Appendix 6
T Ridgmont Parish Council

Wormald Burrows Partnership Limited
Civil Engineering Consultants

MARSTON GATE EXPANSION
CENTRAL BEDFORDSHIRE

ASSESSMENT ON TRANSPORTATION PROPOSALS

FEBRUARY 2019

E3800-mars-acc-transreport-0219 rev0

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CENTRAL BEDFORDSHIRE

ASSESSMENT ON TRANSPORTATION PROPOSALS

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REGISTRATION OF AMENDMENTS

Revision	Date	Amendment Details	Prepared by	Checked by
Rev 0	18/02/18	Original edition	Andrew Chipchase	Kevin Sykes

CONTENTS

APPENDICES

1 INTRODUCTION

1.1 Prologis UK Ltd is proposing a development comprising up to 166,000m2 (gross external area) of storage and distribution facilities (Use Class B8) with ancillary office accommodation; HGV and car parking (including a dedicated lorry park and separate recreational use car park) on land at Marston Gate to the north of the A507.

1.2 Ridgmont Parish Council wish to object to the expansion of Marston Gate and has appointed Wormald Burrows Partnership Limited (WBPL) to assess the Transport Assessment 70047734-001 November 2018 and Environmental Statement (November 2018) Chapter D: Transportation that was submitted to support the outline planning application to determine the impact the proposed development will have on the parish.

1.3 Central Bedfordshire Council published their pre-submission Local Plan 2015-2035 in January 2018. This plan will guide and support the delivery of new infrastructure, homes and jobs in Central Bedfordshire (CB) while setting out the long-term vision and objectives for the area over the next 20 years.

1.4 Within the plan, Policy SE2 sets out the proposal for expanding the Marston Gate employment area to provide up to 35 hectares of new employment land.

1.5 WBPL assessed the transport evidence provided for the expansion in their report E3800-mars-acc-highwayreport-0218 rev0, February 2018, and concluded that much further evidence is required before an informed decision can be made as to whether the expansion of Marston Gate can be allocated in the CBC Local Plan. The local highway and Junction 13 of the M1, with viable mitigation measures, require further modelling to determine whether they have sufficient capacity and it still needs to be demonstrated whether sustainable transport measures can provide a viable alternative to the private car for Marston Gate staff members.

1.6 This assessment therefore reviews the transport assessment reports submitted with the outline planning application for the Marston Gate Expansion on behalf of Prologis UK Limited, in terms of assuring sufficient highway capacity at the M1 Junction 13, the impact on Ridgmont Parish and the availability of suitable sustainable transport to provide an alternative to the private car for staff trips.

2 DEVELOPMENT PROPOSAL

2.1 Location

2.1.1 Marston Gate is located at Junction 13 of the M1 Motorway to the south east of Brogborough and north of the M1.

2.1.2 The existing Marston Gate employment area, which contains Prologis Park Marston Gate, lies to the north of the A507 and to the east of Bedford Road. The expansion is proposed to the east of this existing area.

2.2 Existing Highway Network

2.2.1 Junction 13 of the M1 is in the form of two roundabouts in a dumb bell configuration, providing on and off slips in both directions for the M1. The two roundabouts are connected by a bridge over the M1.

2.2.2 The northern roundabout joins the M1 southbound on- and off-slips and the M1 overbridge to the A507, Bedford Road and, *via* Salford Road, the A421 from Bedford. The southern roundabout joins the M1 northbound on- and off-slips and the M1 overbridge to the A421 from Milton Keynes and Bedford Road.

2.2.3 The A507 runs east-west from Junction 13 to the A1 at Stotfold. The A421 joins Junction 13 from Milton Keynes in the west and, at a roundabout, continues north eastwards *via* a bridge over the M1, to the south of Bedford and onwards to the A1. A connector road from the A421, forming the third arm of the A421 roundabout, continues to the southern roundabout of Junction 13.

2.3 Proposal

2.3.1 The proposal by Prologis UK Ltd comprises up to 166,000m2 (gross external area) of storage and distribution facilities (Use Class B8) with ancillary office accommodation; HGV and car parking (including a dedicated lorry park and separate recreational use car park); new and diverted footpaths, cycle routes and bridleways, landscaping, drainage and associated works. A copy of the proposed parameters plan by Michael Sparks Associates in placed in **Appendix A**.

2.3.2 The vehicular access to the site will be taken from a new three arm roundabout from the A507. The roundabout will be located approximately 250m to the east of the existing A507/Station Road/Mill Road roundabout.

2.3.3 Off-site mitigation measures are proposed for the Bedford Road/A507 Salford Road traffic signal junction with an additional right-turn lane being provided from Bedford Road (south) to A507 Salford Road (east). Two lanes will then head eastbound to the roundabout providing access to the existing Prologis Park Marston Gate Distribution Centre, where a free-flow left turn lane to Station Road will be added.

2.3.4 Further off-site mitigation works are proposed to Junction 13 in the form of amending road markings on the offside lane allocation of the M1 northbound off-slip, to accommodate vehicle movements towards the A507 (Brogborough) only and remove the ability of access to the A421 towards Milton Keynes from the off-side lane. Subsequently, further alterations to road marking and white lining at the M1 J13 western and eastern roundabouts are also planned.

2.3.5 Public Rights of Way (PROW) running through the site will be kept and enhanced, including the enhancement of the existing bridleway that runs along the A507. It is proposed that the footway between Ridgmont Rail Station and the Prologis Park Marston Gate development is widened to create a continuous 3.0m foot/cycleway. Improved footways and an uncontrolled crossing, with dropped kerbs and tactile paving, are proposed on the perimeter of the Prologis Park Marston Gate development and on the northern approach of the Prologis Park Marston Gate access roundabout, to facilitate pedestrian and cyclist movements.

2.3.6 In addition, a new staggered Toucan crossing is proposed to be incorporated into the Bedford Road/Station Road traffic signals, which aims to improve pedestrian and cycle connections further west of the junction.

3 HIGHWAY PROPOSAL

3.1 Junction Capacity Modelling

3.1.1 The capacity of the M1 Junction 13 and the other off-site junctions have been modelled by WSP using the LinSig computer software package in the Transport Assessment. This modelling is required, as stated by AECOM in their Technical Notes, due to the Central Bedfordshire and Luton Transport Model (CBLTM) that was presented in the Local Plan being "of a strategic nature. Whilst the CBLTM may provide indicative results, further assessment of local schemes' impact may be required at later stages, using additional tools (e.g. junction modelling and/or micro-simulation modelling) if necessary."

3.2 Trips

3.2.1 Trips that will be generated by the development during the morning and evening peak hours were predicted by WSP using TRICS national trip generation database, as agreed with Central Bedfordshire Council (CBC) and Highways England (HE). The predicted trips are recorded in section 6.3 of the Transport Assessment.

3.2.2 It is predicted by WSP that 464 vehicular trips will be generated in the morning peak and 242 trips in the evening peak. This is equivalent to nearly eight vehicles every minute in the morning and four every minute in the evening peak. One hundred and thirty one and 72 of these trips are predicted to be heavy goods vehicle (HGV) trips in the morning and evening peaks respectively.

3.2.3 An automatic traffic counter across the access to the existing Prologis Park Marston Gate site recorded that 47.8% of the trips to the Prologist Park were cars, 27.8% light goods vehicles, 7.4% medium goods vehicles and 14.5% HGVs. Bicycle use was only 0.3%.

3.2.4 Modal split is predicted in Section 6.4 using Census 2011 data for what is presumed to be staff trips, with all distribution trips being by goods vehicles. Drivers and passengers account for a high 89% of the trips, with walking only 4.1%, cycling 1.5% and public transport 3.8%.

3.2.5 The distribution of car trips, again presuming that these are staff trips, is based on Census 2011 data while the Transport Assessment does not say how the distribution of the HGV trips was determined.

3.3 Committed Development

3.3.1 The Transport Assessment states that CBC and HE agree to the vehicular demand from the following developments only to be included in the modelling of the off-site junctions:

- Eagle Farm/Magna Park, Milton Keynes (12/02204/MKPCO)
- Eagle Farm South West, Aspley Guise (14/02167/OUTEIS)
- Glebe Farm, Aspley Guise (13/02382/OUTEIS)
- Eagle Farm South, Aspley Guise (13/02831/OUTEIS)

3.3.2 Therefore, no consideration has been given to the further considerable development that is either committed or proposed in the Central Bedfordshire Local Plan as follows:

- Land at Boughton Farm
- Covanta Energy Limited Plant, Stewartby
- Marston Vale New Villages
- Arlesey, *via* the A507
- Henlow, *via* the A507
- Flitwick
- Maulden
- Houghton Conquest
- Bedford Borough developments

3.4 Modelling of M1 Junction 13

3.4.1 The capacity of the M1 Junction 13 and other off-site junction have been modelled by WSP using the LinSig software. However, the results have not been calibrated and validated by comparing surveyed queue lengths to the queue lengths determined by the model for the existing demand: only a queue survey for the A507/Station Road has been provided in the Transport Assessment. Therefore, the modelling could be underestimating or overestimating the capacity of the junctions and consequently the results cannot be used with any certainty.

3.4.2 Nevertheless, the results presented in the Transport Assessment are indicating that a number of links at Junction 13 have a demand on it greater than the capacity of the link. This over demand is being shown to create long queues, either on approach to the overall junction or within the junction causing concern with queues blocking back to the downstream junction.

3.4.3 LinSig calculates a mean max queue (MMQ) length for each lane. This means, the MMQ length calculated and provided in the Transport Assessment is a mean of all the maximum queue lengths a lane is likely to generate over the modelling period., therefore it is of great concern that the actual length of queue could in reality be at times up to twice the MMQ value given by WSP's results in Tables 38, 39, 42 to 45.

3.4.4 Consequently, the queue on the M1 northbound off-slip in the evening in 2030 after mitigation could be at times up to 1.99km long - the slip lane length is only approximately 315m long - and the queue on the A421 southbound approach at the Salford Road junction in the morning in 2030 could be up to 2.6km long.

3.4.5 Furthermore, LinSig does not model the effects of queues blocking back to the junction downstream. Therefore, especially as links at the junction are being predicted to work at over-capacity, it is not known how this blocking back will impact on the junction.

3.4.6 A micro-simulation model of Junction 13 would therefore be essential to determine the effects of blocking back and over-capacity of links, when the queue lengths determined on a link that has greater demand on it than its capacity increases exponentially and becomes hard to predict.

3.4.7 Only when the micro-simulation model has been created and it and the LinSig model have been validated against queue data, can it be determined if the impact from the expected substantial increase in demand from the Prologist (UK) Ltd development with the proposed mitigation will result in nil-detriment to the highway network.

3.5 M1 Junction 13 Mitigation

3.5.1 Off-site mitigation works are proposed to Junction 13 in the form of amending road markings on the offside lane allocation of the M1 northbound off-slip, to accommodate vehicle movements towards the A507 (Brogborough) only and remove the ability of access to the A421 towards Milton Keynes from the off-side

lane. This is shown in drawing 243/P/040 by 278 Consulting, a copy of which is place in **Appendix B**, along with further alterations to road marking and white lining at the M1 J13 western and eastern roundabouts.

3.5.2 In Table 44 of the Transport Assessment, it states that this mitigation reduces the degree of saturation on the off-side lane in the PM peak in 2024 from 128.3% to 114.4%.

3.5.3 However, no indication has been given in the Transport Assessment that the current lane use has been observed and modelled. Therefore, it is possible that ahead traffic on the northbound off-slip could already be using only the nearside and centre lanes.

3.5.4 Validation of the existing lane use is thus required before any improvements to the operation of the off-slip can be claimed.

3.6 Bedford Road/Salford Road Signalised Junction

3.6.1 The proposals for the Bedford Road/Salford Road Signalised Junction, as shown in 278 Consulting drawing 243/P/001, a copy of which is placed in **Appendix C**, are concerning as it requires northbound vehicles from the M1 Junction 13 to change lane to the nearside flare lane to continue heading northwards on Bedford Road. This is not the natural movement for drivers going ahead to do and is likely to create confusion that could result in late lane changes and other dangerous manoeuvres, resulting in potential side-swipe collisions.

3.6.2 The A507 Salford Road will also require widening to allow for the second right turning lane from Bedford Road. This area of the junction and Salford Road is a habitat for the Great Crested Newt with newt barriers and a wildlife underpass existing along the A507. The Transport Assessment gives no indication that this Great Crested Newt habit has been considered in the mitigation proposals.

3.7 Environmental Statement

3.7.1 The Environmental Statement for the Prologis Park Marston Gate Expansion, November 2018 states that the impact on the local and strategic highway network has been demonstrated in the Transport Assessment not to be severe, as required by the National Planning Policy Framework (NPPF), the National Planning Practice Guidance and the Department for Transport Circular 02/2013 – The Strategic Road Network and the Delivery of Sustainable Development.

3.7.2 Nevertheless, notwithstanding the fact that the lack of validation of the LinSig model does not allow the capacity modelling results to be used with any certainty, the impact of any additional traffic to a junction that already has been determined to have a lack of capacity, as shown in Table 37 of the Transport Assessment, for the demand on it must be classed as severe.

3.7.3 The NPPF states that “109. Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.” In this case, the residual cumulative impacts results in severe detriment to the highway network at Junction 13 with many links being at over capacity that creates long queues.

3.7.4 Paragraph 25 of the Department for Transport (DfT) Circular 02/2013 ‘The Strategic Road Network and the Delivery of Sustainable Development’ states that “The overall forecast demand should be compared to the ability of the existing network to accommodate traffic over a period up to ten years after the date of registration of a planning application or the end of the relevant Local Plan whichever is the greater.”

3.7.5 Firstly, it has not been demonstrated that the existing network can accommodate traffic and secondly, the period assessed is ten years after the date of registration: with the emerging CB Local Plan 2018-2035 currently being in consultation, it may be more appropriate to assess the network to the end of the plan period, which is 2035.

3.7.6 Paragraph 27 of the DfT Circular 02/2013 states that “Where the overall forecast demand at the time of opening of the development can be accommodated by the existing infrastructure, further capacity mitigation will not be sought.”

3.7.7 With links of Junction 13 being predicted to be over capacity and the uncertainty of the modelling results, again it has not been demonstrated that overall forecast demand at the time of opening can be accommodated by the existing infrastructure and the mitigation proposed.

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4 IMPACT ON RIDGMONT CIVIL PARISH

4.1 Introduction

4.1.1 Junction 13 of the M1 Motorway is on key routes for parishioners of Ridgmont Civil Parish (CP) heading north, south or east. The village of Ridgmont is located only 2km to the south east of Junction 13. The lack of capacity of the junction for the demand predicted on it in the future by the Transport Assessment is therefore of great concern to residents trying to access their homes.

4.1.2 In addition, the Marston Vale Local Area Transport Plan (MVLATP) in Section 7.6 has already highlighted the existing concern over heavy goods vehicles (HGVs) in the village of Ridgmont.

4.1.3 Concern over the large volume of HGVs currently accessing Marston Gate and the concern over the conflict between these HGVs and local residents on Bedford Road (the de-trunked A421) was also highlighted in the MVLATP in Section 7.5.

4.2 Location

4.2.1 Ridgmont CP is bounded by Brogborough in the north-west and Cobbler's Lane in the south-east. Approximately 4.3km of the M1 runs through the parish.

4.2.2 A route exists from the M1 Junction 12 to Marston Gate that utilises the A5120 Harlington Road, Cobbler's Lane, Eversholt Road and Station Road. This route runs right through Ridgmont CP and the village of Ridgmont.

4.3 HGVs

4.3.1 Ridgmont Parish Council have often observed Ridgmont being used as a short-cut for HGVs when there are delays on the M1 between Junctions 12 and 13, and when there are delays at Junction 13 itself.

4.3.2 A HGV restriction is in force on the High St, Crawly Road, Ridgmont Road and Station Road. However, it was stated in the MVLATP that a flouting of the HGV restriction was resulting "in increased road safety concerns".

4.3.3 While the weight restriction through the village should be enforced, the increase in demand on Junction 13 from an expansion of Marston Gate will unquestionably increase the frequency of further HGVs flouting of the restriction. This has not been considered in the Transport Assessment with no further mitigation being proposed

to stop HGVs using Ridgmont as an alternative route to the M1 and Junction 13.

4.3.4 With Junction 13 predicted to be operating at over-capacity in the future even with the proposed mitigation and after not including all the likely future development in the area, traffic will be forced to seek other routes across Ridgmont CP on roads and through villages entirely not suitable for the traffic.

4.4 Use by Parishioners

4.4.1 Junction 13 is on key routes for residents of Ridgmont heading north, south or east. The lack of capacity of the junction for the demand predicted on it in the future by the Transport Assessment will require themselves to seek alternative routes or to travel at different times.

5 SUSTAINABLE TRANSPORT AND HIGHWAY ENVIRONMENT

5.1 Introduction

5.1.1 The Transport Assessment for the proposed Prologis (UK) Ltd development at Marston Gate states that staff can access the site by either rail or possibly by bus. The movements for trucks and delivery vehicles, by the nature of the development being of storage and distribution facilities (use Class B8), cannot be reduced by sustainable transport means.

5.1.2 WSP highlight the East West Rail project that will improve the service between Oxford and Bedford initially and the proximity that Ridgmont railway station is from the site. It is also mentioned that potential opportunities for public transport in the form of bus service linking from the development at Boughton End Farm are being explored.

5.2 Staff Trips

5.2.1 Storage and distribution operatives typically work shift hours that include night working. Therefore, many staff trips to and from the expansion of Marston Gate as proposed will occur late in the evening or early in the morning.

5.3 Rail Travel

5.3.1 Ridgmont Railway Station has regular services approximately every hour. The Transport Assessment in paragraph 4.4.15 states that there is unlikely to be any change in the frequency. Therefore, it is doubtful that this service will be frequent enough to be beneficial to many staff, especially late in the evenings and early in the mornings.

5.3.2 The East West Rail upgrade is expected to be completed by 2025.

5.4 Bus Travel

5.4.1 Currently the bus service to Brogborough is very limited with three daily routes, these being 34, 47 and C12. There are also four infrequent routes; D, C and FL2 and FL4 that run either once a week or once a month.

5.4.2 Details of the services on the daily routes are:

- Route 34: operates every two hours, six times a day in each direction between Ampthill and Central Milton Keynes.
- Route 47: operates only once a day in each direction between Tingrith, Leighton Buzzard and Dunstable.
- Route C12: is a service for Cranfield University but can be used by anyone. It operates five services a day in each direction from Marston Moretaine to Cranfield University *via* Brogborough and Ridgmont Railway Station.

5.4.3 Therefore, the routes are not extensive and do not run frequently enough to be beneficial to many staff members. The services also do not start early enough in the morning or finish late enough in the evening to provide a legitimate alternative means of transport for the majority of staff members, especially considering the likely shift working at the development.

5.4.4 Extension of an existing service or a new bus service is therefore required. However, WSP in their Transport Assessment, see paragraph 3.2.4, predict that only 3.8% of staff trips will be by public transport, this being by either bus or train.

5.4.5 Therefore, this level of bus trips that the proposed development will generate, along with distribution of these trips throughout the day due to shift work, will unlikely generate sufficient demand to make an increase in services to Brogborough or Marston Gate economically viable.

5.5 Non-Motorised Users

5.5.1 As listed in paragraph 3.2.4, the modal split for staff utilising non-motorised forms of transport is predicted to be only 4.1% for walking and 1.5% for cycling.

5.5.2 Even the 4.1% split for walking seems high considering the walking catchment area considered in the Transport Assessment of a 2km radius around the development. This area only catches the residential areas of the villages of Brogborough and Ridgmont.

5.6 Conclusion

5.6.1 Therefore, it can only be concluded that the scope for reducing the dependence on the private car by staff accessing the proposed Prologis Marston Gate Expansion development is extremely limited.

6 CONCLUSIONS

6.1 WBPL has assessed the Transport Assessment 70047734-001 November 2018 and Environmental Statement (November 2018) Chapter D: Transportation that was submitted to support the outline planning application to determine the impact the proposed Prologist (UK) Limited Marston Gate Expansion development will have on the Ridgmont Civil Parish.

6.2 The modelling of the M1 Junction 13 and of other off-site junctions has not been calibrated and validated by comparing surveyed queue lengths to the resulting queue lengths. **Therefore, the modelling could be underestimating or overestimating the capacity of the junctions and consequently the results contained within the Transport Assessment cannot be used with any certainty.**

6.3 Notwithstanding the lack of validation of the models, the Transport Assessment is predicting the queue on the M1 northbound off-slip in the evening in 2030 after mitigation could be at times up to 1.99km long - the slip lane length is only approximately 315m long - and the queue on the A421 southbound approach at the Salford Road junction in the morning in 2030 could be up to 2.6km long.

6.4 Only after a micro-simulation model has been created and it and the LinSig model have been validated against queue data, can it be determined if the impact from the expected substantial increase in demand from the Prologist (UK) Ltd development along with the proposed mitigation will result in nil-detriment to the highway network.

6.5 Mitigation is proposed for the M1 northbound off-slip in the form of lane marking changes. However, no indication has been given in the Transport Assessment that the current lane use has been observed and modelled. Therefore, it is possible that ahead traffic on the northbound off-slip could already be using only the nearside and centre lanes. Validation of the existing lane use is thus required before any improvements to the operation of the off-slip can be claimed.

6.6 The proposals for the Bedford Road/Salford Road Signalised Junction are concerning as it requires northbound vehicles from the M1 Junction 13 to change lane to the nearside flare lane to continue heading northwards on Bedford Road. This is not the natural movement for drivers going ahead to do and is likely to create confusion that could result in late lane changes and other dangerous manoeuvres, resulting in potential side-swipe collisions. The Transport Assessment gives no indication that this

Great Crested Newt habit has been considered in the mitigation proposals for this junction.

6.7 Despite the lack of validation, the impact of any additional traffic to Junction 13 that already has been determined to have a lack of capacity, **must be classed as severe**, as defined by the National Planning Policy Framework (NPPF), the National Planning Practice Guidance and the Department for Transport Circular 02/2013 – The Strategic Road Network and the Delivery of Sustainable Development. Therefore, it has not been demonstrated that overall forecast demand at the time of opening can be accommodated by the existing infrastructure and the mitigation proposed.

6.8 Despite the increase in HGVs that would be generated by the expansion of Marston Gate, no further mitigation is proposed to eliminate the impact of HGVs on the residents of Ridgmont CP when there are delays on the M1 or at Junction 13: traffic being forced to seek other routes through Ridgmont CP on roads and through villages not suitable for the traffic. This is already highlighted as an existing concern in the Marston Vale Local Area Transport Plan with **the flouting of the existing HGV restriction considered to result "in increased road safety concerns" for the village of Ridgmont**.

6.9 Junction 13 of the M1 Motorway is on key routes for parishioners of Ridgmont CP heading north, south or east. The lack of capacity of the junction for the demand predicted on it in the future determined in the Transport Assessment by WSP is therefore **of great concern to residents trying to access their homes.**

6.10 With the few bus services to Brogborough being infrequent and not catering for shift working, the unlikely change in frequency of the rail service, and large residential populations being too far away for walking to be viable alternative, it can only be concluded that the scope for reducing the dependence on the private car by staff accessing the Marston Gate Expansion development is extremely limited.

6.11 In summary, while the capacity modelling on the highway network undertaken is insufficient to determine with any certainty the impact on the local highway network, the analysis so far undertaken indicates that the impact on Junction 13, even with the proposed mitigation, is severe. This is of great concern to the residents of Ridgmont CP as when there are delays at Junction 13 and the M1, traffic seek alternative routes across Ridgmont CP on roads and through villages entirely not suitable for the traffic. Further mitigation is also required to stop more HGVs travelling through the village of

Ridgmont and increasing safety concerns to other road users.

6.12 If the modelling analysis cannot determine that the impact on the local highway from the Marston Gate Expansion is not severe even with mitigation, then planning permission for the Marston Gate Expansion development should not be granted.

APPENDICES

Appendix A

NOTES:

SUBJECT TO STATUTORY CONSENTS

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DO NOT SCALE THIS DRAWING

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BASED ON: GREENHATCH GROUP'S TOPOGRAPHICAL SURVEY. DRAWING: 28384_T. Rev 0. DATED:20.10.17.

BOUNDARY BASED ON:

H.M. LAND REGISTRY
TITLE No: BD203563.
DATED: JUNE 2016.

CENTRAL BEDFORDSHIRE COUNCIL'S ADOPTED HIGHWAY PLAN.
DATED: JAN 2016.

MARSTON GATE

DEVELOPMENT ZONE 1A
LORRY PARK
PLATEAU LEVEL 85.550
AREA - 0.910 ha
AREA - 2.250 acres
MAX. BUILDING HEIGHT - 6.5m

DEVELOPMENT ZONE 1
B8 USE
PLATEAU LEVEL 85.550
FINISHED FLOOR LEVEL (approx) 86.050
AREA - 11.048 ha
AREA - 27.302 acres
MAX. BUILDING HEIGHT - 21.5m
MAX. BUILDING AREA - 58,529 m2

DEVELOPMENT ZONE 2
B8 USE
PLATEAU LEVEL 87.500
FINISHED FLOOR LEVEL (approx) 88.000
AREA - 13.371 ha
AREA - 33.296 acres
MAX. BUILDING HEIGHT - 21.5m
MAX.BUILDING AREA - 69,224 m2

DEVELOPMENT ZONE 3
B8 USE
PLATEAU LEVEL 91.700
FINISHED FLOOR LEVEL 92.200
AREA - 4.899 ha
AREA - 12.108 acres
MAX. BUILDING HEIGHT - 18m
MAX. BUILDING AREA - 26,012 m2

PARAMETERS SCHEDULE

Zone	Number of Units	Maximum Development Floorspace GIA (in m2)	Maximum Plateau level (metres above Ordnance Datum)	Maximum Building Height to ridge (metres above finished floor level)
1	2 to 4		85.500	21.5
1a - Lorry parking	1		85.500	6.5
2	1 to 3		87.500	21.5
3	1		91.700	18
TOTAL	5 to 9	TOTAL	166,000	

AOD: " ABOVE ORDNANCE DATUM ORDNANCE DATUM (0.000m) = AVERAGE SEA LEVEL

01
38

PARAMETERS PLAN
1:2000

0 50 100 200m

N

LEGEND

- APPLICATION BOUNDARY - GROSS SITE AREA 44.423 HA (109.772 ACRES)
- DEVELOPMENT ZONE 1 NDA 11.048 HA (27.302 ACRES)
- LORRY PARK AND WELFARE FACILITY DEVELOPMENT ZONE 1A NDA 0.910 HA (2.250 ACRES)
- DEVELOPMENT ZONE 2 NDA 13.475 HA (33.296 ACRES)
- DEVELOPMENT ZONE 3 NDA 4.899 HA (12. 108 ACRES)
- FIXED LANDSCAPE ZONE
- INDICATIVE MAIN ESTATE ROAD SITE AREA 1.884 HA (4.656 ACRES)
- PROPOSED DIVERTED PUBLIC RIGHT OF WAY
- PROPOSED 3m FOOTPATH /CYCLEWAY
- PROPOSED 2m FOOTPATH
- PROPOSED PERMISSIVE PATH
- PROPOSED ATTENUATION BASIN
- EXISTING PUBLIC RIGHT OF WAY
- EXISTING FOOTPATH/CYCLE PATH
- EXISTING 3m FOOTPATH/CYCLEWAY
- PROPOSED HORSE TRAILER PARKING

REV	DATE	NOTE	DRAW	CHCK
J	17.10.18	MAX BUILDING AREAS UPDATED AND APPROX FFL ADDED	NSC	MS
H	07.09.18	DEVELOPEMENT ZONES 1 AND 1A AMENDED	NSC	MS
G	03.08.18	DEVELOPEMENT ZONE 1 & 3 SITE AREA AMENDED	NSC	MS
F	23.07.18	PARAMETERS SCHEDULE AMENDED – ZONE 3 MAX.BUILDING HEIGHT AMENDED	NSC	MS
E	23.03.18	AMENDMENTS BASED ON PROJECT TEAM COMMENTS ADDED	NSC	MS
D	08.03.18	DEVELOPEMNT ZONE 1 AND 1A AMENDED	NSC	MS
C	07.03.18	LAYOUT AND NOTES AMENDED IN ACCORDANCE WITH CLIENT COMMENTS	NSC	MS
B	27.02.18	LAYOUT AND NOTES AMENDED IN ACCORDANCE WITH CLIENT COMMENTS	NSC	MS
A	14.02.18	LAYOUT AND NOTES AMENDED IN ACCORDANCE WITH CLIENT COMMENTS	NSC	MS

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PROLOGIS®

DRAFT

TITLE
MARSTON GATE EXPANSION

DRAWING
PARAMETERS PLAN

CLIENT
PROLOGIS UK LTD

DATE	SCALE	DRAWN
FEB 2018	1:2000@A1	NSC
	STATUS: FEASIBILITY	CHECKED: MS

DRAWING NUMBER
30893-FE-38J

Appendix B

M1 J13 - Eastern Roundabout

M1 J13 - Western Roundabout

M1 Northbound

M1 Southbound

Balancing P

Refer to Inset A for details of Northbound diverge slip road

Inset A

Ctrl Line

Note :

1. Details of existing road markings are approximate only having been derived from Google imagery.
2. Details of proposed additional road markings are indicative only and subject to further discussions and approvals from the relevant highway authorities.

Key:

- Existing Road Markings
- Proposed Additional Road Marking
- Existing Road Markings to be Removed

For Planning Purposes Only

Rev	Description	Date
C	Drawing title updated and 'For Planning Purposes' added	02/11/18
B	Amendment to NB Diverge slip lane markings	25/0□/18
A	Lane designations on N/B diverge slip and around southern roundabout updated.	1□/0□/18

Client: PROLOGIS®

Project: Marston Gate Expansion Off-Site Highway Works

Title: Review of Potential M1 □13 Safety Improvement Works

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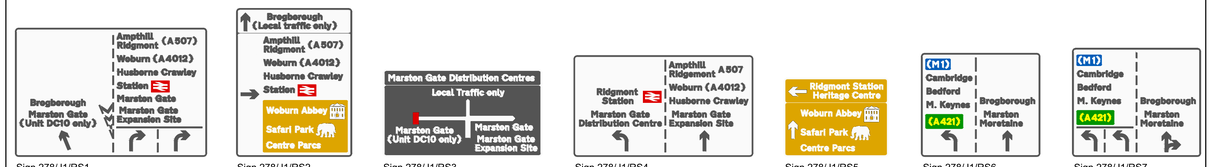
Drg Size:	Scale:	Date:
A1	1:500	14/0□/2018

Drawing No: 243/P/040 Rev: C

Appendix C



Sign 278/J1/RS1 | Sign 278/J1/RS2 | Sign 278/J1/RS3 | Sign 278/J1/RS4 | Sign 278/J1/RS5 | Sign 278/J1/RS6 | Sign 278/J1/RS7

Remove existing hatch markings

Proposed access works included within planning application for Unit DC10 to west of Bedford Road

Works to create new 3.0m wide Footway/Cycleway included within planning application for Unit DC10 to west of Bedford Road

Existing single approach lane unaffected

Remove existing hatch markings

Single 4.5m wide straight ahead lane with minimum 1.5m wide splitter island to accommodate signal heads

2no. 3.5m wide right-turn lanes

Sign 278/J1/RS3

Carriageway widening to accommodate queueing 'ahead' traffic

Sign 278/J1/RS2

Sign 278/J1/RS1

Existing northern kerbline maintained throughout

Sign 278/J1/RS4

Salford Road eastbound widened to 2no 3.65m wide lanes

Sign 278/J1/RS5

2m wide central hatching

Sign 278/J1/RS7

3.65m wide right turn lane (6.0m kerb-to-kerb width)

2no 4.5m wide left turn lanes

Central splitter island narrowed to accommodate new lanes (minimum width 1.35m to accommodate single signal head)

4.5m wide segregated left-turn lane

Sign 278/J1/RS6

2no 3.65m wide westbound lanes as with current layout

Mast

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Note:
1. The layout details illustrated herein are subject to full 3D alignment and constructional design.
2. For details of junction capacity assessments refer to the Transport Assessment prepared by WSP.

Key:

- Extent of existing Public Highway maintained by Central Bedfordshire Council
- Existing verblines
- Carriageways
- Footways
- Verges

For Planning Purposes Only

Rev	Description	Date
G	Drawing title updated and 'For Planning Purposes' added	02/11/18
F	Notes updated. Footway/Cycleway works along north side of Salford Road 'moved' to DC10 planning application. New roadsign RS5 added and all signs renumbered.	18/10/18
E	Further minor amendments to road markings in response to Stage 1 RSA.	11/0/18
D	Amendments made as part of Designer's Response to 1RSA. Lane markings and roadsigns added. Roadmarkings at Bedford Road right-turn amended. Notes updated.	01/0/18
C	Nearside kerbline on Bedford Road northbound approach to signals realigned. ey Added.	0/03/18
B	Footway/Cycleway works on Station Road moved to Drg 243/P/023	25/01/18
A	Layout of northbound approach to signals amended. Cycleway details added.	14/12/17

Client: PROLOGIS

Project: Marston Gate Expansion Off-Site Highway Works

Title: Bedford Road/Salford Road Improvements General Arrangement

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Drg Size:	Scale:	Date:
A1	1:500	08/12/2017

Drawing No: 243/P/001 | Rev: G