SOUTH CALDECOTTE AND SOUTH EAST MILTON KEYNES STRATEGIC URBAN EXTENSION

INITIAL TRANSPORT REVIEW

PREPARED FOR

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1 INTRODUCTION

Brief

1.1 Miles White Transport Ltd (MWT) have been appointed by Bow Brickhill Parish Council to review the transport planning and highway engineering aspects of the Strategic Employment Allocation at South Caldecotte (South Caldecotte) and the South East Milton Keynes Strategic Urban Extension (SEMK) as proposed by Milton Keynes Council (MKC) in the current Development Plan (Plan: MK 2016-2031).

1.2 The location of the two sites is shown below in Figure 1.1.

![Figure 1.1: Site Locations](image)

1.3 The structure of this report is summarised overleaf:

- Section 2: Describes the existing conditions on the transportation network in the vicinity of the sites;
- Section 3: Critically reviews the transport aspects of the proposed Strategic Employment Allocation at South Caldecotte as set out in various
documents published by MKC.

- **Section 4:** Reviews the transport aspects of the proposed South East Milton Keynes Strategic Urban Extension as set out in various documents published by MKC.
2 EXISTING CONDITIONS

Local Transport Network

2.1 The location of the two sites and the local transport network is shown in Figure 2.1 below.

![Figure 2.1: Local Transport Network](image)

2.2 Both sites are located on the south eastern edge of Milton Keynes close to the Marston Vale Railway Line, which runs from Bletchley to Bedford and will form part of the East-West Rail project being progressed by the National Infrastructure Commission.

2.3 The sites are located in close proximity to the Bow Brickhill and Woburn Sands railway stations as shown in Figure 2.1.

South Caldecotte

2.4 The A5T (managed by Highways England) runs west of the site and meets the A4146 at the Watling Street roundabout immediately to the south of the site.

2.5 The V10 Brickhill Street runs along the eastern side of the site before continuing north across the railway (via a level crossing) towards the Caldecotte and Tilbrook areas of Milton Keynes, where it becomes part of the grid system. It is subject to the national...
speed limit (60mph) in the vicinity of most of the site but this changes to 40mph from the junction of Station Road to the north.

2.6 Brickhill Street experiences considerable queuing and delays at present when the level crossing is closed to enable passenger (and sometimes freight) trains to pass. The Revised Consultation Draft of the South Caldecotte Development Framework Supplementary Planning Document (SCSPD) states that the level crossing is currently closed for 15 minutes (or 25%) of every hour. Therefore, the capacity of Brickhill Street is significantly reduced and congestion occurs.

2.7 The A4146 leads south from the Watling Street roundabout towards Leighton Buzzard.

2.8 There are two existing bus services (17 and 18) operating close to the north eastern corner of the site. In addition, the F70 service serves Caldecotte to the north of the railway line. The location of the existing public transport facilities in the vicinity of the site is shown below in Figure 2.2.

![Figure 2.2: South Caldecotte Public Transport Facilities](image-url)
2.9 The MK Redway network (comprising shared pedestrian and cycle paths) stops at the level crossing on Brickhill Street. A public footpath runs along the northern edge of the site and passes under the railway line to provide access to Caldecotte.

**SE Milton Keynes SUE**

2.10 The SMEK site straddles the Marston Vale line to the north and west of the villages of Bow Brickhill and Woburn Sands respectively.

2.11 The site fronts the V10 Brickhill Street (over a very limited section), Woburn Sands Road and Newport Road.

2.12 Woburn Sands Road (a continuation of Station Road) is a rural single carriageway road. Newport Road provides a link between the A421 Standing Way (H8) and the A5T at Hockliffe (via Woburn and Woburn Sands).

2.13 Station Road connects the village of Bow Brickhill (and Woburn Sands) with the V10 Brickhill Street via a mini-roundabout located approximately 80m south of the railway line (and level crossing).
3 SOUTH CALDECOTTE

Proposed Development

3.1 The South Caldecotte site extends to 56.8 ha (140 acres) and is located within Bow Brickhill parish. The location of the site is shown below in Figure 3.1.

FIGURE 3.1: SOUTH CALDECOTTE SITE AREA

3.2 The triangular site is bounded by the Marston Vale railway line to the north, the V10 Brickhill Street to the east and the A5T to the west.

3.3 The site is proposed to be developed to provide a minimum of 195,000 sq.m of Class B2/B8, with ancillary B1, employment floorspace.

3.4 Access is to be taken from Brickhill Street.
Level Crossing

3.5 As already noted, there is a level crossing located close to Bow Brickhill station that presently causes significant congestion on the V10 Brickhill Street when it is closed. This congestion will only worsen when the East-West Rail scheme is delivered and train numbers on this line increase (double).

3.6 MKC acknowledges this in the SCSPD in paragraphs 1.6.5 to 1.6.7 as follows:

“1.6.5 Currently there is one passenger train per hour each way between Bedford and Bletchley on weekdays and Saturdays, and then the level crossing gates at Bow Brickhill are closed for a total of 14-15 minutes per hour, more if a freight train (not at peak times) also uses the line. As a result, there are notable queues of traffic on Brickhill Street on both sides of the level crossing when the gates are closed, and also along Station Road into Bow Brickhill, particularly during the morning and afternoon/evening rush hours. The number of passenger trains on the railway line is due to double in 2024 when the upgrade is complete.

1.6.6 Stakeholder engagement on the Development Framework has identified traffic delays at the level crossing as an important issue of concern to local people.

1.6.7 A long term solution to these delays is the provision of a bridge over the railway line in place of the level crossing at Bow Brickhill. Whilst Network Rail currently has no plans to provide such a bridge, it is considered that there is sufficient land available within the adopted highway to enable a bridge to be provided at some future date. Feasibility work undertaken by the Council suggests that a bridge could be constructed on the existing line of Brickhill Street (see fig 1.3), subject to more detailed technical work and planning permission. This would not require the safeguarding of any land within the South Caldecotte site.”

3.7 The proposed bridge over the railway line to replace the level crossing is shown in the SCSPD as Figure 1.3 and is reproduced overleaf as Figure 3.2.
3.8 It transpires, following a Freedom of Information request, that the scheme was designed by the developer’s consultants and that no “feasibility work” has actually been undertaken by MKC.

3.9 Any bridge over the railway would need to be around 5m above the line. The Brickhill Street/Station Road mini-roundabout is approximately 80m south of the railway line and so a 1:16 gradient would be required on the realigned road if this junction is to be retained to provide access to/from Bow Brickhill (and beyond). Such a gradient is above the maximum gradient stated in TD 9/93 “Highway Link Design” (Design Manual for Roads and Bridges) and therefore the bridge crossing shown in the SCSPD is not deliverable.

3.10 If a suitable gradient were provided (1:25) the bridge would meet Brickhill Street much further south of the Station Road mini-roundabout, which begs the question how would Bow Brickhill be accessed from Brickhill Street?

3.11 The potential bridge option shown in the SCSPD is based upon OS mapping only. Any...
such scheme should be prepared using a topographical survey so that the impact (access, visual, ecology, landscape etc) can be properly assessed.

3.12 To the north of the railway line, the Tilbrook roundabout is similarly located and would also prevent the bridge crossing shown in the SCSPD being delivered without modifying the local road network.

3.13 Figure 3.3 below shows the approximate extent of the bridge based upon achieving a 1:25 gradient for a bridge height of 5m. This clearly shows that the junctions of Station Road (to the south of the railway line) and Caldecotte Lake Drive (to the north) would need to be revised to accommodate such a bridge.

**FIGURE 3.3: EXTENT OF RAILWAY BRIDGE**

3.14 The SCSPD correctly states that Network Rail have no plans to provide a bridge in the location shown in Figure 3.3. However, they have prepared plans showing two schemes that would meet their requirements. These are shown in Figures 3.4 and 3.5 overleaf.
FIGURE 3.4: NETWORK RAIL BRIDGE (OPTION 1)

FIGURE 3.5: NETWORK RAIL BRIDGE (OPTION 2)
3.15 It can be seen that both of the Network Rail bridge options are to the west of Brickhill Street (off-line) and would involve the use of a considerable part of the site area (contrary to paragraph 1.6.7 of the SCSPD) as well as a large part of the site known as Caldecotte C (north of the railway line).

3.16 Therefore, MKC’s proposed solution to the existing congestion at the level crossing is not deliverable in the manner described in the SCSPD.

**Extension of Grid Road Network**

3.17 Paragraph 3.5.5 of the SCSPD states that:

“It is the Council’s intention to upgrade the whole length of Brickhill Street (south of the railway line) to grid road standard in order to serve growth in the wider area to the south east of Milton Keynes. The developer will be required to upgrade the length of Brickhill Street from the A5 roundabout to the new junction to grid road standard, and make any further improvements that are necessitated by the Transport Assessment. The developer will be required to make a financial contribution towards improvements to the strategic highway network, which would include a contribution to the upgrade of the remainder of Brickhill Street to grid road standard.”

3.18 Policy CT 8 in Plan:MK states that new grid roads will be 60m wide for non-residential land uses. If MKC intend to widen the Brickhill Street road corridor (currently a maximum of 15m) to 60m and avoid existing residential properties, it is clear that a large part of the site area will be required to achieve this.

3.19 It is also unclear how the upgrading of Brickhill Street to grid road standard would affect the junction with Station Road (currently a mini-roundabout). It is important to note that this junction provides the primary connection between Bow Brickhill, Milton Keynes and the wider road network.

3.20 The extension of the grid road network will include the provision of a redway along Brickhill Street and within the site along a new spine road.

**Plan:MK**

3.21 Policy CT2 (A.i) of Plan:MK states that development proposals will be permitted if they do not have “an inappropriate impact on the operation, safety or accessibility to the local or strategic highway networks.”
3.22 Clearly the provision of the bridge proposed by MKC in the SCSPD and the introduction of grid road standards will have a significant effect upon the existing properties on Brickhill Street and access to Bow Brickhill itself.

3.23 Policy CT2 (B) states that developments that generate a significant number of heavy goods vehicle movements (as the site would) "will be required to demonstrate that no severe impacts are caused to the efficient and safe operation of the road network and no material harm is caused to the living conditions of residents". Again, the current bridge and grid road proposals appear to be at odds with this policy.

**Transport Assessment**

3.24 Policy SD16 in the SCSPD states that the development will be subject to a Transport Assessment that will investigate the development's impact upon the local highway network, including the A5T/Watling Street roundabout.

3.25 The indicative location of the site access is shown in the Development Framework Plan in the SCSPD, which is reproduced below as Figure 3.6.

![Figure 3.6: South Caldecotte Development Framework Plan](image)

**FIGURE 3.6: SOUTH CALDECOTTE DEVELOPMENT FRAMEWORK PLAN**
3.26 Clearly, further work is required to support a future planning application. This will need to assess the impact of the increased traffic levels upon the existing level crossing (as well as the Brickhill Street/Station Road junction) and identify deliverable alternative crossing options that do not adversely affect local residents.
4 SE MILTON KEYNES STRATEGIC URBAN EXTENSION

Proposed Development

4.1 The SEMK Strategic Urban Extension comprises land north and south of the East-West railway line around Woburn Sands, Wavendon and north of Bow Brickhill as shown below in Figure 4.1.

![Figure 4.1: SE Milton Keynes Strategic Urban Extension](image-url)

4.2 The site is allocated for a comprehensive residential-led mixed use development of approximately 3,000 dwellings. The development will also provide a primary and secondary school as well as nursery facilities.

4.3 The amount of land available may be affected by the East-West Rail and Oxford to Cambridge Expressway proposals.

4.4 MKC have commenced work on a Development Framework SPD and intend to adopt this in the summer of 2019.
**Access and Connectivity**

4.5 A comprehensive transport strategy will be established through the Development Framework process and will be informed by transport modelling and stakeholder engagement.

4.6 Appropriate access and connectivity across the railway line will be required to meet place making and connectivity objectives.

**Transport Assessment**

4.7 A Transport Assessment will be required in line with the emerging Development Framework, which will investigate the development’s impact upon the local highway network.

4.8 More detailed comments on the transport aspects of this scheme will follow the publication of the SEMK Development Framework (or any other information).