ride facility, or <1km from A-road or motorway)	✘
Urban extensions	(<100 m from top tier settlement and not within urban area)	✘
Urban intensification around public transport hubs	(<1.2 km from railway stn, guided busway stop or park & ride facility)	✘

Constraints

Which types of secondary constraint are present within the location?

Historic environment	Listed Building	No
Historic environment	Conservation Area	No
Biodiversity	Priority Habitat Inventory	Yes
Biodiversity	Locally designated wildlife site	No
Biodiversity	Local Nature Reserve	No
Biodiversity	Local geological site	No
Landscape	Locally identified sensitive landscape	No
Air quality	Air Quality Management Area	No
Soil quality	Grade 1, 2 or 3 agricultural land	Yes
Water quality	Source Protection Zone 1 or Zone 1c	No
Flood risk	Flood Zone 2	No
Flood risk	Flooding from surface water (1 in 100 year)	Yes
Energy infrastructure	High voltage electricity line 400 m buffer zone	No
Mineral resources	Mineral Safeguarding Area	No
Open space, sport & recreation	Sustrans national cycle route	No
Open space, sport & recreation	Publicly accessible open space	No

Access to services and facilities

Which services and facilities are present within indicative walking distance of the location?

Railway stations, guided busway stops and park and ride facilities (1.2 km)	No
Major employment areas (2.0 km)	Yes
Town centres and major out of centre retail parks (0.8 km)	No
Publicly accessible open spaces (1.2 km)	Yes
Secondary or upper schools and further or higher education establishments (2.0 km)	Yes
Lower, middle or primary schools (1.0 km)	No
Local / neighbourhood centres (0.4 km)	No
NHS primary healthcare (GPs) and hospitals (1.2 km)	Yes
Bus stops, inc. stops on non-guided sections of guided busway (0.8 km)	Yes

Deliverability

Is the location likely to be available for development and is there a reasonable prospect of delivery of the site within the time period?

Highly likely

The majority of the site has been submitted by promoters through the Call for Sites process. The rest of the site comprises 'missing site(s)', and therefore the land availability is currently unknown. However, we are not specifically aware of any opposition by the promoters.

Is there a reasonable prospect that required strategic infrastructure can be delivered within the time period?

Moderately likely

Not within 1.2km of existing public transport interchange, and not within 1.0km of existing strategic road. Development of this scale is likely to require moderate improvements to existing transport infrastructure, but none are currently planned. Any known critical strategic utilities requirements are significantly funded.

Is there likely to be current demand for this scale of development in this location?

Moderately likely

Location offers moderate access to quality of life attractions (cultural, sports, leisure and/or natural assets), and highly convenient access to employment and amenities. Relatively low average residential sales values are likely to reflect the local character of the area.

Is there likely to be potential future demand for this scale of development in this location, if planned regeneration, employment, and infrastructure projects are delivered?

Highly likely (increase from current assessment)

Housing demand may increase in line with the Sandy East-West Rail interchange, and employment growth in Milton Keynes. There may be some demand for a more aspirational housing offer relative to the current area.

OVERALL DELIVERABILITY ASSESSMENT (see decision flowchart in Methodology section)

High

Viability

Viability of cleared and serviced development parcel

Moderately likely

High level viability modelling suggests that development at the assumed density exceeds the Threshold Land Value at current costs and values with lower than policy compliant affordable housing provision. Assumed density: 30 dwellings per net developable hectare (Small village extension, not in close proximity to public transport interchange)

Is there a reasonable prospect that required local infrastructure and abnormal cost items can be delivered within the time period?

Moderately likely

All of the growth location is understood to be greenfield High level viability modelling suggests that development at the assumed density could only offer contributions towards local infrastructure and abnormal cost items of over £30,000 per residential unit / £750,000 per net developable hectare with lower than policy compliant levels of affordable housing provision.

OVERALL VIABILITY ASSESSMENT

Medium

Transport

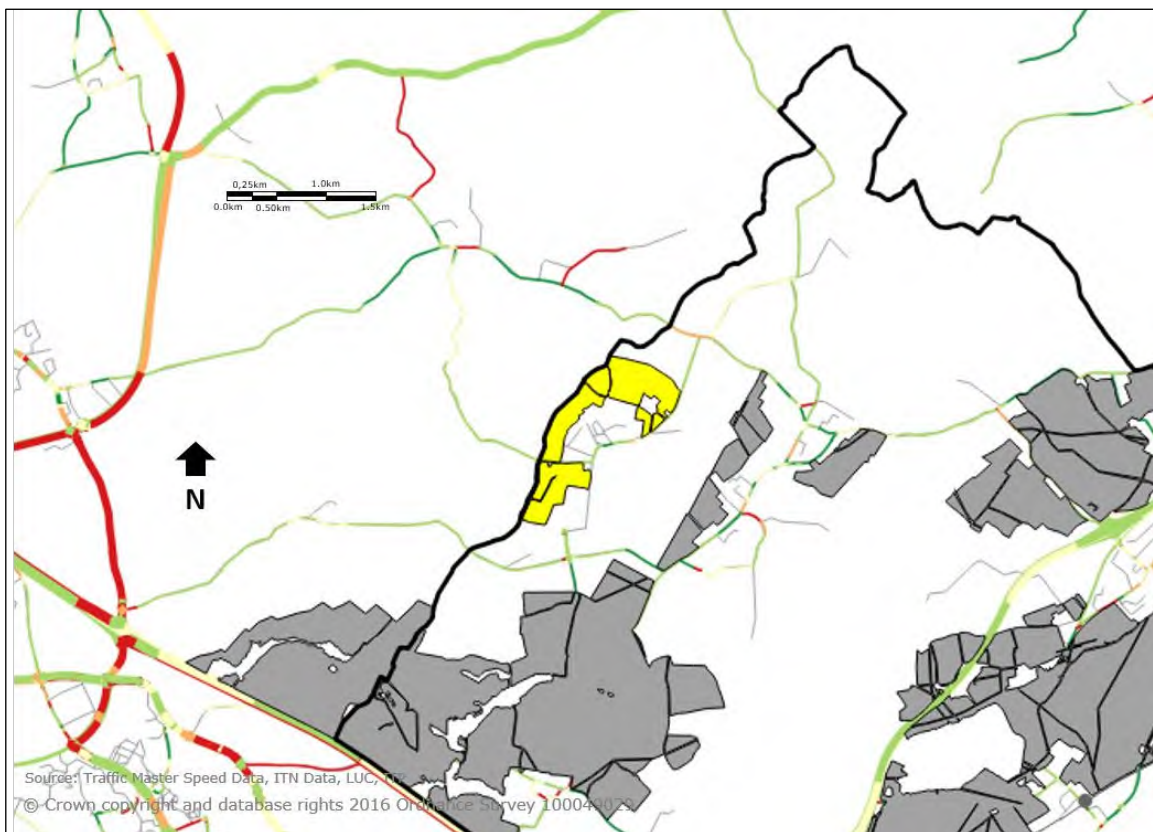
Small village extension (75.4 ha) west of Cranfield. This potential growth option is largely served by minor roads.











This option is approximately 7.0 km from Ridgmont Train Station, which is currently managed by London Midland and offers low-frequency train services along the Marston Vale line between Bedford and Bletchley.

The National Cycle Network (NCN) route 51 is located to the south of this option.

Indicative traffic conditions

This potential growth option is accessible via College Road to the north, and University Way to the south. Crawley Road, which is located to the north/east of this option, reveals speed reductions greater than or equal to 30% near the junction with College Road and through the village of North Crawley, to the North West. Further north of this growth option, speed reductions are also apparent on Gog Lane, which connects to the A422. Additionally, to the west, large sections with speed reductions of greater than or equal to 30% are observed on the A509 (London Road), close to the M1 Junction 14.



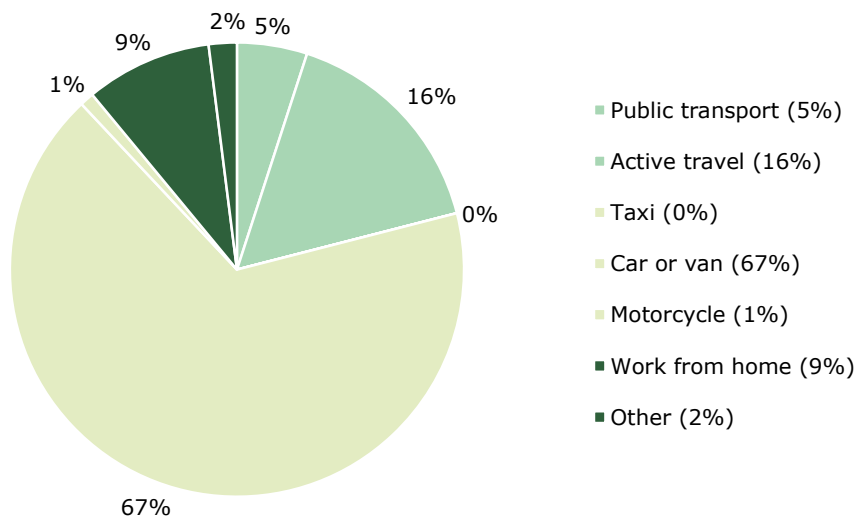
					
Speed differentials	≥ 30% speed reduction	20% ≤ speed reduction < 30%	10% ≤ speed reduction < 20%	10% < speed reduction	No speed reduction
Road type	 Motorway	 A Road	 B Road	 Minor Road	 Other Road

Recorded journey to work O-D movements in the vicinity of this location suggest that car/van trips are likely to be added to the road network as shown below:

Route	Traffic distribution ¹	Main roads likely to be affected
Western routes towards Milton Keynes	39%	A421, A422, A509
Southern routes towards Dacorum	22%	A421, M1
South-Eastern routes towards North Hertfordshire, Stevenage, Luton and St Albans	17%	A507, M1, A6
North-Eastern routes towards Bedford	14%	A422, A421
Eastern routes	5%	A507, A421
North-Western routes towards Northampton	2%	A509, M1
South-Western routes towards Aylesbury Vale	1%	A421
Northern routes	0%	N/A

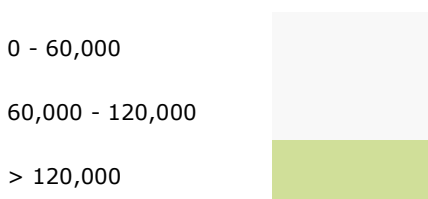
¹ Based on at least 75% of car/van trips originating in Central Bedfordshire Middle Super Output Area 007.

Commuter travel mode split

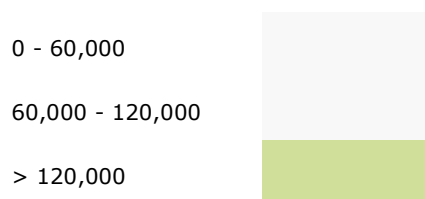


Indicative number of jobs within 60 minutes by public transport in relation to the closest bus stop to the potential housing area:

Based on existing conditions:

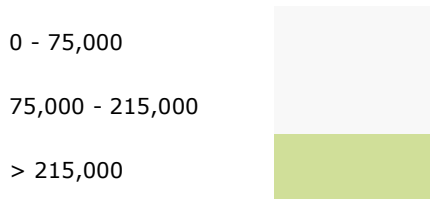


Based on assumed future conditions:

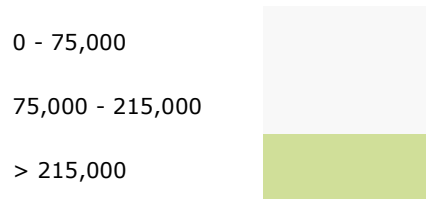


Indicative number of jobs within 30 minutes by road in relation to the centre of the potential housing area:

Based on existing conditions:



Based on assumed future conditions:



Personal Injury Collisions (PICs) ¹

	Perimeter (200mt) ²		Perimeter (1,000mt) ²
Fatal	0 (0.00 collisions per ha)	Fatal	1 (0.01 collisions per ha)
Serious	0 (0.00 collisions per ha)	Serious	3 (0.04 collisions per ha)
Slight	3 (0.04 collisions per ha)	Slight	9 (0.12 collisions per ha)

¹ Years reviewed: 2011, 2012, 2013, 2014 and 2015.

² PICs on existing road network within a perimeter that is set 200 and 1,000 metres outside each housing area.

Transport infrastructure investment

Key transport infrastructure investment for which it is likely to be a relationship with this growth option:

ID	Name	Likelihood of delivery by 2035
R2	Bedford Western Bypass (Phase Two)	Confirmed (100%)
R4	A421 Magna Park to J13 M1	Confirmed (100%)
R7	M1 J13 to J16 Smart Motorway	Confirmed (100%)
P2	East West Rail (Western Section – Phase 2)	High (75%)
P3	East West Rail (Central Section)	Medium (50%)
P10	Interchange at Ridgmont	High (75%)

Similar to growth option N1, this location is likely to benefit from the improvements made to the A421 (R4) and M1 (R7). From a public transport point of view, there are also opportunities to link the site to the proposed East West Rail scheme (P2 and P3) and the site is likely to benefit from interchange improvements made at Ridgmont Station (P10). Further, due to the site's proximity to both the A422 and A421, the recently completed Phase Two of the Bedford Western Bypass (R2) is likely to benefit to some extent, road based travel from the west and south west of Bedford.

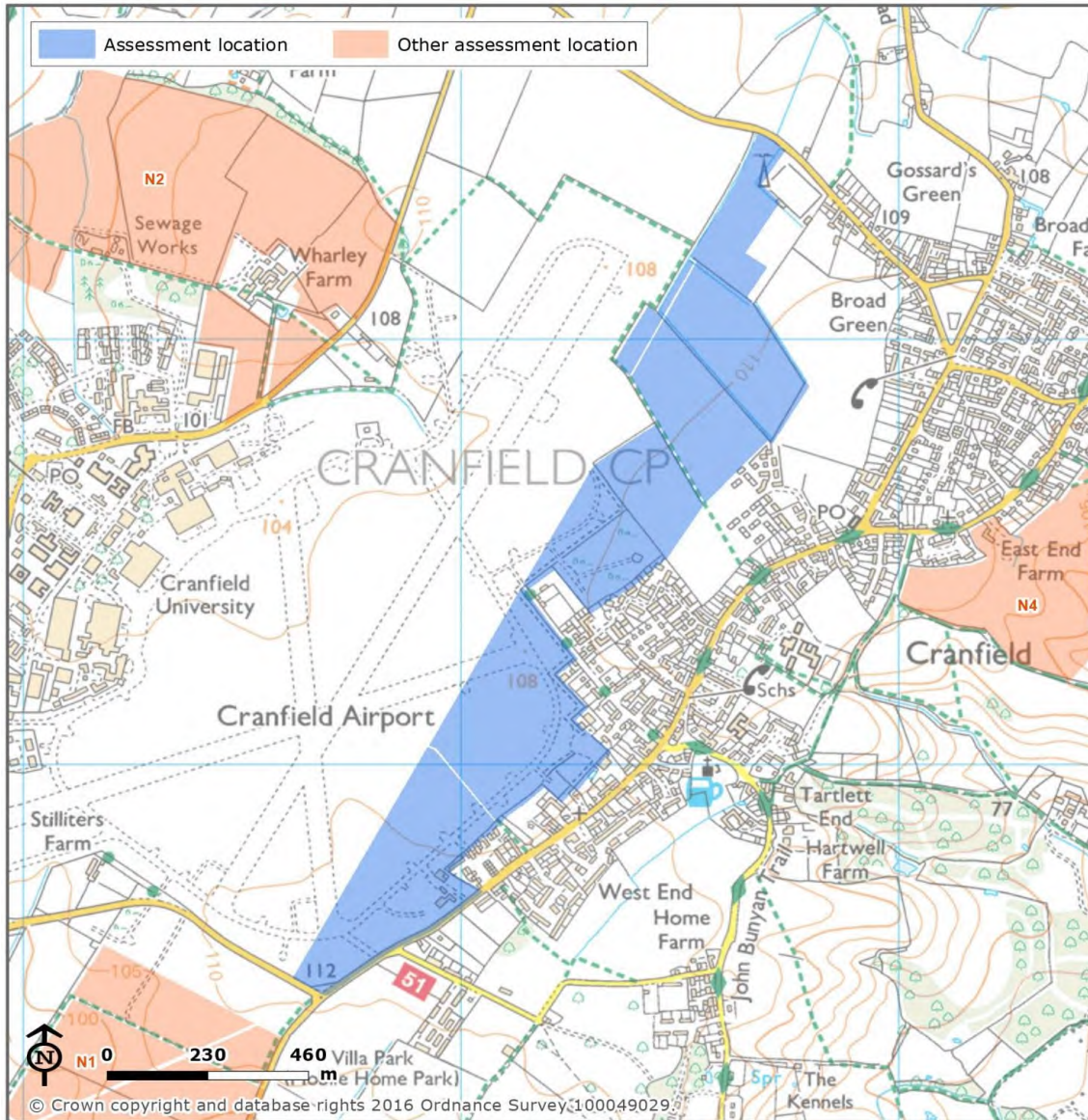
Potential transport interventions

Potential transport interventions to improve the relative performance of this growth option are shown below:

- Bus network review with a view to enhancing connectivity between Bedford and Milton Keynes via Cranfield and providing a connection to Ridgmont station.
- Provide a cycle connection to the National Cycle Route 51 and Ridgmont station.
- Improved cycle parking facilities at existing and future public transport interchanges.

Location ID: N3 Name: Cranfield West

Location area:	47.5 hectares
Proportion within Study Area:	100%
Typology:	Small village extension, not in close proximity to public transport interchange
Assumed net density:	30 dwellings per hectare
Assumed total net capacity:	855 dwellings
Estimated net capacity 2015-2035:	855 dwellings



Spatial options

Which spatial options does the location meet the criteria for?

New settlements	(>1 km from existing top-tier settlement and >2000 capacity)	✘
Village extensions	(<100 m from existing non top-tier settlement)	✓
Growth in transport corridors	(<1.2km from railway stn, guided busway stop or park & ride facility, or <1km from A-road or motorway)	✘
Urban extensions	(<100 m from top tier settlement and not within urban area)	✘
Urban intensification around public transport hubs	(<1.2 km from railway stn, guided busway stop or park & ride facility)	✘

Constraints

Which types of secondary constraint are present within the location?

Historic environment	Listed Building	No
Historic environment	Conservation Area	No
Biodiversity	Priority Habitat Inventory	Yes
Biodiversity	Locally designated wildlife site	No
Biodiversity	Local Nature Reserve	No
Biodiversity	Local geological site	No
Landscape	Locally identified sensitive landscape	No
Air quality	Air Quality Management Area	No
Soil quality	Grade 1, 2 or 3 agricultural land	Yes
Water quality	Source Protection Zone 1 or Zone 1c	No
Flood risk	Flood Zone 2	No
Flood risk	Flooding from surface water (1 in 100 year)	Yes
Energy infrastructure	High voltage electricity line 400 m buffer zone	No
Mineral resources	Mineral Safeguarding Area	No
Open space, sport & recreation	Sustrans national cycle route	No
Open space, sport & recreation	Publicly accessible open space	No

Access to services and facilities

Which services and facilities are present within indicative walking distance of the location?

Railway stations, guided busway stops and park and ride facilities (1.2 km)	No
Major employment areas (2.0 km)	Yes
Town centres and major out of centre retail parks (0.8 km)	No
Publicly accessible open spaces (1.2 km)	Yes
Secondary or upper schools and further or higher education establishments (2.0 km)	Yes
Lower, middle or primary schools (1.0 km)	Yes
Local / neighbourhood centres (0.4 km)	No
NHS primary healthcare (GPs) and hospitals (1.2 km)	Yes
Bus stops, inc. stops on non-guided sections of guided busway (0.8 km)	Yes

Deliverability

Is the location likely to be available for development and is there a reasonable prospect of delivery of the site within the time period?

Highly likely

The entirety of the growth location comprises sites submitted by promoters through the Call for Sites process.

Is there a reasonable prospect that required strategic infrastructure can be delivered within the time period?

Moderately likely

Not within 1.2km of existing public transport interchange, and not within 1.0km of existing strategic road. Development of this scale is likely to require moderate improvements to existing transport infrastructure, but none are currently planned. Any known critical strategic utilities requirements are significantly funded.

Is there likely to be current demand for this scale of development in this location?

Moderately likely

Location offers moderate access to quality of life attractions (cultural, sports, leisure and/or natural assets), and highly convenient access to employment and amenities. Relatively low average residential sales values are likely to reflect the local character of the area.

Is there likely to be potential future demand for this scale of development in this location, if planned regeneration, employment, and infrastructure projects are delivered?

Highly likely (increase from current assessment)

Housing demand may increase in line with employment growth in Milton Keynes. Average residential sales values do not currently reflect access to quality of life attractions (cultural, sports, leisure and/or natural assets) and convenience of access to employment and amenities, offering the potential to appeal to a broader market.

OVERALL DELIVERABILITY ASSESSMENT (see decision flowchart in Methodology section)

Medium

Viability

Viability of cleared and serviced development parcel

Moderately likely

High level viability modelling suggests that development at the assumed density exceeds the Threshold Land Value at current costs and values with lower than policy compliant affordable housing provision. Assumed density: 30 dwellings per net developable hectare (Small village extension, not in close proximity to public transport interchange)

Is there a reasonable prospect that required local infrastructure and abnormal cost items can be delivered within the time period?

Moderately likely

All of the growth location is understood to be greenfield High level viability modelling suggests that development at the assumed density could only offer contributions towards local infrastructure and abnormal cost items of over £30,000 per residential unit / £750,000 per net developable hectare with lower than policy compliant levels of affordable housing provision.

OVERALL VIABILITY ASSESSMENT

Medium

Transport

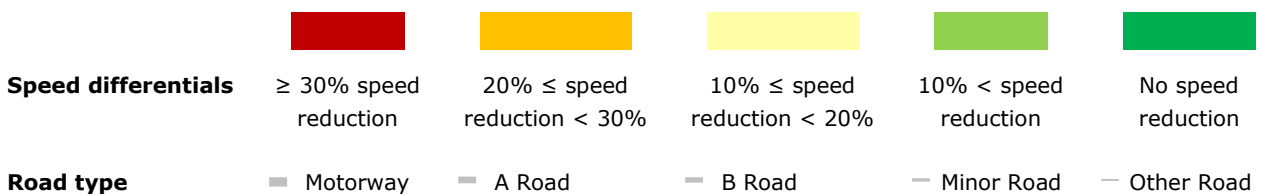
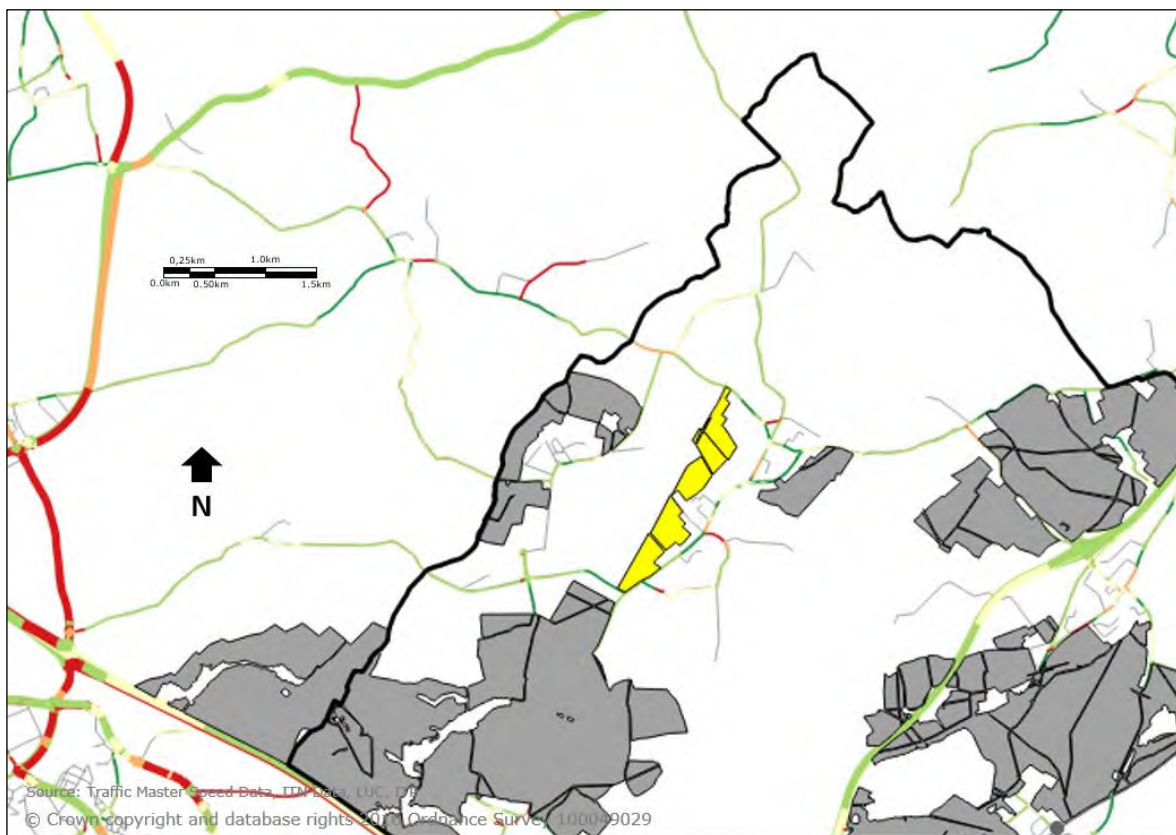
Small village extension (47.5 ha) east of the existing Cranfield Airport runway. This potential growth option is largely served by minor roads.

This option is approximately 7.0 km from Ridgmont Train Station, which is currently managed by London Midland and offers low-frequency train services along the Marston Vale line between Bedford and Bletchley.

The National Cycle Network (NCN) route 51 is located to the south of this option.

Indicative traffic conditions

The potential growth option is accessible via Crawley Road to the north, Merchants Lane to the centre of the site and Moulsoe Road and Cranfield Road to the south. Court Road and the High Street, to the east of the site reveals speed reductions greater than or equal to 20%, close to the junction of Merchants Lane. Further North West of this growth option, similar to site N2, speed reductions are also apparent on Gog Lane, which connects to the A422. Additionally, to the west, large sections with speed reductions of greater than or equal to 30% are seen on the A509 (London Road), close to the M1 Junction 14.

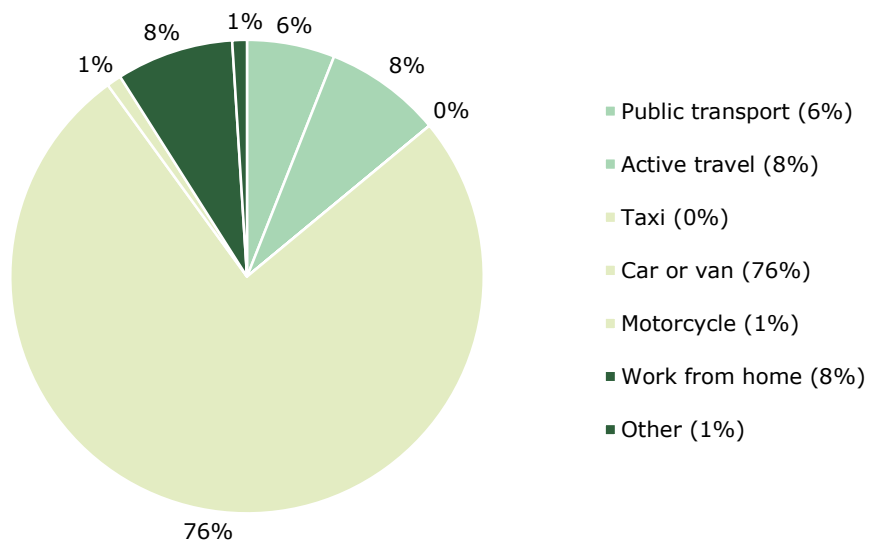


Recorded journey to work O-D movements in the vicinity of this location suggest that car/van trips are likely to be added to the road network as shown below:

Route	Traffic distribution ¹	Main roads likely to be affected
Western routes towards Milton Keynes	39%	A421
Southern routes towards Dacorum	22%	A421, M1
South-Eastern routes towards North Hertfordshire, Stevenage, Luton and St Albans	17%	A507
North-Eastern routes towards Bedford	14%	A421
Eastern routes	5%	A507
North-Western routes towards Northampton	2%	A421, A509, M1
South-Western routes towards Aylesbury Vale	1%	A421
Northern routes	0%	N/A

¹ Based on at least 75% of car/van trips originating in Central Bedfordshire Middle Super Output Area 007.

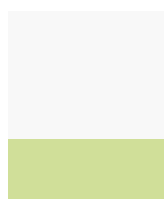
Commuter travel mode split



Indicative number of jobs within 60 minutes by public transport in relation to the closest bus stop to the potential housing area:

Based on existing conditions:

0 - 60,000
 10,000 - 120,000
 > 120,000



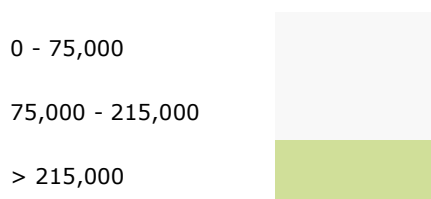
Based on assumed future conditions:

0 - 60,000
 10,000 - 120,000
 > 120,000

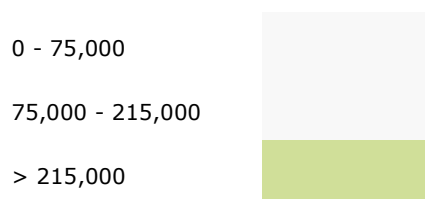


Indicative number of jobs within 30 minutes by road in relation to the centre of the potential housing area:

Based on existing conditions:



Based on assumed future conditions:



Personal Injury Collisions (PICs) ¹

	Perimeter (200mt) ²		Perimeter (1,000mt) ²
Fatal	0 (0.00 collisions per ha)	Fatal	0 (0.00 collisions per ha)
Serious	1 (0.02 collisions per ha)	Serious	4 (0.08 collisions per ha)
Slight	5 (0.11 collisions per ha)	Slight	23 (0.48 collisions per ha)

¹ Years reviewed: 2011, 2012, 2013, 2014 and 2015.

² PICs on existing road network within a perimeter that is set 200 and 1,000 metres outside each housing area.

Transport infrastructure investment

Key transport infrastructure investment for which it is likely to be a relationship with this growth option:

ID	Name	Likelihood of delivery by 2035
R2	Bedford Western Bypass (Phase Two)	Confirmed (100%)
R4	A421 Magna Park to J13 M1	Confirmed (100%)
R7	M1 J13 to J16 Smart Motorway	Confirmed (100%)
P2	East West Rail (Western Section – Phase 2)	High (75%)
P3	East West Rail (Central Section)	Medium (50%)
P10	Interchange at Ridgmont	High (75%)

Similar to sites N1 and N2, this location is also likely to benefit greatly from road improvements on the A421 and M1 (R4, R7). Additionally, due to the growth option's proximity to the A422 and A421, it is likely to benefit to some extent from the recently completed Phase Two of the Bedford Western Bypass.

Further, as the option is located in close proximity to the proposed East West Rail (P2 and P3) alignment, there is the opportunity to link housing growth to the key transport improvements that will be provided as part of the scheme. The site will also benefit from interchange improvements at Ridgmont Station (P10), to the south east.

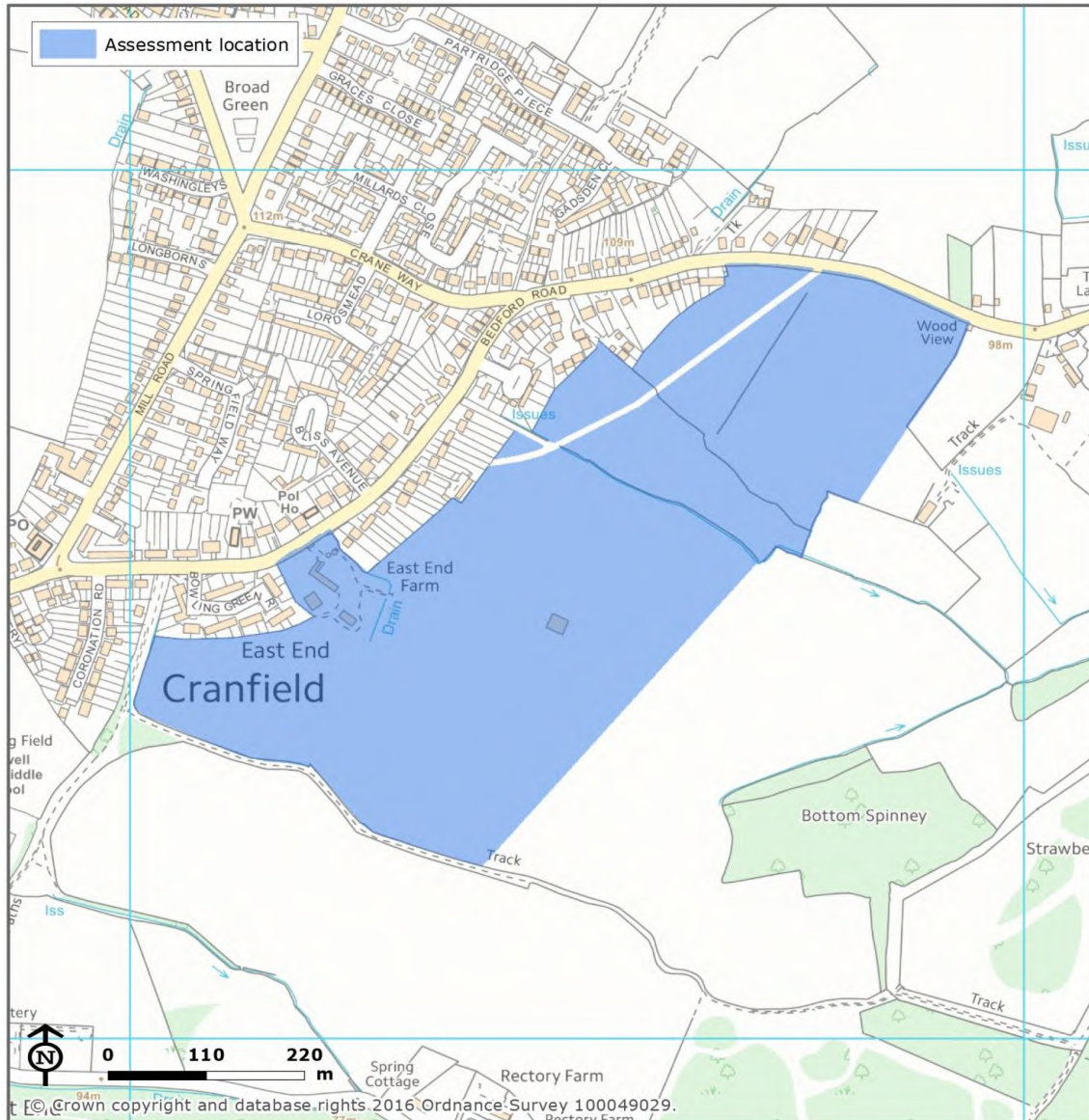
Potential transport interventions

Potential transport interventions to improve the relative performance of this growth option are shown below:

- Bus network review with a view to enhancing connectivity between Bedford and Milton Keynes via Cranfield and a connection to Ridgmont station.
- Provide a cycle connection to the National Cycle Route 51 and Ridgmont station.
- Improved cycle parking facilities at existing and future public transport interchanges.

Location ID: N4 Name: Cranfield East

Location area:	26.4 hectares
Proportion within Study Area:	100%
Typology:	Small village extension, not in close proximity to public transport interchange
Assumed net density:	30 dwellings per hectare
Assumed total net capacity:	475 dwellings
Estimated net capacity 2015-2035:	475 dwellings



Spatial options

Which spatial options does the location meet the criteria for?

New settlements	(>1 km from existing top-tier settlement and >2000 capacity)	✘
Village extensions	(<100 m from existing non top-tier settlement)	✓
Growth in transport corridors	(<1.2km from railway stn, guided busway stop or park & ride facility, or <1km from A-road or motorway)	✘
Urban extensions	(<100 m from top tier settlement and not within urban area)	✘
Urban intensification around public transport hubs	(<1.2 km from railway stn, guided busway stop or park & ride facility)	✘

Constraints

Which types of secondary constraint are present within the location?

Historic environment	Listed Building	No
Historic environment	Conservation Area	No
Biodiversity	Priority Habitat Inventory	No
Biodiversity	Locally designated wildlife site	No
Biodiversity	Local Nature Reserve	No
Biodiversity	Local geological site	No
Landscape	Locally identified sensitive landscape	No
Air quality	Air Quality Management Area	No
Soil quality	Grade 1, 2 or 3 agricultural land	Yes
Water quality	Source Protection Zone 1 or Zone 1c	No
Flood risk	Flood Zone 2	No
Flood risk	Flooding from surface water (1 in 100 year)	Yes
Energy infrastructure	High voltage electricity line 400 m buffer zone	No
Mineral resources	Mineral Safeguarding Area	No
Open space, sport & recreation	Sustrans national cycle route	No
Open space, sport & recreation	Publicly accessible open space	No

Access to services and facilities

Which services and facilities are present within indicative walking distance of the location?

Railway stations, guided busway stops and park and ride facilities (1.2 km)	No
Major employment areas (2.0 km)	Yes
Town centres and major out of centre retail parks (0.8 km)	No
Publicly accessible open spaces (1.2 km)	Yes
Secondary or upper schools and further or higher education establishments (2.0 km)	Yes
Lower, middle or primary schools (1.0 km)	Yes
Local / neighbourhood centres (0.4 km)	No
NHS primary healthcare (GPs) and hospitals (1.2 km)	Yes
Bus stops, inc. stops on non-guided sections of guided busway (0.8 km)	Yes

Deliverability

Is the location likely to be available for development and is there a reasonable prospect of delivery of the site within the time period?

Highly likely

The entirety of the growth location comprises sites submitted by promoters through the Call for Sites process.

Is there a reasonable prospect that required strategic infrastructure can be delivered within the time period?

Moderately likely

Not within 1.2km of existing public transport interchange, and not within 1.0km of existing strategic road. Development of this scale is likely to require moderate improvements to existing transport infrastructure, but none are currently planned. Any known critical strategic utilities requirements are significantly funded.

Is there likely to be current demand for this scale of development in this location?

Moderately likely

Location offers moderate access to quality of life attractions (cultural, sports, leisure and/or natural assets), and highly convenient access to employment and amenities. Relatively low average residential sales values are likely to reflect the local character of the area.

Is there likely to be potential future demand for this scale of development in this location, if planned regeneration, employment, and infrastructure projects are delivered?

Highly likely (increase from current assessment)

Housing demand may increase in line with the Sandy East-West Rail interchange, and employment growth in Milton Keynes. There may be some demand for a more aspirational housing offer relative to the current area.

OVERALL DELIVERABILITY ASSESSMENT (see decision flowchart in Methodology section)

High

Viability

Viability of cleared and serviced development parcel

Moderately likely

High level viability modelling suggests that development at the assumed density exceeds the Threshold Land Value at current costs and values with lower than policy compliant affordable housing provision. Assumed density: 30 dwellings per net developable hectare (Small village extension, not in close proximity to public transport interchange)

Is there a reasonable prospect that required local infrastructure and abnormal cost items can be delivered within the time period?

Moderately likely

All of the growth location is understood to be greenfield High level viability modelling suggests that development at the assumed density could only offer contributions towards local infrastructure and abnormal cost items of over £30,000 per residential unit / £750,000 per net developable hectare with lower than policy compliant levels of affordable housing provision.

OVERALL VIABILITY ASSESSMENT

Medium

Transport

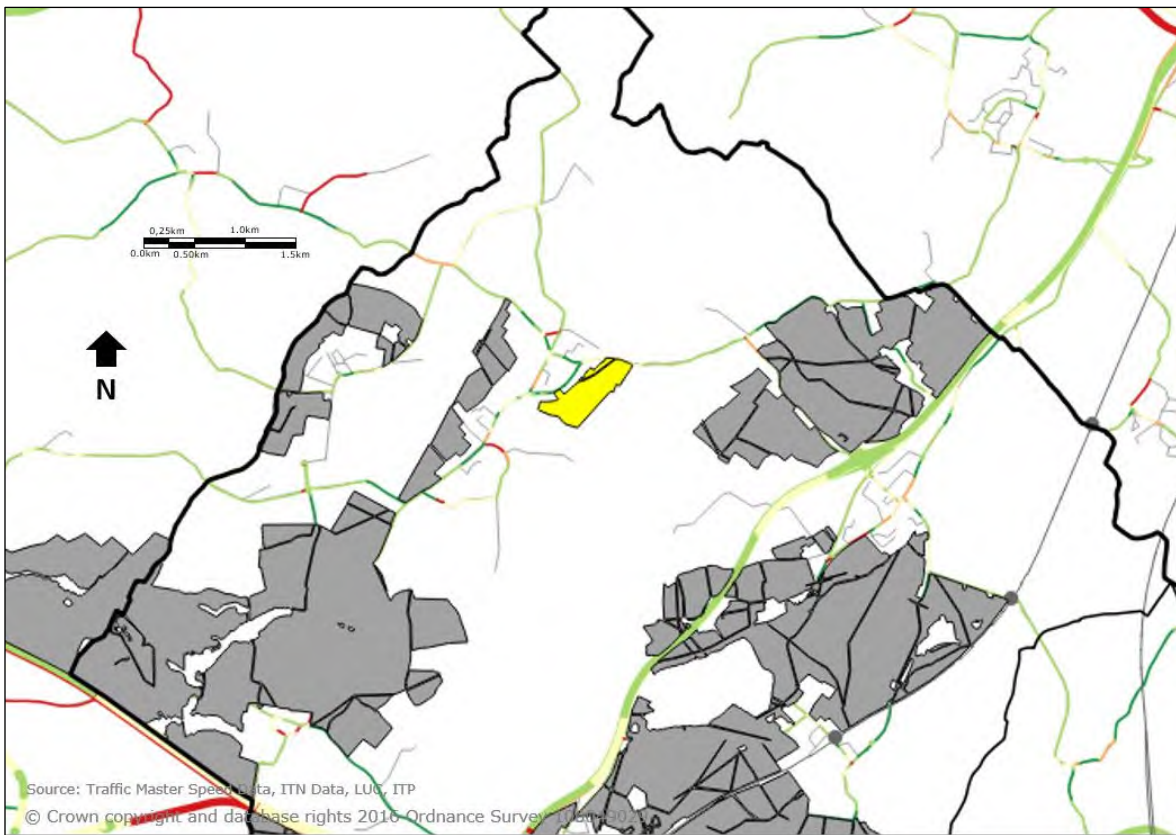
Small village extension (26.4 ha) east of Cranfield. This potential growth option is largely served by minor roads.











This option is approximately 8.0 km from Ridgmont Train Station, which is currently managed by London Midland and offers low-frequency train services along the Marston Vale line between Bedford and Bletchley.

The National Cycle Network (NCN) route 51 is located to the south of this option. This option benefits from an existing traffic-free route not on the NCN that provides a direct link to route 51.

Indicative traffic conditions

The potential growth option is accessible via Bedford Road to the west and north. Bedford Road experiences speed reductions greater than or equal to 20% close to the junction with Crane Way. Further to the northwest and west of the site, speed reductions are evident on Gog Lane, which connects to the A422, and on the A509 London Road. To the south, speed reductions are also evident on the A421 and M1, close to Junction 13.



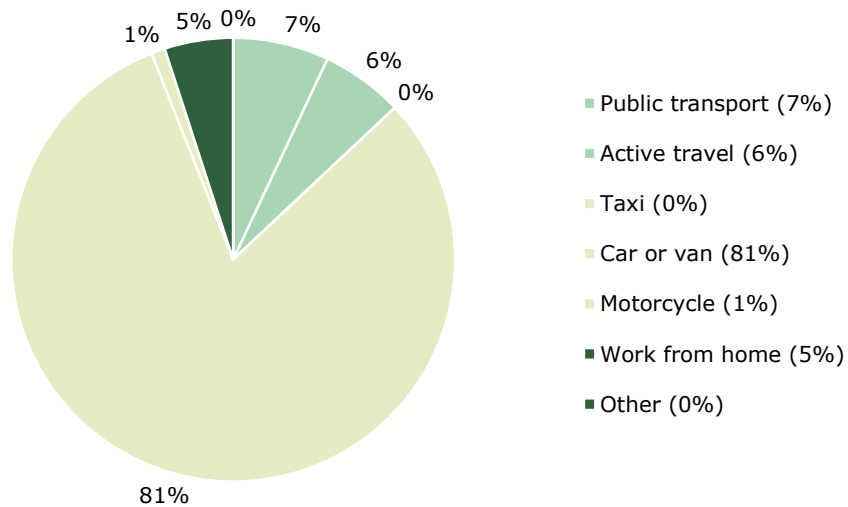
					
Speed differentials	≥ 30% speed reduction	20% ≤ speed reduction < 30%	10% ≤ speed reduction < 20%	10% < speed reduction	No speed reduction
Road type	 Motorway	 A Road	 B Road	 Minor Road	 Other Road

Recorded journey to work O-D movements in the vicinity of this location suggest that car/van trips are likely to be added to the road network as shown below:

Route	Traffic distribution ¹	Main roads likely to be affected
Western routes towards Milton Keynes	39%	A421
Southern routes towards Dacorum	22%	A421, M1
South-Eastern routes towards North Hertfordshire, Stevenage, Luton and St Albans	17%	A507
North-Eastern routes towards Bedford	14%	A421
Eastern routes	5%	A421, A507
North-Western routes towards Northampton	2%	A421, M1
South-Western routes towards Aylesbury Vale	1%	A421
Northern routes	0%	N/A

¹ Based on at least 75% of car/van trips originating in Central Bedfordshire Middle Super Output Area 007.

Commuter travel mode split



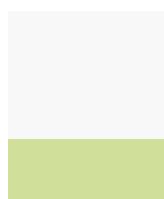
Indicative number of jobs within 60 minutes by public transport in relation to the closest bus stop to the potential housing area:

Based on existing conditions:

0 - 60,000

60,000 - 120,000

> 120,000



Based on assumed future conditions:

0 - 60,000

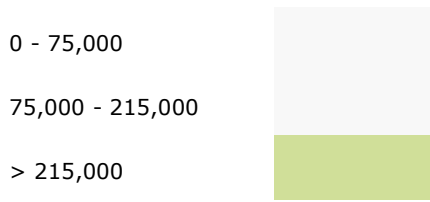
60,000 - 120,000

> 120,000

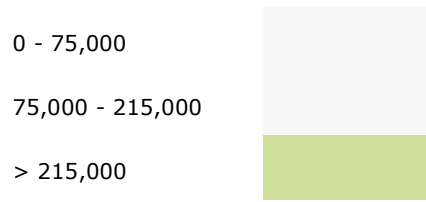


Indicative number of jobs within 30 minutes by road in relation to the centre of the potential housing area:

Based on existing conditions:



Based on assumed future conditions:



Personal Injury Collisions (PICs) ¹

	Perimeter (200mt) ²		Perimeter (1,000mt) ²
Fatal	0 (0.00 collisions per ha)	Fatal	0 (0.00 collisions per ha)
Serious	0 (0.00 collisions per ha)	Serious	2 (0.08 collisions per ha)
Slight	4 (0.15 collisions per ha)	Slight	11 (0.42 collisions per ha)

¹ Years reviewed: 2011, 2012, 2013, 2014 and 2015.

² PICs on existing road network within a perimeter that is set 200 and 1,000 metres outside each housing area.

Transport infrastructure investment

Key transport infrastructure investment for which it is likely to be a relationship with this growth option:

ID	Name	Likelihood of delivery by 2035
R2	Bedford Western Bypass (Phase Two)	Confirmed (100%)
R4	A421 Magna Park to J13 M1	Confirmed (100%)
R7	M1 J13 to J16 Smart Motorway	Confirmed (100%)
P2	East West Rail (Western Section – Phase 2)	High (75%)
P3	East West Rail (Central Section)	Medium (50%)
P10	Interchange at Ridgmont	High (75%)

Similar to sites N1, N2 and N3, this location is also likely to benefit from road improvements on the A421 and M1 (R4, R7). Additionally, due to the growth option's proximity to the A422 and A421, it is likely to benefit to some extent from the recently completed Phase Two of the Bedford Western Bypass.

Further, as the option is located in close proximity to the proposed East West Rail (P2 and P3) alignment, there is the opportunity to link housing growth to the key transport improvements that will be provided as part of the proposals. The site will benefit from interchange improvements at Ridgmont Station (P10), to the south east.

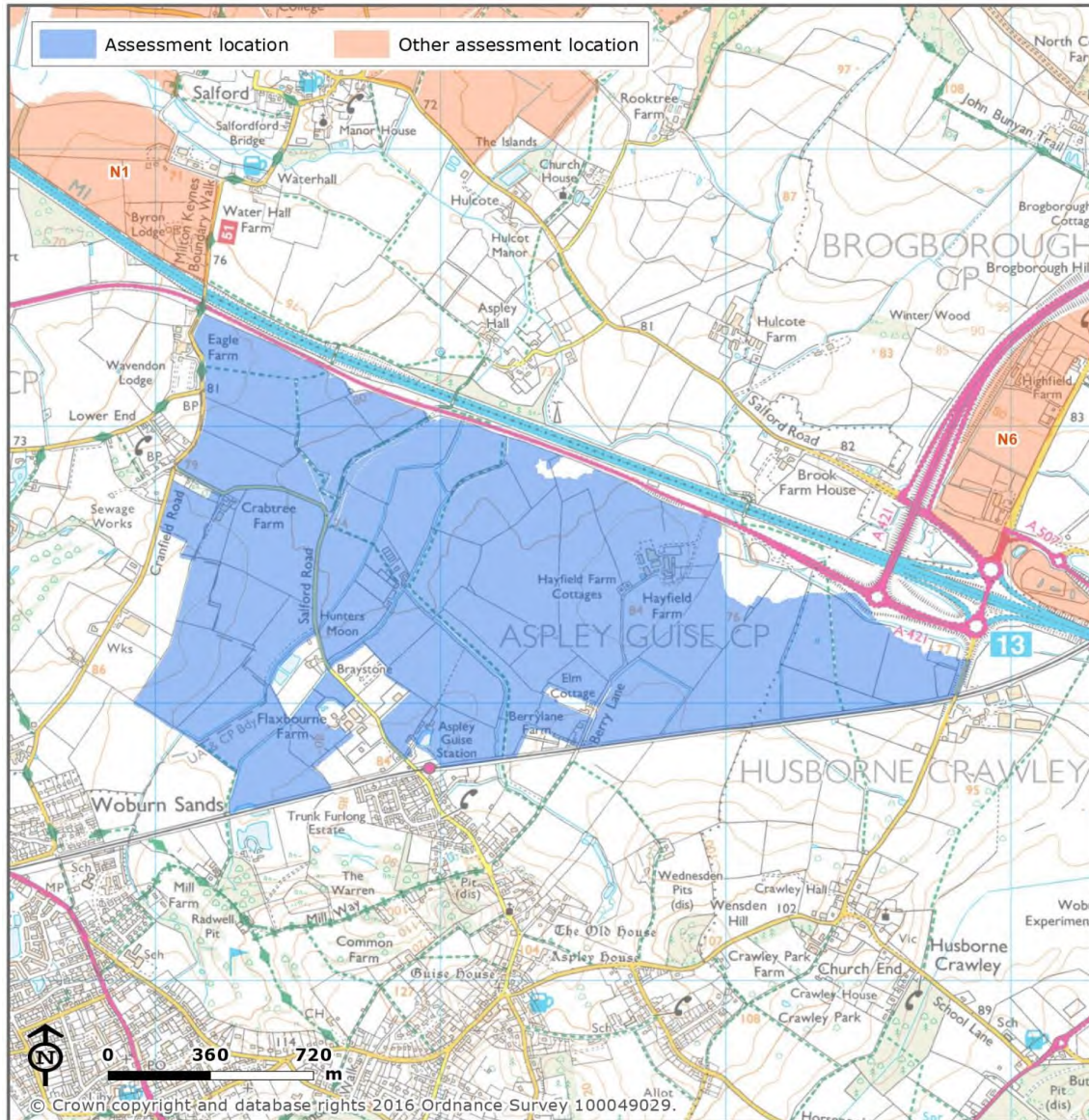
Potential transport interventions

Potential transport interventions to improve the relative performance of this growth option are shown below:

- Bus network review with a view to enhancing connectivity between Bedford and Milton Keynes via Cranfield and a connection to Ridgmont station.
- Provide a cycle connection to the National Cycle Route 51 and Ridgmont station.
- Improved cycle parking facilities at existing and future public transport interchanges.

Location ID: N5 Name: M1 J13

Location area:	241.0 hectares
Proportion within Study Area:	93%
Typology:	Large new settlement / village extension, in close proximity to public transport
Assumed net density:	55 dwellings per hectare
Assumed total net capacity:	7,953 dwellings
Estimated net capacity 2015-2035:	2,500 dwellings



Spatial options

Which spatial options does the location meet the criteria for?

New settlements	(>1 km from existing top-tier settlement and >2000 capacity)	✓
Village extensions	(<100 m from existing non top-tier settlement)	✓
Growth in transport corridors	(<1.2km from railway stn, guided busway stop or park & ride facility, or <1km from A-road or motorway)	✓
Urban extensions	(<100 m from top tier settlement and not within urban area)	✗
Urban intensification around public transport hubs	(<1.2 km from railway stn, guided busway stop or park & ride facility)	✓

Constraints

Which types of secondary constraint are present within the location?

Historic environment	Listed Building	No
Historic environment	Conservation Area	No
Biodiversity	Priority Habitat Inventory	Yes
Biodiversity	Locally designated wildlife site	Yes
Biodiversity	Local Nature Reserve	No
Biodiversity	Local geological site	No
Landscape	Locally identified sensitive landscape	Yes
Air quality	Air Quality Management Area	No
Soil quality	Grade 1, 2 or 3 agricultural land	Yes
Water quality	Source Protection Zone 1 or Zone 1c	No
Flood risk	Flood Zone 2	Yes
Flood risk	Flooding from surface water (1 in 100 year)	Yes
Energy infrastructure	High voltage electricity line 400 m buffer zone	No
Mineral resources	Mineral Safeguarding Area	No
Open space, sport & recreation	Sustrans national cycle route	No
Open space, sport & recreation	Publicly accessible open space	No

Access to services and facilities

Which services and facilities are present within indicative walking distance of the location?

Railway stations, guided busway stops and park and ride facilities (1.2 km)	Yes
Major employment areas (2.0 km)	Yes
Town centres and major out of centre retail parks (0.8 km)	No
Publicly accessible open spaces (1.2 km)	Yes
Secondary or upper schools and further or higher education establishments (2.0 km)	Yes
Lower, middle or primary schools (1.0 km)	Yes
Local / neighbourhood centres (0.4 km)	No
NHS primary healthcare (GPs) and hospitals (1.2 km)	Yes
Bus stops, inc. stops on non-guided sections of guided busway (0.8 km)	Yes

Deliverability

Is the location likely to be available for development and is there a reasonable prospect of delivery of the site within the time period?

Highly likely

The entirety of the growth location comprises sites submitted by promoters through the Call for Sites process.

Is there a reasonable prospect that required strategic infrastructure can be delivered within the time period?

Highly likely

Within 1.2km of existing public transport interchange and 1.0km of existing strategic road, and close to M1 J13. Within 1.2km of planned Ridgmont East-West Rail interchange (High/75% likelihood of delivery by 2035), and within 1.0km of planned Oxford-Cambridge Expressway (Medium/50% likelihood of delivery by 2035). Development of this scale is likely to require minor improvements to existing transport infrastructure. Any known critical strategic utilities requirements are significantly funded.

Is there likely to be current demand for this scale of development in this location?

Highly likely

Location offers good access to quality of life attractions (cultural, sports, leisure and/or natural assets), and highly convenient access to employment and amenities. These factors are not fully reflected in what are moderate average local residential sales values.

Is there likely to be potential future demand for this scale of development in this location, if planned regeneration, employment, and infrastructure projects are delivered?

Highly likely (no change from current assessment)

Housing demand may increase in line with employment opportunities associated with this large site, as well as the Bedford & MK Waterway (Medium/50% likelihood of delivery by 2035), employment growth in Milton Keynes, the Ridgmont East-West Rail interchange, and Oxford-Cambridge Expressway. There may be some demand for a more aspirational housing offer relative to the current area.

OVERALL DELIVERABILITY ASSESSMENT (see decision flowchart in Methodology section)

High

Viability

Viability of cleared and serviced development parcel

Highly likely

High level viability modelling suggests that development at the assumed density with policy compliant affordable housing exceeds the Threshold Land Value at current costs and values. Assumed density: 55 dwellings per net developable hectare (Large new settlement / village extension, in close proximity to public transport interchange)

Is there a reasonable prospect that required local infrastructure and abnormal cost items can be delivered within the time period?

Highly likely

All of the growth location is understood to be greenfield High level viability modelling suggests that development at the assumed density with policy compliant affordable housing could offer contributions towards local infrastructure and abnormal cost items of over £30,000 per residential unit / £750,000 per net developable hectare.

OVERALL VIABILITY ASSESSMENT

High

Transport

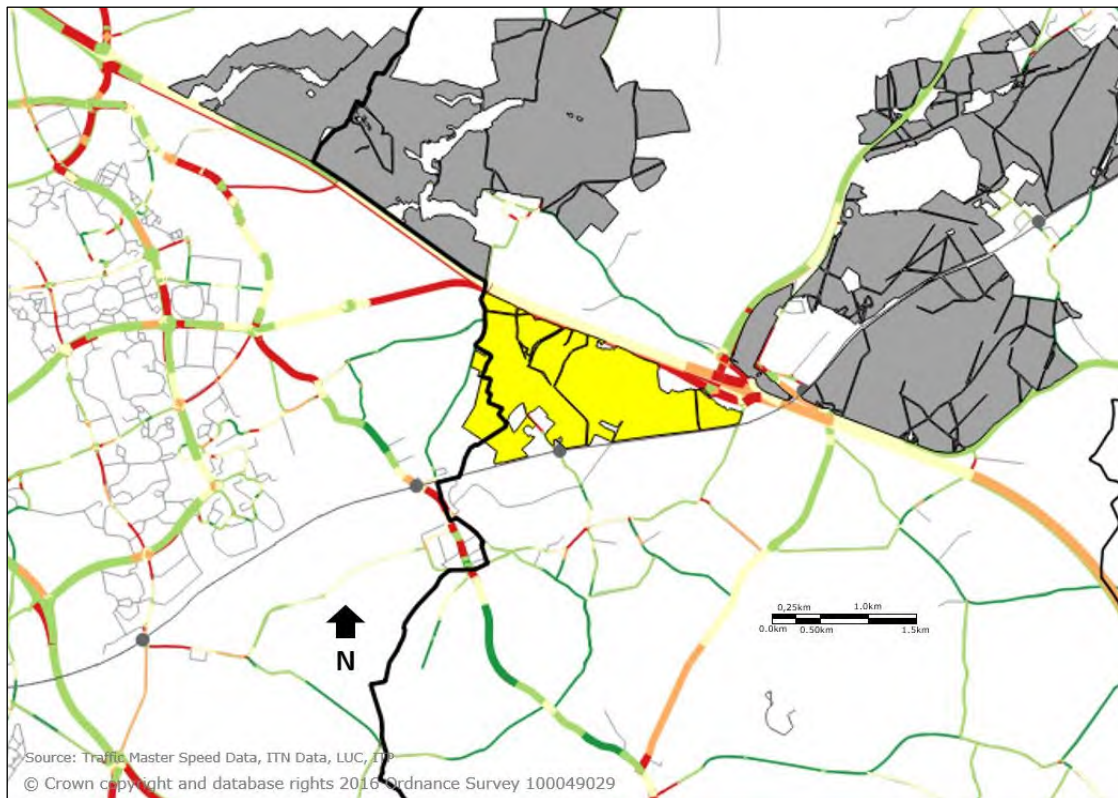
Large new settlement/village extension (241 ha) south of the M1 and east of Milton Keynes. The Northern side of this potential growth option lies adjacent to the M1. This site is in vicinity of J13.











This option is next to Aspley Guise Station and a short distance from Ridgmont Station. However, access to Ridgmont Station is affected by severance, related to the M1 and J13. Both transport facilities are currently managed by London Midland and offer low-frequency train services along the Marston Vale line between Bedford and Bletchley.

The National Cycle Network (NCN) route 51 runs immediately south of this option through an on-road section of this route.

Indicative traffic conditions

The potential growth option is accessible via Cranfield Road to the west, and Salford Road runs through the western portion of the site. Salford Road, towards the south west of the site, reveals speed reductions greater than or equal to 30% near the existing development to the north of Aspley Guise. Further south, speed reductions are also observed on West Hill, close to the junction with Church Street. To the west of the site, speed reductions are revealed on the A5130, close to the roundabout adjoining to the A421, Newport Road and Groveway. To the north and north east of the site, speed reductions greater than or equal to 20% are observed on both the A421 and the M1, close to Junction 13.



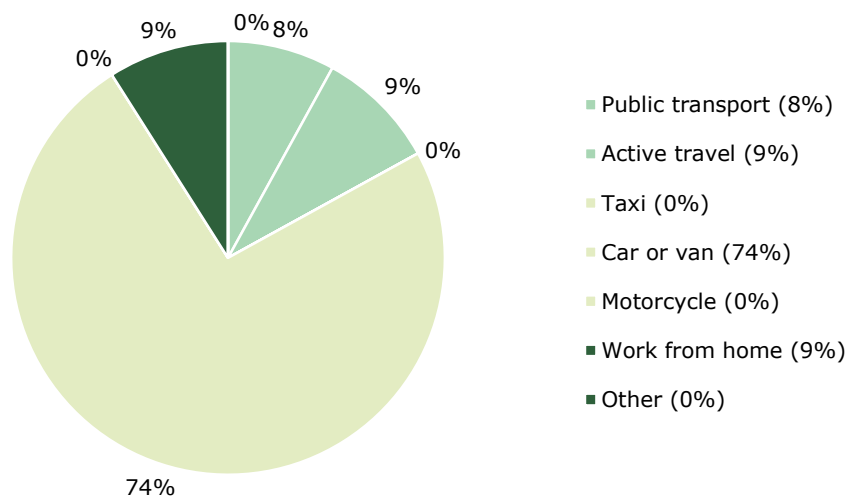
					
Speed differentials	≥ 30% speed reduction	20% ≤ speed reduction < 30%	10% ≤ speed reduction < 20%	10% < speed reduction	No speed reduction
Road type	 Motorway	 A Road	 B Road	 Minor Road	 Other Road

Recorded journey to work O-D movements in the vicinity of this location suggest that car/van trips are likely to be added to the road network as shown below:

Route	Traffic distribution ¹	Main roads likely to be affected
Western routes towards Milton Keynes	39%	A421
Northern routes	19%	A421, M1
North-Eastern routes towards Bedford	16%	A421
South-Eastern routes towards North Hertfordshire, Stevenage, Luton and St Albans	14%	A507, M1
Eastern routes	7%	A507
North-Western routes towards Northampton	2%	M1
Southern routes towards Dacorum	2%	M1
South-Western routes towards Aylesbury Vale	1%	A421

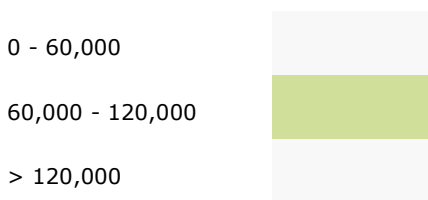
¹ Based on at least 75% of car/van trips originating in Central Bedfordshire Middle Super Output Area 007.

Commuter travel mode split

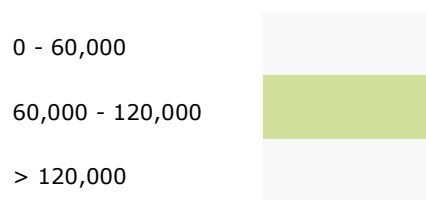


Indicative number of jobs within 60 minutes by public transport in relation to the closest bus stop to the potential housing area:

Based on existing conditions:

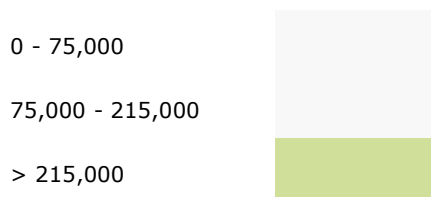


Based on assumed future conditions:

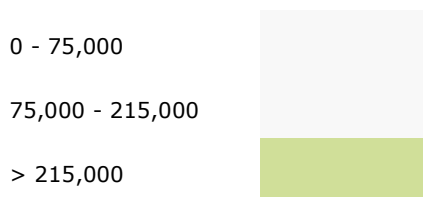


Indicative number of jobs within 30 minutes by road in relation to the centre of the potential housing area:

Based on existing conditions:



Based on assumed future conditions:



Personal Injury Collisions (PICs) ¹

	Perimeter (200mt) ²		Perimeter (1,000mt) ²
Fatal	1 (0.00 collisions per ha)	Fatal	1 (0.00 collisions per ha)
Serious	10 (0.04 collisions per ha)	Serious	16 (0.07 collisions per ha)
Slight	95 (0.39 collisions per ha)	Slight	198 (0.82 collisions per ha)

¹ Years reviewed: 2011, 2012, 2013, 2014 and 2015.

² PICs on existing road network within a perimeter that is set 200 and 1,000 metres outside each housing area.

Transport infrastructure investment

Key transport infrastructure investment for which it is likely to be a relationship with this growth option:

ID	Name	Likelihood of delivery by 2035
R4	A421 Magna Park to J13 M1	Confirmed (100%)
R7	M1 J13 to J16 Smart Motorway	Confirmed (100%)
R8	M1 J10 to J13 Smart Motorway	Confirmed (100%)
R9	A5 – M1 Link (Dunstable Northern Bypass)	Confirmed (100%)
P2	East West Rail (Western Section – Phase 2)	High (75%)
P3	East West Rail (Central Section)	Medium (50%)
P10	Interchange at Ridgmont	High (75%)

Due to the location of the option, it is likely to form a deep-rooted relationship with both the A421 and M1, and thus will benefit from the series of improvements being made to both strategic roads (R4, R7, and R8). Stemming from this important link to the M1, it is likely that there will be a key link between housing growth in this location to the road improvements being made to the north of Dunstable, most notably the Woodside Link Road (R6a).

Further, as the proposed East West Rail (P2, P3) link is envisaged to pass immediately to the south of the site, there is a key opportunity to link housing growth to this public transport project. The interchange improvements at Ridgmont Station will also provide key transport opportunities to this location providing severance can be mitigated.

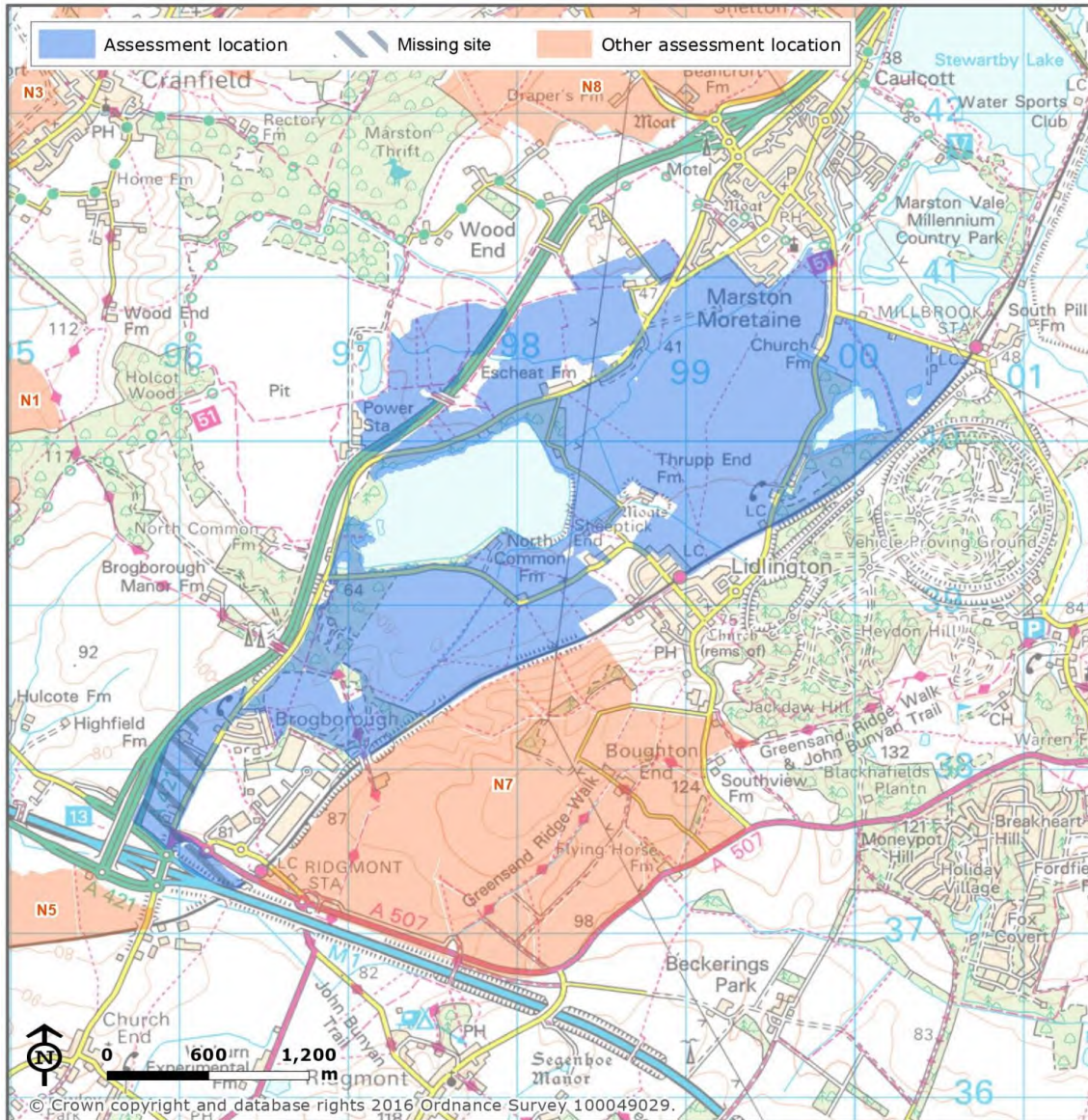
Potential transport interventions

Potential transport interventions to improve the relative performance of this growth option are shown below:

- Bus network review with a view to enhancing connectivity between Bedford and Milton Keynes via Cranfield and a connection to Ridgmont station.
- Provide a cycle connection to the National Cycle Route 51 and Ridgmont station.
- Improved cycle parking facilities at existing and future public transport interchanges.

Location ID: N6 Name: Marston Moretaine South-Lidlington-Brogborough

Location area:	515.2 hectares
Proportion within Study Area:	100%
Typology:	Large new settlement / village extension, in close proximity to public transport
Assumed net density:	55 dwellings per hectare
Assumed total net capacity:	17,002 dwellings
Estimated net capacity 2015-2035:	2,500 dwellings



Spatial options

Which spatial options does the location meet the criteria for?

New settlements	(>1 km from existing top-tier settlement and >2000 capacity)	✓
Village extensions	(<100 m from existing non top-tier settlement)	✓
Growth in transport corridors	(<1.2km from railway stn, guided busway stop or park & ride facility, or <1km from A-road or motorway)	✓
Urban extensions	(<100 m from top tier settlement and not within urban area)	✗
Urban intensification around public transport hubs	(<1.2 km from railway stn, guided busway stop or park & ride facility)	✓

Constraints

Which types of secondary constraint are present within the location?

Historic environment	Listed Building	No
Historic environment	Conservation Area	No
Biodiversity	Priority Habitat Inventory	Yes
Biodiversity	Locally designated wildlife site	Yes
Biodiversity	Local Nature Reserve	No
Biodiversity	Local geological site	No
Landscape	Locally identified sensitive landscape	Yes
Air quality	Air Quality Management Area	No
Soil quality	Grade 1, 2 or 3 agricultural land	Yes
Water quality	Source Protection Zone 1 or Zone 1c	No
Flood risk	Flood Zone 2	Yes
Flood risk	Flooding from surface water (1 in 100 year)	Yes
Energy infrastructure	High voltage electricity line 400 m buffer zone	Yes
Mineral resources	Mineral Safeguarding Area	Yes
Open space, sport & recreation	Sustrans national cycle route	No
Open space, sport & recreation	Publicly accessible open space	Yes

Access to services and facilities

Which services and facilities are present within indicative walking distance of the location?

Railway stations, guided busway stops and park and ride facilities (1.2 km)	Yes
Major employment areas (2.0 km)	Yes
Town centres and major out of centre retail parks (0.8 km)	No
Publicly accessible open spaces (1.2 km)	Yes
Secondary or upper schools and further or higher education establishments (2.0 km)	No
Lower, middle or primary schools (1.0 km)	Yes
Local / neighbourhood centres (0.4 km)	No
NHS primary healthcare (GPs) and hospitals (1.2 km)	No
Bus stops, inc. stops on non-guided sections of guided busway (0.8 km)	Yes

Deliverability

Is the location likely to be available for development and is there a reasonable prospect of delivery of the site within the time period?

Highly likely

The majority of the site has been submitted by promoters through the Call for Sites process. The rest of the site comprises 'missing site(s)', and therefore the land availability is currently unknown. However, we are not specifically aware of any opposition by the promoters.

Is there a reasonable prospect that required strategic infrastructure can be delivered within the time period?

Highly likely

Within 1.2km of existing public transport interchange and 1.0km of existing strategic road, and close to M1 J13. Within 1.2km of planned Ridgmont East-West Rail interchange (High/75% likelihood of delivery by 2035), and within 1.0km of planned Oxford-Cambridge Expressway (Medium/50% likelihood of delivery by 2035). Development of this scale is likely to require minor improvements to existing transport infrastructure. Any known critical strategic utilities requirements are significantly funded.

Is there likely to be current demand for this scale of development in this location?

Highly likely

Location offers good access to quality of life attractions (cultural, sports, leisure and/or natural assets), and highly convenient access to employment and amenities. Relatively low average residential sales values are likely to reflect the local character of the area.

Is there likely to be potential future demand for this scale of development in this location, if planned regeneration, employment, and infrastructure projects are delivered?

Highly likely (no change from current assessment)

Housing demand may increase in line with employment opportunities associated with this large site, as well as the Bedford & MK Waterway (Medium/50% likelihood of delivery by 2035), employment growth in Milton Keynes, the Ridgmont East-West Rail interchange, and Oxford-Cambridge Expressway. There may be some demand for a more aspirational housing offer relative to the current area.

OVERALL DELIVERABILITY ASSESSMENT (see decision flowchart in Methodology section)

High

Viability

Viability of cleared and serviced development parcel

Moderately likely

High level viability modelling suggests that development at the assumed density exceeds the Threshold Land Value at current costs and values with lower than policy compliant affordable housing provision. Assumed density: 55 dwellings per net developable hectare (Large new settlement / village extension, in close proximity to public transport interchange)

Is there a reasonable prospect that required local infrastructure and abnormal cost items can be delivered within the time period?

Less likely

All of the growth location is understood to be greenfield High level viability modelling suggests that development at the assumed density could not offer contributions towards local infrastructure and abnormal cost items of over £30,000 per residential unit / £750,000 per net developable hectare, even with zero affordable housing provision.

OVERALL VIABILITY ASSESSMENT

Low

Transport

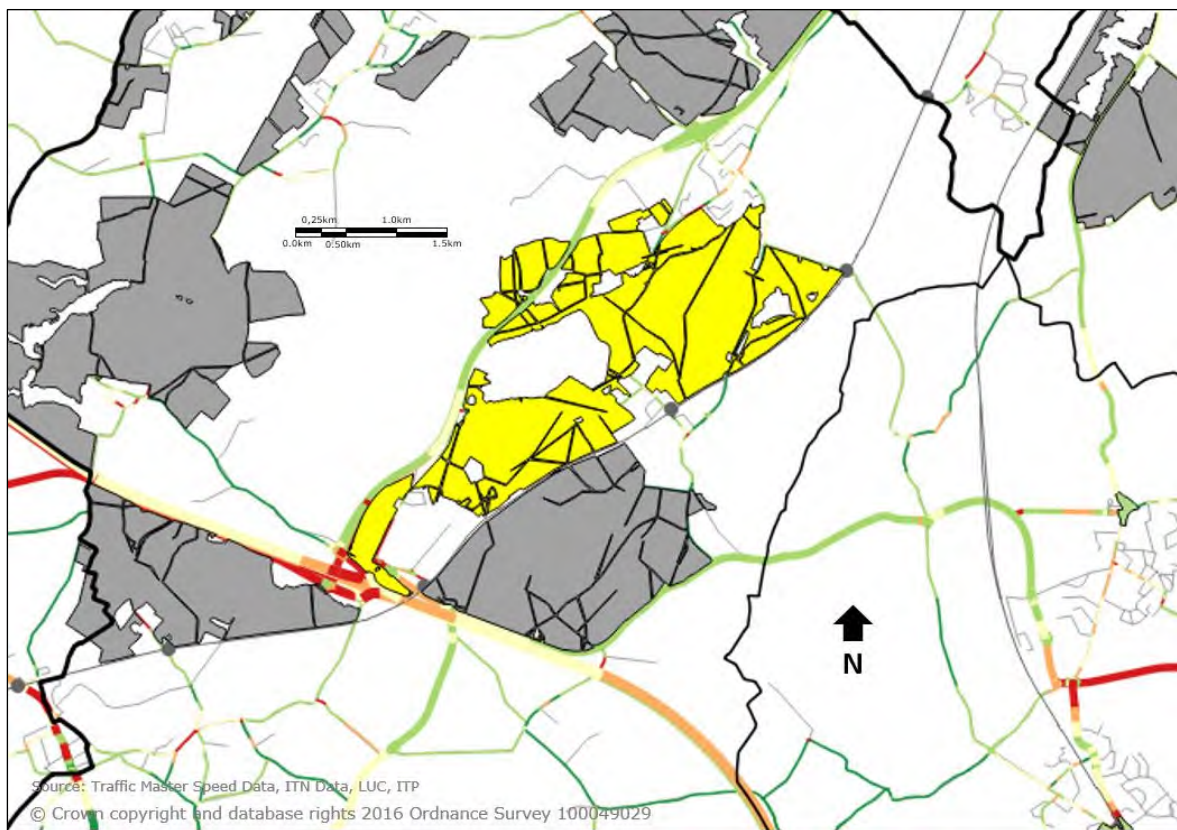
Large new settlement/village extension (515.2 ha) north of the M1 and east of Milton Keynes. The Southern corner of this potential growth option lies next to J13.



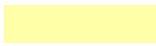







This option is a short distance from Ridgmont Station, which is currently managed by London Midland and offers low-frequency train services along the Marston Vale line between Bedford and Bletchley.

The National Cycle Network (NCN) route 51 runs north of this option.

Indicative traffic conditions

Due to the large scale of the potential growth option, it is accessible via a number of routes: Woburn Road, Station Road and Marston Road to the north and east, Bedford Road to the west and south west, and Ridmont Bypass and Woburn Road (A507) to the south and south east. Speed reductions greater than or equal to 30% are evident towards the south east, close to the Marston Gate Industrial Park. This includes on Bedford Road, the A507, Salford Road and the A421. Speed reductions are also revealed on Woburn Road, close to the centre of Marston Moretaine to the north and towards Ampthill and Clophill to the east. On the M1, noticeable speed reductions are also observed to both the north and south, including lengths close to key junctions such as 14 and 12.



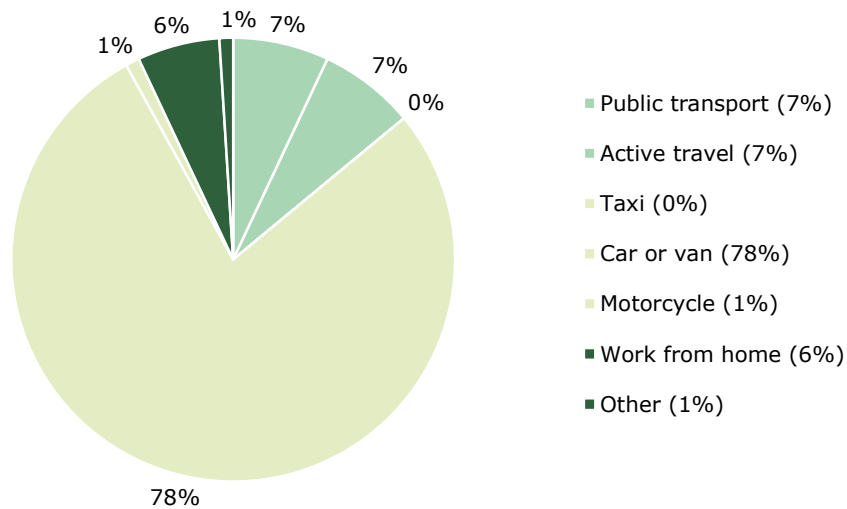
Speed differentials					
	≥ 30% speed reduction	20% ≤ speed reduction < 30%	10% ≤ speed reduction < 20%	10% < speed reduction	No speed reduction
Road type	 Motorway	 A Road	 B Road	 Minor Road	 Other Road

Recorded journey to work O-D movements in the vicinity of this location suggest that car/van trips are likely to be added to the road network as shown below:

Route	Traffic distribution ¹	Main roads likely to be affected
Western routes towards Milton Keynes	32%	A421
North-Eastern routes towards Bedford	27%	A421
South-Eastern routes towards North Hertfordshire, Stevenage and St Albans	17%	A507, A6
Eastern routes	8%	A507
Southern routes towards Dacorum	6%	M1
Northern routes	6%	M1, A421
South-Western routes towards Aylesbury Vale	2%	A421
North-Western routes towards Northampton	2%	M1

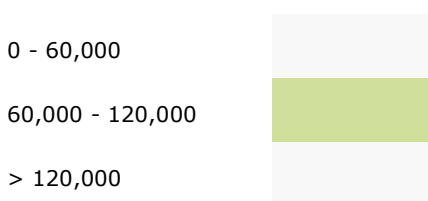
¹ Based on at least 75% of car/van trips originating in Central Bedfordshire Middle Super Output Area 009.

Commuter travel mode split

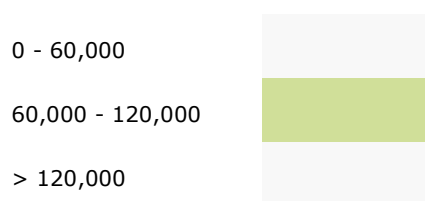


Indicative number of jobs within 60 minutes by public transport in relation to the closest bus stop to the potential housing area:

Based on existing conditions:

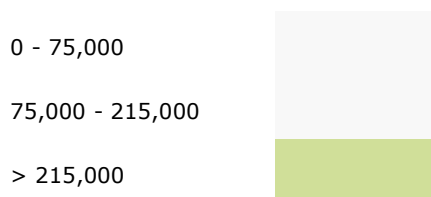


Based on assumed future conditions:



Indicative number of jobs within 30 minutes by road in relation to the centre of the potential housing area:

Based on existing conditions:



Based on assumed future conditions:



Personal Injury Collisions (PICs) ¹

	Perimeter (200mt) ²		Perimeter (1,000mt) ²
Fatal	5 (0.01 collisions per ha)	Fatal	5 (0.01 collisions per ha)
Serious	8 (0.02 collisions per ha)	Serious	25 (0.05 collisions per ha)
Slight	86 (0.17 collisions per ha)	Slight	186 (0.36 collisions per ha)

¹ Years reviewed: 2011, 2012, 2013, 2014 and 2015.

² PICs on existing road network within a perimeter that is set 200 and 1,000 metres outside each housing area.

Transport infrastructure investment

Key transport infrastructure investment for which it is likely to be a relationship with this growth option:

ID	Name	Likelihood of delivery by 2035
R4	A421 Magna Park to J13 M1	Confirmed (100%)
R7	M1 J13 to J16 Smart Motorway	Confirmed (100%)
R8	M1 J10 to J13 Smart Motorway	Confirmed (100%)
R9	A5 – M1 Link (Dunstable Northern Bypass)	Confirmed (100%)
P2	East West Rail (Western Section – Phase 2)	High (75%)
P3	East West Rail (Central Section)	Medium (50%)
P10	Interchange at Ridgmont	High (75%)

Similar to site N5, due to the site's proximity to both the M1 and A421 (Oxford to Cambridge Expressway Scheme) it is likely to benefit from improvements made on both of these roads (R4, R7 and R8) and improvements stemming from them (R6a, R9). Further, from a public transport standpoint, the site's close proximity to Ridgmont Station and the proposed East West Rail alignment allows for key opportunities in relation to housing growth around the station.

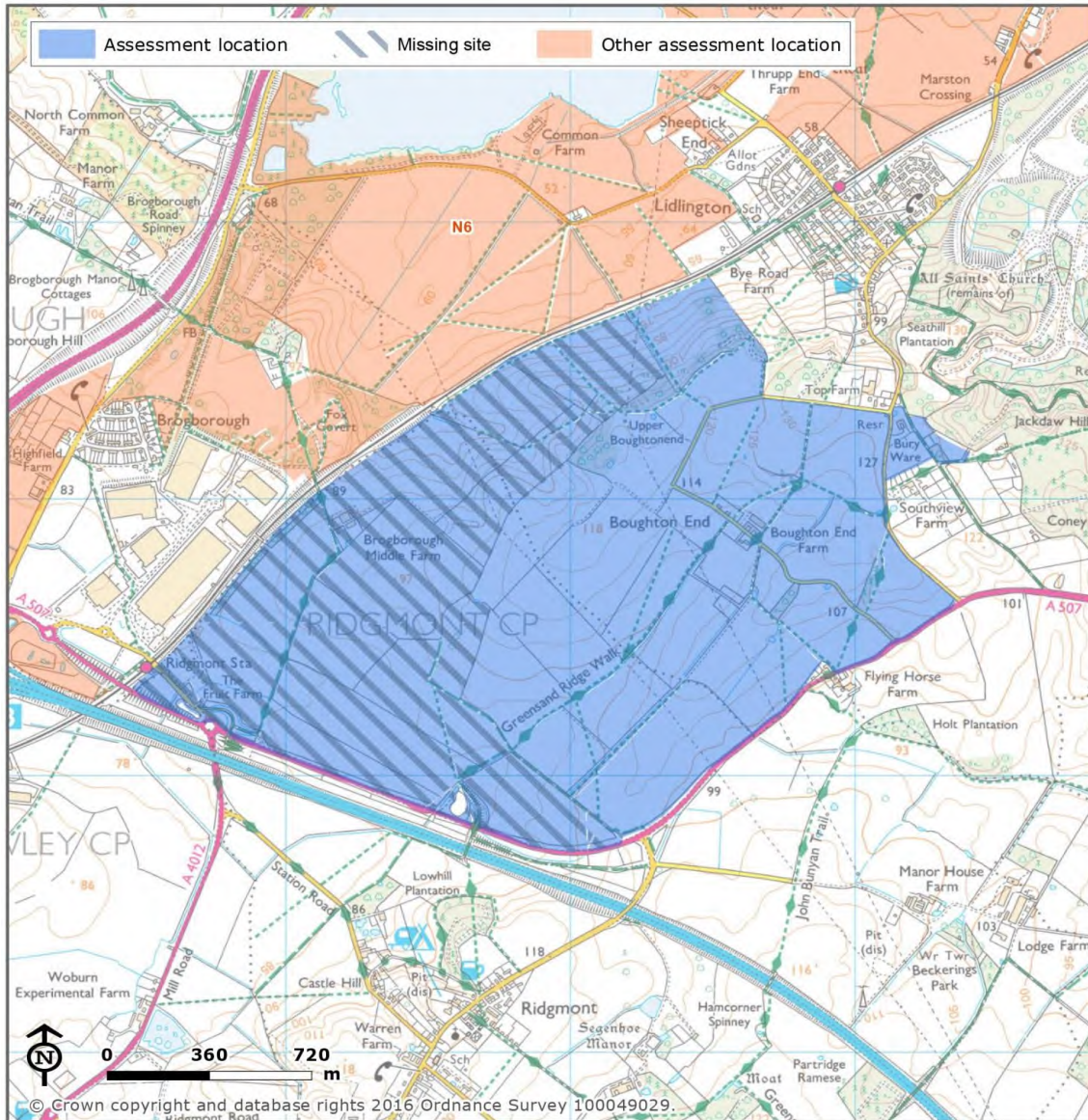
Potential transport interventions

Potential transport interventions to improve the relative performance of this growth option are shown below:

- Bus network review with a view to enhancing connectivity between Bedford and Milton Keynes via Cranfield and a connection to Ridgmont station.
- Provide a cycle connection to the National Cycle Route 51 and Ridgmont station.
- Improved cycle parking facilities at existing and future public transport interchanges.

Location ID: N7 Name: Lidlington South

Location area:	322.5 hectares
Proportion within Study Area:	100%
Typology:	Large new settlement, in close proximity to public transport interchange
Assumed net density:	55 dwellings per hectare
Assumed total net capacity:	10,643 dwellings
Estimated net capacity 2015-2035:	2,500 dwellings



Spatial options

Which spatial options does the location meet the criteria for?

New settlements	(>1 km from existing top-tier settlement and >2000 capacity)	✓
Village extensions	(<100 m from existing non top-tier settlement)	✗
Growth in transport corridors	(<1.2km from railway stn, guided busway stop or park & ride facility, or <1km from A-road or motorway)	✓
Urban extensions	(<100 m from top tier settlement and not within urban area)	✗
Urban intensification around public transport hubs	(<1.2 km from railway stn, guided busway stop or park & ride facility)	✓

Constraints

Which types of secondary constraint are present within the location?

Historic environment	Listed Building	Yes
Historic environment	Conservation Area	No
Biodiversity	Priority Habitat Inventory	Yes
Biodiversity	Locally designated wildlife site	Yes
Biodiversity	Local Nature Reserve	No
Biodiversity	Local geological site	No
Landscape	Locally identified sensitive landscape	Yes
Air quality	Air Quality Management Area	No
Soil quality	Grade 1, 2 or 3 agricultural land	Yes
Water quality	Source Protection Zone 1 or Zone 1c	No
Flood risk	Flood Zone 2	No
Flood risk	Flooding from surface water (1 in 100 year)	Yes
Energy infrastructure	High voltage electricity line 400 m buffer zone	No
Mineral resources	Mineral Safeguarding Area	No
Open space, sport & recreation	Sustrans national cycle route	No
Open space, sport & recreation	Publicly accessible open space	No

Access to services and facilities

Which services and facilities are present within indicative walking distance of the location?

Railway stations, guided busway stops and park and ride facilities (1.2 km)	Yes
Major employment areas (2.0 km)	Yes
Town centres and major out of centre retail parks (0.8 km)	No
Publicly accessible open spaces (1.2 km)	Yes
Secondary or upper schools and further or higher education establishments (2.0 km)	No
Lower, middle or primary schools (1.0 km)	Yes
Local / neighbourhood centres (0.4 km)	No
NHS primary healthcare (GPs) and hospitals (1.2 km)	No
Bus stops, inc. stops on non-guided sections of guided busway (0.8 km)	Yes

Deliverability

Is the location likely to be available for development and is there a reasonable prospect of delivery of the site within the time period?

Highly likely

The majority of the site has been submitted by promoters through the Call for Sites process. The rest of the site comprises 'missing site(s)', and therefore the land availability is currently unknown. However, we are not specifically aware of any opposition by the promoters.

Is there a reasonable prospect that required strategic infrastructure can be delivered within the time period?

Highly likely

Within 1.2km of existing public transport interchange and 1.0km of existing strategic road, and close to M1 J13. Within 1.2km of planned Ridgmont East-West Rail interchange (High/75% likelihood of delivery by 2035), and within 1.0km of planned Oxford-Cambridge Expressway (Medium/50% likelihood of delivery by 2035). Development of this scale is likely to require minor improvements to existing transport infrastructure. Any known critical strategic utilities requirements are significantly funded.

Is there likely to be current demand for this scale of development in this location?

Highly likely

Location offers good access to quality of life attractions (cultural, sports, leisure and/or natural assets), and highly convenient access to employment and amenities. Relatively low average residential sales values are likely to reflect the local character of the area.

Is there likely to be potential future demand for this scale of development in this location, if planned regeneration, employment, and infrastructure projects are delivered?

Highly likely (no change from current assessment)

Housing demand may increase in line with employment opportunities associated with this large site, as well as the Bedford & MK Waterway (Medium/50% likelihood of delivery by 2035), employment growth in Milton Keynes, the Ridgmont East-West Rail interchange, and Oxford-Cambridge Expressway. Average residential sales values do not currently reflect access to quality of life attractions (cultural, sports, leisure and/or natural assets) and convenience of access to employment and amenities, offering the potential to appeal to a broader market.

OVERALL DELIVERABILITY ASSESSMENT (see decision flowchart in Methodology section)

High

Viability

Viability of cleared and serviced development parcel

Moderately likely

High level viability modelling suggests that development at the assumed density exceeds the Threshold Land Value at current costs and values with lower than policy compliant affordable housing provision. Assumed density: 55 dwellings per net developable hectare (Large new settlement, in close proximity to public transport interchange)

Is there a reasonable prospect that required local infrastructure and abnormal cost items can be delivered within the time period?

Less likely

All of the growth location is understood to be greenfield High level viability modelling suggests that development at the assumed density could not offer contributions towards local infrastructure and abnormal cost items of over £30,000 per residential unit / £750,000 per net developable hectare, even with zero affordable housing provision.

OVERALL VIABILITY ASSESSMENT

Low

Transport

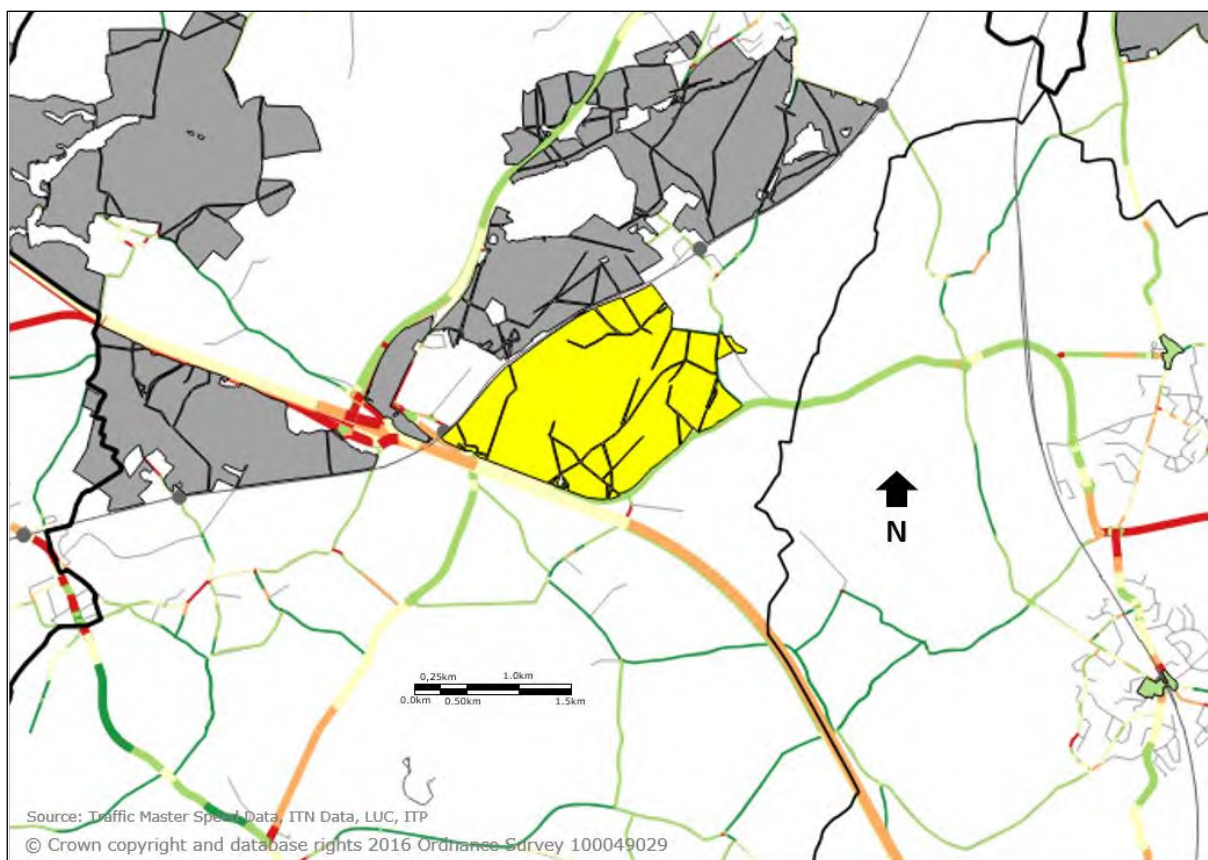
Large new settlement (322.5 ha) south of the Marston Vale line and close proximity to J13 along the M1. Ridgmont Station is located on the western corner of this potential growth option.











Ridgmont Station, which is currently managed by London Midland, offers low-frequency train services along the Marston Vale line between Bedford and Bletchley.

The National Cycle Network (NCN) route 51 runs approximately 2.5km north of this option.

Indicative traffic conditions

The potential growth option is accessible via the A507 to the south and east, and Boughton End Road and the High Street to the centre and north east. Speed reductions greater than or equal to 30% are evident to the east of the site, close to the M1 Junction 13. Further east, similar reductions are also revealed near Ampthill and at Clophill, close to the junction with the A6. On the M1, to the south of the site, speed reductions are also noticeable to the north and south, close to key junctions such as 14 and 12.



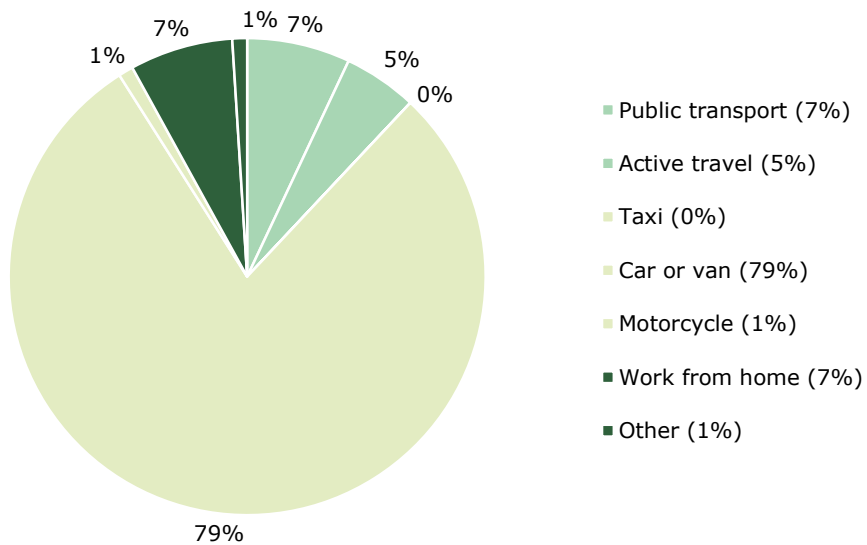
					
Speed differentials	≥ 30% speed reduction	20% ≤ speed reduction < 30%	10% ≤ speed reduction < 20%	10% < speed reduction	No speed reduction
Road type	 Motorway	 A Road	 B Road	 Minor Road	 Other Road

Recorded journey to work O-D movements in the vicinity of this location suggest that car/van trips are likely to be added to the road network as shown below:

Route	Traffic distribution ¹	Main roads likely to be affected
Western routes towards Milton Keynes	32%	A421
North-Eastern routes towards Bedford	27%	A421
South-Eastern routes towards North Hertfordshire, Stevenage and St Albans	15%	A507, A6, M1
Eastern routes	10%	A507
Southern routes towards Dacorum	6%	M1
Northern routes	6%	M1, A421
South-Western routes towards Aylesbury Vale	2%	A421
North-Western routes towards Northampton	2%	M1

¹ Based on at least 75% of car/van trips originating in Central Bedfordshire Middle Super Output Area 009.

Commuter travel mode split



Indicative number of jobs within 60 minutes by public transport in relation to the closest bus stop to the potential housing area:

Based on existing conditions:

0 - 60,000

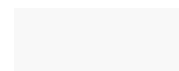


60,000 - 120,000

> 120,000

Based on assumed future conditions:

0 - 60,000



60,000 - 120,000

> 120,000

Indicative number of jobs within 30 minutes by road in relation to the centre of the potential housing area:

Based on existing conditions:

0 - 75,000

75,000 - 215,000

> 215,000

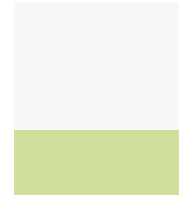


Based on assumed future conditions:

0 - 75,000

75,000 - 215,000

> 215,000



Personal Injury Collisions (PICs) ¹

	Perimeter (200mt) ²		Perimeter (1,000mt) ²
Fatal	0 (0.00 collisions per ha)	Fatal	1 (0.00 collisions per ha)
Serious	5 (0.02 collisions per ha)	Serious	8 (0.02 collisions per ha)
Slight	42 (0.13 collisions per ha)	Slight	153 (0.47 collisions per ha)

¹ Years reviewed: 2011, 2012, 2013, 2014 and 2015.

² PICs on existing road network within a perimeter that is set 200 and 1,000 metres outside each housing area.

Transport infrastructure investment

Key transport infrastructure investment for which it is likely to be a relationship with this growth option:

ID	Name	Likelihood of delivery by 2035
R4	A421 Magna Park to J13 M1	Confirmed (100%)
R7	M1 J13 to J16 Smart Motorway	Confirmed (100%)
R8	M1 J10 to J13 Smart Motorway	Confirmed (100%)
R9	A5 – M1 Link (Dunstable Northern Bypass)	Confirmed (100%)
P2	East West Rail (Western Section – Phase 2)	High (75%)
P3	East West Rail (Central Section)	Medium (50%)
P4	Midland Mainline Electrification	Medium (50%)
P9	Interchange at Flitwick	High (75%)
P10	Interchange at Ridgmont	High (75%)

This location is likely to have a deep rooted relationship to both the A421 and M1 due to its proximity to both of these major roads. Therefore, it is probable that it will benefit from improvements made to these roads (R4, R7, R8), and roads stemming from these links.

Further, due to the site's proximity to both the Marston Vale Line and the Midland Mainline, it is also likely to benefit from interchange improvements at Flitwick and Ridgmont (P9, P10), in addition to electrification of the Midland Mainline north of Bedford (P4). Additionally, the proposed East West Rail (P2, P3) link is proposed to serve Ridgmont Station, providing key opportunities for housing growth and access to employment.

Potential transport interventions

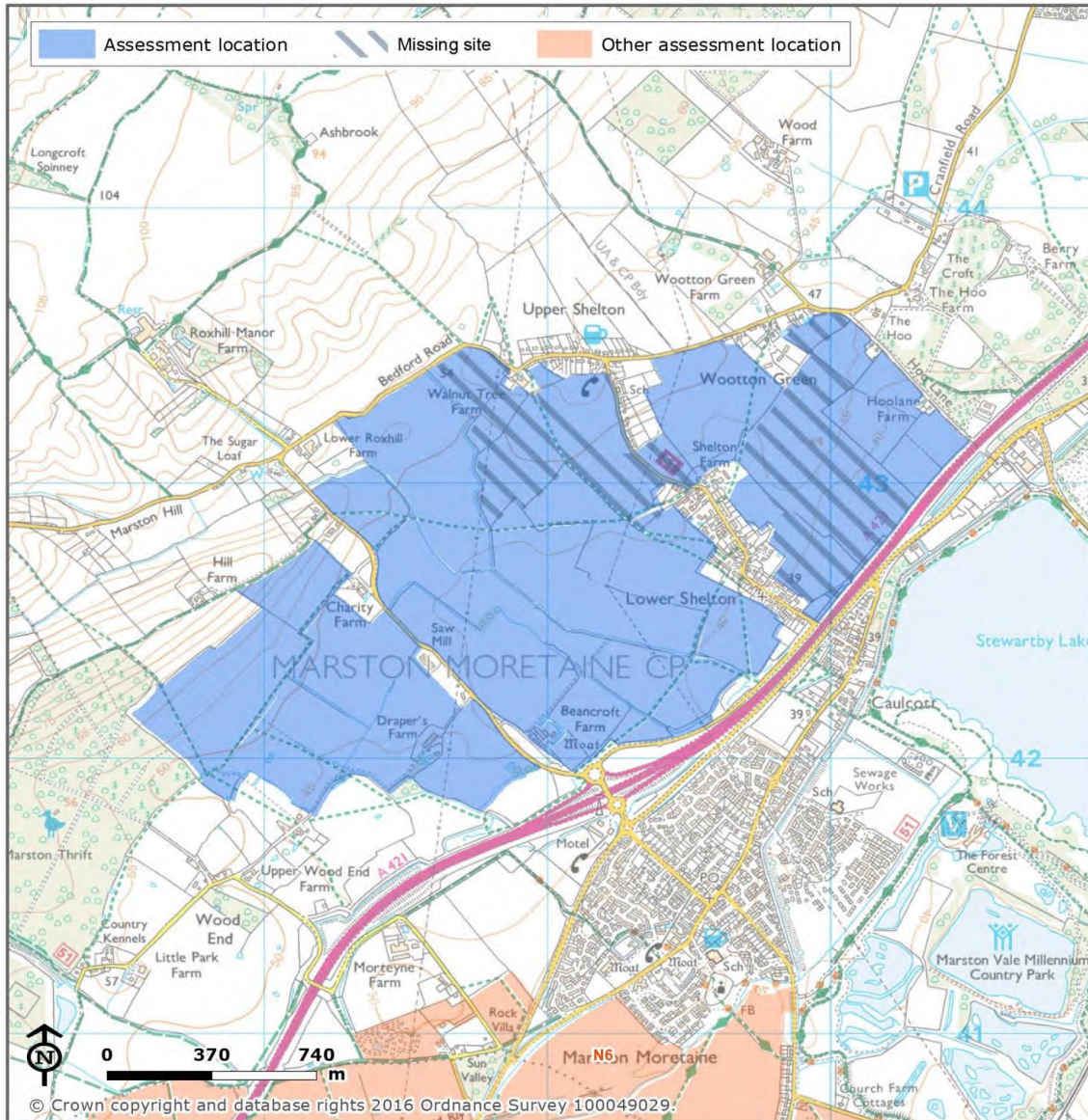
Potential transport interventions to improve the relative performance of this growth option are shown below:

- Bus network review with a view to enhancing connectivity between Bedford and Milton Keynes via Cranfield and connections to Ridgmont and Flitwick rail stations.
- Provide a cycle connection to the National Cycle Route 51.
- Improved cycle parking facilities at existing and future public transport interchanges.

Location ID: N8

Name: Marston Moretaine North

Location area:	269.6 hectares
Proportion within Study Area:	100%
Typology:	Large new settlement / village extension, not in close proximity to public transport
Assumed net density:	44 dwellings per hectare
Assumed total net capacity:	7,117 dwellings
Estimated net capacity 2015-2035:	2,500 dwellings



Spatial options

Which spatial options does the location meet the criteria for?

New settlements	(>1 km from existing top-tier settlement and >2000 capacity)	✓
Village extensions	(<100 m from existing non top-tier settlement)	✓
Growth in transport corridors	(<1.2km from railway stn, guided busway stop or park & ride facility, or <1km from A-road or motorway)	✓
Urban extensions	(<100 m from top tier settlement and not within urban area)	✗
Urban intensification around public transport hubs	(<1.2 km from railway stn, guided busway stop or park & ride facility)	✗

Constraints

Which types of secondary constraint are present within the location?

Historic environment	Listed Building	Yes
Historic environment	Conservation Area	No
Biodiversity	Priority Habitat Inventory	Yes
Biodiversity	Locally designated wildlife site	No
Biodiversity	Local Nature Reserve	No
Biodiversity	Local geological site	No
Landscape	Locally identified sensitive landscape	No
Air quality	Air Quality Management Area	No
Soil quality	Grade 1, 2 or 3 agricultural land	Yes
Water quality	Source Protection Zone 1 or Zone 1c	No
Flood risk	Flood Zone 2	No
Flood risk	Flooding from surface water (1 in 100 year)	Yes
Energy infrastructure	High voltage electricity line 400 m buffer zone	Yes
Mineral resources	Mineral Safeguarding Area	No
Open space, sport & recreation	Sustrans national cycle route	Yes
Open space, sport & recreation	Publicly accessible open space	No

Access to services and facilities

Which services and facilities are present within indicative walking distance of the location?

Railway stations, guided busway stops and park and ride facilities (1.2 km)	No
Major employment areas (2.0 km)	Yes
Town centres and major out of centre retail parks (0.8 km)	No
Publicly accessible open spaces (1.2 km)	Yes
Secondary or upper schools and further or higher education establishments (2.0 km)	Yes
Lower, middle or primary schools (1.0 km)	Yes
Local / neighbourhood centres (0.4 km)	No
NHS primary healthcare (GPs) and hospitals (1.2 km)	No
Bus stops, inc. stops on non-guided sections of guided busway (0.8 km)	Yes

Deliverability

Is the location likely to be available for development and is there a reasonable prospect of delivery of the site within the time period?

Highly likely

The majority of the site has been submitted by promoters through the Call for Sites process. The rest of the site comprises 'missing site(s)', and therefore the land availability is currently unknown. However, we are not specifically aware of any opposition by the promoters.

Is there a reasonable prospect that required strategic infrastructure can be delivered within the time period?

Less likely

Not within 1.2km of existing public transport interchange, but within 1.0km of existing strategic road. Development of this scale is likely to require significant improvements to existing transport infrastructure, but none are currently planned. Any known critical strategic utilities requirements are significantly funded.

Is there likely to be current demand for this scale of development in this location?

Highly likely

Location offers good access to quality of life attractions (cultural, sports, leisure and/or natural assets), and highly convenient access to employment and amenities. Relatively low average residential sales values are likely to reflect the local character of the area, although we note some pockets of high value.

Is there likely to be potential future demand for this scale of development in this location, if planned regeneration, employment, and infrastructure projects are delivered?

Highly likely (no change from current assessment)

Housing demand may increase in line with employment opportunities associated with this large site, as well as the Bedford & MK Waterway (Medium/50% likelihood of delivery by 2035), employment growth in Milton Keynes, and the Wood End woodland regeneration initiative. Average residential sales values do not currently reflect access to quality of life attractions (cultural, sports, leisure and/or natural assets) and convenience of access to employment and amenities, offering the potential to appeal to a broader market.

OVERALL DELIVERABILITY ASSESSMENT (see decision flowchart in Methodology section)

Low

Viability

Viability of cleared and serviced development parcel

Highly likely

High level viability modelling suggests that development at the assumed density with policy compliant affordable housing exceeds the Threshold Land Value at current costs and values. Assumed density: 44 dwellings per net developable hectare (Large new settlement / village extension, not in close proximity to public transport interchange)

Is there a reasonable prospect that required local infrastructure and abnormal cost items can be delivered within the time period?

Moderately likely

All of the growth location is understood to be greenfield High level viability modelling suggests that development at the assumed density could only offer contributions towards local infrastructure and abnormal cost items of over £30,000 per residential unit / £750,000 per net developable hectare with lower than policy compliant levels of affordable housing provision.

OVERALL VIABILITY ASSESSMENT

Medium

Transport

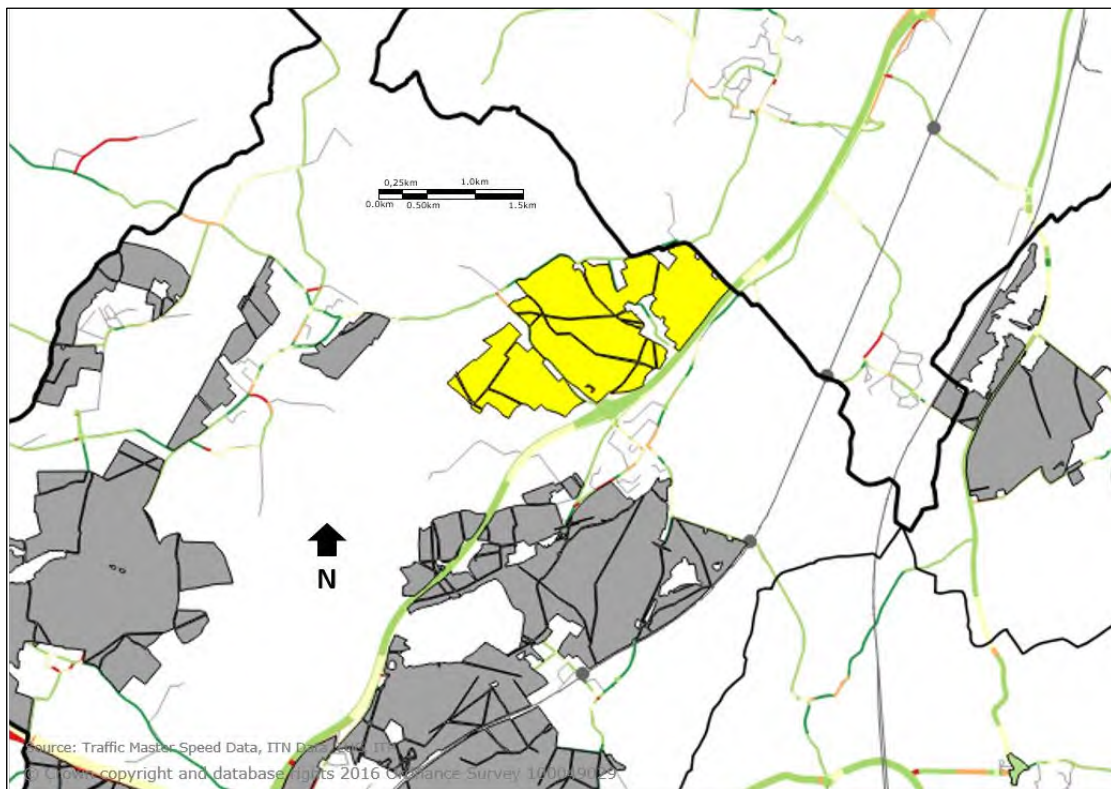
Large new settlement/village extension (269.6 ha) north of the A421 and attached to Upper and Lower Shelton. The eastern side of this potential growth option is positioned alongside the authorities' boundary between Central Bedfordshire and Bedford. A large part of the southern side of this site lies adjacent to the A421.











The closest train stations are Millbrook and Stewartby Stations, which are currently managed by London Midland and offers low-frequency train services along the Marston Vale line between Bedford and Bletchley. These two train stations are located approximately 2.5 km and 1.5 km respectively from the potential growth option.

The National Cycle Network (NCN) route 51 runs through this potential growth option.

Indicative traffic conditions

The potential growth option is accessible via Beancroft Road to the west, Bedford Road to the North West and Lower Shelton Road and Hoo Lane to the south and east. To the south of the site, the A421 sees speed reductions greater than or equal to 20%. Greater speed reductions are also evident on the A421 to the south west, close to the M1 Junction 13. To the north east, several of the major routes that adjoin the A421 reveal speed reductions greater than or equal to 30%, including the A428, A5141 and A5134. On the M1, to the south west of the site, speed reductions are also observed northbound and southbound including close to key junctions such as 14 and 12.



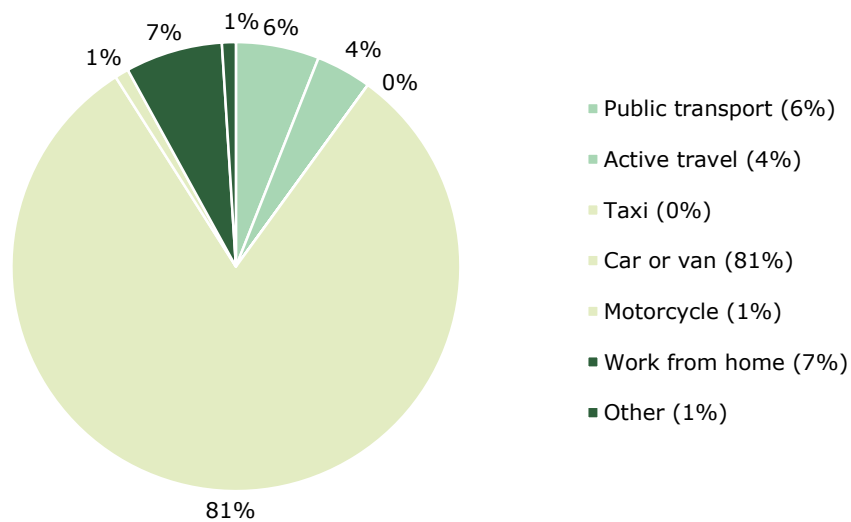
					
Speed differentials	≥ 30% speed reduction	20% ≤ speed reduction < 30%	10% ≤ speed reduction < 20%	10% < speed reduction	No speed reduction
Road type	 Motorway	 A Road	 B Road	 Minor Road	 Other Road

Recorded journey to work O-D movements in the vicinity of this location suggest that car/van trips are likely to be added to the road network as shown below:

Route	Traffic distribution ¹	Main roads likely to be affected
Western routes towards Milton Keynes	25%	A421
North-Eastern routes towards Bedford	25%	A421
South-Eastern routes towards Luton, North Herts, Stevenage and St Albans	23%	A421, M1, A507, A6
Southern routes towards Dacorum	11%	A421, M1
South-Western routes towards Aylesbury Vale	11%	A421
Eastern routes	4%	A421
North-Western routes towards Northampton	1%	A421, M1
Northern routes	0%	N/A

¹ Based on at least 75% of car/van trips originating in Central Bedfordshire Middle Super Output Area 009.

Commuter travel mode split



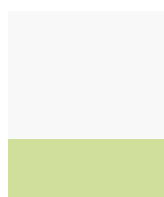
Indicative number of jobs within 60 minutes by public transport in relation to the closest bus stop to the potential housing area:

Based on existing conditions:

0 - 60,000

60,000 - 120,000

> 120,000



Based on assumed future conditions:

0 - 60,000

60,000 - 120,000

> 120,000



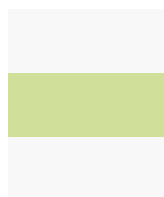
Indicative number of jobs within 30 minutes by road in relation to the centre of the potential housing area:

Based on existing conditions:

0 - 75,000

75,000 - 215,000

> 215,000

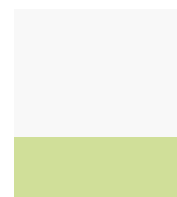


Based on assumed future conditions:

0 - 75,000

75,000 - 215,000

> 215,000



Personal Injury Collisions (PICs) ¹

	Perimeter (200mt) ²		Perimeter (1,000mt) ²
Fatal	0 (0.00 collisions per ha)	Fatal	3 (0.01 collisions per ha)
Serious	6 (0.02 collisions per ha)	Serious	12 (0.04 collisions per ha)
Slight	27 (0.10 collisions per ha)	Slight	45 (0.17 collisions per ha)

¹ Years reviewed: 2011, 2012, 2013, 2014 and 2015.

² PICs on existing road network within a perimeter that is set 200 and 1,000 metres outside each housing area.

Transport infrastructure investment

Key transport infrastructure investment for which it is likely to be a relationship with this growth option:

ID	Name	Likelihood of delivery by 2035
R2	Bedford Western Bypass – Phase Two	Confirmed (100%)
R4	A421 Magna Park to J13 M1	Confirmed (100%)
R7	M1 J13 to J16 Smart Motorway	Confirmed (100%)
R8	M1 J10 to J13 Smart Motorway	Confirmed (100%)
P2	East West Rail (Western Section – Phase 2)	High (75%)
P3	East West Rail (Central Section)	Medium (50%)
P4	Midland Mainline Electrification	Medium (50%)
P6	Wixams Station	High (75%)

Given this location's proximity to the A421, and its consequential relationship with the M1 and the Oxford to Cambridge Expressway schemes, this potential growth option is likely to benefit from infrastructure improvements such as the M1 Smart Motorways schemes (R7, R8) and the upgrading of the A421 between the M1 Junction 13 and

Magna Park (R4). Further, though a considerable distance from the site, the recent completion of Phase Two of the Bedford Western Bypass (R2) is likely to enhance the relationship between Bedford and areas of housing growth.

Further, due to the site's relative proximity to the Midland Mainline it is probable that it would benefit from the proposed Wixams Station (P6) to the south of Bedford, in addition to the electrification of the line north of Bedford (P4). Similarly, the proximity of the proposed East West Rail link (P2, P3) might allow for some opportunities for a greater level of access to employment.

Potential transport interventions

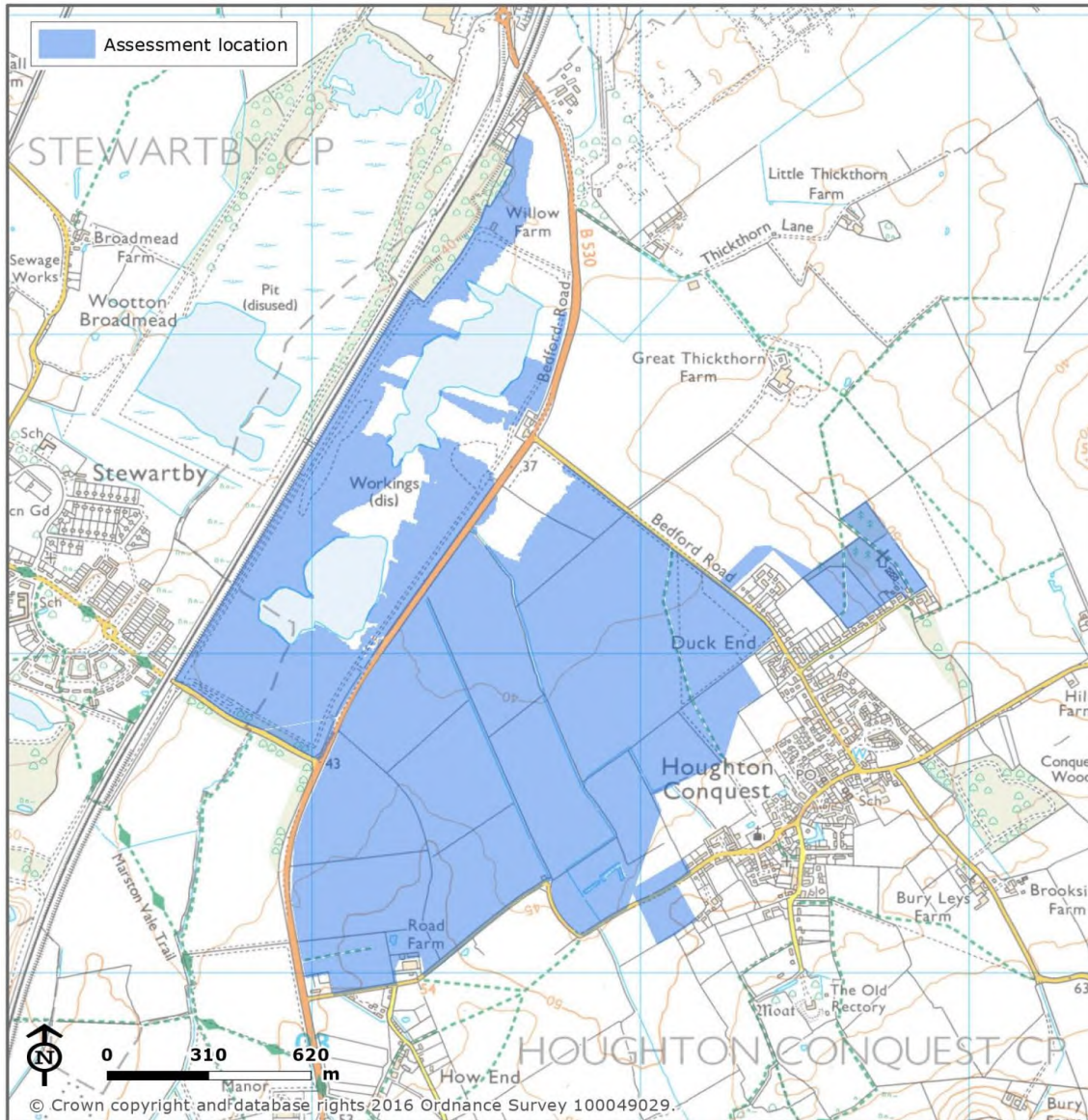
Potential transport interventions to improve the relative performance of this growth option are shown below:

- Bus network review with a view to enhancing connectivity between Bedford and Milton Keynes via Cranfield and railway stations in the vicinity.
- Provide a cycle connection to the National Cycle Route 51 and railway stations.
- Improved cycle parking facilities at existing and future public transport interchanges.

Location ID: N9

Name: Wixams-Stewartby-Houghton Conquest

Location area:	192.9 hectares
Proportion within Study Area:	96%
Typology:	Large urban infill site / extension, in close proximity to public transport interchange
Assumed net density:	55 dwellings per hectare
Assumed total net capacity:	6,366 dwellings
Estimated net capacity 2015-2035:	2,000 dwellings



Spatial options

Which spatial options does the location meet the criteria for?

New settlements	(>1 km from existing top-tier settlement and >2000 capacity)	✘
Village extensions	(<100 m from existing non top-tier settlement)	✘
Growth in transport corridors	(<1.2km from railway stn, guided busway stop or park & ride facility, or <1km from A-road or motorway)	✓
Urban extensions	(<100 m from top tier settlement and not within urban area)	✓
Urban intensification around public transport hubs	(<1.2 km from railway stn, guided busway stop or park & ride facility)	✓

Constraints

Which types of secondary constraint are present within the location?

Historic environment	Listed Building	No
Historic environment	Conservation Area	No
Biodiversity	Priority Habitat Inventory	Yes
Biodiversity	Locally designated wildlife site	Yes
Biodiversity	Local Nature Reserve	No
Biodiversity	Local geological site	Yes
Landscape	Locally identified sensitive landscape	No
Air quality	Air Quality Management Area	No
Soil quality	Grade 1, 2 or 3 agricultural land	Yes
Water quality	Source Protection Zone 1 or Zone 1c	No
Flood risk	Flood Zone 2	Yes
Flood risk	Flooding from surface water (1 in 100 year)	Yes
Energy infrastructure	High voltage electricity line 400 m buffer zone	No
Mineral resources	Mineral Safeguarding Area	Yes
Open space, sport & recreation	Sustrans national cycle route	No
Open space, sport & recreation	Publicly accessible open space	No

Access to services and facilities

Which services and facilities are present within indicative walking distance of the location?

Railway stations, guided busway stops and park and ride facilities (1.2 km)	Yes
Major employment areas (2.0 km)	Yes
Town centres and major out of centre retail parks (0.8 km)	No
Publicly accessible open spaces (1.2 km)	Yes
Secondary or upper schools and further or higher education establishments (2.0 km)	No
Lower, middle or primary schools (1.0 km)	Yes
Local / neighbourhood centres (0.4 km)	No
NHS primary healthcare (GPs) and hospitals (1.2 km)	No
Bus stops, inc. stops on non-guided sections of guided busway (0.8 km)	Yes

Deliverability

Is the location likely to be available for development and is there a reasonable prospect of delivery of the site within the time period?

Highly likely

The entirety of the growth location comprises sites submitted by promoters through the Call for Sites process.

Is there a reasonable prospect that required strategic infrastructure can be delivered within the time period?

Moderately likely

Within 1.2km of existing public transport interchange, but not within 1.0km of existing strategic road. Development of this scale is likely to require moderate improvements to existing transport infrastructure, but none are currently planned. Any known critical strategic utilities requirements are significantly funded.

Is there likely to be current demand for this scale of development in this location?

Moderately likely

Location offers poorer access to quality of life attractions (cultural, sports, leisure and/or natural assets), and moderately convenient access to employment and amenities. These factors are reflected in what are moderate average local residential sales values, although we note some pockets of high value.

Is there likely to be potential future demand for this scale of development in this location, if planned regeneration, employment, and infrastructure projects are delivered?

Moderately likely (no change from current assesment)

Housing demand may increase in line with employment opportunities associated with this large site. There may be some demand for a more aspirational housing offer relative to the current area.

OVERALL DELIVERABILITY ASSESSMENT (see decision flowchart in Methodology section)

Medium

Viability

Viability of cleared and serviced development parcel

Highly likely

High level viability modelling suggests that development at the assumed density with policy compliant affordable housing exceeds the Threshold Land Value at current costs and values. Assumed density: 55 dwellings per net developable hectare (Large urban infill site / extension, in close proximity to public transport interchange)

Is there a reasonable prospect that required local infrastructure and abnormal cost items can be delivered within the time period?

Moderately likely

All of the growth location is understood to be greenfield High level viability modelling suggests that development at the assumed density could only offer contributions towards local infrastructure and abnormal cost items of over £30,000 per residential unit / £750,000 per net developable hectare with lower than policy compliant levels of affordable housing provision.

OVERALL VIABILITY ASSESSMENT

Medium

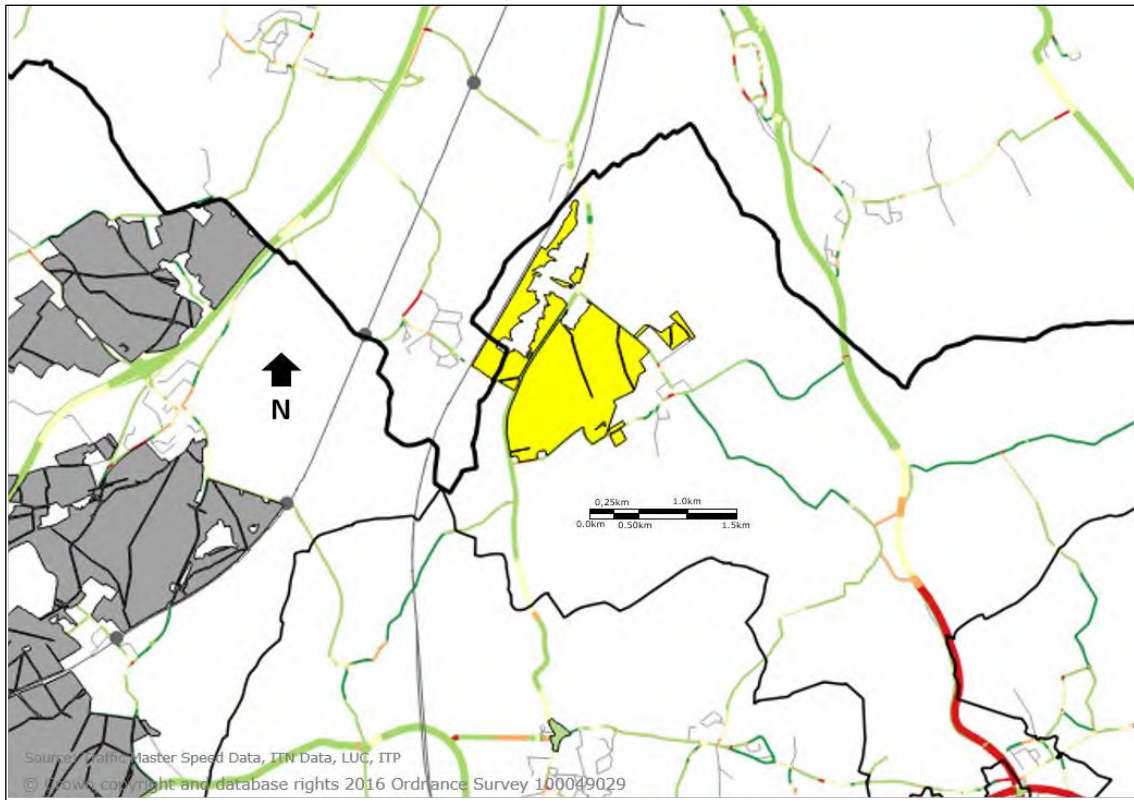
N9 - Wixams-Stewartby-Houghton Conquest











Large new settlement/village extension (192.9 ha) west of the A6 corridor. The western side of this potential growth option is located alongside the Midland Mainline and the B530 runs through the site. The closest train station is Stewartby Station, which is currently managed by London Midland and offers low-frequency train services along the Marston Vale line between Bedford and Bletchley. This train station is situated approximately 1.0 km along Stewartby Way from the potential growth option.

The National Cycle Network (NCN) route 51 runs approximately 3.0km west of the potential growth options with potential opportunities to link the site through Stewartby Way and existing local cycle routes around Stewartby Lake.

Indicative traffic conditions

The potential growth option is accessible via the B530 and Stewartby Way to the west, Bedford Road to the north east and The Grove to the south. Speed reductions greater than or equal to 30% are evident on the High Street, to the east, close to the junction with Bedford Road and to the south on The Grove, close to the junction with the B530. Speed reductions are also present on Broadmead Road, on the western flank of Stewartby. Further to the south east, considerable sections with speed reductions greater than or equal to 30% are revealed on the A6 and A507, close to Clophill. Other areas at a distance with significant speed reductions are obvious to the south, on the M1 close to junction 12 and to the north on Ampthill Road (A5141), to the south of Bedford.



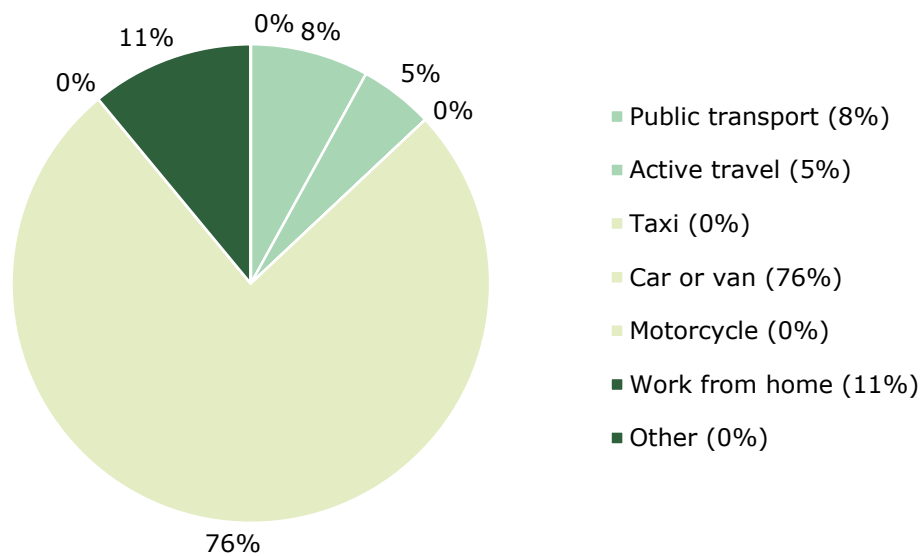
					
Speed differentials	≥ 30% speed reduction	20% ≤ speed reduction < 30%	10% ≤ speed reduction < 20%	10% < speed reduction	No speed reduction
Road type	 Motorway	 A Road	 B Road	 Minor Road	 Other Road

Recorded journey to work O-D movements in the vicinity of this location suggest that car/van trips are likely to be added to the road network as shown below:

Route	Traffic distribution ¹	Main roads likely to be affected
Southern routes towards Dacorum	30%	A6, A421, A5120, B530
Northern routes towards Bedford	25%	A6, A421, B530
Eastern routes	13%	A507, B530
Western routes towards Milton Keynes	10%	A421, A507, B530
South-Western routes	10%	A421, A507, B530
South-Eastern routes towards Luton, North Hertfordshire, Stevenage and St Albans	9%	A507, A6, B530
North-Eastern routes towards Huntingdonshire and South Cambridgeshire	3%	A6, A421, B530
North-Western routes	0%	N/A

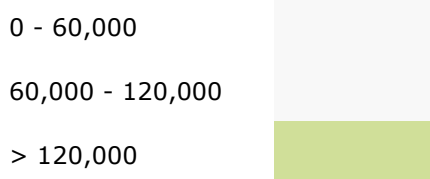
¹ Based on at least 75% of car/van trips originating in Central Bedfordshire Middle Super Output Area 008.

Commuter travel mode split

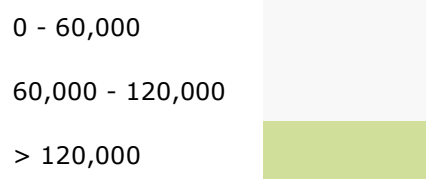


Indicative number of jobs within 60 minutes by public transport in relation to the closest bus stop to the potential housing area:

Based on existing conditions:



Based on assumed future conditions:



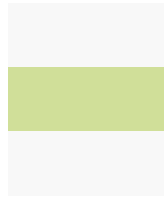
Indicative number of jobs within 30 minutes by road in relation to the centre of the potential housing area:

Based on existing conditions:

0 - 75,000

75,000 - 215,000

> 215,000



Based on assumed future conditions:

0 - 75,000

75,000 - 215,000

> 215,000



Personal Injury Collisions (PICs) ¹

	Perimeter (200mt) ²		Perimeter (1,000mt) ²
Fatal	0 (0.00 collisions per ha)	Fatal	0 (0.00 collisions per ha)
Serious	2 (0.01 collisions per ha)	Serious	4 (0.02 collisions per ha)
Slight	11 (0.06 collisions per ha)	Slight	26 (0.13 collisions per ha)

¹ Years reviewed: 2011, 2012, 2013, 2014 and 2015.

² PICs on existing road network within a perimeter that is set 200 and 1,000 metres outside each housing area.

Transport infrastructure investment

Key transport infrastructure investment for which it is likely to be a relationship with this growth option:

ID	Name	Likelihood of delivery by 2035
P2	East West Rail (Western Section – Phase 2)	High (75%)
P3	East West Rail (Central Section)	Medium (50%)
P4	Midland Mainline Electrification	Medium (50%)
P6	Wixams Station	High (75%)

As this location is closely located to the Midland Mainline, it is likely to form a strong relationship with this link, and as such will benefit from key infrastructural improvements such as the creation of a new station at Wixams (P6) and the electrification of the line north of Bedford (P4). Further, the proposed East West Rail link (P2, P3), which will route to the west and north of this location, might provide opportunities for travel between this option and key areas of employment, such as Milton Keynes, Cambridge and Oxford.

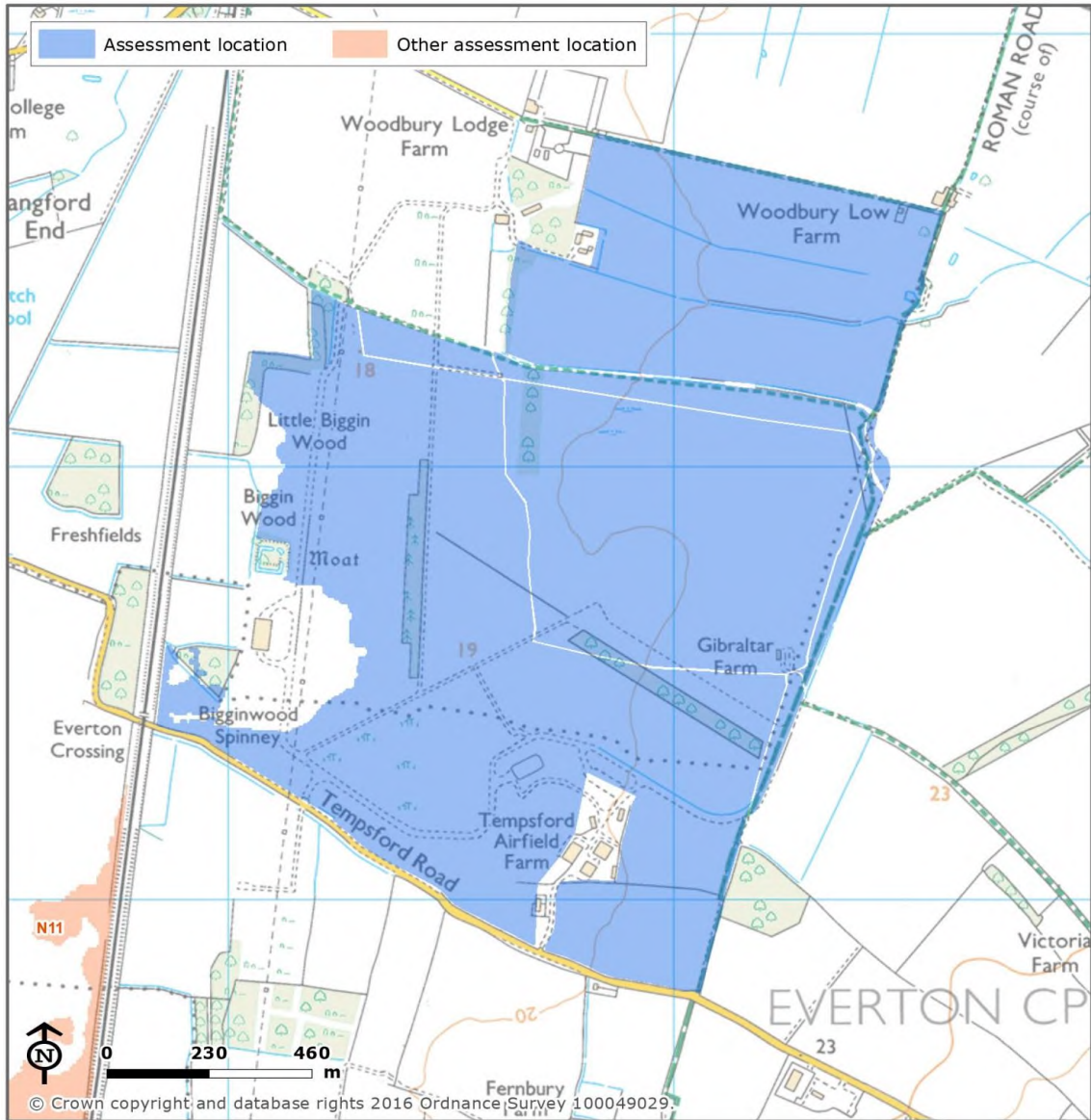
Potential transport interventions

Potential transport interventions to improve the relative performance of this growth option are shown below:

- Bus network review with a view to enhancing connectivity along the A6 and to Milton Keynes, Bedford and railway stations
- Provide a cycle connections to railway stations.
- Improved cycle parking facilities at existing and future public transport interchanges.

Location ID: N10 Name: Sandy North East

Location area:	184.4 hectares
Proportion within Study Area:	100%
Typology:	Large new settlement, not in close proximity to public transport interchange
Assumed net density:	44 dwellings per hectare
Assumed total net capacity:	4,868 dwellings
Estimated net capacity 2015-2035:	2,000 dwellings



Spatial options

Which spatial options does the location meet the criteria for?

New settlements	(>1 km from existing top-tier settlement and >2000 capacity)	✓
Village extensions	(<100 m from existing non top-tier settlement)	✗
Growth in transport corridors	(<1.2km from railway stn, guided busway stop or park & ride facility, or <1km from A-road or motorway)	✗
Urban extensions	(<100 m from top tier settlement and not within urban area)	✗
Urban intensification around public transport hubs	(<1.2 km from railway stn, guided busway stop or park & ride facility)	✗

Constraints

Which types of secondary constraint are present within the location?

Historic environment	Listed Building	Yes
Historic environment	Conservation Area	No
Biodiversity	Priority Habitat Inventory	Yes
Biodiversity	Locally designated wildlife site	No
Biodiversity	Local Nature Reserve	No
Biodiversity	Local geological site	No
Landscape	Locally identified sensitive landscape	No
Air quality	Air Quality Management Area	No
Soil quality	Grade 1, 2 or 3 agricultural land	Yes
Water quality	Source Protection Zone 1 or Zone 1c	No
Flood risk	Flood Zone 2	Yes
Flood risk	Flooding from surface water (1 in 100 year)	Yes
Energy infrastructure	High voltage electricity line 400 m buffer zone	Yes
Mineral resources	Mineral Safeguarding Area	No
Open space, sport & recreation	Sustrans national cycle route	No
Open space, sport & recreation	Publicly accessible open space	No

Access to services and facilities

Which services and facilities are present within indicative walking distance of the location?

Railway stations, guided busway stops and park and ride facilities (1.2 km)	No
Major employment areas (2.0 km)	Yes
Town centres and major out of centre retail parks (0.8 km)	No
Publicly accessible open spaces (1.2 km)	Yes
Secondary or upper schools and further or higher education establishments (2.0 km)	No
Lower, middle or primary schools (1.0 km)	No
Local / neighbourhood centres (0.4 km)	No
NHS primary healthcare (GPs) and hospitals (1.2 km)	No
Bus stops, inc. stops on non-guided sections of guided busway (0.8 km)	Yes

Deliverability

Is the location likely to be available for development and is there a reasonable prospect of delivery of the site within the time period?

Highly likely

The entirety of the growth location comprises a single site submitted by promoter(s) through the Call for Sites process.

Is there a reasonable prospect that required strategic infrastructure can be delivered within the time period?

Less likely

Not within 1.2km of existing public transport interchange, and not within 1.0km of existing strategic road. Development of this scale is likely to require significant improvements to existing transport infrastructure, but none are currently planned. Any known critical strategic utilities requirements are significantly funded.

Is there likely to be current demand for this scale of development in this location?

Moderately likely

Location offers moderate access to quality of life attractions (cultural, sports, leisure and/or natural assets), and less convenient access to employment and amenities. These factors are reflected in what are moderate average local residential sales values.

Is there likely to be potential future demand for this scale of development in this location, if planned regeneration, employment, and infrastructure projects are delivered?

Moderately likely (no change from current assesment)

Housing demand may increase in line with employment opportunities associated with this large site.

OVERALL DELIVERABILITY ASSESSMENT (see decision flowchart in Methodology section)

Low

Viability

Viability of cleared and serviced development parcel

Highly likely

High level viability modelling suggests that development at the assumed density with policy compliant affordable housing exceeds the Threshold Land Value at current costs and values. Assumed density: 44 dwellings per net developable hectare (Large new settlement, not in close proximity to public transport interchange)

Is there a reasonable prospect that required local infrastructure and abnormal cost items can be delivered within the time period?

Highly likely

All or part of the site is understood to be brownfield land (former airfields), however, the site is treated as greenfield land for the purpose of this study High level viability modelling suggests that development at the assumed density with policy compliant affordable housing could offer contributions towards local infrastructure and abnormal cost items of over £30,000 per residential unit / £750,000 per net developable hectare.

OVERALL VIABILITY ASSESSMENT

High

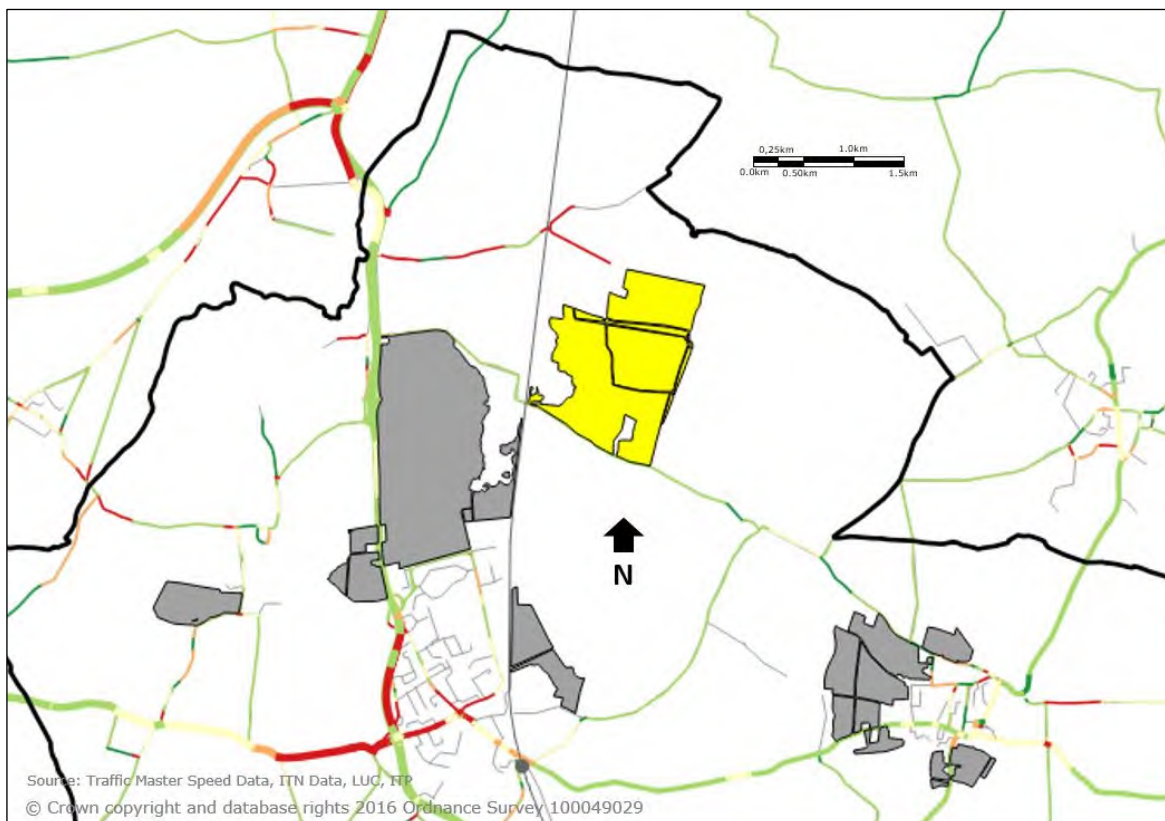
Transport











Large new settlement (184.4 ha) North East of Sandy near the existing East Coast Mainline. The south-eastern corner of the site lies approximately 5.0 km from Sandy Train Station, which is currently served by Great Northern between London Kings Cross and Peterborough.

The National Cycle Network (NCN) route 12 is largely located to the west of the East Coast Mainline and the A1 (M) at a considerable distance from the potential growth option.

Indicative traffic conditions

The potential growth option is accessible via Station Road to the North West, and Tempsford Road to the south. To the north west of the site, speed reductions greater than or equal to 30% are seen on Station Road, close to the junction with an unnamed road, east of the A1, and also on the A1 and A421 at the Black Cat Roundabout. To the south west, speed reductions are also evident on the A1 and A603, to the west of Sandy. Further speed reductions can also be observed on the A1 to the North West and the A428 to the north.



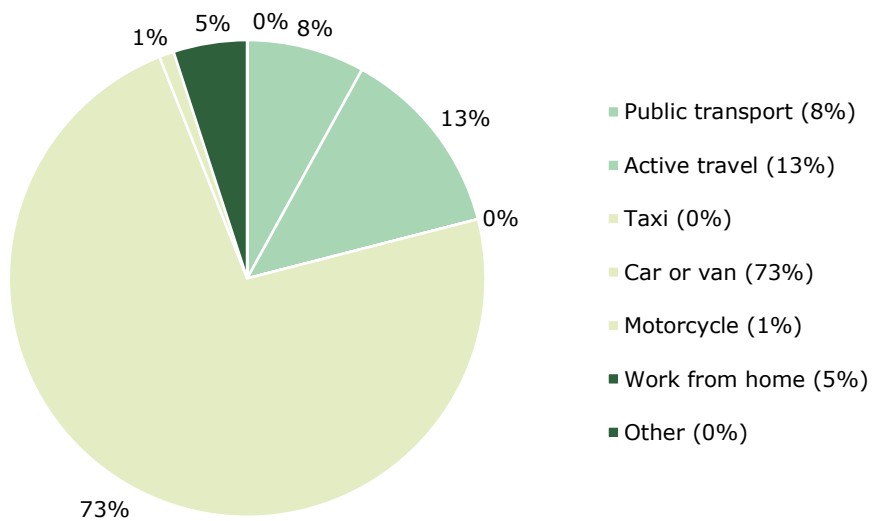
					
Speed differentials	≥ 30% speed reduction	20% ≤ speed reduction < 30%	10% ≤ speed reduction < 20%	10% < speed reduction	No speed reduction
Road type	 Motorway	 A Road	 B Road	 Minor Road	 Other Road

Recorded journey to work O-D movements in the vicinity of this location suggest that car/van trips are likely to be added to the road network as shown below:

Route	Traffic distribution ¹	Main roads likely to be affected
Southern routes towards North Hertfordshire, Stevenage and Welwyn Hatfield	49%	A1
North-Western routes towards Bedford	20%	A1, A421, A603
South-Western routes towards Luton	15%	A1, A507, A603, A6
Northern routes towards Huntingdonshire	6%	A1
Eastern routes South Cambridgeshire and Cambridge	5%	A1, A428
South-Eastern routes	3%	A1
Western routes towards Milton Keynes	2%	A1, A421, A603
North-Eastern routes	0%	N/A

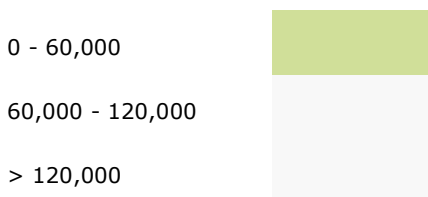
¹ Based on at least 75% of car/van trips originating in Central Bedfordshire Middle Super Output Area 002.

Commuter travel mode split

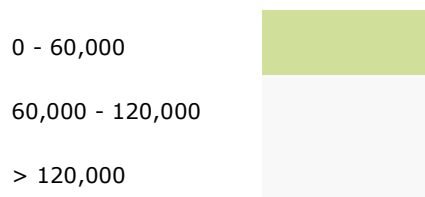


Indicative number of jobs within 60 minutes by public transport in relation to the closest bus stop to the potential housing area:

Based on existing conditions:

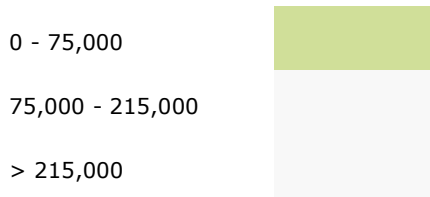


Based on assumed future conditions:

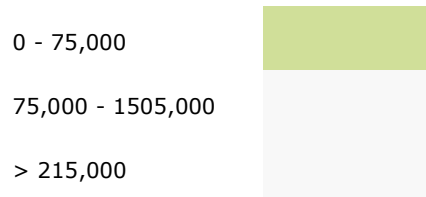


Indicative number of jobs within 30 minutes by road in relation to the centre of the potential housing area:

Based on existing conditions:



Based on assumed future conditions:



Personal Injury Collisions (PICs) ¹

	Perimeter (200mt) ²		Perimeter (1,000mt) ²
Fatal	0 (0.00 collisions per ha)	Fatal	0 (0.00 collisions per ha)
Serious	0 (0.00 collisions per ha)	Serious	0 (0.00 collisions per ha)
Slight	0 (0.00 collisions per ha)	Slight	0 (0.00 collisions per ha)

¹ Years reviewed: 2011, 2012, 2013, 2014 and 2015.

² PICs on existing road network within a perimeter that is set 200 and 1,000 metres outside each housing area.

Transport infrastructure investment

Key transport infrastructure investment for which it is likely to be a relationship with this growth option:

ID	Name	Likelihood of delivery by 2035
R3	A428 Widening (Between A1 and Caxton Gibbet)	Medium (50%)
R14	A1 East of England Improvements	Medium (50%)
P2	East West Rail (Western Section - Phase 2)	High (75%)
P3	East West Rail (Central Section)	Medium (50%)
P11	Interchange at Sandy	Medium (50%)

Due to the location's proximity to the A1 and A428, there are likely to be opportunities arising from the improvement of the A428 towards Cambridge (R3, Oxford to Cambridge Expressway Scheme), allowing for a greater level of access between the city and the A1. Further, there is also an opportunity to tie housing growth to the strategic Highways England work (R14) which is investigating areas of improvement on the A1.

Similarly, this location is also likely to benefit greatly from public transport improvements such as interchange improvements at Sandy Station (P11) and the East West Rail link (P2, P3) which offers noticeable opportunities for better access to employment via public transport, particularly if consideration is given to the provision of a transport interchange north of the existing site for Sandy Station.

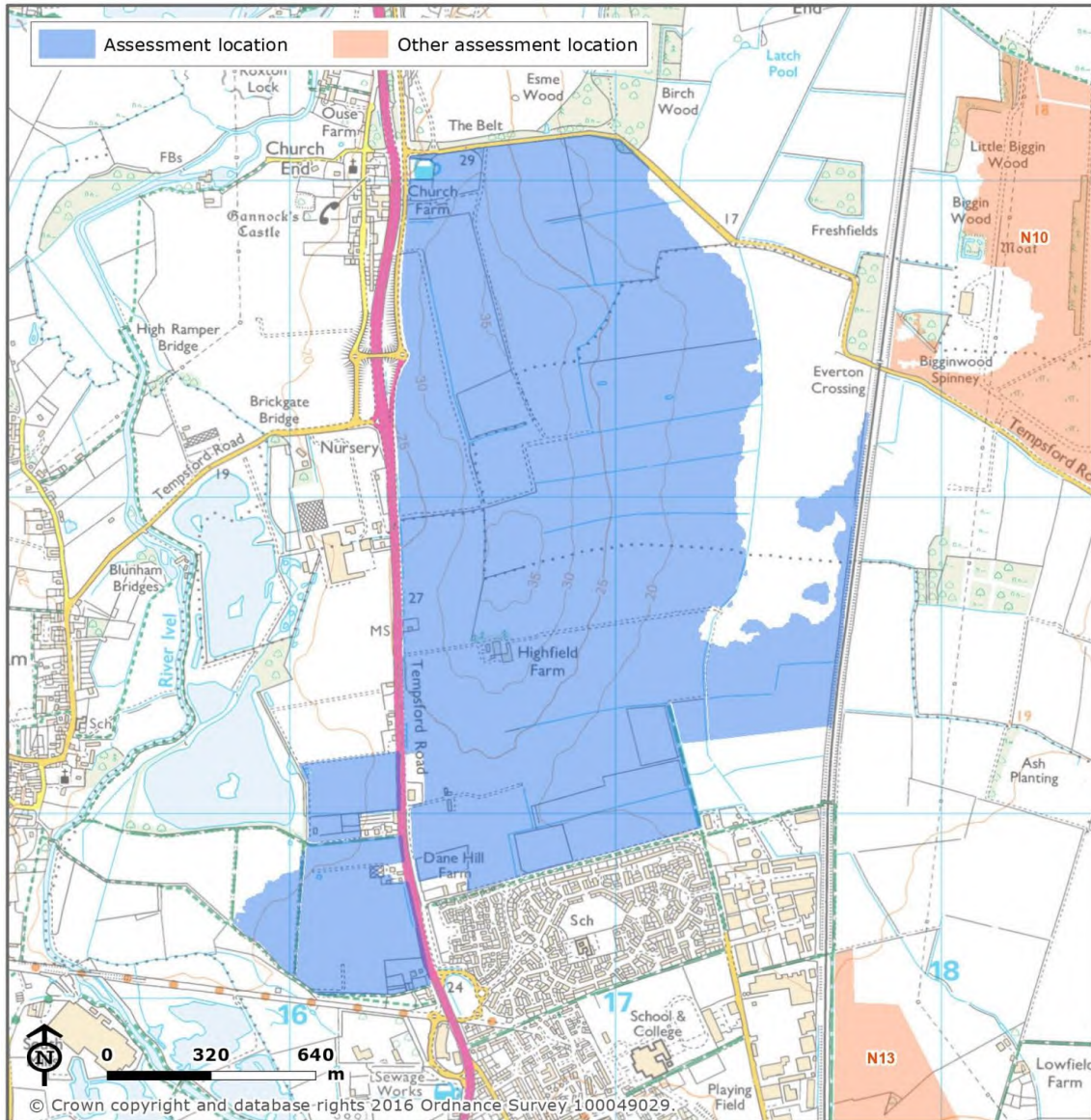
Potential transport interventions

Potential transport interventions to improve the relative performance of this growth option are shown below:

- Provision of a new PT interchange to improve connectivity north of Sandy. Opportunities to link into the EWR scheme. Possible relocation of/or improvements to Sandy station.
- Explore options to improve connectivity with North Hertfordshire, Stevenage, Welwyn and Hatfield. Opportunities linked to the A1 improvements scheme.
- Park and Ride capacity enhancements at Sandy.
- Provide cycle connection to the National Cycle Route 12.
- Improved cycle parking facilities at existing and future public transport interchanges.

Location ID: N11 Name: Sandy North West

Location area:	256.0 hectares
Proportion within Study Area:	100%
Typology:	Large urban infill site / extension, not in close proximity to public transport
Assumed net density:	44 dwellings per hectare
Assumed total net capacity:	6,758 dwellings
Estimated net capacity 2015-2035:	2,500 dwellings



Spatial options

Which spatial options does the location meet the criteria for?

New settlements	(>1 km from existing top-tier settlement and >2000 capacity)	✘
Village extensions	(<100 m from existing non top-tier settlement)	✘
Growth in transport corridors	(<1.2km from railway stn, guided busway stop or park & ride facility, or <1km from A-road or motorway)	✓
Urban extensions	(<100 m from top tier settlement and not within urban area)	✓
Urban intensification around public transport hubs	(<1.2 km from railway stn, guided busway stop or park & ride facility)	✘

Constraints

Which types of secondary constraint are present within the location?

Historic environment	Listed Building	No
Historic environment	Conservation Area	No
Biodiversity	Priority Habitat Inventory	Yes
Biodiversity	Locally designated wildlife site	No
Biodiversity	Local Nature Reserve	No
Biodiversity	Local geological site	No
Landscape	Locally identified sensitive landscape	No
Air quality	Air Quality Management Area	No
Soil quality	Grade 1, 2 or 3 agricultural land	Yes
Water quality	Source Protection Zone 1 or Zone 1c	No
Flood risk	Flood Zone 2	Yes
Flood risk	Flooding from surface water (1 in 100 year)	Yes
Energy infrastructure	High voltage electricity line 400 m buffer zone	No
Mineral resources	Mineral Safeguarding Area	Yes
Open space, sport & recreation	Sustrans national cycle route	No
Open space, sport & recreation	Publicly accessible open space	No

Access to services and facilities

Which services and facilities are present within indicative walking distance of the location?

Railway stations, guided busway stops and park and ride facilities (1.2 km)	No
Major employment areas (2.0 km)	Yes
Town centres and major out of centre retail parks (0.8 km)	No
Publicly accessible open spaces (1.2 km)	Yes
Secondary or upper schools and further or higher education establishments (2.0 km)	Yes
Lower, middle or primary schools (1.0 km)	Yes
Local / neighbourhood centres (0.4 km)	No
NHS primary healthcare (GPs) and hospitals (1.2 km)	No
Bus stops, inc. stops on non-guided sections of guided busway (0.8 km)	Yes

Deliverability

Is the location likely to be available for development and is there a reasonable prospect of delivery of the site within the time period?

Highly likely

The entirety of the growth location comprises sites submitted by promoters through the Call for Sites process.

Is there a reasonable prospect that required strategic infrastructure can be delivered within the time period?

Moderately likely

Not within 1.2km of existing public transport interchange, but within 1.0km of existing strategic road. Development of this scale is likely to require moderate improvements to existing transport infrastructure, even after taking into account planned A1 East of England improvements (Medium/50% likelihood of delivery by 2035). Any known critical strategic utilities requirements are significantly funded.

Is there likely to be current demand for this scale of development in this location?

Moderately likely

Location offers moderate access to quality of life attractions (cultural, sports, leisure and/or natural assets), and less convenient access to employment and amenities. These factors are reflected in what are moderate average local residential sales values.

Is there likely to be potential future demand for this scale of development in this location, if planned regeneration, employment, and infrastructure projects are delivered?

Highly likely (increase from current assessment)

Housing demand may increase in line with employment opportunities associated with this large site, as well as employment growth in Cambridge - particularly if the Sandy East-West Rail interchange is delivered north of the existing railway station at Sandy.

OVERALL DELIVERABILITY ASSESSMENT (see decision flowchart in Methodology section)

Medium

Viability

Viability of cleared and serviced development parcel

Highly likely

High level viability modelling suggests that development at the assumed density with policy compliant affordable housing exceeds the Threshold Land Value at current costs and values. Assumed density: 44 dwellings per net developable hectare (Large urban infill site / extension, not in close proximity to public transport interchange)

Is there a reasonable prospect that required local infrastructure and abnormal cost items can be delivered within the time period?

Highly likely

All of the growth location is understood to be greenfield High level viability modelling suggests that development at the assumed density with policy compliant affordable housing could offer contributions towards local infrastructure and abnormal cost items of over £30,000 per residential unit / £750,000 per net developable hectare.

OVERALL VIABILITY ASSESSMENT

High

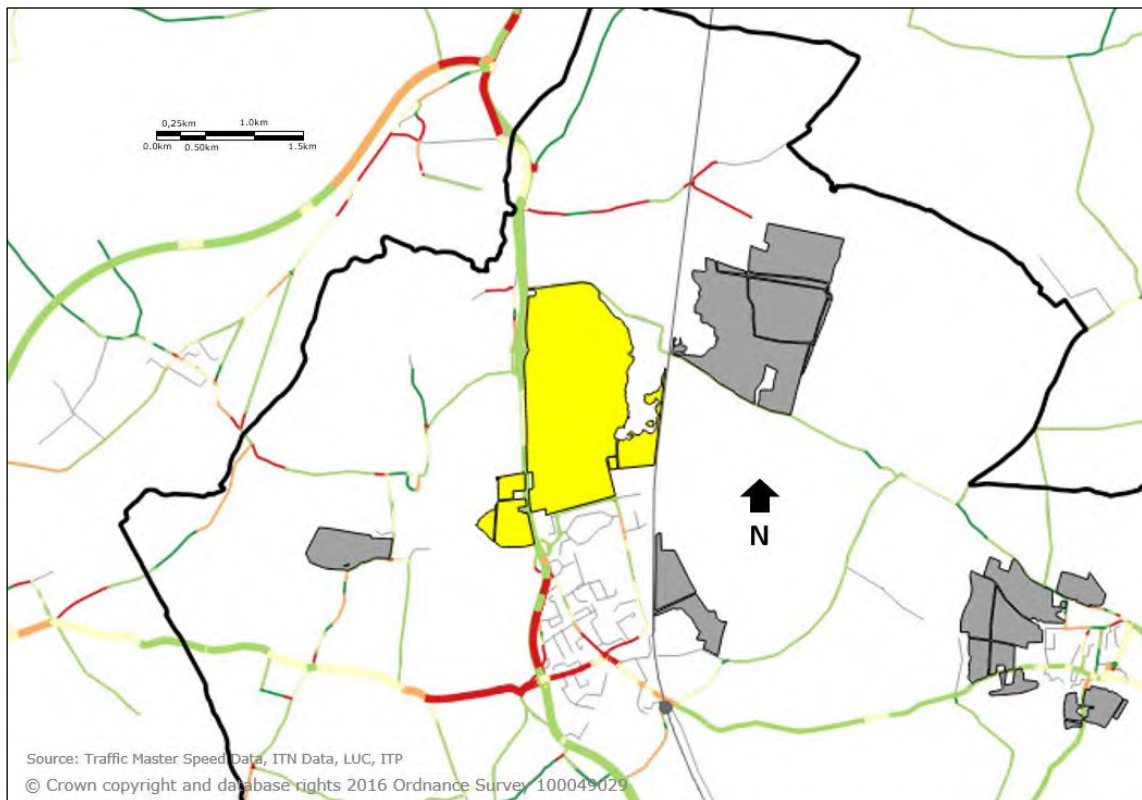
Transport











Large urban infill/extension (256 ha) north of Sandy flanked by the East Coast Mainline (to the east) and the A1 (mostly to the west). The southernmost boundary of the site lies approximately 3km from the nearest train station of Sandy, which is currently served by Great Northern between London Kings Cross and Peterborough.

The National Cycle Network (NCN) route 12 is found bordering the south-western tip of the site. NCN 12 provides access to Sandy to the immediate south, and direct traffic-free access to Bedford (via NCN 51) to the west.

Indicative traffic conditions

The potential growth option is accessible via Tempsford Road to the north, Sunderland Road to the south and the A1 to the west. Speed reductions greater than or equal to 30% are evident both northbound and southbound on the A1, close to key interchanges such as the Black Cat Roundabout (north) and the A603. Further speed reductions are also seen on the A428 to the north east and on local routes such as Barford Road and Bedford Road to the west.



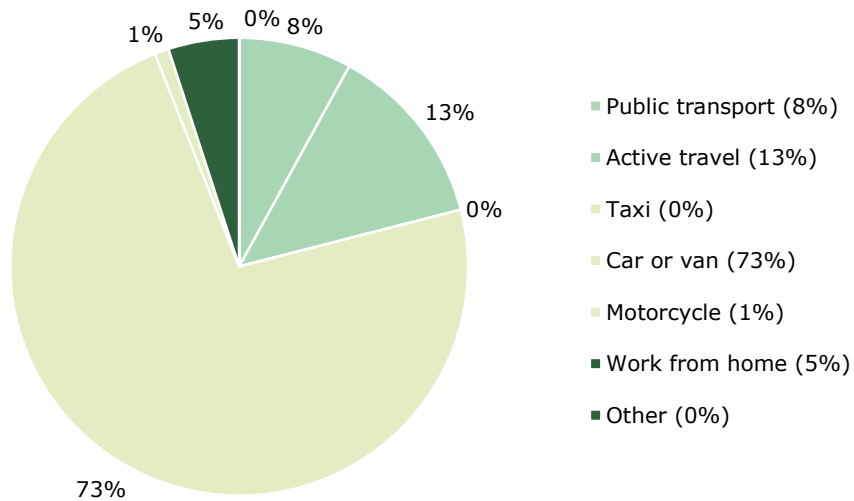
					
Speed differentials	≥ 30% speed reduction	20% ≤ speed reduction < 30%	10% ≤ speed reduction < 20%	10% < speed reduction	No speed reduction
Road type	 Motorway	 A Road	 B Road	 Minor Road	 Other Road

Recorded journey to work O-D movements in the vicinity of this location suggest that car/van trips are likely to be added to the road network as shown below:

Route	Traffic distribution ¹	Main roads likely to be affected
Southern routes towards North Hertfordshire, Stevenage and Welwyn Hatfield	43%	A1
North-Western routes towards Bedford	20%	A1, A421, A603
South-Western routes towards Luton	15%	A1, A507, A603, A6
South-Eastern routes	9%	A1
Northern routes towards Huntingdonshire	6%	A1, A428
Eastern routes towards South Cambridgeshire and Cambridge	5%	A1
Western routes towards Milton Keynes	2%	A1, A421, A603
North-Eastern routes	0%	N/A

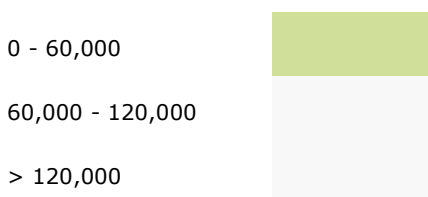
¹ Based on at least 75% of car/van trips originating in Central Bedfordshire Middle Super Output Area 002.

Commuter travel mode split

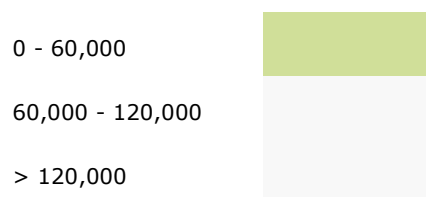


Indicative number of jobs within 60 minutes by public transport in relation to the closest bus stop to the potential housing area:

Based on existing conditions:

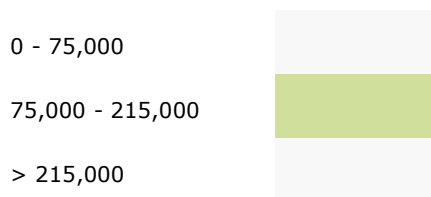


Based on assumed future conditions:

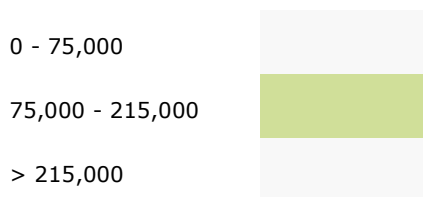


Indicative number of jobs within 30 minutes by road in relation to the centre of the potential housing area:

Based on existing conditions:



Based on assumed future conditions:



Personal Injury Collisions (PICs) ¹

	Perimeter (200mt) ²		Perimeter (1,000mt) ²
Fatal	1 (0.00 collisions per ha)	Fatal	1 (0.00 collisions per ha)
Serious	1 (0.00 collisions per ha)	Serious	6 (0.02 collisions per ha)
Slight	11 (0.04 collisions per ha)	Slight	32 (0.36 collisions per ha)

¹ Years reviewed: 2011, 2012, 2013, 2014 and 2015.

² PICs on existing road network within a perimeter that is set 200 and 1,000 metres outside each housing area.

Transport infrastructure investment

Key transport infrastructure investment for which it is likely to be a relationship with this growth option:

ID	Name	Likelihood of delivery by 2035
R3	A428 Widening (Between A1 and Caxton Gibbet)	Medium (50%)
R14	A1 East of England Improvements	Medium (50%)
P2	East West Rail (Western Section – Phase 2)	High (75%)
P3	East West Rail (Central Section)	Medium (50%)
P11	Interchange at Sandy	Medium (50%)

Similar to site N10, due to the location’s proximity to the A1 and A428, there are likely to be opportunities arising from the potential improvements of the A428 towards Cambridge (R3), allowing for a greater level of access between the city and the A1. Further, there is also an opportunity to tie housing growth to the strategic Highways England work (R14) which is investigating areas of improvement on the A1.

Similarly, the interchange improvements at Sandy Station (P11) and the East West Rail link (P2, P3) is envisaged to offer greater opportunities for better access to employment via public transport.

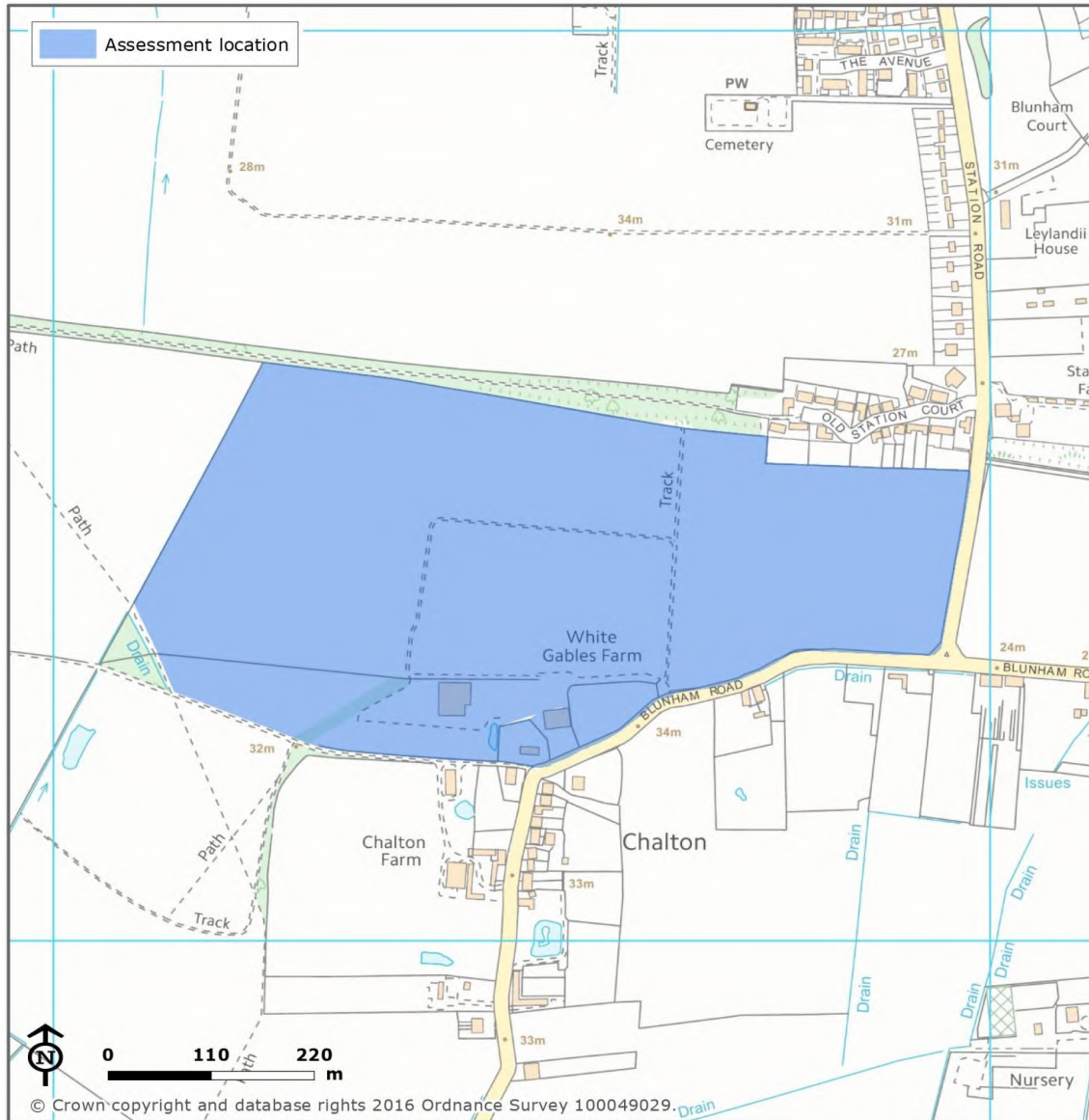
Potential transport interventions

Potential transport interventions to improve the relative performance of this growth option are shown below:

- Provision of a new PT interchange to improve connectivity north of Sandy. Opportunities to link into the EWR scheme. Possible relocation of/or improvements to Sandy station.
- Explore options to improve connectivity with North Hertfordshire, Stevenage, Welwyn and Hatfield. Opportunities linked to the A1 improvements scheme.
- Park and Ride capacity enhancements at Sandy.
- Provide cycle connection to the National Cycle Route 12
- Improved cycle parking facilities at existing and future public transport interchanges.

Location ID: N12 Name: Blunham South

Location area:	26.9 hectares
Proportion within Study Area:	100%
Typology:	Small village extension, not in close proximity to public transport interchange
Assumed net density:	30 dwellings per hectare
Assumed total net capacity:	484 dwellings
Estimated net capacity 2015-2035:	484 dwellings



Spatial options

Which spatial options does the location meet the criteria for?

New settlements	(>1 km from existing top-tier settlement and >2000 capacity)	✘
Village extensions	(<100 m from existing non top-tier settlement)	✓
Growth in transport corridors	(<1.2km from railway stn, guided busway stop or park & ride facility, or <1km from A-road or motorway)	✘
Urban extensions	(<100 m from top tier settlement and not within urban area)	✘
Urban intensification around public transport hubs	(<1.2 km from railway stn, guided busway stop or park & ride facility)	✘

Constraints

Which types of secondary constraint are present within the location?

Historic environment	Listed Building	No
Historic environment	Conservation Area	No
Biodiversity	Priority Habitat Inventory	Yes
Biodiversity	Locally designated wildlife site	Yes
Biodiversity	Local Nature Reserve	No
Biodiversity	Local geological site	No
Landscape	Locally identified sensitive landscape	No
Air quality	Air Quality Management Area	No
Soil quality	Grade 1, 2 or 3 agricultural land	Yes
Water quality	Source Protection Zone 1 or Zone 1c	No
Flood risk	Flood Zone 2	No
Flood risk	Flooding from surface water (1 in 100 year)	Yes
Energy infrastructure	High voltage electricity line 400 m buffer zone	No
Mineral resources	Mineral Safeguarding Area	Yes
Open space, sport & recreation	Sustrans national cycle route	No
Open space, sport & recreation	Publicly accessible open space	No

Access to services and facilities

Which services and facilities are present within indicative walking distance of the location?

Railway stations, guided busway stops and park and ride facilities (1.2 km)	No
Major employment areas (2.0 km)	No
Town centres and major out of centre retail parks (0.8 km)	No
Publicly accessible open spaces (1.2 km)	Yes
Secondary or upper schools and further or higher education establishments (2.0 km)	No
Lower, middle or primary schools (1.0 km)	Yes
Local / neighbourhood centres (0.4 km)	No
NHS primary healthcare (GPs) and hospitals (1.2 km)	No
Bus stops, inc. stops on non-guided sections of guided busway (0.8 km)	Yes

Deliverability

Is the location likely to be available for development and is there a reasonable prospect of delivery of the site within the time period?

Highly likely

The entirety of the growth location comprises sites submitted by promoters through the Call for Sites process.

Is there a reasonable prospect that required strategic infrastructure can be delivered within the time period?

Moderately likely

Not within 1.2km of existing public transport interchange, and not within 1.0km of existing strategic road. Development of this scale is likely to require moderate improvements to existing transport infrastructure, but none are currently planned. Any known critical strategic utilities requirements are significantly funded.

Is there likely to be current demand for this scale of development in this location?

Moderately likely

Location offers moderate access to quality of life attractions (cultural, sports, leisure and/or natural assets), and less convenient access to employment and amenities. Relatively high average residential sales values are likely to reflect the local character of the area.

Is there likely to be potential future demand for this scale of development in this location, if planned regeneration, employment, and infrastructure projects are delivered?

Moderately likely (no change from current assesment)

There are no known regeneration / employment / infrastructure projects planned that would significantly change the likelihood of demand from the current assessment.

OVERALL DELIVERABILITY ASSESSMENT (see decision flowchart in Methodology section)

Medium

Viability

Viability of cleared and serviced development parcel

Highly likely

High level viability modelling suggests that development at the assumed density with policy compliant affordable housing exceeds the Threshold Land Value at current costs and values. Assumed density: 30 dwellings per net developable hectare (Small village extension, not in close proximity to public transport interchange)

Is there a reasonable prospect that required local infrastructure and abnormal cost items can be delivered within the time period?

Highly likely

All of the growth location is understood to be greenfield High level viability modelling suggests that development at the assumed density with policy compliant affordable housing could offer contributions towards local infrastructure and abnormal cost items of over £30,000 per residential unit / £750,000 per net developable hectare.

OVERALL VIABILITY ASSESSMENT

High

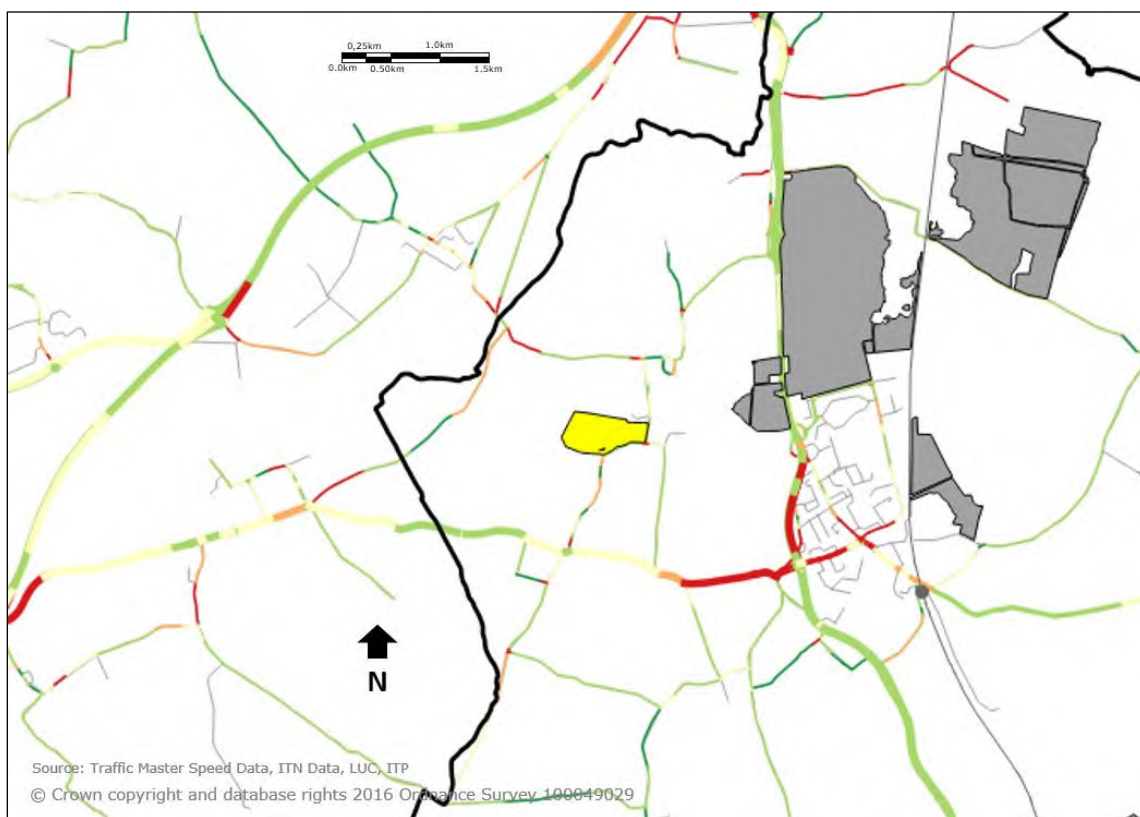
Transport











Small village extension (26.9 ha) to the south of Blunham and North West of Sandy. The A1 and the East Coast Mainline are both located east of the site. Sandy Train Station is approximately 5.0km away which provides Great Northern services between London Kings Cross and Peterborough.

The National Cycle Network (NCN) route 12 passes through the site and provides direct traffic-free access to Sandy to the east, and Bedford (via NCN 51) to the west.

Indicative traffic conditions

The potential growth option is accessible via Blunham Road to the south and Station Road to the east. To the south, Blunham Road sees speed reductions greater than or equal to 20%, with this raising to greater than or equal to 30% close to the junction with the A603. Similar speed reductions are evident on Barford Road, to the south west, again near to a key junction with the A603. Further speed reductions are also seen on the A1 and A603 to the south east, and to the north on Bedford Road, A1 and A421.



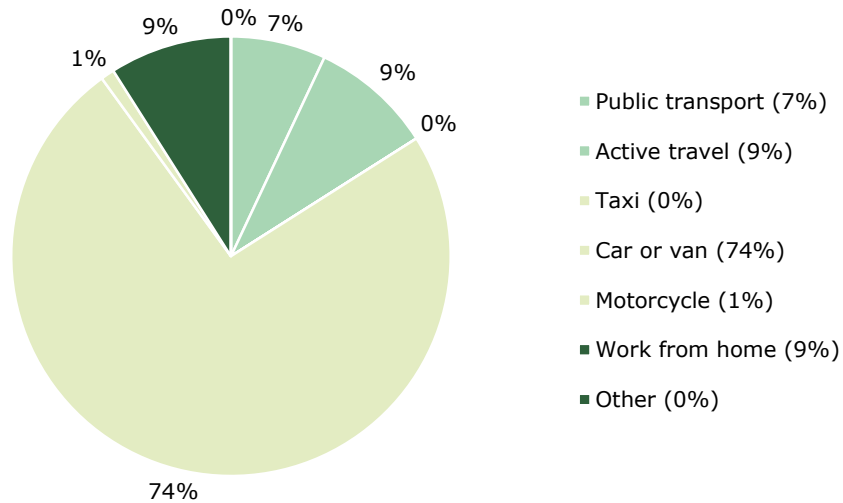
					
Speed differentials	≥ 30% speed reduction	20% ≤ speed reduction < 30%	10% ≤ speed reduction < 20%	10% < speed reduction	No speed reduction
Road type	 Motorway	 A Road	 B Road	 Minor Road	 Other Road

Recorded journey to work O-D movements in the vicinity of this location suggest that car/van trips are likely to be added to the road network as shown below:

Route	Traffic distribution ¹	Main roads likely to be affected
Southern routes towards North Hertfordshire, Stevenage and Welwyn Hatfield	31%	A603, A1
Eastern routes towards South Cambridgeshire and Cambridge	23%	A1, A428
North-Western routes towards Bedford	20%	A603
South-Eastern routes	12%	A1
Northern routes towards Huntingdonshire	6%	A1
South-Western routes towards Luton	6%	A1, A507, A603, A6
Western routes towards Milton Keynes	2%	
North-Eastern routes	0%	

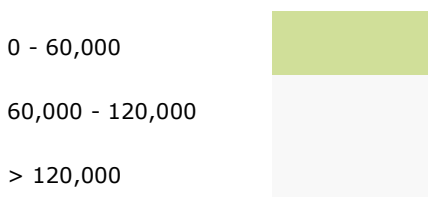
¹ Based on at least 75% of car/van trips originating in Central Bedfordshire Middle Super Output Area 002.

Commuter travel mode split

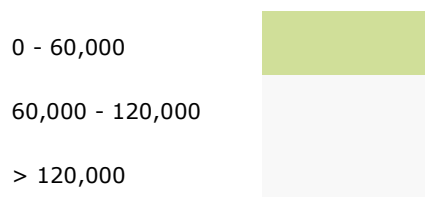


Indicative number of jobs within 60 minutes by public transport in relation to the closest bus stop to the potential housing area:

Based on existing conditions:

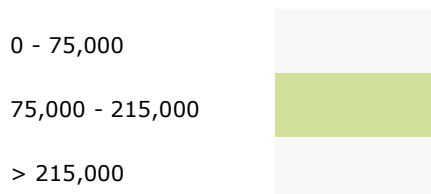


Based on assumed future conditions:

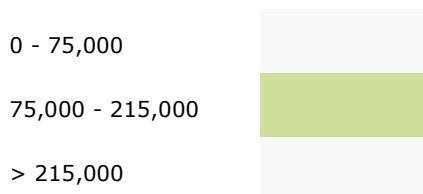


Indicative number of jobs within 30 minutes by road in relation to the centre of the potential housing area:

Based on existing conditions:



Based on assumed future conditions:



Personal Injury Collisions (PICs) ¹

	Perimeter (200mt) ²		Perimeter (1,000mt) ²
Fatal	0 (0.00 collisions per ha)	Fatal	0 (0.00 collisions per ha)
Serious	1 (0.04 collisions per ha)	Serious	4 (0.15 collisions per ha)
Slight	1 (0.04 collisions per ha)	Slight	6 (0.22 collisions per ha)

¹ Years reviewed: 2011, 2012, 2013, 2014 and 2015.

² PICs on existing road network within a perimeter that is set 200 and 1,000 metres outside each housing area.

Transport infrastructure investment

Key transport infrastructure investment for which it is likely to be a relationship with this growth option:

ID	Name	Likelihood of delivery by 2035
R3	A428 Widening (Between A1 and Caxton Gibbet)	Medium (50%)
R14	A1 East of England Improvements	Medium (50%)
P2	East West Rail (Western Section – Phase 2)	High (75%)
P3	East West Rail (Central Section)	Medium (50%)
P11	Interchange at Sandy	Medium (50%)

Similar to site N10 and N11, the location’s proximity to the A1 and A428 offers the possibility for opportunities to arise resulting from the potential improvement of the A428 towards Cambridge (R3), allowing for a greater level of access between the city and the A1. Further, there is also an opportunity to tie housing growth to the strategic Highways England work (R14) which is investigating areas of improvement on the A1.

Similarly, the interchange improvements at Sandy Station (P11) and the East West Rail link (P2, P3), which is proposed to pass through Sandy, is envisaged to offer greater opportunities for better access to employment via public transport.

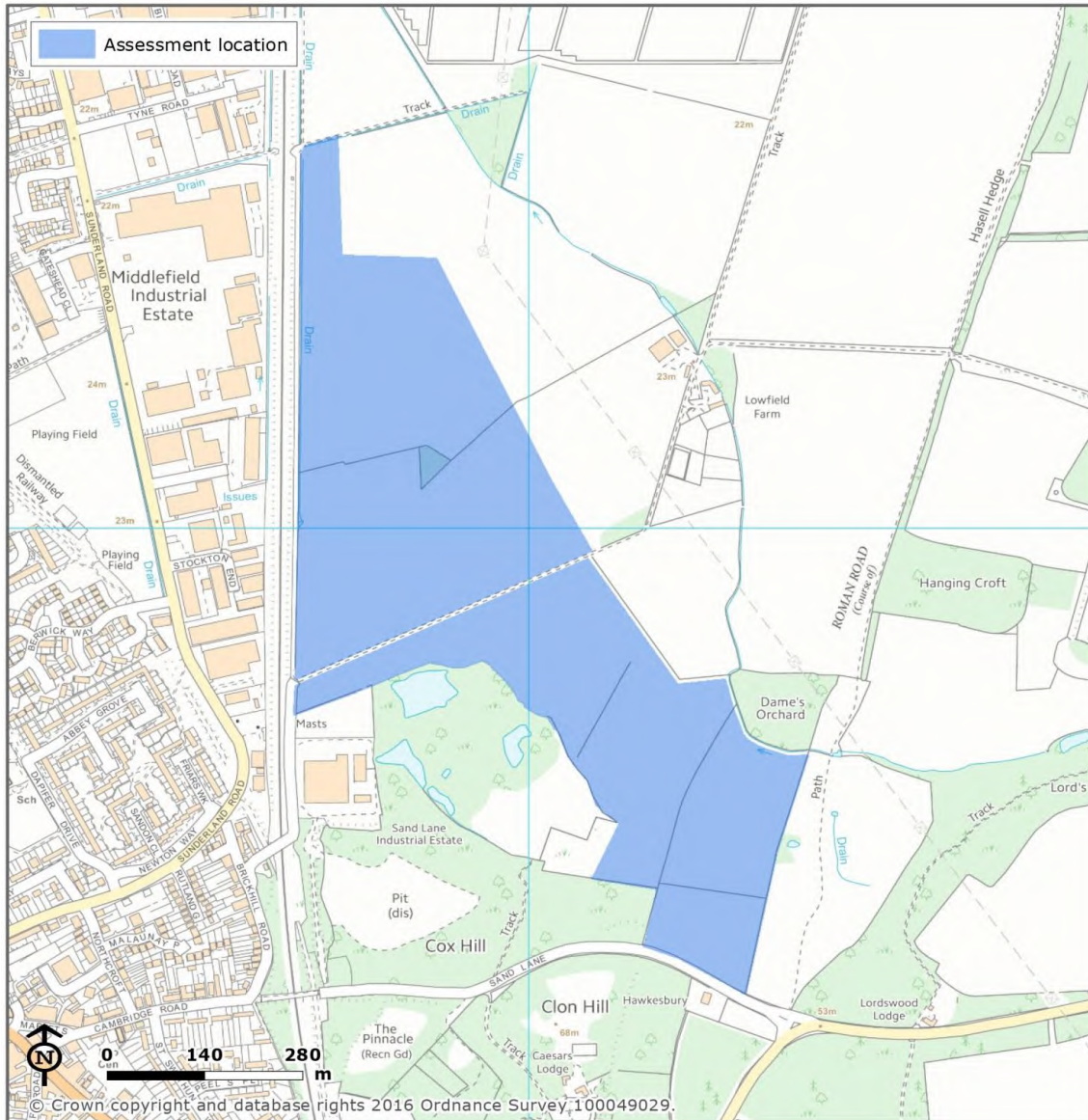
Potential transport interventions

Potential transport interventions to improve the relative performance of this growth option are shown below:

- Provision of a new PT interchange to improve connectivity north of Sandy. Opportunities to link into the EWR scheme. Possible relocation of/or improvements to Sandy station.
- Explore options to improve connectivity with North Hertfordshire, Stevenage, Welwyn and Hatfield. Opportunities linked to the A1 improvements scheme.
- Park and Ride capacity enhancements at Sandy.
- Provide cycle connection to the National Cycle Route 12.

Location ID: N13 Name: Sandy East

Location area:	32.8 hectares
Proportion within Study Area:	100%
Typology:	Small urban infill site / extension, in close proximity to public transport interchange
Assumed net density:	55 dwellings per hectare
Assumed total net capacity:	1,082 dwellings
Estimated net capacity 2015-2035:	1,082 dwellings



Spatial options

Which spatial options does the location meet the criteria for?

New settlements	(>1 km from existing top-tier settlement and >2000 capacity)	✘
Village extensions	(<100 m from existing non top-tier settlement)	✘
Growth in transport corridors	(<1.2km from railway stn, guided busway stop or park & ride facility, or <1km from A-road or motorway)	✓
Urban extensions	(<100 m from top tier settlement and not within urban area)	✓
Urban intensification around public transport hubs	(<1.2 km from railway stn, guided busway stop or park & ride facility)	✓

Constraints

Which types of secondary constraint are present within the location?

Historic environment	Listed Building	No
Historic environment	Conservation Area	No
Biodiversity	Priority Habitat Inventory	Yes
Biodiversity	Locally designated wildlife site	No
Biodiversity	Local Nature Reserve	No
Biodiversity	Local geological site	No
Landscape	Locally identified sensitive landscape	No
Air quality	Air Quality Management Area	No
Soil quality	Grade 1, 2 or 3 agricultural land	Yes
Water quality	Source Protection Zone 1 or Zone 1c	No
Flood risk	Flood Zone 2	No
Flood risk	Flooding from surface water (1 in 100 year)	Yes
Energy infrastructure	High voltage electricity line 400 m buffer zone	Yes
Mineral resources	Mineral Safeguarding Area	No
Open space, sport & recreation	Sustrans national cycle route	No
Open space, sport & recreation	Publicly accessible open space	No

Access to services and facilities

Which services and facilities are present within indicative walking distance of the location?

Railway stations, guided busway stops and park and ride facilities (1.2 km)	Yes
Major employment areas (2.0 km)	Yes
Town centres and major out of centre retail parks (0.8 km)	No
Publicly accessible open spaces (1.2 km)	Yes
Secondary or upper schools and further or higher education establishments (2.0 km)	Yes
Lower, middle or primary schools (1.0 km)	Yes
Local / neighbourhood centres (0.4 km)	No
NHS primary healthcare (GPs) and hospitals (1.2 km)	Yes
Bus stops, inc. stops on non-guided sections of guided busway (0.8 km)	Yes

Deliverability

Is the location likely to be available for development and is there a reasonable prospect of delivery of the site within the time period?

Highly likely

The entirety of the growth location comprises sites submitted by promoters through the Call for Sites process.

Is there a reasonable prospect that required strategic infrastructure can be delivered within the time period?

Moderately likely

Within 1.2km of existing public transport interchange, but not within 1.0km of existing strategic road. Development of this scale is likely to require moderate improvements to existing transport infrastructure. Any known critical strategic utilities requirements are significantly funded.

Is there likely to be current demand for this scale of development in this location?

Moderately likely

Location offers poorer access to quality of life attractions (cultural, sports, leisure and/or natural assets), and moderately convenient access to employment and amenities. These factors are reflected in what are moderate average local residential sales values.

Is there likely to be potential future demand for this scale of development in this location, if planned regeneration, employment, and infrastructure projects are delivered?

Highly likely (increase from current assessment)

Housing demand may increase in line with the Sandy East-West Rail interchange, and employment growth in Cambridge. Average residential sales values do not currently reflect access to quality of life attractions (cultural, sports, leisure and/or natural assets) and convenience of access to employment and amenities, offering the potential to appeal to a broader market.

OVERALL DELIVERABILITY ASSESSMENT (see decision flowchart in Methodology section)

Medium

Viability

Viability of cleared and serviced development parcel

Highly likely

High level viability modelling suggests that development at the assumed density with policy compliant affordable housing exceeds the Threshold Land Value at current costs and values. Assumed density: 55 dwellings per net developable hectare (Small urban infill site / extension, in close proximity to public transport interchange)

Is there a reasonable prospect that required local infrastructure and abnormal cost items can be delivered within the time period?

Moderately likely

All of the growth location is understood to be greenfield High level viability modelling suggests that development at the assumed density could only offer contributions towards local infrastructure and abnormal cost items of over £30,000 per residential unit / £750,000 per net developable hectare with lower than policy compliant levels of affordable housing provision.

OVERALL VIABILITY ASSESSMENT

Medium

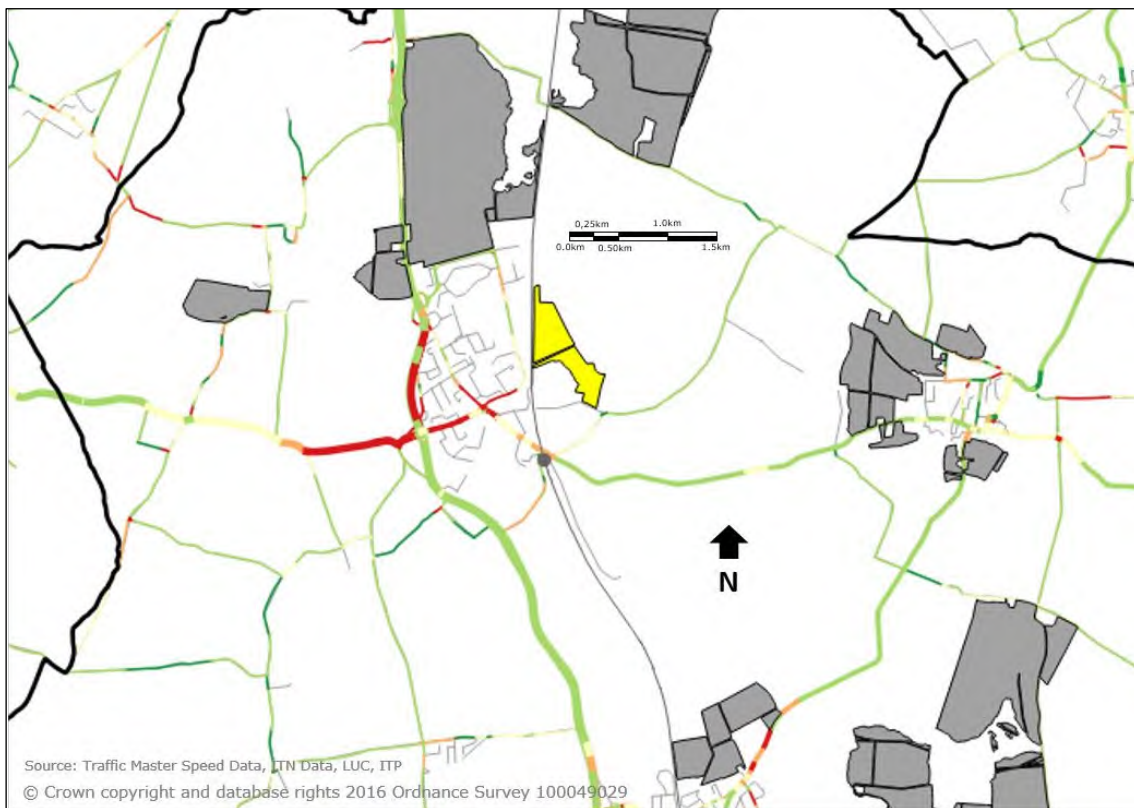
Transport











Small urban infill/extension (32.8 ha) to the east of Sandy. The proposed site lies adjacent to the East Coast Mainline and is 1.4km by road, or 1.0km by foot from Sandy Train Station at its southernmost point where Great Northern operate services between Peterborough and London King's Cross.

The site is close to National Cycle Network (NCN) route 12, which provides a dedicated traffic-free cycle route to Bedford (westbound and via connection with NCN 51), although access from parts of the site is likely to be inhibited by the railway.

Indicative traffic conditions

The potential growth option is accessible via Sand Lane to the south. To the west, speed reductions greater than or equal to 30% are apparent on Sunderland Road, High Street (B1042), St Neots Road and Bedford Road. Further west, speed reductions are also evident to the west of the option, on the A1 (southbound) and the A603. To the northwest, similar speed reductions are also seen on the A1 and A421 at the Black Cat Roundabout and towards St Neots.



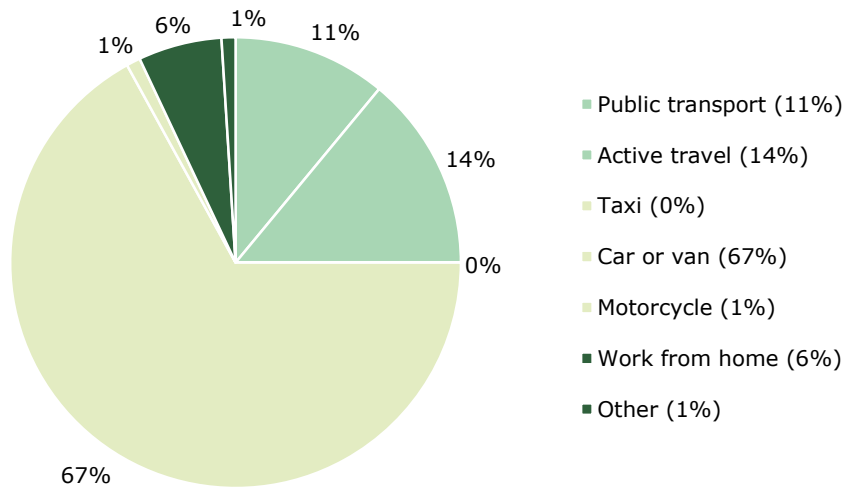
					
Speed differentials	≥ 30% speed reduction	20% ≤ speed reduction < 30%	10% ≤ speed reduction < 20%	10% < speed reduction	No speed reduction
Road type	 Motorway	 A Road	 B Road	 Minor Road	 Other Road

Recorded journey to work O-D movements in the vicinity of this location suggest that car/van trips are likely to be added to the road network as shown below:

Route	Traffic distribution ¹	Main roads likely to be affected
Southern routes towards North Hertfordshire, Stevenage and Welwyn Hatfield	40%	A1
North-Western routes towards Bedford	20%	A603, A1, A421
South-Western routes towards Luton	15%	A1, A507, A603, A6, B658
Northern routes towards Huntingdonshire	9%	A1
Eastern routes towards South Cambridgeshire and Cambridge	8%	A1, A428, B1042, B1040
South-Eastern routes	6%	A1, B1042
Western routes towards Milton Keynes	2%	A603, A421
North-Eastern routes	0%	N/A

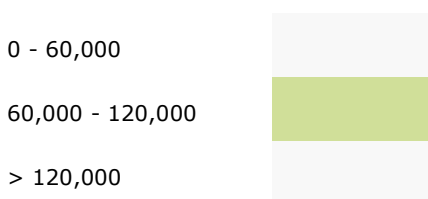
¹ Based on at least 75% of car/van trips originating in Central Bedfordshire Middle Super Output Area 002.

Commuter travel mode split

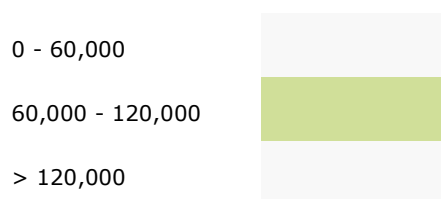


Indicative number of jobs within 60 minutes by public transport in relation to the closest bus stop to the potential housing area:

Based on existing conditions:

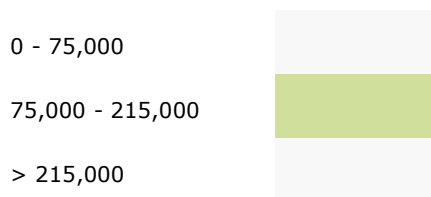


Based on assumed future conditions:



Indicative number of jobs within 30 minutes by road in relation to the centre of the potential housing area:

Based on existing conditions:



Based on assumed future conditions:



Personal Injury Collisions (PICs) ¹

	Perimeter (200mt) ²		Perimeter (1,000mt) ²
Fatal	0 (0.00 collisions per ha)	Fatal	0 (0.00 collisions per ha)
Serious	0 (0.00 collisions per ha)	Serious	2 (0.06 collisions per ha)
Slight	1 (0.03 collisions per ha)	Slight	32 (0.98 collisions per ha)

¹ Years reviewed: 2011, 2012, 2013, 2014 and 2015.

² PICs on existing road network within a perimeter that is set 200 and 1,000 metres outside each housing area.

Transport infrastructure investment

Key transport infrastructure investment for which it is likely to be a relationship with this growth option:

ID	Name	Likelihood of delivery by 2035
R3	A428 Widening (Between A1 and Caxton Gibbet)	Medium (50%)
R14	A1 East of England Improvements	Medium (50%)
P2	East West Rail (Western Section – Phase 2)	High (75%)
P3	East West Rail (Central Section)	Medium (50%)
P11	Interchange at Sandy	Medium (50%)

Similar to sites N10, N11 and N12, the location's proximity to the A1 and A428 offers the possibility for opportunities to arise resulting from the potential improvement of the A428 towards Cambridge (R3), allowing for a greater level of access between the city and the A1. Further, there is also an opportunity to tie housing growth to the strategic Highways England work (R14) which is investigating areas of improvement on the A1.

Similarly, the interchange improvements at Sandy Station (P11) and the East West Rail link (P2, P3), which is proposed to pass through Sandy, is predicted to offer greater access to employment via public transport.

Potential transport interventions

Potential transport interventions to improve the relative performance of this growth option are shown below:

- Opportunities to link into EWR scheme. Park and Ride capacity enhancements at Sandy.
- Improved cycle parking facilities at existing and future public transport interchanges.
- Explore options to improve connectivity with North Hertfordshire, Stevenage, Welwyn and Hatfield. Opportunities linked to the A1 improvements scheme.
- Provide cycle connection to the National Cycle Route 12.