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# Land East of Lodge Road, Hurst: Transport Assessment Addendum

Ref: TW/BB/MK/ITB19328-008A R  
Date: 19 November 2024

## SECTION 1 Introduction

- 1.1 Mactaggart and Mickel Strategic Land (Mac Mic) is promoting residential development of land to the east of Lodge Road in Hurst, Reading for up to 99 homes. An outline planning application was submitted on 12<sup>th</sup> August 2024 (*Ref: 242067*).
- 1.2 A Transport Assessment (TA) and Travel Plan (FTP) were submitted alongside the planning application and have been subject to detailed scrutiny by Wokingham Borough Council (WBC), in their capacity as both the local planning authority (LPA) and local highway authority (LHA).
- 1.3 A consultation response (**Appendix A**) was received from WBC Highways on 12<sup>th</sup> September 2024, which confirmed various matters including that:
- The design of the primary vehicular access onto Lodge Road is acceptable.
  - The scope of assessment and local junction modelling is agreed.
  - The proposed development traffic would not have an adverse impact on the local or wider highway network.
- 1.4 The consultation response also raised comments on aspects of the submitted Transport Assessment and Travel Plan respectively. The planning application has been submitted in outline form, with all matters reserved except for access and the principle of development for residential uses. Most of the comments raised by WBC Highways relate to detailed matters which will be considered at the reserved matters (RM) stage when the layout will be determined.
- 1.5 Notwithstanding this, the purpose of this Transport Assessment Addendum (TAA) is to provide the information requested by WBC Highways noting that provision of full details for most matters can either be provided at the RM stage or secured via condition.

## SECTION 2 Car, Cycle and EV Parking

### 2.1 Parking Provision

2.1.1 An indicative accommodation schedule is presented in **Table 2.1** which reflects the illustrative masterplan (**TA Appendix D**) and has been inputted to WBC's parking calculator to inform the required parking provision. The full WBC parking calculator output is contained in **Appendix B**.

**Table 2.1: Indicative Development Schedule relating to the submitted Illustrative Masterplan**

| Dwelling Size    | No. of Units |
|------------------|--------------|
| Private          |              |
| 1 Bedroom        | 3            |
| 2 Bedroom        | 5            |
| 3 Bedroom        | 21           |
| 4 Bedroom        | 15           |
| Self-build Plots | 5            |
| Affordable       |              |
| 1 Bedroom        | 9            |
| 2 Bedroom        | 19           |
| 3 Bedroom        | 16           |
| 4 Bedroom        | 6            |
| <b>Total</b>     | <b>99</b>    |

Note: The proposed layout is a reserved matter, and so this schedule of accommodation is indicative at this stage. The layout will be detailed in full at the RM stage when the layout is submitted for determination

2.1.2 In summary:

- All one- and two-bedroom flats/houses are to be provided with one allocated parking space.
- All three- and four-bedroom houses are to be provided with two allocated parking spaces (excluding garages).

2.1.3 In line with the WBC Parking Standards and parking calculator outputs, 162 allocated parking spaces will be provided across the site, with a further 40 unallocated parking spaces delivered to provide flexibility of ownership and to cater for visitor parking demand.

2.1.4 The details of the parking strategy will be confirmed at the RM stage when the layout is submitted for determination, this will include plot by plot level parking allocation to demonstrate that the WBC Parking Standards will be satisfied.

## 2.2 Parking Design

2.2.1 The indicative site masterplan (*Mosaic drawing no. 003-01 Rev B*) presents a sketch layout for the internal arrangements for the development. As part of a future RM application this will be developed to ensure that:

- All perpendicular parking spaces are 2.5m x 5.0m
- All parallel parking spaces are 2.5m x 6.0m
- All garages are to be provided at 6.0m x 3.0m (single), 6.0m x 6.0m (double) or at least 7.0m x 3.0m if intended for cycle storage. A 0.5m space will also be provided in front of all garages
- All parking courtyards will include at least 6.0m aisle widths to allow safe manoeuvring
- Cycle parking is shown in sheds for all houses, including those with garages (with rear access provided for each house) and a dedicated bike store for the flats
- Sheffield stands for visitor cycle parking will be provided where required

2.2.2 These dimensions are in accordance with WBC's '*Borough Design Guide – Supplementary Planning Document*' (June 2012) and would be reflected on any detailed scheme submissions.

## 2.3 Electric Vehicle Charging

2.3.1 In accordance with '*The Building Regulation 2010 – Infrastructure for the Charging of Electric Vehicles – Approved Document S (2021 Edition)*', it can be confirmed that all dwellings at the site will be provided with access to an active electric vehicle (EV) charger that has a minimum rated output of 7kW.

## 2.4 Car Parking Management Plan

2.4.1 The production of a detailed Car Parking Management Plan (CPMP) can be secured via condition and is not required at the outline planning stage. Regardless, a framework for the CPMP is presented below.

### Framework CPMP

2.4.2 The key aims of the CPMP will be to:

- Ensure the available car parking spaces are used only by those residents / visitors of the Site and are maintained for the purposes of providing intended parking
- Establish measures and processes to control and manage the use of any parking spaces and to minimise any indiscriminate on-street parking that may occur
- To ensure car parking is managed satisfactorily by any appointed Management Company

2.4.3 Whilst the full details will be submitted at the RM stage when the layout is provided for determination, the CPMP will ensure the aims of the document are achieved through effective management and monitoring, which will include:

- The appointment of an on-site Management Company to be responsible for the overall management and maintenance of the development, including the management and monitoring of the CPMP and on-street car parking matters. The CPMP will set out the measures and monitoring regime that will be applied.
- Ensuring the CPMP will apply for the lifetime of the development and be operational upon first occupation of the development. The CPMP will be monitored during the development lifecycle to ensure it remains up to date and reflects the requirements of the development.
- Means to address any complaints raised by local residents in respect to parking and a process for the Management Company to take appropriate remedial action where necessary.
- The details of the CPMP will be provided to new residents when they move to the development.

## **SECTION 3      Site Layout**

### **3.1      Adoption of Internal Streets**

- 3.1.1 As confirmed in Section 4.3 of the Transport Assessment, the internal site roads will be designed in accordance with the principles of MfS, WBC's 'Living Streets' guidance and to adoptable standards.
- 3.1.2 A decision on whether the internal site roads will be offered for adoption as publicly maintainable highway will be made at the RM stage and following engagement with WBC Highways. Should the roads be offered for adoption, adoption will be delivered through a Section 38 Agreement. Agreement will also be made with WBC with regards to inspection fees and commuted sums.
- 3.1.3 Should the internal site roads remain private, it can be confirmed that an appropriately worded clause can be provided within the Section 106 Agreement to ensure their future maintenance (by a Management Company) to a suitable standard, as well as agree WBC's inspection and APC costs.

### **3.2      Service Margins**

- 3.2.1 The details of all service margins throughout the development will be provided at the RM stage, when the layout is submitted for determination. However, it is confirmed that all service margins will be provided within footways where present or within / adjacent to shared services where appropriate. The scheme will be designed so to limit crossing of the internal site roads carrying utilities.

### **3.3      Internal Footways**

- 3.3.1 All internal footways will generally be designed to be a minimum of 2m in width, with dropped kerbs and tactile paving provided at all crossing points. The details of any internal footways will be provided at the RM stage when the layout is submitted for determination.

### **3.4      Private Driveways**

- 3.4.1 All private driveways will be designed to be a minimum of 3.1m wide. The details of any private drives will be provided at the RM stage, when the layout is submitted for determination.

### **3.5      Construction Management Plan**

- 3.5.1 The production of a detailed Construction Management Plan (CTMP) can be secured via condition and is not required at the outline planning application stage. Regardless, a framework for the CTMP is presented below.

### Framework CTMP

3.5.2 The purpose of the CTMP is to demonstrate that the impacts of construction traffic on the surrounding highway network are kept to a minimum by identifying the main construction stage issues and introducing appropriate mitigation measures to reduce interruption and delay to existing users of the local highway network in Hurst and amenity issues to those near the Site.

3.5.3 The main issues and measures that will be considered in the full CTMP are as follows:

#### Off-Site Issues

- Construction traffic type and volume.
- Management of construction traffic including access, routing and turning.
- Period of construction and timing of works / deliveries to avoid sensitive periods.

#### On-Site Issues

- Site access arrangements and management during construction.
- Proposed storage areas, turning provision and contractor car parking provision.

#### Measures

- Measures to protect existing users of Lodge Road and Tape Lane within the vicinity of the site.
- Other environmental control measures such as surface water management, tree protection measures, noise, dust and mud, and ecology considerations.
- Enforcement of the CTMP.

3.5.4 The following principles will be adopted to ensure that construction at the Site will occur in a safe, efficient and effective manner which minimises local impacts:

- The full CTMP will provide an estimate of construction traffic movements. It will also identify vehicle types, proposed phasing of the development, proposed access arrangements, vehicle routeing protocols and parking and unloading arrangements.
- Movements to and from the site will be managed to generally occur outside of the network peak periods and, wherever practicable, allocated delivery times will be secured, taking note of journey times to the site. This will minimise any impact these vehicles may have on the use of the local highway network within the vicinity of Hurst village.
- Construction materials will be sourced from local suppliers where practically possible in order to reduce the length of vehicle trips to the site.

- Companies selected by the appointed Contractor will be required to contact the Site Manager ahead of their delivery to ensure that sufficient space at the site is available. Deliveries will be received by a Banksman and the Site Manager and supported by a traffic marshal where/when necessary to safely route deliveries to the designated compound / storage areas.
- All traffic associated with construction will be instructed to park on-site where an area (large enough to accommodate necessary contractor vehicles) will be provided and maintained. No off-site parking will be permitted, and this will be monitored by the Site Manager.
- The area provided on-site for contractor vehicles will be large enough to ensure all vehicles can turn internally within the site. This will ensure all contractor vehicles can enter and egress the site in a forward gear.
- Effective wheel/body washing facilities will be used before vehicles egress the site.
- Dust suppression will be achieved by ensuring that all materials transport to/from the site are enclosed or fully sheeted. During dry periods at the site the surface will be dampened to control the generation of dust.
- Appropriate signage will be in place to ensure all users of Lodge Road and Tape Lane are aware of construction at the site and that no unauthorised access is permitted (**Image 3.1**).

**Image 3.1: Construction Traffic Signs**



- Appropriate hoarding will be in place around the site to ensure the safety of all users on Lodge Road and Tape Lane incorporating any tree protection measures.
- The Site Manager will ensure that all contractors/operatives adhere to the CTMP and its measures can be monitored by WBC as the LPA and LHA. The CTMP will set out how the community and key stakeholders will be consulted and engaged through the build period.

**3.5.5** Whilst the full CTMP will be provided at the RM stage, this framework sets out the principles to ensure that any construction impacts on the local highway network in Hurst are minimised. A comprehensive approach will be implemented to ensure that the number of construction traffic movements are kept to a minimum, dust and dirt generation is limited and the impacts on local residents of Hurst are minimised as a priority.

## SECTION 4      Access and Off-site Highway Improvements

4.1.1 It is noted that WBC consider the proposed access arrangements to Lodge Road to be acceptable. The WBC Highways response raises various matters of detail relevant to the access works which are addressed in the following section.

### 4.2      **Traffic Regulation Order – Lodge Road**

4.2.1 The access works include the relocation of the speed limit on Lodge Road. It can be confirmed that the applicant is willing to fund the cost of amending the existing Traffic Regulation Order (TRO) along Lodge Road to relocate the existing 30mph speed limit past the newly proposed site access junction. This can be secured by an appropriately worded clause within the Section 106 Agreement.

### 4.3      **Separate Pedestrian and Cycle Access onto Tape Lane**

4.3.1 A secondary access for buses and emergency vehicles is proposed onto Tape Lane. A separate pedestrian/cycle access will also be delivered to the north of this access, by way of a shared footway/cycleway, and is provided to ensure separation between pedestrians/cyclists and buses/emergency vehicles and to prioritise active travel users. The secondary access and pedestrian / cycle connections were considered by the Road Safety Audit with no unresolved safety issues raised.

4.3.2 In addition, the location of the separate pedestrian/cycle access onto Tape Lane is such that it aligns with the pedestrian/cyclist desire lines through the development, as well as those leading north from the development towards the existing services and facilities that are accessible on Broadwater Lane.

### 4.4      **Visibility Splays**

4.4.1 WBC Highways has confirmed that sufficient visibility is provided at Lodge Road. All landscaping within the vicinity of the access junctions and proposed pedestrian/cycle access points will be kept clear of planting more than 0.6m in height. This can be secured via an appropriately worded planning condition. All land required for visibility splays is under the control of the applicant or is public highway.

4.4.2 Visibility splays for the pedestrian and cycle access to Tape Lane are demonstrated on **Drawing ITB19328-GA-003 C and ITB19328-GA-131 B** and ensure sufficient visibility for users.

### 4.5      **Swept Path Analysis**

4.5.1 With respect to the swept path analysis, WBC requested additional information on the following points:

- Swept path analysis should be provided of a bus and fire tender accessing and egressing the primary access onto Lodge Road.

- The fire tender swept path analysis should be updated to use the preferred WBC dimensions.
- Swept path analysis of the internal site layout should be provided – even though this is an outline scheme.

#### 4.5.2 In response to WBC's comments:

- 1 Swept path analysis of a bus and fire tender accessing and egressing the primary access onto Lodge Road is presented as i-Transport drawing no. **ITB19328-GA-007** and **ITB19328-GA-008** respectively. The drawings demonstrate that a bus and fire tender can safely access/egress the site onto Lodge Road.
- 2 The swept path analysis for the proposed emergency/bus access onto Tape Lane has been updated to use a DB32 fire tender – as approved by WBC. The updated swept path analysis is shown on drawing no. **ITB19328-GA-006B**.
- 3 Swept path analysis of the internal site layout has been undertaken for a refuse vehicle, fire tender and bus. These are shown on drawing no. **ITB19328-GA-013**, **ITB19328-GA-014** and **ITB19328-GA-015** respectively and demonstrate that larger vehicles are able to safely access, circulate and egress the site in a forward gear.

#### 4.5.3 WBC are reminded that this application has been submitted in outline, and therefore this internal tracking analysis has been provided for information purposes only at this stage. The full details of the internal site layout, including swept path analysis will be submitted for determination at the RM stage.

### 4.6 Off-site Highway Works

#### 4.6.1 WBC Highways comment that the inclusion of a Cycle Improvement Strategy delivering improvements to the route between the Site and Twyford in line with WBC's LCWIP is welcome, but requested additional information in relation to the proposed off-site highway works:

- Pedestrian and cyclist visibility splays should be provided for the access points onto Tape Lane.
- The proposal to include a shared footway/cycleway on Broadwater Lane has not been shown on any drawings.
- The proposal to reduce the speed limit to 20mph on Broadwater Lane should be extended to the junction with Tape Lane.
- WBC would not support the removal of road centrelines along routes used by buses.
- An extension to the western footway along Lodge Road within the vicinity of the Elephant & Castle Pub should be considered to facilitate pedestrians crossing onto the footway on the eastern side of the carriageway.

- The proposals for a new bus shelter at Byron Road should consider any impacts on visibility splays, as well as show the relocation of the existing lamp column.
- Swept path analysis of a bus using the new bus-stop layby should be provided.
- Measures to facilitate southbound cyclists rejoining the carriageway within the vicinity of Twyford Railway Station should be provided.

4.6.2 Drawing no. **ITB19328-GA-104B** and **ITB19328-GA-131B** have been updated to include pedestrian and cyclist visibility splays at the proposed new crossing points. In addition, drawing no **ITB19328-GA-104B** has been updated to extend the proposals to reduce the speed limit along Broadwater Lane to 20mph past the junction with Tape Lane in line with WBC's recommendations.

4.6.3 Drawing no. **ITB19328-GA-103B** has been updated to show an extension to the existing footway on the western side of Lodge Road and an associated crossing point to facilitate safe access for pedestrians to the existing footway on the eastern side of the carriageway. Additional kerbing is also proposed to better delineate the existing footway.

4.6.4 Drawing no. **ITB19328-GA-113B** has been updated to include the existing visibility splays at the Bryon Road junction and relocate the proposed bus shelter to ensure no obstruction to these splays. The drawing also shows the proposed relocation of the existing lamp column to the rear of the footway (final details to be confirmed at Section 278 stage). Moreover, the drawing has been updated to include cycle markings directing southbound cyclists onto the carriageway on Hurst Road. Give-way markings have also been provided to ensure cyclists give-way before re-entering the carriageway.

4.6.5 Swept path analysis for the relocated layby adjacent to Twyford Railway Station is presented as i-Transport drawing no. **ITB19328-GA-012**. This was submitted as part of the Stage 1 Road Safety Audit of the design proposals and there are no outstanding highway safety issues.

4.6.6 It can also be confirmed to WBC that:

- 1 The proposals for a new 3.0m wide shared footway/cycleway along Broadwater Lane are shown on i-Transport drawing no. **ITB19328-GA-107A**.
- 2 The design of the proposed bus stops adjacent to Twyford Railway Station and adjacent to Byron Road will be in accordance with WBC's Bus Stop Strategy. The details of these designs will be provided at the RM stage, and this provides a material improvement on the existing.
- 3 Drawing no. **ITB19328-GA-113B** shows the reinstatement of the kerb where the existing bus stop layby has been relocated. The details for surfacing in this location would be secured by condition but offers an opportunity to substantially enhance the public realm at the Station.

- 4 As a result of the Road Safety Audit recommendations (presented in the original TA) the earlier scheme proposals were amended to retain the centreline markings, in line with WBC expectations.

4.6.7 **Table 5.1** provides the additional information on traffic flows on the network that WBC requested.

4.6.8 It was agreed during pre-application discussions that WBC supported the principles of the cycle improvement scheme to Twyford Railway Station, given that the scheme aligns with the long-held aspirations of the LCWIP. The scheme will deliver substantial improvements that will lead to a significant betterment to cycle connections between Hurst and Twyford to travel to facilities and services, as well as part of longer onwards journeys via rail.

4.6.9 The development proposals include measures to promote sustainable connections toward Twyford town centre through the delivery of a new bespoke bus service operating from the site. The details of these proposals are set out in Section 7.4 of the Transport Assessment.

#### Costings

4.6.10 It can be confirmed that the applicant (Mac Mic) will fund the delivery of the off-site highway works, and these works can be secured via an appropriately worded clause within the Section 106.

### 4.7 Road Safety Audit

4.7.1 Stage 1 Road Safety Audits were undertaken by an independent road safety auditor covering the proposed site access arrangements, pedestrian improvements along Tape Lane and Broadwater Lane and the proposed cycle improvement scheme to Twyford Railway Station. The full audits for all three elements of the works (within separate RSA Reports) are contained in Appendix E of the Transport Assessment and have been re-provided in **Appendix C**.

4.7.2 In accordance with the Appendix F format of DMRB GG119, a Designer Response was provided to each of the three audits. The RSA's do not raise any unresolved road safety concerns, with all matters either being addressed or being capable of being addressed at the detailed Section 278 design stage.

## SECTION 5 Traffic Data and Development Traffic Impacts

### 5.1 Baseline Traffic Data

- 5.1.1 Table 3.4 within the TA provides the average weekday AM and PM peak traffic flows for each link in the average 15-minute intervals, as well as average weekday traffic across a 24-hour period (AAWT). These flows have been used to inform the baseline conditions of the site. All traffic analysis within the TA (including all modelling) has been undertaken through outputs obtained from WBC's strategic model, as agreed with WBC during pre-application discussions, rather than relying on the ATC data.
- 5.1.2 The ATC survey data presented in Table 3.4 of the TA has been updated in **Table 5.1** to show the traffic flows for each of the identified links for the full AM and PM peak hours for each weekday individually and on average over the 5-weekday period. The full traffic survey data is contained at **Appendix D**.

**Table 5.1: ATC Survey Data – Weekday Morning and Evening Peak Hours**

| Time Period                                      | Weekday (Two-way Traffic Flows) |         |           |          |        |         |
|--------------------------------------------------|---------------------------------|---------|-----------|----------|--------|---------|
|                                                  | Monday                          | Tuesday | Wednesday | Thursday | Friday | Average |
| Lodge Road (North of Site Access)                |                                 |         |           |          |        |         |
| AM (0800-0900)                                   | 418                             | 410     | 443       | 469      | 368    | 422     |
| PM (1700-1800)                                   | 358                             | 370     | 443       | 434      | 354    | 392     |
| Lodge Road (South of Site Access)                |                                 |         |           |          |        |         |
| AM (0800-0900)                                   | 428                             | 414     | 451       | 495      | 374    | 432     |
| PM (1700-1800)                                   | 364                             | 387     | 463       | 453      | 365    | 406     |
| Tape Lane (North)                                |                                 |         |           |          |        |         |
| AM (0800-0900)                                   | 17                              | 24      | 26        | 25       | 22     | 23      |
| PM (1700-1800)                                   | 19                              | 23      | 19        | 21       | 34     | 23      |
| Tape Lane (South)                                |                                 |         |           |          |        |         |
| AM (0800-0900)                                   | 12                              | 22      | 19        | 20       | 20     | 19      |
| PM (1700-1800)                                   | 22                              | 19      | 13        | 19       | 21     | 19      |
| Hurst Road (Adjacent to Twyford Railway Station) |                                 |         |           |          |        |         |
| AM (0800-0900)                                   | 485                             | 465     | 478       | 557      | 424    | 482     |
| PM (1700-1800)                                   | 450                             | 507     | 546       | 552      | 483    | 508     |
| Hurst Road (North of Hurst Village)              |                                 |         |           |          |        |         |
| AM (0800-0900)                                   | 718                             | 727     | 747       | 813      | 643    | 730     |
| PM (1700-1800)                                   | 641                             | 661     | 807       | 780      | 654    | 709     |
| Broadwater Lane (Opposite The Brookside)         |                                 |         |           |          |        |         |
| AM (0800-0900)                                   | 660                             | 679     | 707       | 752      | 598    | 679     |
| PM (1700-1800)                                   | 579                             | 616     | 736       | 711      | 591    | 647     |
| Broadwater Lane (Near Hurst Village Shop)        |                                 |         |           |          |        |         |
| AM (0800-0900)                                   | 307                             | 319     | 314       | 334      | 291    | 313     |
| PM (1700-1800)                                   | 263                             | 273     | 320       | 296      | 249    | 280     |

## 5.2 Approach to Development Traffic Assessment – Use of WBC’s Strategic Model

5.2.1 As agreed with WBC during pre-application discussions, the development traffic impacts have been assessed using outputs from the WSTM4. Use of WBC’s strategic transport model is consistent with the previous scheme at the application site, which WBC agreed would not result in any significant cumulative traffic impacts on the local highway network that would require mitigation, despite being more than double the size.

5.2.2 The following approach to assessing the cumulative traffic impacts of the new proposals at the application site was agreed with WBC during pre-application discussions:

- 1 The residential TRICS trip rates contained within the WSTM4 are an acceptable proxy to estimate the likely development traffic generation, with trip rates agreed with WBC.
- 2 In the context of the reduced quantum of development for the newly proposed scheme at the application site, it would not be necessary to undertake any further strategic transport modelling using the WSTM4. Furthermore, WBC confirmed that the data already obtained from the WSTM4 remains up-to-date and is a robust reflection of the forecast future year highway conditions on the local highway network.
- 3 The development traffic impacts on the local highway network can be determined on a ‘pro rata’ basis through analysis of the previous strategic modelling results.
- 4 The extent of any detailed junction capacity assessments would remain as agreed for the previous scheme at the application site, and therefore would comprise:
  - (a) The proposed site access priority junction with Lodge Road
  - (b) The Lodge Road / Broadwater Lane priority junction.
  - (c) The Lodge Road / Sawpit Road priority junction.

5.2.3 The agreed minutes from the pre-application discussions are contained at **Appendix E**.

5.2.4 As a result of the use of WBC’s strategic transport model, no specific development traffic distribution analysis has been undertaken independently. The WSTM4 has provided direct link flow outputs showing the distribution of development traffic on the local highway network, which have been adjusted on a pro-rata (as set out above). The link flow outputs from the WSTM4 are contained in Appendix G of the Transport Assessment.

5.2.5 Notwithstanding this, WBC’s comments on the likely development traffic impacts are agreed and their confirmation that the development proposals would not result in an adverse traffic impact are noted.

### 5.3 Local Junction Modelling

5.3.1 Geometric parameter drawings have been prepared for the Lodge Road / Sawpit Road priority junction and the Lodge Road / Broadwater Lane priority junction. These are shown as i-Transport drawing no. **ITB19328-GA-009** and **ITB19328-GA-010** respectively.

5.3.2 Base year (2024) junction models have also been prepared for both junctions, in response to WBC comments. The base models have been prepared using the following methodologies:

#### Lodge Road / Sawpit Road Junction

- i Observed traffic flows have been obtained for the junction from the traffic flow diagrams presented within the Transport Assessment that was submitted alongside the approved Land at Orchard Road scheme (*planning ref: 230074*). The traffic surveys were undertaken in November 2022 and are presented in Appendix I of the TA.
- ii Unadjusted TEMpro growth rates were obtained for the base year of 2024. The use of unadjusted growth rates ensures that all planned and cumulative development in the local area is accounted for. The growth rates are summarised in **Table 5.2**.

**Table 5.2: TEMPro Growth Rates**

| Growth Scenario | AM     | PM     |
|-----------------|--------|--------|
| 2023-2024       | 1.0038 | 1.0038 |

- iii The unadjusted growth rates were then applied to the observed traffic flows to produce the 2024 base year scenario.

5.3.3 The results of the 2024 base year assessment are summarised in **Table 5.3** for the morning and evening peak periods. This demonstrates that the junction operates comfortably within capacity.

**Table 5.3: Junctions 10 Modelling (2024 Base Year Assessment) – Lodge Road / Sawpit Road**

| Arm         | AM Peak     |           |      | PM Peak     |           |      |
|-------------|-------------|-----------|------|-------------|-----------|------|
|             | Queue (Veh) | Delay (s) | RFC  | Queue (Veh) | Delay (s) | RFC  |
| Sawpit Road | <1          | 8         | 0.05 | <1          | 6         | 0.02 |
| Lodge Road  | <1          | 5         | 0.03 | <1          | 5         | 0.05 |

Source: Junctions 10

#### Lodge Road / Broadwater Lane Junction

- i The observed traffic flows captured in November 2023 (and presented in Table 3.3 of the TA) have been used to inform the baseline assessment.

ii Unadjusted TEMPro growth rates have been obtained for the base year of 2024. The growth rates are summarised in **Table 5.2**.

iii The unadjusted growth rates were applied to the observed traffic flows to produce the 2024 base year assessment.

5.3.4 The results of the 2024 base year assessment are summarised in **Table 5.4** for the morning and evening peak periods. This demonstrates that the junction operates comfortably within capacity.

**Table 5.4: Junctions 10 Modelling (2024 Base Year Assessment) – Lodge Road / Broadwater Lane**

| Arm             | AM Peak     |           |      | PM Peak     |           |      |
|-----------------|-------------|-----------|------|-------------|-----------|------|
|                 | Queue (Veh) | Delay (s) | RFC  | Queue (Veh) | Delay (s) | RFC  |
| Lodge Road      | 1           | 9         | 0.37 | <1          | 7         | 0.20 |
| Broadwater Lane | 1           | 8         | 0.31 | 1           | 9         | 0.41 |

Source: Junctions 10

### Modelling Summary

5.3.5 The baseline models demonstrate that the junctions operate well within capacity during both the morning and evening peak periods, with minimal queueing or delay. There are therefore no existing issues with the junctions that need to be addressed.

5.3.6 The full Junctions 10 modelling reports are contained at **Appendix F** for completeness.

### Traffic Flow Diagrams

5.3.7 Traffic Flow Diagrams (TFD) have been produced for all baseline, with development and sensitivity scenarios. The following TFDs have been produced and are contained in **Appendix G** of this TAA:

- **TFD1-2** – 2024 Baseline AM/PM;
- **TFD3-4** – 2026 Future Year ‘without development’ (WSTM4) AM/PM;
- **TFD5-6** – 2038 Future Year ‘without development’ (WSTM4) AM/PM;
- **TFD7-8** – 2026 Future Year ‘with development’ (WSTM4) AM/PM;
- **TFD9-10** – 2038 Future Year ‘with development’ (WSTM4) AM/PM
- **TFD11-12** – 2026 Sensitivity Test + Development AM / PM
- **TFD13-14** – 2038 Sensitivity Test + Development AM / PM

## SECTION 6 Sustainability Assessment

### 6.1 Distances to Local Facilities and Services

6.1.1 It can be confirmed that the distances to local facilities and services, as summarised in Table 6.1 of the TA have been measured from the centre point of the site.

### 6.2 Public Transport Accessibility – 128/129 Bus Service

6.2.1 Section 6.7 of the TA provides a detailed description of the existing 128/129 bus service, which connects Reading (a regional service centre) to Winnersh/Wokingham via Hurst. Table 6.3 of the TA summarises the available bus connections from Hurst to Reading, whilst Table 6.6 of the TA summarises the availability of the 128/129 bus service to provide for sustainable journeys to local secondary schools in Winnersh and Wokingham.

6.2.2 It is understood from WBC's consultation response that the timetable of the 128/129 bus service has been updated following the submission of the TA, and therefore Table 6.6 of the TA has been updated to reflect the revisions to the timetable. The updated table is presented as **Table 6.1**.

**Table 6.1: Existing 128/129 Bus Service Connections to Local Secondary Schools - Updated**

| School               | School Times |        | Outbound Bus Time<br>(Arrival) | Inbound Bus Time<br>(Arrival) | Walk from Bus Stop |
|----------------------|--------------|--------|--------------------------------|-------------------------------|--------------------|
|                      | Start        | Finish |                                |                               |                    |
| Forest School (Boys) | 08:40        | 15:10  | 07:57 (08:04)                  | 15:41 (15:47)                 | 2 minutes (200m)   |
| Emmbrook School      | 08:25        | 14:55  | 07:57 (08:12)                  | 15:34 (15:47)                 | 8 minutes (700m)   |
| Holt School (Girls)  | 08:40        | 15:30  | 07:57 (08:14)                  | 15:53 (16:15)*                | 5 minutes (400m)   |

Source: Bustimes.org

\*Accessed from the westbound bus stop on Jubilee Avenue, to the north of Holt School

6.2.3 The updates to the existing 128/129 bus service timetable equate to only c. 1-2 minute differences in the arrival / departure times of the services which route to/from the nearby secondary schools in Winnersh and Wokingham.

6.2.4 Whilst it is acknowledged that the changes to the bus timetable at the Reading Road bus stops result in the 128 bus service being an unviable option for students returning from the Holt School, students are able to return to Hurst on the 129 bus service (departing at 15:53) from the bus stops on Jubilee Avenue. These bus stops are located c. 400m to the north of Holt School and well within an achievable and acceptable walking distance for pupils meaning bus travel remains a viable option.

6.2.5 Overall, the amended timetabling for the existing 128/129 bus service still ensures that pupils can travel sustainably to local secondary schools.

### 6.3 Promotion of Sustainable Transport Modes

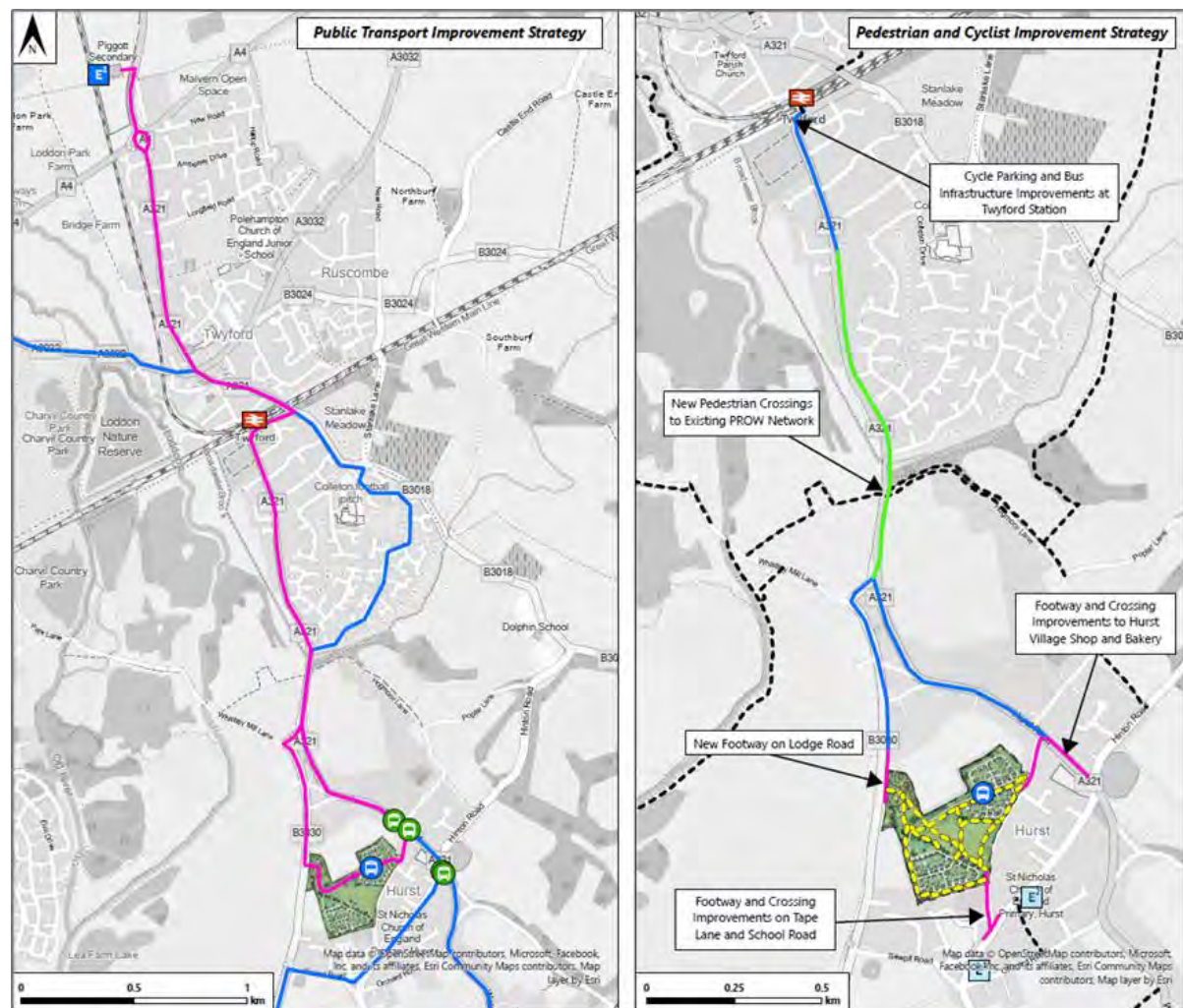
6.3.1 It is acknowledged that the previous scheme at the site was dismissed at appeal in relation to sustainability matters, but this related to both the scale of the scheme (the current proposal is less than half the size) and that the package of improvements identified for the earlier scheme was insufficient to ensure sustainable transport opportunities being taken up, relative to the scale of scheme.

6.3.2 As set out in Section 7 of the TA, the revised development proposals directly respond to these issues through the delivery of a comprehensive sustainable transport offer, including:

- 1 A comprehensive suite of pedestrian infrastructure improvements for both existing and future residents of Hurst to access local facilities and services on foot, including:
  - (a) Footway improvements along Lodge Road, leading north from the Site.
  - (b) Footway improvements on Tape Lane and along School Road.
  - (c) Footway improvements along the northern extent of Tape Lane and along Broadwater Lane towards Hurst Shop.
- 2 The delivery of a comprehensive cycle improvement scheme towards Twyford Railway Station, in line with the aspirations of the LCWIP, including substantial improvements to the existing cycle and bus infrastructure at the Station. These improvements will lead to a significant betterment in cycle connections between Hurst and Twyford to travel to facilities and services, as well as part of longer onward journeys via rail, by bike.
- 3 The delivery of a new bespoke bus service operating from the site towards Twyford and the Piggott CE School. The service will operate at a half-hourly frequency and be fully self-funded, offering a sustainable long-term solution to public transport within Hurst.
- 4 A commitment to deliver an on-site mobility hub to bring together a range of sustainable transport measures so that they can be easily accessed by residents.
- 5 The implementation of a robust Travel Plan at the site to actively ensure that the sustainable transport opportunities available to the site / proposed at the site are taken up. This includes an electric car club and travel voucher scheme.

6.3.3 The sustainable transport strategy is shown visually on Figure 4 of the TA, which has been represented as **Image 6.1**. This is based on ensuring key connections on desire lines are delivered, namely providing enhanced cycle and bus connection to rail, education and amenities and facilities in Twyford. The proximity of Twyford to Hurst means that this is a viable and achievable journey on both bus and cycle and there is good prospect that residents will chose to use these modes for access to the higher order facilities within Twyford, that extend beyond the more local everyday facilities in Hurst village itself.

Image 6.1: Sustainable Transport Strategy



### Key

#### Public Transport Improvement Strategy

- Twyford Rail Station
- Local Bus Stops
- Bus Stop and Mobility Hub
- The Piggot CoE Secondary School
- New Private Bus Service
- 128/129 Bus Service

#### Pedestrian and Cyclist Improvement Strategy

- Twyford Rail Station
- Bus Stop and Mobility Hub
- Existing PROW Network
- Pedestrian Infrastructure Improvements
- On-Carriageway Cycle Improvements
- New Shared Footway/Cycleway
- Internal Movement Network
- St Nicholas Pre School
- St Nicholas CoE Primary School

6.3.4 Taken together, the proposals form a comprehensive sustainable transport package that will significantly enhance the sustainability credentials of Hurst village for the benefit of both future, and existing, residents. The proposals will offer genuine opportunities for journeys to services and facilities to be undertaken by sustainable transport modes, including those locally within Hurst village as well as further afield within Twyford town centre.

6.3.5 On this basis, the development proposals comply with the key sustainable transport criteria set out in Paragraph 114 of the NPPF.

#### 6.4 **Proposed Public Transport Improvements**

6.4.1 It is noted that WBC has provided a series of comments on the Proposed Public Transport Strategy. These have been considered and will be addressed in a separate technical submission.

## SECTION 7      Framework Travel Plan

7.1.1 A revised Travel Plan (i-Transport report no. **ITB19328-006B**) has been prepared and has been submitted separately. In response to WBC's comments:

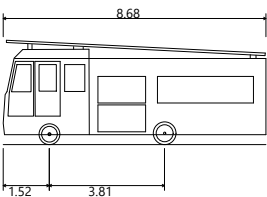
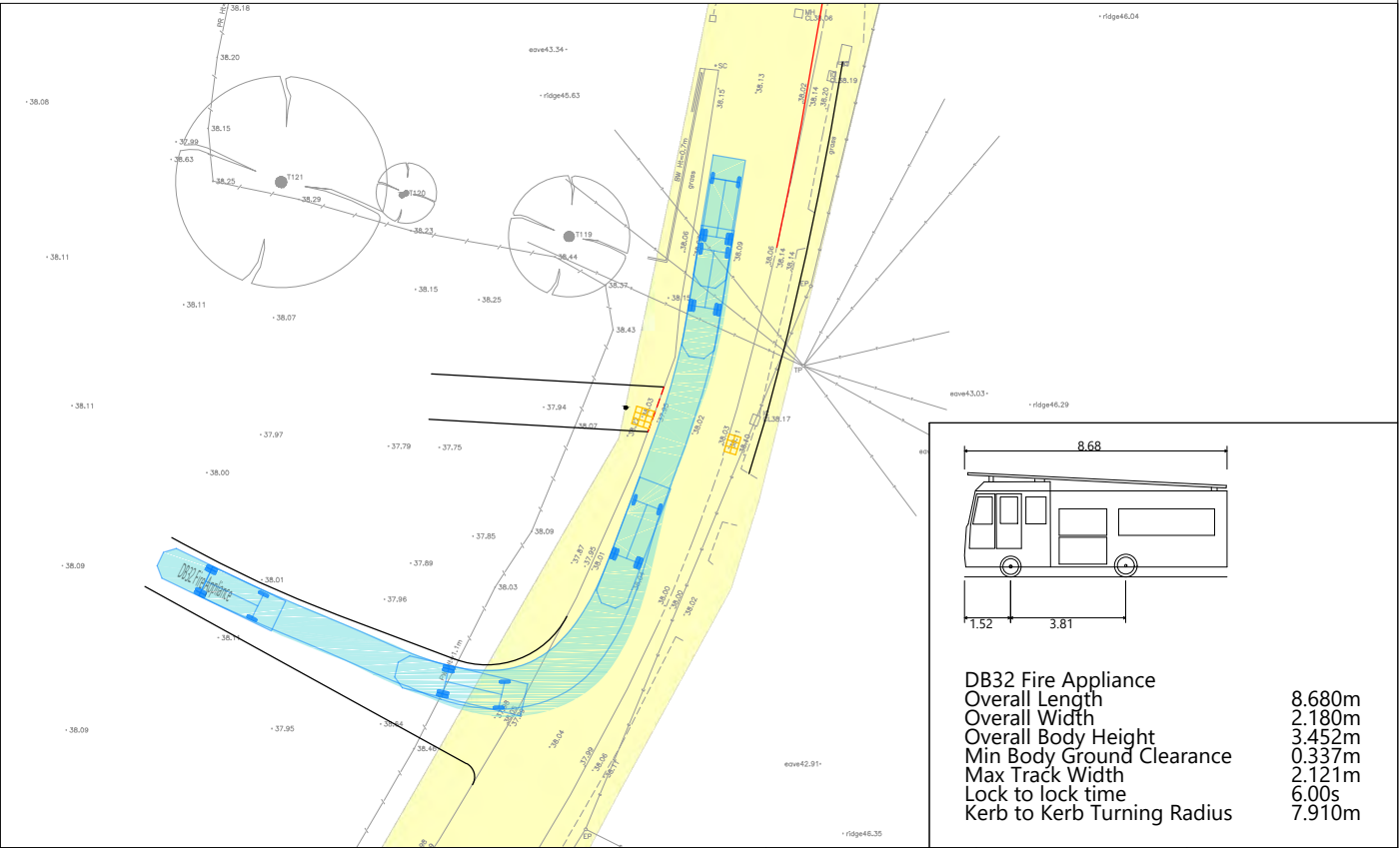
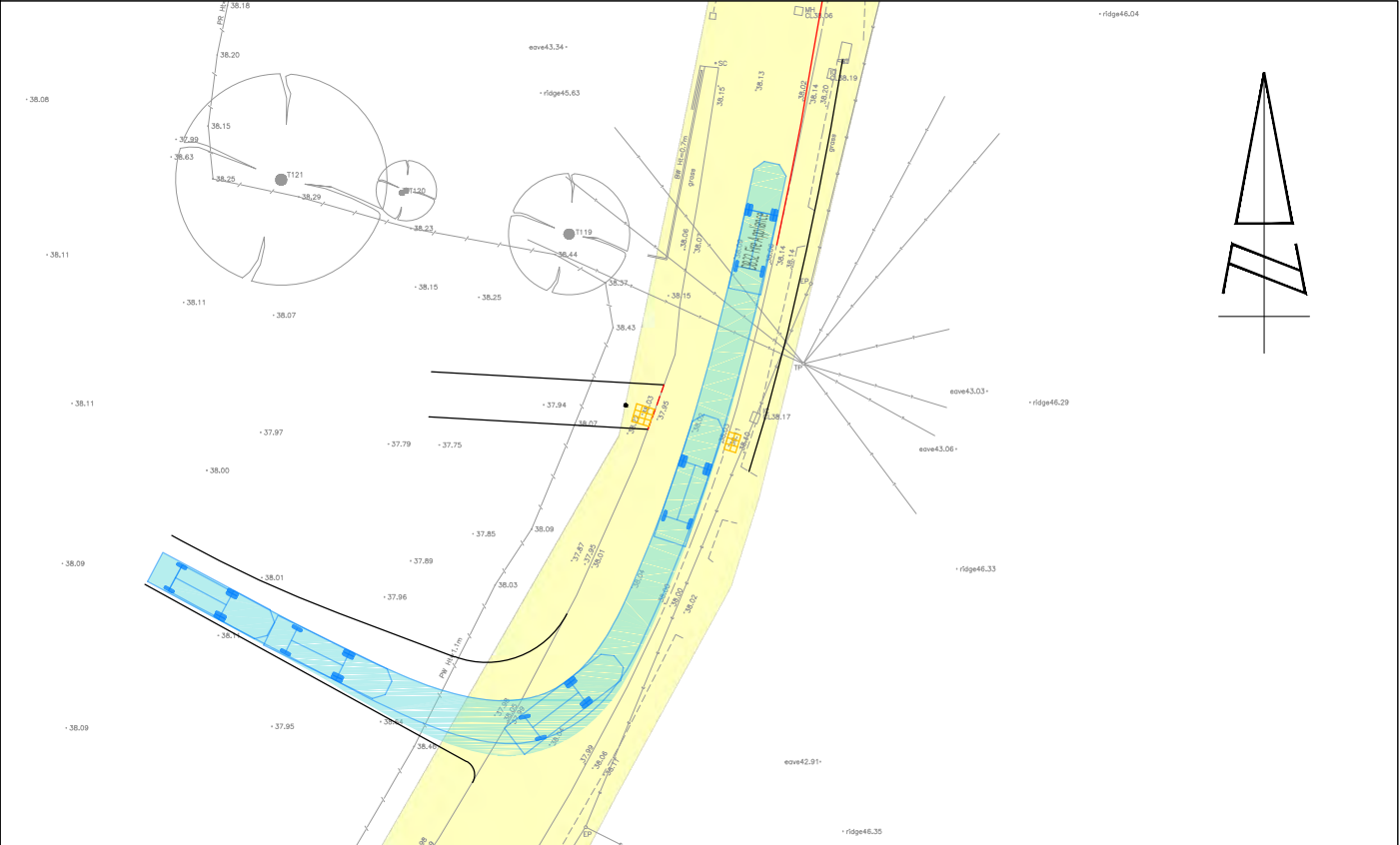
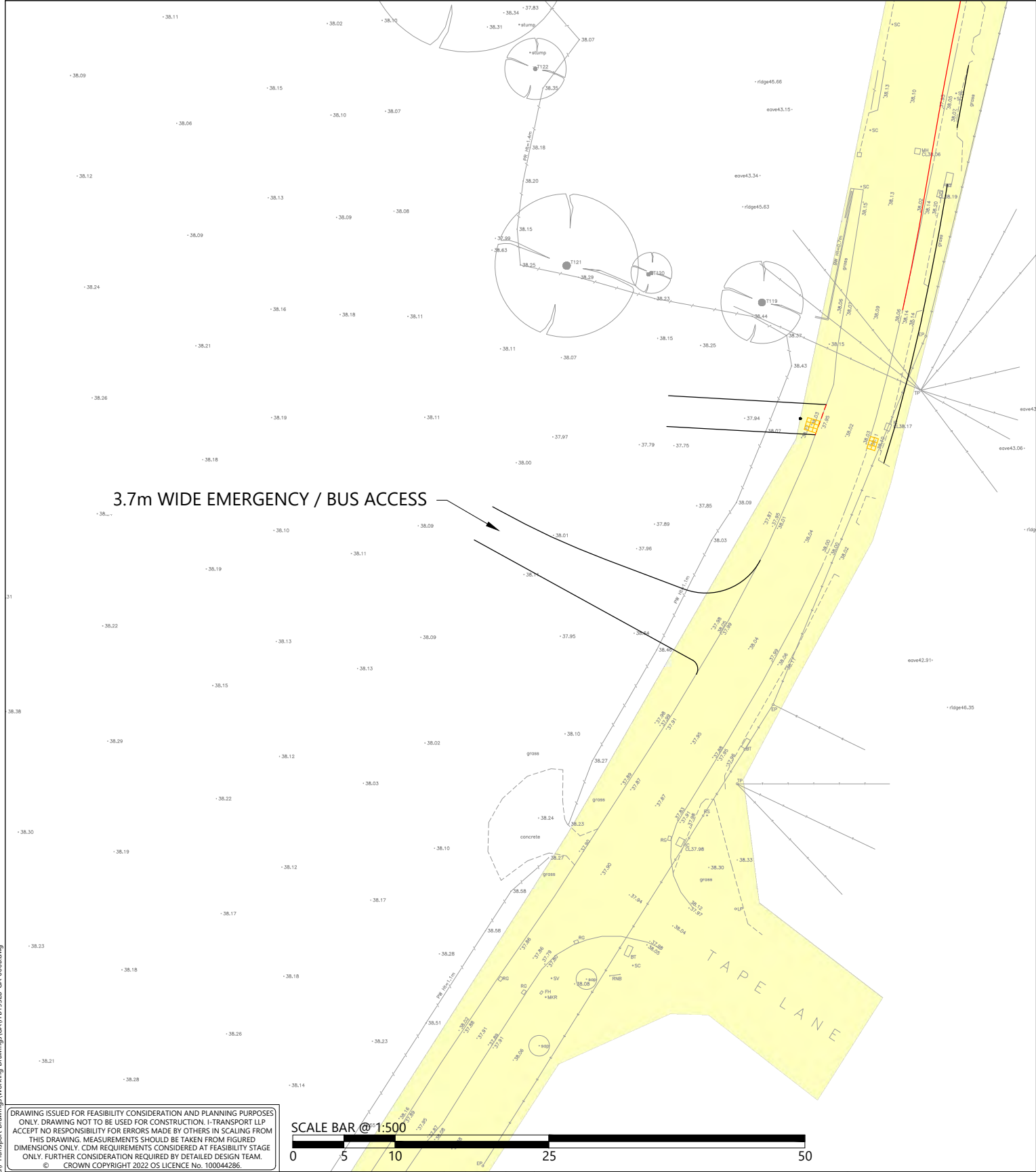
- 1 The Travel Plan has been updated to reference to WBC's 'MyJourney' platform.
- 2 The timetabling for the existing 128/129 bus service (Table 3.1) has been updated to reflect the most up-to-date bus information.
- 3 Clarity has been provided on the proposed funding for the electric vehicle car club space.
- 4 Clarity has been provided on the forecast Total Person trip information in Table 6.2 – this confirms that the data is a forecast of trips across the duration of a typical weekday and not just the network peak hours.
- 5 The Framework for Implementation (Table 8.1) has been updated to reference the interim travel plan submission.
- 6 Clarity has been provided around the framework for the handover of developer involvement of the Travel Plan (after 5 years) – confirmation has been provided that further remedial measures will be agreed with WBC should the Travel Plan targets not have been met and that these measures will need to be implemented before the Travel Plan can be handed over.

## SECTION 8      Summary and Conclusion

- 8.1 This TAA responds to the comments raised by WBC in respect to an outline planning application (with all matters reserved except for access) for up to 99 homes on land to the east of Lodge Road in Hurst, Reading.
- 8.2 At the request of WBC, this TAA addresses various requests for additional information within WBC's consultation response dated 12<sup>th</sup> September 2024. This includes:
- Further information regarding the proposed level of car and cycle parking provision within the site, including the design of the proposed parking spaces.
  - A Framework Car Parking Management Plan.
  - A Framework Construction Traffic Management Plan.
  - Further information related to the internal site layout and the design of the site roads to adoptable standards.
  - Amended drawings to address various design matters raised by WBC, including pedestrian/cycle visibility splays and the design of the proposed Byron Road bus shelter.
  - Additional swept path analysis for the proposed site access arrangements, and illustrative site layout.
  - Clarity on the baseline traffic information, and the production of baseline junction models for the Lodge Road / Sawpit Road and Lodge Road / Broadwater Lane junctions.
  - Additional clarity on the sustainable transport assessment, including an updated analysis of the existing 128/129 bus service using the latest timetable information.
- 8.2.1 The WBC Highways response makes various comments on the sustainability of the site, noting its limitations, but confirming that there are local services and facilities within an acceptable walking distance (including a primary school and local shop). The TA has considered sustainability matters carefully and further clarity has been provided within this TAA on various matters including the ability for students to travel to local secondary schools in Wokingham and Winnersh by public transport and the capacity for the site to promote sustainable transport modes through the implementation of a comprehensive sustainable transport strategy.

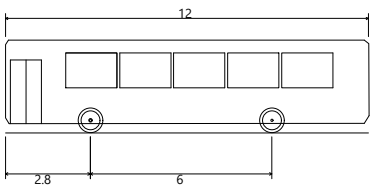
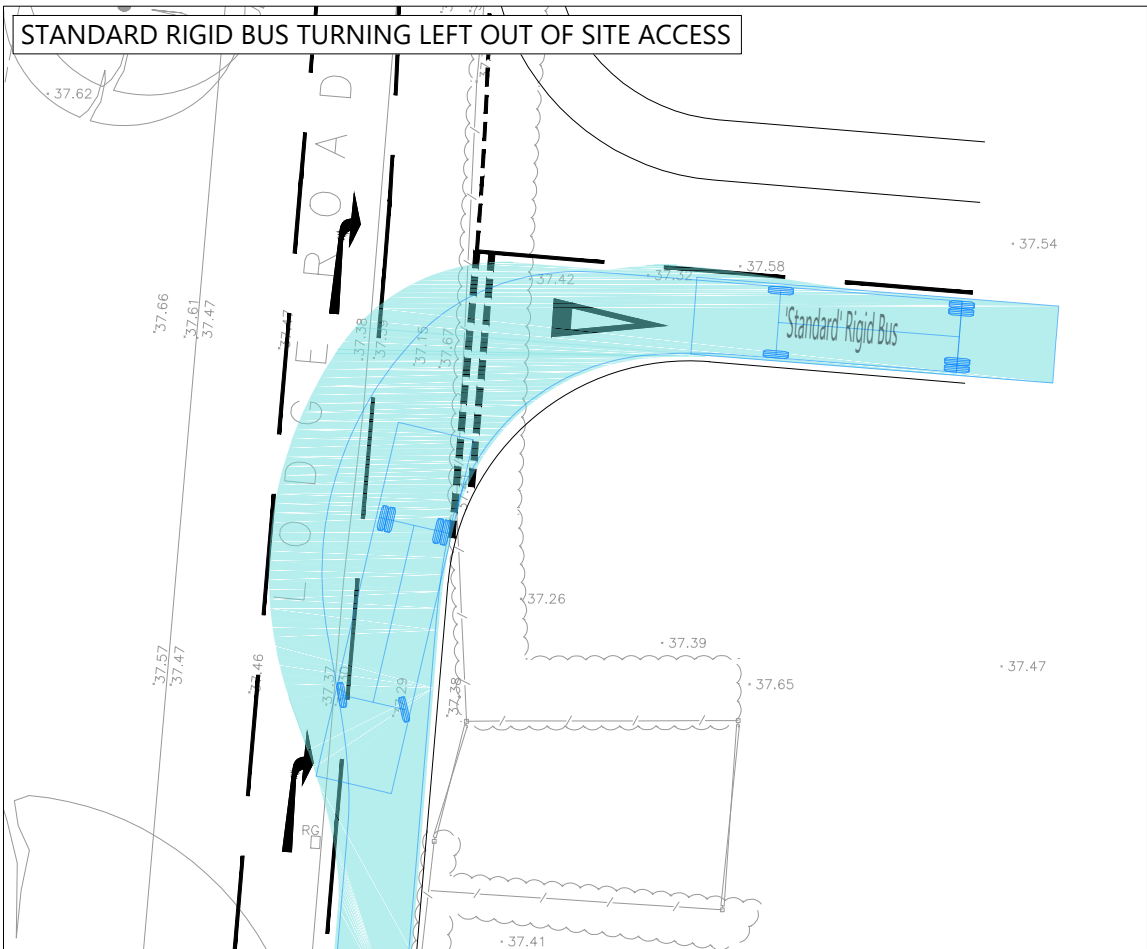
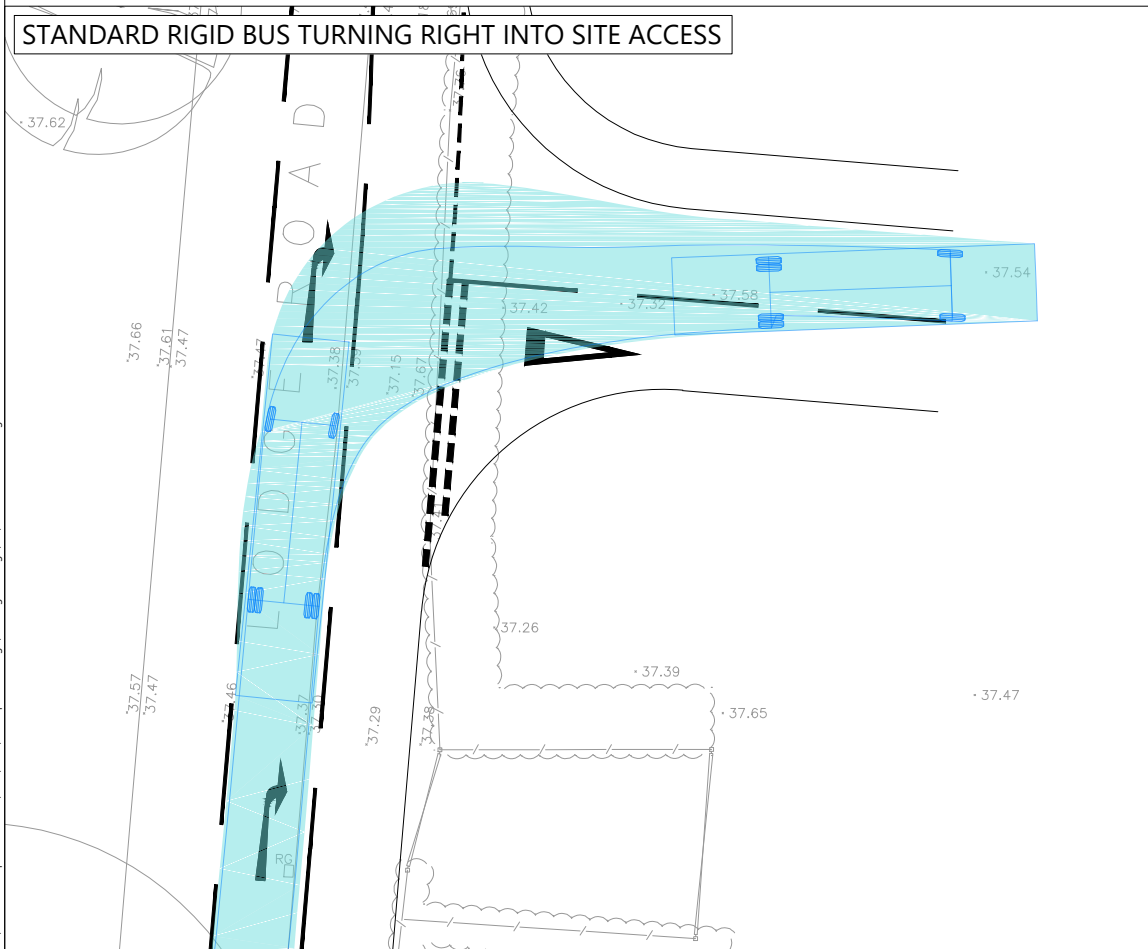
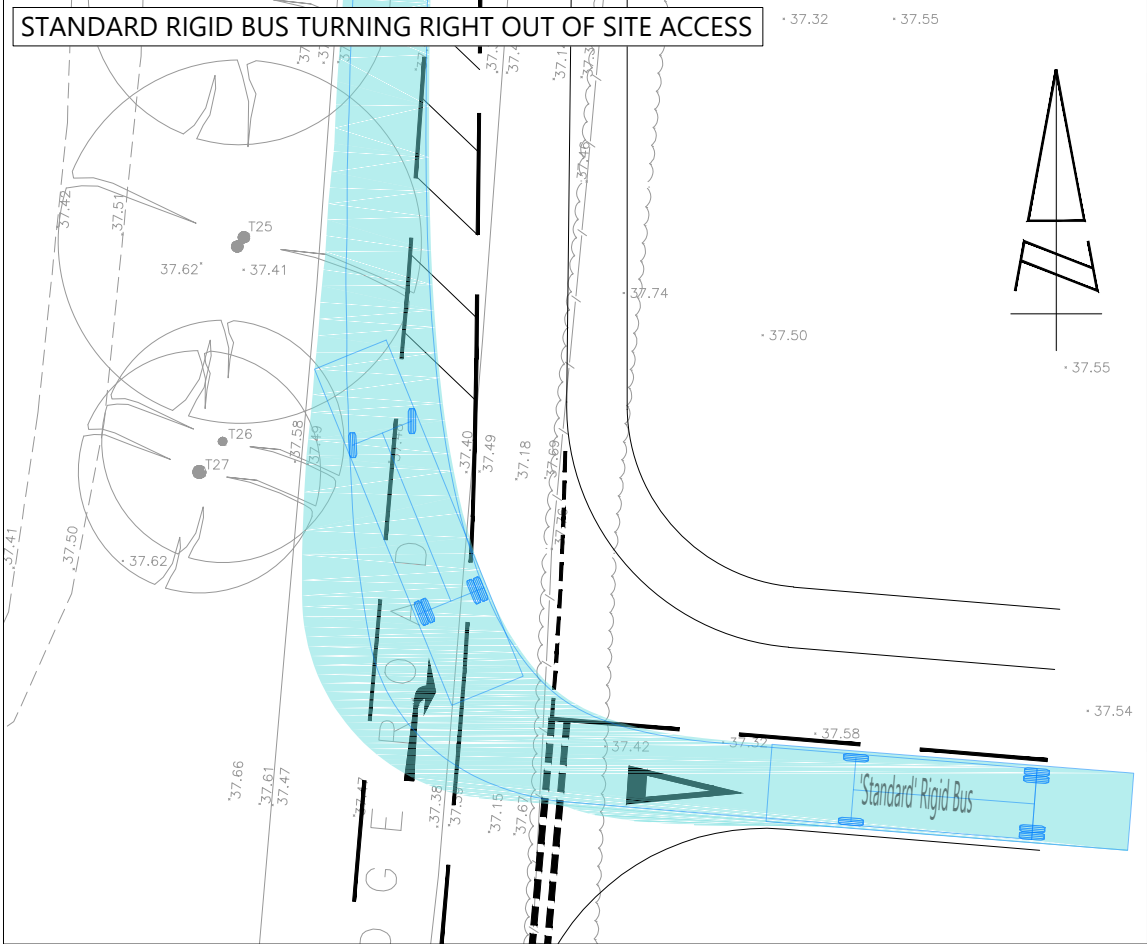
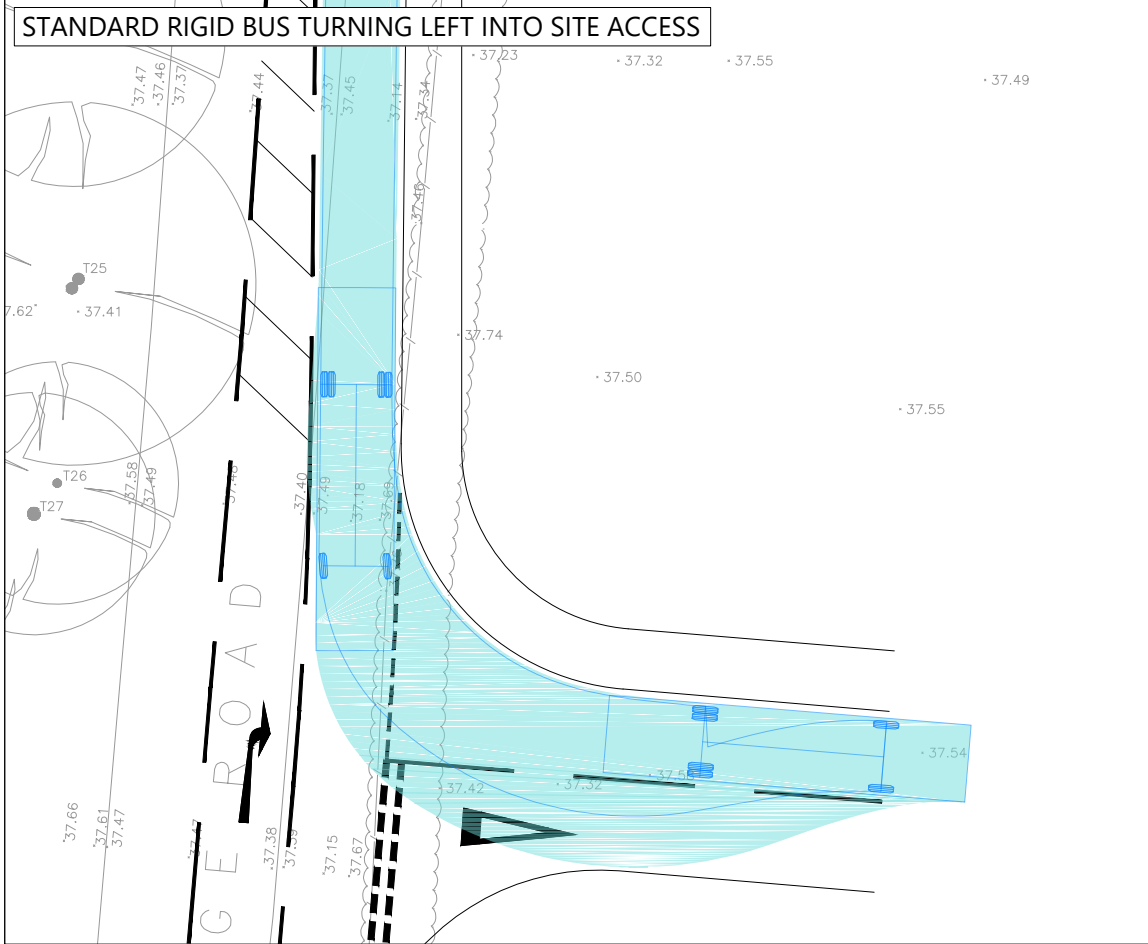
## **DRAWINGS**





DB32 Fire Appliance  
Overall Length 8.680m  
Overall Width 2.180m  
Overall Body Height 3.452m  
Min Body Ground Clearance 0.337m  
Max Track Width 2.121m  
Lock to lock time 6.00s  
Kerb to Kerb Turning Radius 7.910m

|                                                                                                                                                                                                          |  |  |  |                                                                                                                                                                                                                                                           |  |  |  |                                                                                                                 |  |  |  |                                                   |  |                                         |  |                                      |  |
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| <div>REV</div> <div>DATE</div> <div>BY</div> <div>DESCRIPTION</div> <div>CHK</div> <div>APD</div>                                                                                                        |  |  |  | <div>PROJECT:</div> <div>LAND EAST OF LODGE ROAD, HURST</div>                                                                                                                                                                                             |  |  |  | <div>CLIENT:</div> <div>MACTAGGART AND MICKEL<br/>STRATEGIC LAND (MAC MIC)</div>                                |  |  |  | <div>PROJECT No:</div> <div>ITB19328</div>        |  | <div>SCALE @ A3:</div> <div>1:500</div> |  | <div>DATE:</div> <div>28.05.24</div> |  |
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|                             |         |
|-----------------------------|---------|
| 'Standard' Rigid Bus        | 12.000m |
| Overall Length              | 2.550m  |
| Overall Width               | 3.069m  |
| Overall Body Height         | 0.309m  |
| Min Body Ground Clearance   | 2.350m  |
| Track Width                 | 4.00s   |
| Lock to lock time           | 10.771m |
| Wall to Wall Turning Radius |         |

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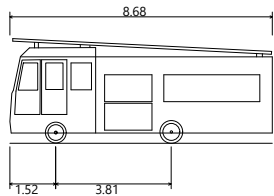
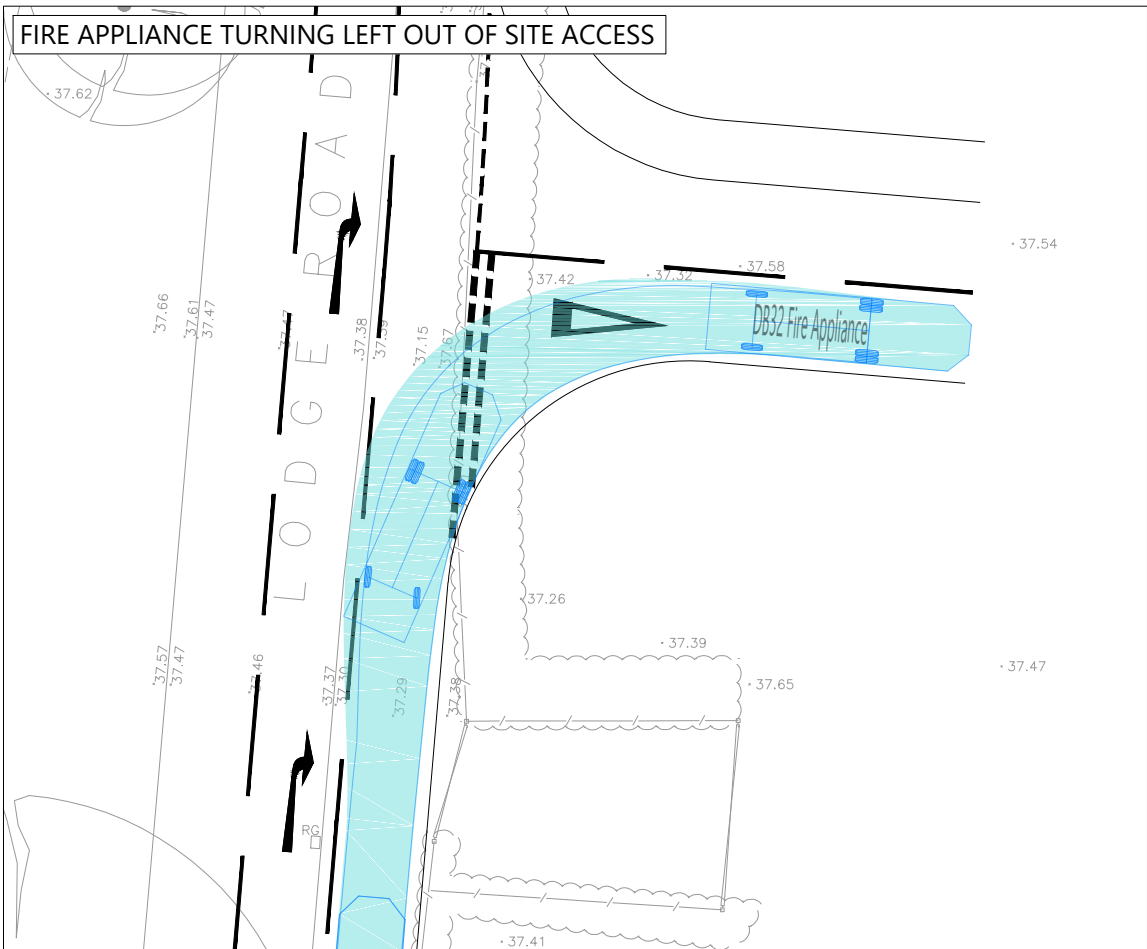
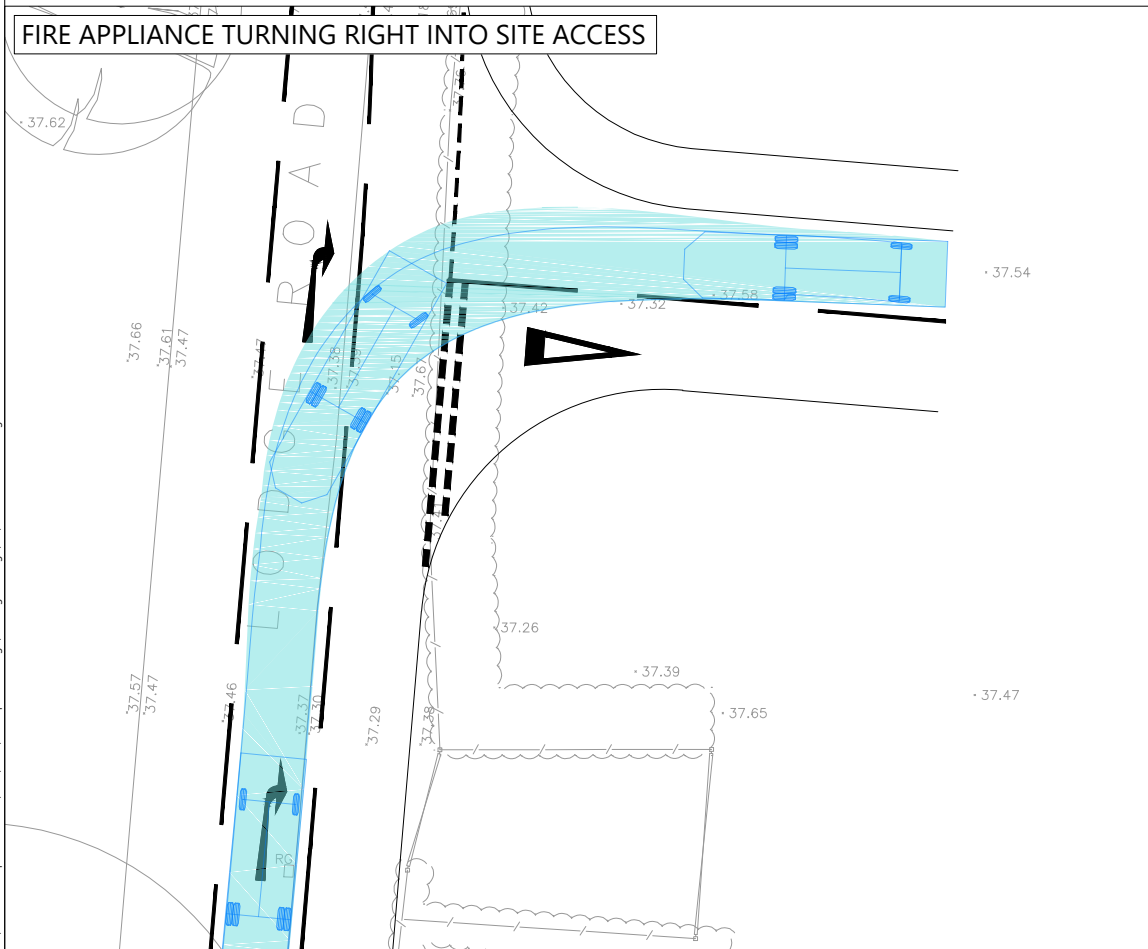
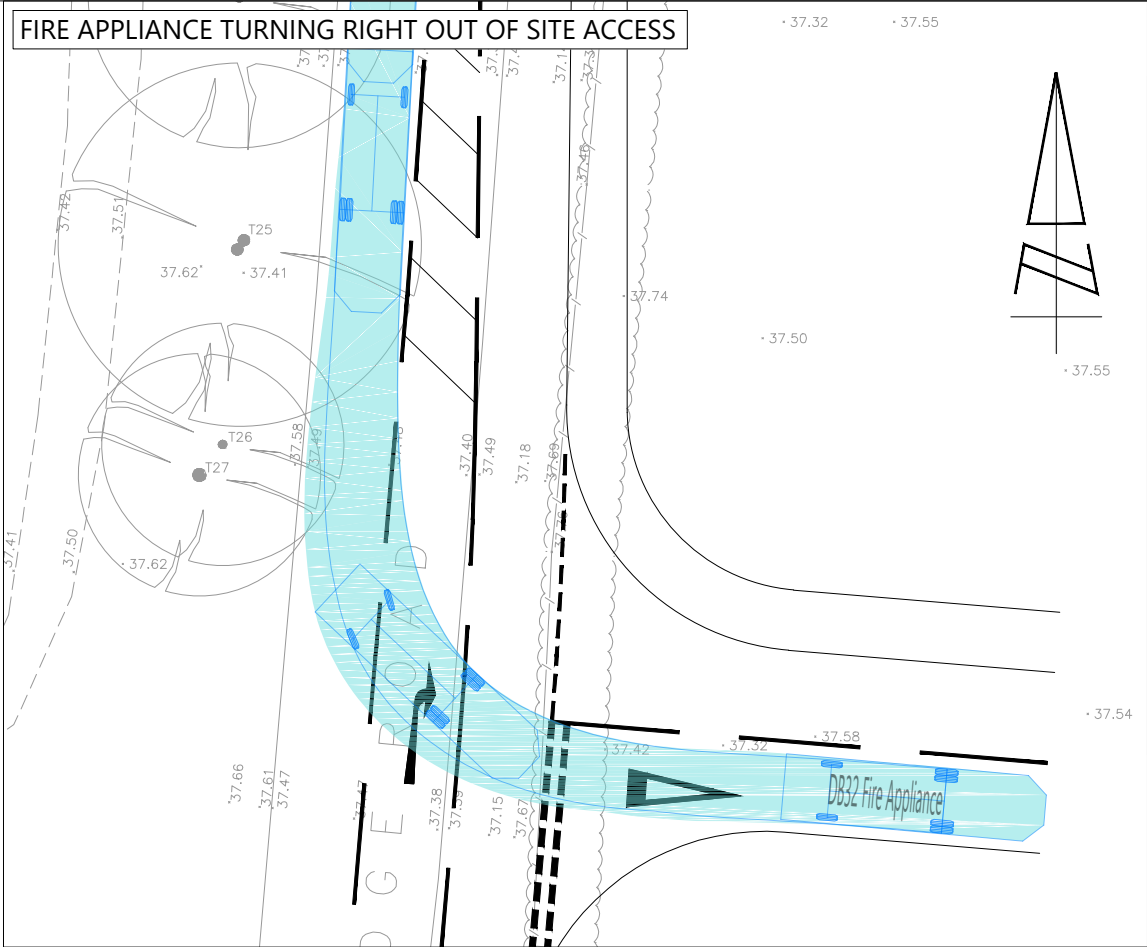
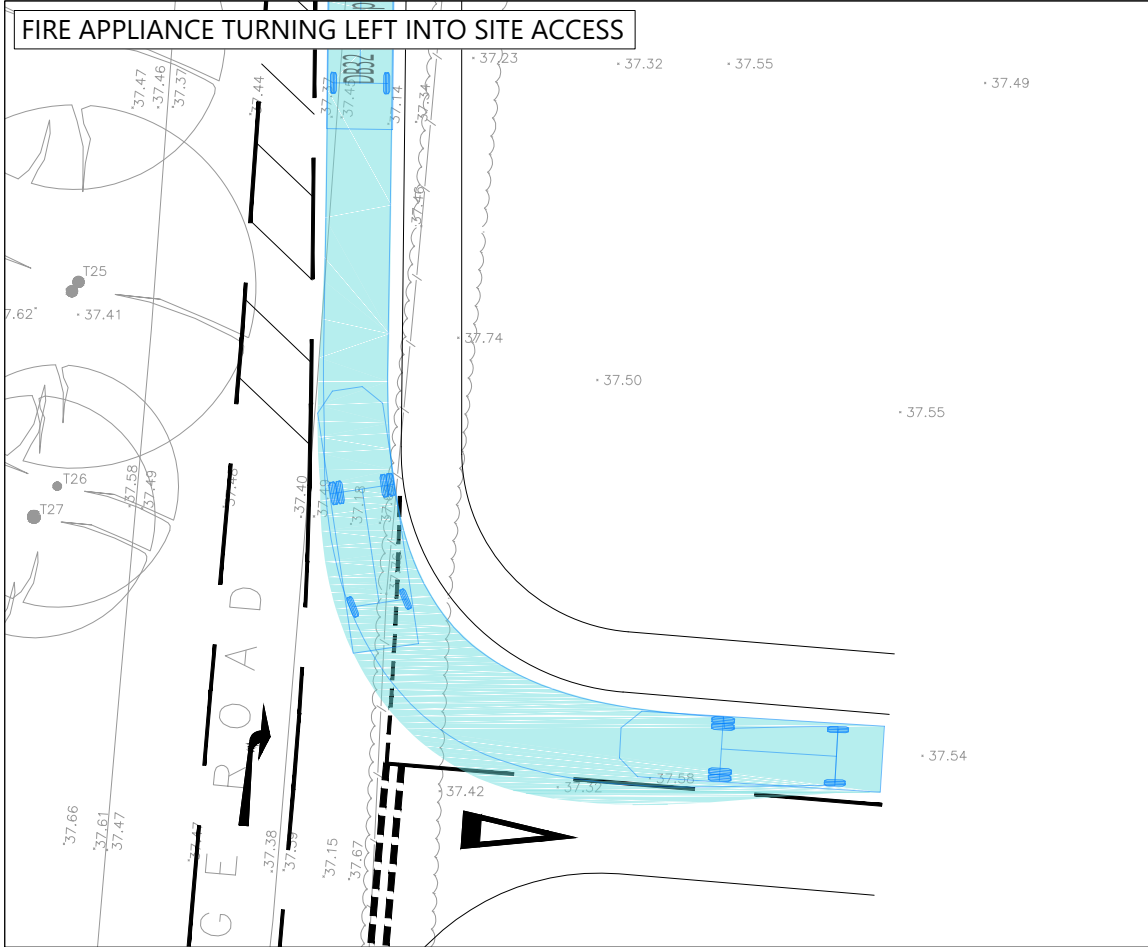
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| CLIENT: | MACTAGGART AND MICKEL<br>STRATEGIC LAND (MAC MIC) |
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DB32 Fire Appliance  
Overall Length 8.680m  
Overall Width 2.180m  
Overall Body Height 3.452m  
Min Body Ground Clearance 0.337m  
Max Track Width 2.121m  
Lock to lock time 6.00s  
Kerb to Kerb Turning Radius 7.910m

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TITLE: SWEPT PATH ANALYSIS - FIRE APPLIANCE

PROJECT: LAND EAST OF LODGE ROAD, HURST

CLIENT: MACTAGGART AND MICKEL  
STRATEGIC LAND (MAC MIC)

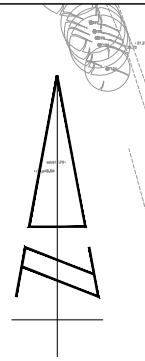
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DRAWING No: ITB19328-GA-008  
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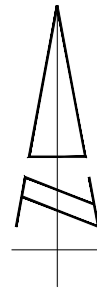
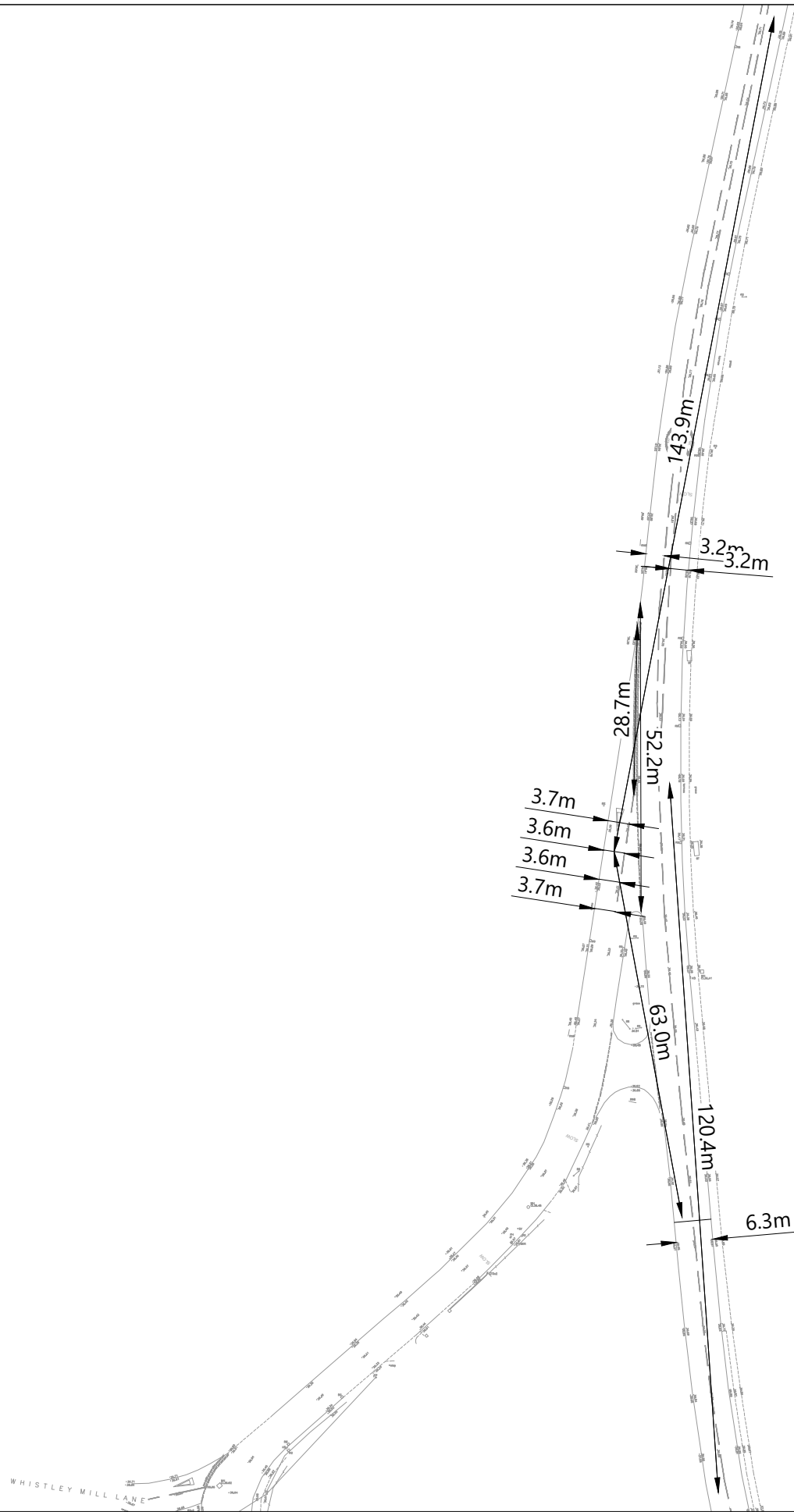


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| PROJECT:<br>LAND EAST OF LODGE ROAD, HURST                                                                                                                                                                         |      |                       |             |                   |           |
| CLIENT:<br>MACTAGGART AND MICKEL<br>STRATEGIC LAND (MAC MIC)                                                                                                                                                       |      |                       |             |                   |           |
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JUNCTION GEOMETRY - LODGE ROAD /  
BROADWATER ROAD (EXISTING ARRANGEMENT)

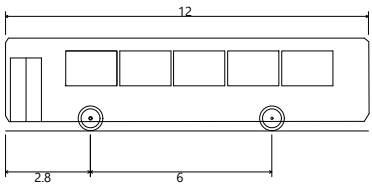
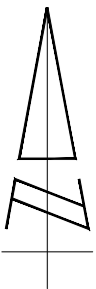
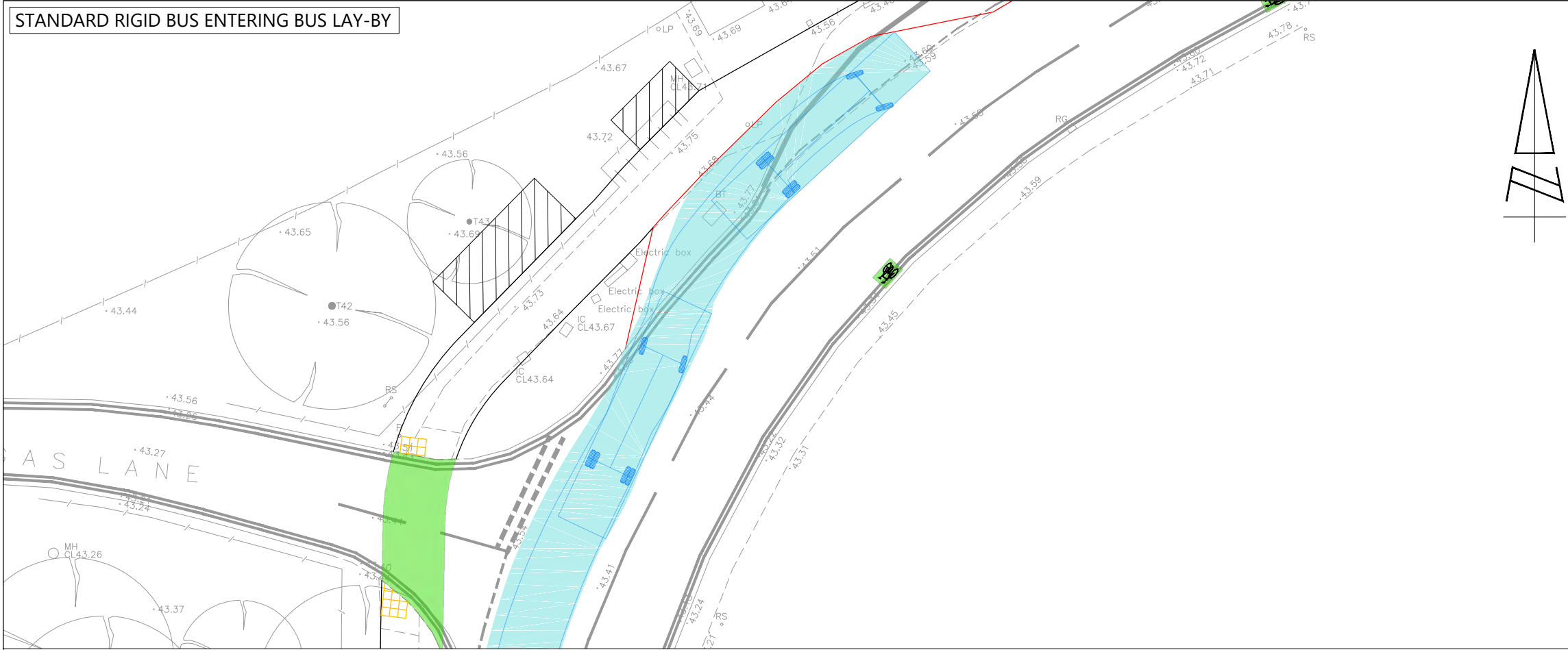
PROJECT:  
LAND EAST OF LODGE ROAD, HURST

CLIENT:  
MACTAGGART AND MICKEL  
STRATEGIC LAND (MAC MIC)

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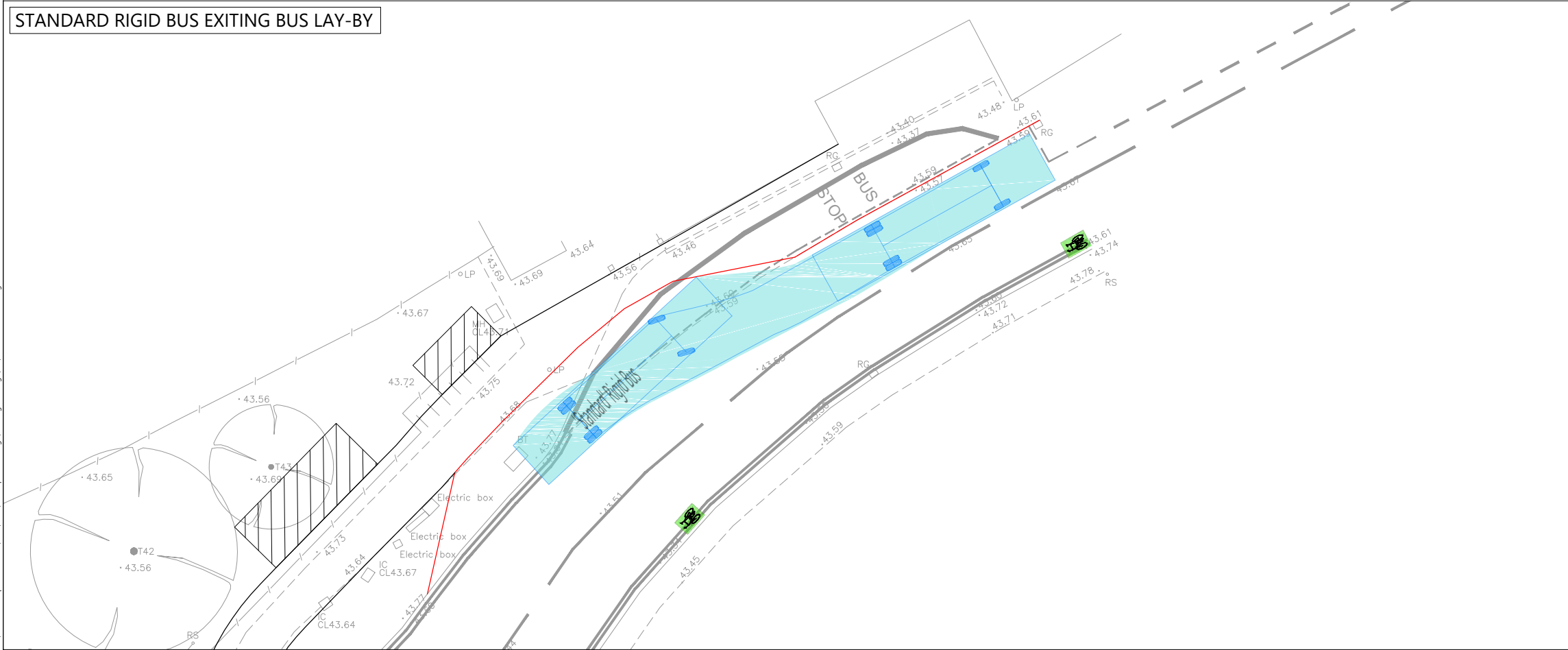
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STANDARD RIGID BUS ENTERING BUS LAY-BY



|                             |         |
|-----------------------------|---------|
| 'Standard' Rigid Bus        | 12.000m |
| Overall Length              | 2.550m  |
| Overall Width               | 3.069m  |
| Overall Body Height         | 0.309m  |
| Min Body Ground Clearance   | 2.350m  |
| Track Width                 | 4.00s   |
| Lock to lock time           | 10.771m |
| Wall to Wall Turning Radius |         |

STANDARD RIGID BUS EXITING BUS LAY-BY



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TITLE:

SWEPT PATH ANALYSIS - STANDARD RIGID BUS

PROJECT:

LAND EAST OF LODGE ROAD, HURST

CLIENT:

MACTAGGART AND MICKEL  
STRATEGIC LAND (MAC MIC)

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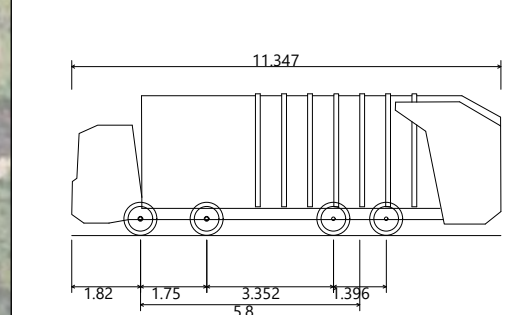
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PROJECT No: SCALE @ A3: DATE:

ITB19328 1:250 11.11.24

DRAWING No: REV:

ITB19328-GA-012 -



|                               |         |
|-------------------------------|---------|
| Large Refuse Vehicle (4 axle) |         |
| Overall Length                | 11.347m |
| Overall Width                 | 2.500m  |
| Overall Body Height           | 3.751m  |
| Min Body Ground Clearance     | 0.304m  |
| Track Width                   | 2.500m  |
| Lock to lock time             | 6.00s   |
| Wall to Wall Turning Radius   | 11.330m |

| REV | DATE | BY | DESCRIPTION | CHK | APP |
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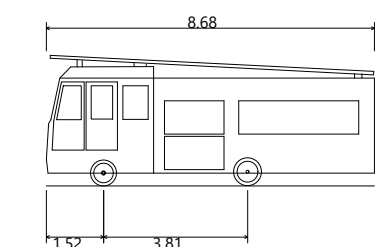
Tel: 01256 898366

TITLE: SWEEP PATH ANALYSIS - REFUSE VEHICLE

PROJECT: LAND EAST OF LODGE ROAD, HURST

CLIENT: MACTAGGART AND MICKEL  
STRATEGIC LAND (MAC MIC)

|                             |                    |                |
|-----------------------------|--------------------|----------------|
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| PROJECT No: ITB19328        | SCALE @ A1: 1:1000 | DATE: 12.11.24 |
| DRAWING No: ITB19328-GA-013 |                    | REV: -         |



|                             |        |
|-----------------------------|--------|
| DB32 Fire Appliance         |        |
| Overall Length              | 8.680m |
| Overall Width               | 2.180m |
| Overall Body Height         | 3.452m |
| Min Body Ground Clearance   | 0.337m |
| Max Track Width             | 2.121m |
| Lock to lock time           | 6.00s  |
| Kerb to kerb Turning Radius | 7.910m |

|                                                                                                                                                                                                                      |      |                    |             |                |         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------|----------------|---------|
|                                                                                                                                                                                                                      |      |                    |             |                |         |
| REV                                                                                                                                                                                                                  | DATE | BY                 | DESCRIPTION |                | CHK APP |
| STATUS: FOR INFORMATION                                                                                                                                                                                              |      |                    |             |                |         |
| <div><p>The Square, Basing View,<br/>Basingstoke, Hampshire, RG21 4EB<br/>Tel: 01256 898366<br/>www.i-transport.co.uk</p></div> |      |                    |             |                |         |
| TITLE                                                                                                                                                                                                                |      |                    |             |                |         |
| SWEPT PATH ANALYSIS - FIRE APPLIANCE                                                                                                                                                                                 |      |                    |             |                |         |
| PROJECT                                                                                                                                                                                                              |      |                    |             |                |         |
| LAND EAST OF LODGE ROAD, HURST                                                                                                                                                                                       |      |                    |             |                |         |
| CLIENT                                                                                                                                                                                                               |      |                    |             |                |         |
| MACTAGGART AND MICKEL<br>STRATEGIC LAND (MAC MIC)                                                                                                                                                                    |      |                    |             |                |         |
| DRAWN: JD                                                                                                                                                                                                            |      | CHECKED: BB        |             | APPROVED: TW   |         |
| PROJECT No: ITB19328                                                                                                                                                                                                 |      | SCALE @ A1: 1:1000 |             | DATE: 12.11.24 |         |
| DRAWING No: ITB19328-GA-014                                                                                                                                                                                          |      |                    |             |                | REV: -  |







T:\Projects\1800 Series\18031818 - 1803 Lane Hurst\18031818\Working Drawings\GA\100 SERIES DRAWINGS\ITB19328-GA-107.dwg

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CLIENT:

MACTAGGART AND MICKEL STRATEGIC LAND (MAC MIC)

TITLE:

POTENTIAL OFF-SITE PEDESTRIAN / CYCLIST IMPROVEMENT SCHEME  
SHEET 7

PROJECT:

LAND EAST OF LODGE ROAD, HURST

CUT LINE FOR CONTINUATION SEE CUT LINE  
DRAWING ITB19328-GA-108

3.0m WIDE SHARED USE FOOTWAY / CYCLEWAY FORMED FROM  
REMOVAL OF MEDIAN STRIP AND CARRIAGEWAY NARROWING

EXISTING SPEED LIMIT  
ROUNDELS TO BE REPAINTED

TRANSITION BETWEEN ON-CARRIAGEWAY ADVISORY  
CYCLE LANES AND SHARED USE FOOTWAY / CYCLEWAY

CUT LINE FOR CONTINUATION SEE CUT LINE  
DRAWING ITB19328-GA-103

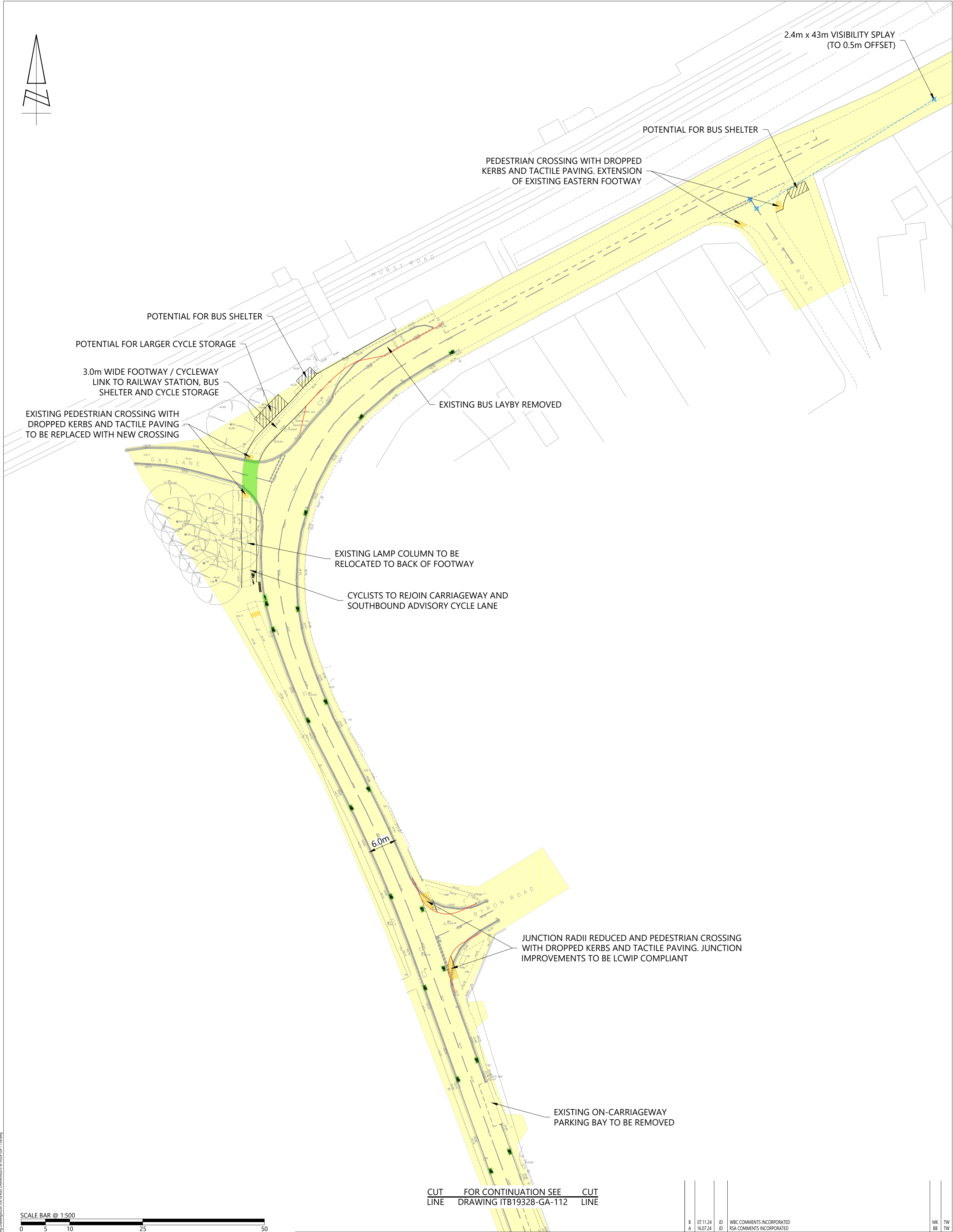
3.0m WIDE SHARED USE FOOTWAY / CYCLEWAY FORMED FROM  
REMOVAL OF MEDIAN STRIP AND CARRIAGEWAY NARROWING

WESTERN KERBLINE OF BROADWATER  
LANE TO BE REALIGNED TO PROVIDE  
MINIMUM 6.0m WIDE CARRIAGEWAY

CUT LINE FOR CONTINUATION SEE CUT LINE  
DRAWING ITB19328-GA-106

SCALE BAR @ 1:500  
0 5 10 25 50

|                 |          |    |                           |           |      |
|-----------------|----------|----|---------------------------|-----------|------|
|                 |          |    |                           |           |      |
| A               | 16.07.24 | JD | RSA COMMENTS INCORPORATED |           |      |
| REV             | DATE     | BY | DESCRIPTION               | CHK       | APD  |
| STATUS:         |          |    |                           |           |      |
| FOR INFORMATION |          |    |                           |           |      |
| DRAWN:          |          |    | CHECKED:                  | APPROVED: |      |
| JD              |          |    | BB                        | TW        |      |
| PROJECT No:     |          |    | SCALE @ A2:               | DATE:     |      |
| ITB19328        |          |    | 1:500                     | 14.11.23  |      |
| DRAWING No:     |          |    |                           |           | REV: |
| ITB19328-GA-107 |          |    |                           |           | A    |



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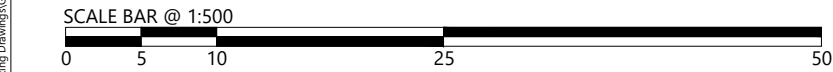
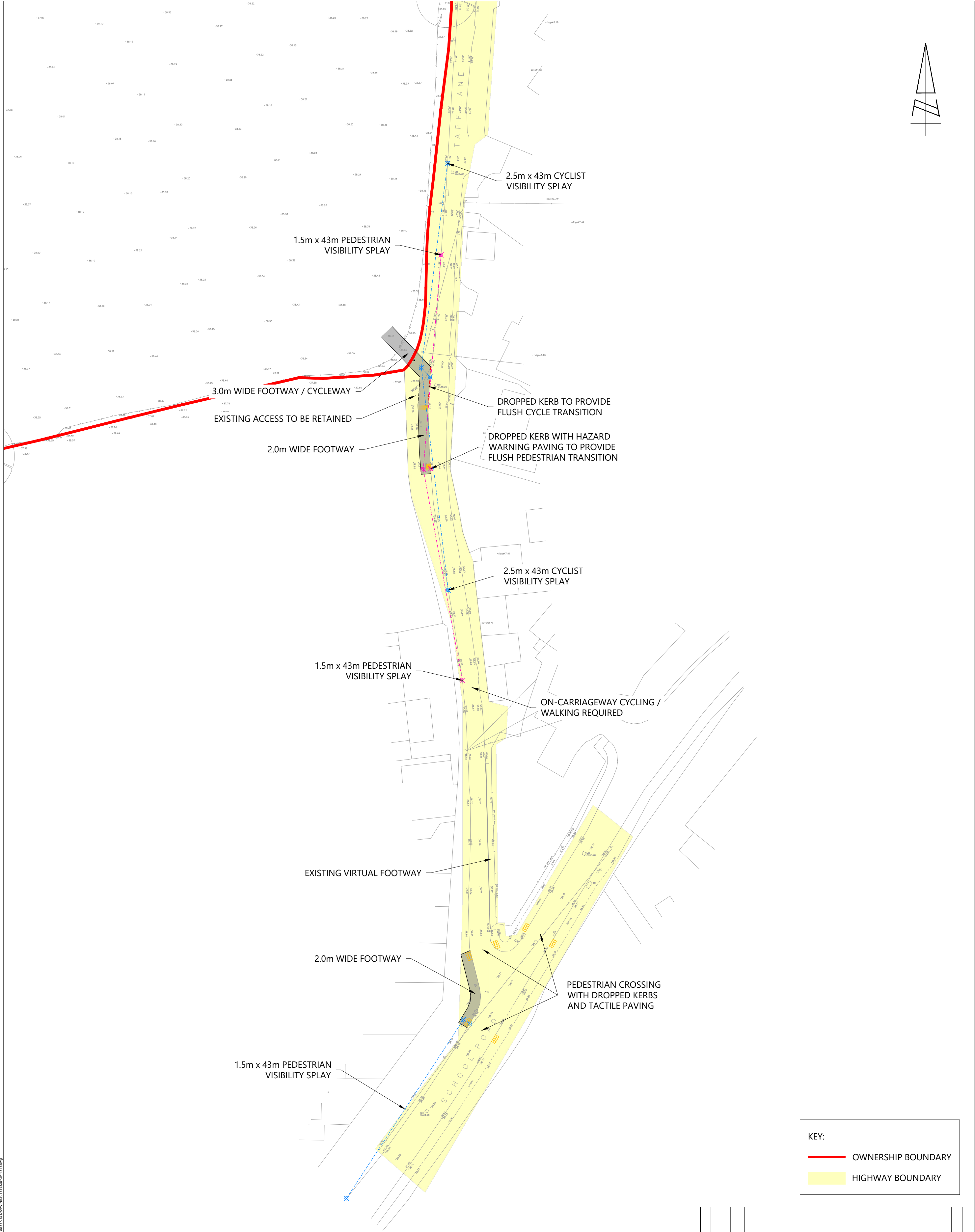
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Tel: 01256 898366  
www.i-transport.co.uk

CLIENT:  
MACTAGGART AND MICKEL STRATEGIC LAND (MAC MIC)

TITLE:  
POTENTIAL OFF-SITE PEDESTRIAN / CYCLIST IMPROVEMENT SCHEME  
SHEET 13

PROJECT:  
LAND EAST OF LODGE ROAD, HURST

|                                    |                      |          |                                                        |                       |               |
|------------------------------------|----------------------|----------|--------------------------------------------------------|-----------------------|---------------|
|                                    |                      |          |                                                        |                       |               |
| B<br>A                             | 07.11.24<br>16.07.24 | JD<br>JD | WBC COMMENTS INCORPORATED<br>RSA COMMENTS INCORPORATED | MK<br>BB              | TW<br>TW      |
| REV                                | DATE                 | BY       | DESCRIPTION                                            | CHK                   | APD           |
| STATUS: FOR INFORMATION            |                      |          |                                                        |                       |               |
| DRAWN:<br><br>JD                   |                      |          | CHECKED:<br><br>BB                                     | APPROVED:<br><br>TW   |               |
| PROJECT No:<br><br>ITB19328        |                      |          | SCALE @ A2:<br><br>1:500                               | DATE:<br><br>14.11.23 |               |
| DRAWING No:<br><br>ITB19328-GA-113 |                      |          |                                                        |                       | REV:<br><br>B |



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CLIENT:

MACTAGGART AND MICKEL STRATEGIC LAND (MAC MIC)

TITLE:

POTENTIAL OFF-SITE PEDESTRIAN / CYCLIST IMPROVEMENT SCHEME - TAPE LANE

PROJECT:

LAND EAST OF LODGE ROAD, HURST

|                             |                      |          |                                                        |                |          |
|-----------------------------|----------------------|----------|--------------------------------------------------------|----------------|----------|
|                             |                      |          |                                                        |                |          |
| B<br>A                      | 07.11.24<br>16.07.24 | JD<br>JD | WBC COMMENTS INCORPORATED<br>RSA COMMENTS INCORPORATED | MK<br>BB       | TW<br>TW |
| REV                         | DATE                 | BY       | DESCRIPTION                                            | CHK            | APD      |
| STATUS: FOR INFORMATION     |                      |          |                                                        |                |          |
| DRAWN: JD                   |                      |          | CHECKED: BB                                            | APPROVED: TW   |          |
| PROJECT No: ITB19328        |                      |          | SCALE @ A2: 1:500                                      | DATE: 08.03.24 |          |
| DRAWING No: ITB19328-GA-131 |                      |          |                                                        |                | REV: B   |

## **APPENDIX A. WBC CONSULTATION RESPONSE**

**Date:** 21 August 2024  
**Application:** 242067



**WOKINGHAM**  
**BOROUGH COUNCIL**

WBC Highways

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Development Management &  
Compliance

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P.O. Box 157

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Shute End, Wokingham

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Berkshire, RG40 1BN

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Tel: (0118) 974 6000

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Minicom No: (0118) 974 6991

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Dear WBC Highways,

**Outline Planning Approval Consultation**

**Application Number:** 242067

**Applicant:** The Owner and/or Occupier

**Site Address:** Land Between Lodge Road And Tape Lane, Hurst, RG10 0EG

**Parish:** St. Nicholas Hurst

**Grid Reference:** Easting - 479479, Northing - 173716

**Type of Development:** Major Dwellings (10+)

**Proposal:** Outline application for the proposed erection of up to 99 no. dwellings, green infrastructure, open space, pedestrian and cycle links, recreational facilities and other associated infrastructure and access points on Lodge Road and Tape Lane with required improvements. (All matters reserved except for means of access.)

**Case Officer:** Mark Croucher

Development Management has received the above application and we require your comments on the proposal using the recommended memorandum below. The documents associated with this are available to view in NEC DM using the application number 242067. Alternatively, public documents are available to view on the Council's planning application search page: [Wokingham Borough Council Online Planning](#).

Please index your response into NEC DM against the application. If you are recommending conditions, you should give a reason with reference to relevant policies. A list of standard conditions can be found on the Z Drive at: [Z:\Standard Planning Conditions](#).

Your observations are required in respect of this application within **10 working days** of the above date or **15 working days** if the development type is classed as a major development.

Yours sincerely,  
Development Management & Compliance

# MEMORANDUM

|                             |                                                                                                                                                                                                                                                                                                                                 |                |        |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------|
| <b>From:</b>                | Gordon Adam<br>Development Control                                                                                                                                                                                                                                                                                              |                |        |
| <b>Service</b>              | WBC Highways                                                                                                                                                                                                                                                                                                                    | <b>App No:</b> | 242067 |
| <b>Address:</b>             | Land Between Lodge Road And Tape Lane, Hurst, RG10 0EG.                                                                                                                                                                                                                                                                         |                |        |
| <b>Proposal:</b>            | Outline application for the proposed erection of up to 99 no. dwellings, green infrastructure, open space, pedestrian and cycle links, recreational facilities and other associated infrastructure and access points on Lodge Road and Tape Lane with required improvements. (All matters reserved except for means of access.) |                |        |
| <b>Type of Development:</b> | Major Dwellings (10+)                                                                                                                                                                                                                                                                                                           |                |        |
| <b>Site Visit Made:</b>     | Yes/No                                                                                                                                                                                                                                                                                                                          |                |        |

## Summary Of Recommendations

- ☐ No comment  
☐ No objection  
☐ No objection subject to conditions (and reasons) **stated below**  
☒ Request further information before determination as **stated below**  
☐ Objection due to the reason(s) **stated below**

## Comments On Proposal

### General

1. Highways understands that this outline application is for up to 99 homes east of Lodge Road.
2. This application follows on from a development for 200 homes on the same site that was dismissed at appeal.
3. Highways welcomes the opportunity for providing pre-application comments on the suggested proposed improvements for cycling.
4. This application is supported by a Transport Assessment and framework Travel Plan which is welcome.

### Parking

5. The transport assessment states that the proposed level of parking would be too the prevailing WBC standards that are in operation at the time of the reserve matters application.
6. Even though this is an outline planning application, highways would have expected that the borough's parking calculator be used to assess the level of parking based on the illustrative masterplan and illustrative housing mix. This

is required to ensure that there is space within the red line for the assumed level of parking.

7. As part of this submission, a masterplan was submitted (drawing 003-01 Rev B).
8. Garages would need to a minimum internal dimensions of 6m x 3m or 7m x 3m for cycle storage.
9. All parking spaces would need to be 5m x 2.5m or 6m x 2.5m if parallel spaces.
10. If there are parking courtyards these would need to have at least 6m behind the spaces for safe manoeuvring.
11. The widths of private drives would need to be at least 3.1m
12. Highways would have expected to see a framework car parking management plan submitted.

### Cycle Parking

13. There is no mention of cycle parking. These will need to be to Borough standards and be provided either in sheds in rear gardens with direct access or in garages (at least 7m x 3m)

### Electric Vehicle Charging

14. There is no mention on the transport assessment of electric vehicle charging.
15. These will need to be provided in line with Building Control Regulations Approved Document S.
16. This has been mentioned in the travel plan but needs to be mentioned in the TA.

### Access

17. It is proposed that there would the main access into the site would be from a new priority junction onto Lodge Road. There is also proposed a bus link/emergency access from Tape Lane which would also be available for cyclists and pedestrians.
18. The proposed access on to Lodge Road is acceptable.
19. It is also proposed that the 30mph speed limit would be moved to south of this access which is welcome. A contribution for the traffic order would need to be included in a s106 agreement.
20. In addition, there would be a 2<sup>nd</sup> pedestrian and cycle access onto Tape Lane a short distance to the north of the proposed bus link/emergency access. Highways questions the need for such a 2<sup>nd</sup> access.

### Traffic Data

21. It is welcome that ATC data was collected in November 2023 over a 7 day period at 4 locations collecting the total number of vehicles per hour in both directions.
22. Whilst average peak hour data has been presented in table 3.4 Highways would have expected to see the flows for each day Monday to Friday. This is required.

23. Highways would have expected the period of collection to have been over a 2-week period to ascertain whether or not there were any obvious trends. However, a 7-day period is acceptable.
24. The data for these sites has been provided and a summary of the average weekday has also been provided which is welcome. However, highways would have expected the survey data to include the AM and PM flows to ensure a quicker assessment.
25. That being said, highways have carried out an assessment of the AM and PM peak traffic for Lodge Road and the range for the AM peak hour (Monday to Friday) is between 209 and 263 per hour. In the southbound direction the range is between 159 and 192 vehicles per hour. This would amount to

#### Development Traffic Impact

26. It is welcome that the Borough's approved trip rates have been used in this assessment.
27. This resulted in 57 and 51 two-way movements in the AM and PM peak hours respectively.
28. Due to no information on the distribution of traffic, highways have assumed a 50:50 split for traffic access and egressing the site. For the AM peak this would amount to 20 and 8 vehicles exiting and accessing the development in both directions. This would not have an adverse impact on the local and wider highway network.

#### Strategic Transport Modelling

29. As this proposed development is over the threshold for strategic modelling, highways would have expected that the Borough's strategic modelling would have been used to ascertain the impact of such a development. This was not carried out.
30. That being said, for the previous application for 200 homes that was dismissed at appeal, strategic modelling was used to assess the impact of that development, and it was agreed that there would be no significant impact on the rest of the highway network.
31. As this proposed development is less than half that which was previously proposed, highways is content that the impact would be far less and that there would be no need for strategic modelling to have taken place.
32. The distribution of the development traffic has been assumed from the strategic model which is welcome.

#### Local Junction Modelling

33. Local junction modelling was carried out for the following junctions, namely
  - Lodge Road/Broadwater Lane
  - Lodge Road/Sawpit Road Junction
  - Site Access/Lodge Road
34. Highways is content with the selection of junctions for modelling.
35. For the Sawpit Road junction, surveyed flows from that planning application have been included which is welcome. However, no base year junction models for this junction nor a plan showing the geometries have been

submitted and are required before a review of this junction model can be assessed.

36. For the Lodge Road/Broadwater Lane junction highways would need to see the base year model, actual turning flows at this junction and a plan showing the geometries of this junction.
37. To assist in the assessment of all the junctions, highways would need to see turning flow diagrams for each junction and for each scenario.

### Site Roads

38. It is welcome that the site roads would be designed and built to adoptable standards and be in line with highways design guidance which is welcome.
39. No information has been provided on whether the site roads would be offered for adoption or would remain private.
40. If the site roads are to be adopted, these would need to be delivered through s38 agreement with the Borough. The Borough would also require agreement on inspection fees and commuted sums. The adoption plans, fees and commuted sums would need to be included in the s106 agreement.
41. If the site roads are to remain private, this would also need to be included in the s106 agreement, including details of the management company set up to look after the maintenance of the roads, the Borough's inspection fee and the APC Bond.
42. It is proposed that there would be footways within the site, these would need to be at least 2m in width with dropped kerbs and tactile paving at crossings. The service margins would need to be within pavements and there would need to be limited crossing of the roads with utilities.

### Sustainability assessment

43. A sustainability assessment has been undertaken to local services and bus stops which is welcome.
44. The assessment has looked at the walk distances to local services. Clarification is required on whether or not these are actual walk distances from the centre point of the site.
45. It is true such local services such as the primary school, bus stops and the local shop are within an acceptable walk distance. However, no assessment has been made whether or not future residents would use the bus or would use the shop for more than top up shopping.
46. There is a need for more day-to-day activities such as work, secondary schools and weekly shopping that would imply longer journeys more likely made by car.
47. The bus service (128/129) runs between Wokingham, Twyford and Reading calling at the bus stops in School Road. This service runs approximately every 65 mins in both directions Monday to Friday and every 2 hours on a Saturday. There are no late evenings or Sunday services. The application has submitted a bus improvement strategy which has been reviewed and the comments are set out below.
48. In table 6.6, The TA sets out arrival and finishing times for school. Whilst this TA was completed prior to the amendments to the arrival times at the bus stops, this table would need to be updated.

49. According to this table, Holt School finishes at 15:30 and there would be a 400 m walk (5 mins) to the bus stop. Unfortunately based on the revised timetable the bus is programmed to leave this stop at 15:30 and according to the timetable this is the last one at this stop. The next bus is at 16:04 at Sadlers Lane around 2km away which is an unacceptable walk.
50. Based on the location of the site and the lack of local day to day services and even with the proposed improvements, highways is still of the opinion that this is an unsustainable site.
51. That being said, highways have set out comments on the cycle and bus improvements which need to be responded too and reviewed.

### Visibility Splays

52. Visibility splays for the proposed new access have been submitted and these are in line with the 85<sup>th</sup> percentile speed of Lodge Road which is welcome.
53. Any landscaping within the splays would need to be maintained so that it is less than 0.6m high.
54. It is proposed that the 30mph speed limit would be extend beyond the proposed access which would reduce to splays to 43m which is also welcome.
55. Pedestrian and cycling visibility splays need to be provided for the proposed access onto Tape Lane.

### Swept Paths

56. Swept paths of a refuse vehicle, single decker bus and fire tender have been submitted.
57. Highways would need to see the swept paths for the bus and the fire tender accessing and egressing the main access.
58. Please note that the dimensions of the fire tender are not those approved by the Borough, the following dimensions would need to be used.



|                             |        |
|-----------------------------|--------|
| DB32 Fire Appliance         |        |
| Overall Length              | 8.680m |
| Overall Width               | 2.180m |
| Overall Body Height         | 3.452m |
| Min Body Ground Clearance   | 0.337m |
| Max Track Width             | 2.121m |
| Lock to Lock Time           | 6.00s  |
| Kerb to Kerb Turning Radius | 7.910m |

59. Even though this is an outline application, highways would need to see swept paths of the above vehicles travelling through the development.

## Cycling and Pedestrian

60. A Cycle Improvement Strategy Report (ITB19328-003 TN) has been submitted showing suggested improvements to the route between the site and Twyford which is welcome.
61. The suggested improvements have been based on the Borough's LCWIP proposals which is welcome.
62. Highways questions the flows that have been contained in Table 3.2 as these do not seem to match with the survey data. Highways would need to see the highest peak hour flows rather than the average.
63. In Section B 3rd bullet point states that there will be a new 3m wide shared footway/cycleway, this has not been shown on any drawing.
64. In drawing ITB19328-GA-104 shows a proposal to reduce the speed limit to 20mph on Broadwater Lane to improve the environment for pedestrians and cyclists. Highways would seek clarification on why the junction with Tape Lane has not been included.
65. In drawing ITB19328-GA-113 it is proposed to remove the centre line. As this is a bus route, highways would not support this proposal.
66. On Lodge Road across from the Elephant and Castle pub, the pavement ends with a dropped kerb, as there is no pavement on the opposite side there is no proposal for tactile paving. Highways would have expected that there would be a proposal to extend the footway so that a crossing point could be implemented allowing pedestrians to cross over to the opposite pavement.
67. There is a proposal for a bus shelter by Byron Road. Highways is concerned that this could have an impact on visibility splays at this junction and request that visibility splays are assessed and submitted.
68. On the same drawing it proposes a relocation of the lamp column but to where?
69. It also states on this drawing that southbound cyclists rejoin carriageway and south bound advisory cycle lanes, but how are they to do this?
70. It is proposed to relocate the bus stop and layby at the station. Highways would need to see swept paths of a bus accessing and egressing this proposed layby.
71. Where it is proposed that the bus layby is removed, then this would need to be reinstated as pavement and kerb.
72. All design of proposed bus stops would need to be in line with the Borough's Bus Stop strategy.
73. Highways would have expected that the strategy extends into Twyford Town Centre
74. As part of the proposals, dropped kerbs and tactile paving have been proposed at numerous junctions on the route from the site to Twyford Station. Whilst these are welcome, they do lead to long crossing distances in particular at Whistley Green junction. These will need to be looked at and maybe moved to give a shorter crossing distance.
75. There is no mention in the strategy regarding costings.
76. It is proposed to extend the existing pavement on the east side of Lodge Road south to the proposed new access which is welcome.

## Safety Audit

- 77. A Road Safety Audit Stage 1 and designer's comments have been submitted which is welcome.
- 78. However, the audit does not cover the proposed accesses into the site and only covers the proposed pedestrian and cycling improvements from the site to Twyford.
- 79. That being said acceptable designer's comments have been provided to the issues raised which is welcome.

## Proposed bus Improvements

- 80. A Public Transport Strategy Report has been submitted. This has been reviewed by the Borough's Bus officer who has the following comments.
- 81. The 128/9 timetables have recently been tweaked and this would need to be shown. Table 2.3 would need to show journey time to school so it can be seen how well it aligns with school times.
- 82. In terms of options – WBC appreciate that the developer has spoken with Thames Valley Buses for costing and passenger take-up. The revenue projections are slightly high given the number of concessionary trips and average fares for the fare zone being considered.
- 83. The route proposed in Option 1 is a diversion which means taking other passengers back through the site, so not very direct or convenient. If paired with Option 4 WBC would question the need for Option 1. That being said, how much time does the diversion add to the journey time and what does this do to the reliability and resourcing of the route overall? Also, it would be good to understand how many passengers are being displaced at the Elephant and Castle stops.
- 84. Option 2 of a S106 contribution – This does little to improving the journey times, frequencies, or integration of the service. It is also a short-term funding option.
- 85. Option 3 – Clarification is required on why this option focuses on Piggott School in both options 3 and 4. The site has 6 designated secondary schools. The 128/9 already provides access to Forest, Emmbrook and Holt at school times, why is access to another needed? Is it intended that the route would serve Piggott school other than at school time and what does the bus do at other times if not? A school is not usually a destination for a public bus route unless it is a school time only route or a minor extension to a more substantial route. It looks like half the mileage is to serve Piggott School. Further information is required on the timetabling and rationale of Option 3.
- 86. Option 4 – it is not clear what is meant by "a private bus service", this needs to be clarified. The developer needs to confirm the operational model of this option, is it fixed route or DRT. What type of licence will it operate on? If DRT how does the £174k break down, does it cover all operational costs such as software for example. If this option is fixed route, can a timetable be provided. Comments in Option 3 about Piggott school being the focus would apply here also.
- 87. Generally, it would be questioned why the service charge couldn't be used as a funding mechanism for frequency enhancements to the 128/9, possible over a short section. Is there a way of connecting with Twyford for example

so that more passengers can access Twyford station and help support the longer-term viability of the service?

### Framework Travel Plan

88. A framework travel plan has been submitted which is welcome.
89. There is no mention of MyJourney within this document. This is required.
90. The earlier sections appear to be superfluous to the Travel Plan as these are in the TA.
91. Table 3.1 will need to match up with the latest timetable. The last bus from Wokingham is not 14:59.
92. Any comments on the sustainable proposals and bus improvement strategy will be in the appropriate sections on the TA and should not be included in the travel plan.
93. It is welcome that an electric car club space will be provided. This will need to be situated in a location that would be accessible to not only residents in this proposed location but those elsewhere in the village.
94. There is no mention on whether or not this would be paid for by the developer including the appropriate TMO.
95. It is proposed that a sustainable travel voucher scheme would be provided this is welcome.
96. An interim target has been proposed which is welcome. This will be amended once the first annual survey has been carried out.
97. Highways queries the figures in table 6.2 as these seem too high for a 99-house development.
98. It is welcome that a travel plan co-ordinator will be appointed during the sales and marketing process which is welcome.
99. Sufficient resources would need to be available for the travel plan co-ordinator to carry out its duties and deliver the travel plan targets.
100. In table 7.1 the infrastructure measures are not part of a travel plan.
101. Within the Framework for Implementation (Table 8.1) there is no mention of the interim travel plan submission.
102. After 5 years and only once the targets have been met can the travel plan be passed over.
103. There would need to be included further actions that would be required to achieve targets after 5 years.

### Framework Construction Method Statement

104. Due to the size and location of this proposed development, highways would have expected a Framework Construction Management Plan to have been submitted. This is required.

#### **Conditions & Reasons (if required)**

|              |                           |                |             |
|--------------|---------------------------|----------------|-------------|
| <b>Date:</b> | 12 <sup>th</sup> Sep 2024 | <b>Signed:</b> | Gordon Adam |
|--------------|---------------------------|----------------|-------------|

## **APPENDIX B. WBC PARKING CALCULATOR**



## PARKING DEMAND CALCULATION SHEET

Search your development location area by postcode

RG100DP

enter postcode with no spaces (e.g. RG40 1BN as RG401BN) and click on "find postcode"

Find Postcode

Select your development location from a map

Access Map

click "access map" and click on where your development is located

Development location

Village

Reset Sheet

|                            |     |
|----------------------------|-----|
| Total number of properties | 99  |
| Total allocated spaces     | 162 |
| Total unallocated spaces   | 40  |

### Development composition

| Property type                              | Tenure                                              | no. habitable rooms                  | no. allocated spaces per property, excluding garages | Total number of properties | Total number of garages for property type | unallocated spaces (including visitor parking and 50% for garages) | allocated spaces (including 50% garages) |
|--------------------------------------------|-----------------------------------------------------|--------------------------------------|------------------------------------------------------|----------------------------|-------------------------------------------|--------------------------------------------------------------------|------------------------------------------|
| House or flat (choose from drop down list) | Owned or rented/shared (choose from drop down list) | 1 to 4+ (choose from drop down list) | 0-2                                                  |                            |                                           |                                                                    |                                          |
| Choose from drop down lists                |                                                     |                                      |                                                      | Enter below                |                                           |                                                                    |                                          |
| House                                      | owned                                               | 6                                    | 2                                                    | 21                         |                                           | 8.4                                                                | 42.0                                     |
| House                                      | owned                                               | 7                                    | 2                                                    | 8                          |                                           | 3.2                                                                | 16.0                                     |
| House                                      | owned                                               | 8                                    | 2                                                    | 7                          |                                           | 4.2                                                                | 14.0                                     |
| House                                      | shared/rental                                       | 4                                    | 1                                                    | 18                         |                                           | 9.0                                                                | 18.0                                     |
| House                                      | shared/rental                                       | 6                                    | 2                                                    | 16                         |                                           | 4.8                                                                | 32.0                                     |
| House                                      | shared/rental                                       | 7                                    | 2                                                    | 6                          |                                           | 2.4                                                                | 12.0                                     |
| Flat                                       | owned                                               | 2                                    | 1                                                    | 3                          |                                           | 0.6                                                                | 3.0                                      |
| Flat                                       | owned                                               | 3                                    | 1                                                    | 5                          |                                           | 1.5                                                                | 5.0                                      |
| Flat                                       | shared/rental                                       | 2                                    | 1                                                    | 9                          |                                           | 2.7                                                                | 9.0                                      |
| Flat                                       | shared/rental                                       | 3                                    | 1                                                    | 1                          |                                           | 0.4                                                                | 1.0                                      |
| House                                      | owned                                               | 6                                    | 2                                                    | 2                          |                                           | 0.8                                                                | 4.0                                      |
| House                                      | owned                                               | 8                                    | 2                                                    | 3                          |                                           | 1.8                                                                | 6.0                                      |
|                                            |                                                     |                                      |                                                      |                            |                                           |                                                                    |                                          |
|                                            |                                                     |                                      |                                                      |                            |                                           |                                                                    |                                          |
|                                            |                                                     |                                      |                                                      |                            |                                           |                                                                    |                                          |

## **APPENDIX C. ROAD SAFETY AUDIT REPORTS**

# Road Safety Audit Report

**Incorporating  
Stage 1 Completion of Preliminary Design;  
Design Organisation Response to items raised; and  
Auditors View of Design Organisation Response.**



## Proposed Development Access off and associated Highway Works along Lodge Road

Client:  
i-Transport

Client reference:  
ITB19328

Fenley  
2 Blaenant  
Emmer Green  
READING  
RG4 8PH

E: [office@fenley.co.uk](mailto:office@fenley.co.uk)  
[www.fenley.co.uk](http://www.fenley.co.uk)

Report Status      4

|                   |                                               |             |    |             |           |
|-------------------|-----------------------------------------------|-------------|----|-------------|-----------|
| Job no            | RSA-24-057                                    | Issue no    | 4  | Date        | July 2024 |
| Prepared by       | JJF                                           | Verified by | ZB | Approved by | JJF       |
| Filename and Path | Fenley/Road Safety Audits/RSA-24/RSA-24-057-4 |             |    |             |           |

1.0 PROJECT DETAILS

|                                  |                                    |
|----------------------------------|------------------------------------|
| Report Title:                    | Stage 1 Road Safety Audit          |
| Date:                            | July 2024                          |
| Document reference and revision: | RSA-24-057-4                       |
| Prepared by:                     | Fenley Road Safety Limited         |
| County Highway Authority:        | Wokingham Borough Council          |
| Design Organisation:             | i-Transport                        |
| Project Sponsor:                 | Mactaggart & Mickel Strategic Land |

| REV | ISSUE PURPOSE                                                                                                                                                              | AUTHOR                                  | CHECKED | APPROVED | DATE                       |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|---------|----------|----------------------------|
| 0   | Stage 1 Road Safety Audit drafted for Audit Team discussions                                                                                                               | JJF                                     |         |          | 28 <sup>th</sup> June 2024 |
| 1   | Stage 1 Road Safety Audit finalised and issued to the Design Organisation                                                                                                  | JJF                                     | ZB      | JJF      | 8 <sup>th</sup> July 2024  |
| 2   | Stage 1 Road Safety Audit Report format amended to incorporate a row for inclusion of a Design Organisation Response in order to maintain a concise record of items raised | JJF                                     |         |          | 8 <sup>th</sup> July 2024  |
| 3   | Design Organisation Response incorporated                                                                                                                                  | Ben Burrows<br>on behalf of i-Transport |         |          | 17 <sup>th</sup> July 2024 |
| 4   | Auditor's View of Design Organisation Response                                                                                                                             | JJF                                     |         |          | 19 <sup>th</sup> July 2024 |

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Appendices:

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| Stage 1 | A1 | Documents and Drawings provided for this Road Safety Audit              |
|         | A2 | Item Location Plan                                                      |
|         | A3 | Documents and Drawings associated with the Design Organisation Response |

## 2.0 INTRODUCTION

- 2.1 This report has been prepared by Fenley Road Safety Limited and results from a Stage 1 Road Safety Audit of the proposed development accesses and associated highway works along Lodge Road and Tape Lane, in Hurst. The proposals include the provision of a simple priority junction that is formed with 8 metre corner radii as well as the widening of the Lodge Road carriageway to the east, to provide a right turn lane. The works proposed along Tape Lane include the provision of an emergency / bus link and two pedestrian links as well as a short section of footway to the south. The proposals are to be undertaken as part of a proposed development of 99 homes.
- 2.2 The Audit Brief identifies that the proposals do not include any Departures from Standard, whether related to strategic decisions or otherwise.
- 2.3 This Road Safety Audit was undertaken during June and July 2024 in accordance with the Road Safety Audit Brief provided on the 18<sup>th</sup> June 2024 by the Design Organisation, i-Transport, on behalf of the Project Sponsor, Mactaggart & Mickel Strategic Land. The Road Safety Audit comprised of a site visit as well as an examination of the documents provided, detailed at **Appendix A1**. The Audit Team were satisfied that the Audit Brief was sufficient for the purpose of the Audit instructed. It has been confirmed that street lighting will be provided and that items such as surface water drainage, existing and proposed signage and utilities to include covers and telegraph poles, are to be assessed during the detail design stage of the scheme.
- 2.4 The Road Safety Audit has been undertaken by an Audit Team whose qualifications and experience accord with the requirements of GG119. The Audit Team consists of the following members:

### **Audit Team Leader**

**Jamie Fenning** *BSc(Hons), MIHE, MCIHT, MSoRSA, National Highway RSA Certificate of Competency*  
Road Safety / Highway Engineer

### **Audit Team Member**

**Zane Beswick** *MCIHT, MSoRSA*  
Road Safety / Highway Engineer

- 2.5 The site visit associated with this Audit was undertaken during the early afternoon of 24<sup>th</sup> June between the hours of 15:00 and 15:45. The site visit involved walking and driving around the local highway network for a 45-minute period whilst observing local infrastructure and current traffic conditions. The weather during the site visit was cloudy with clear patches, the road surface was dry and visibility was good. A number of pedestrians and cyclists were observed during the site visit to include pedestrians travelling along Tape Lane and the

footway of Lodge Lane. Vehicular traffic was also observed to include motorcycles, cars, public service vehicles, light and medium goods vehicles. The traffic flow was light.

- 2.6 The terms of reference of this Road Safety Audit are as described in GG119. The scheme has been examined and this report compiled, only with regard to the safety implications for road users of the scheme as presented. It has not been examined or verified for compliance with any other standards or criteria. However, in order to clearly explain a safety problem or the recommendation to resolve a problem, the Audit Team may on occasion have referred to a design standard for information only. All comments and recommendations are referenced to the design drawings supplied with the Audit Brief and the location of road safety concerns raised have been illustrated beneath the items along with relevant photographs for clarity, where appropriate, as well as on the Location Plan attached at **Appendix A2**.

#### ***Design Organisation Response***

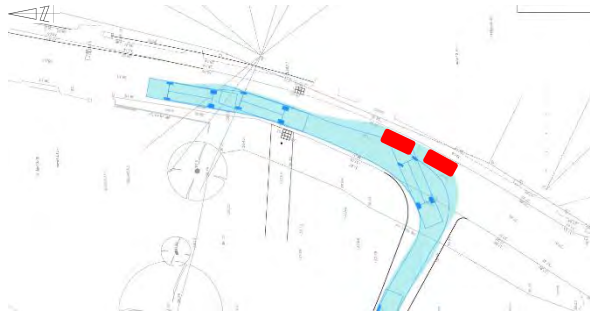
- 2.7 In accordance with national standards, this Road Safety Audit was finalised and issued to the Design Organisation as per the Road Safety Audit Report Template within Appendix D of GG119, which can be provided upon request from either the Audit Team or Design Organisation. The format of the Audit Report was subsequently revised to incorporate these paragraphs under the sub-heading as well as sufficient space beneath the items and recommendation, within Section 4, for the inclusion of a Design Organisation Response. This is generally contained within a separate Design Organisation Response Report but is included within this document in order to maintain a single record of all problems, recommendations and responses for the benefit of a concise Road Safety Audit trail to be held on file for Quality Assurance purposes.
- 2.8 The Design Organisation Response has been prepared by:  
Name: Ben Burrows  
Position / Organisation: Associate, i-Transport
- 2.9 Any drawings or documents associated with the Design Organisation Response are listed at **Appendix A3**, if applicable.
- 2.10 Upon the request of the Design Organisation and following receipt of the Design Organisation Response with any associated drawings, the Road Safety Audit Team Leader has provided a further comment on the item raised. The "Auditor's View on the Design Organisation Response" is included within a row beneath each item, for clarity.

### 3.0 ITEMS RAISED IN ANY PREVIOUS ROAD SAFETY AUDITS

- 3.1 Fenley Road Safety Limited have been made aware that the scheme has been subject to a previous Stage 1 Road Safety Audit by others, in November 2022. That document raised one road safety concern associated with vegetation limiting visibility at the proposed access works onto Lodge Lane, another associated with pedestrians crossing the proposed access, one associated with the proposed links onto Tape Lane and one associated with parked cars in proximity of the proposed uncontrolled crossings on School Road. This document reassesses the scheme in its entirety and raises any road safety concerns that should be addressed at this stage.

### 4.0 ITEMS RAISED AT THIS STAGE 1 ROAD SAFETY AUDIT

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| A.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | LOCAL ALIGNMENT                                                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <i>No Road Safety Concerns regarding LOCAL ALIGNMENT have been raised at this stage</i> |
| A.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | GENERAL                                                                                 |
| <b>A.2.1</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>PROBLEM</b>                                                                          |
| <b>Location:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Tape Lane                                                                               |
| <b>Summary:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Parked cars will prevent vehicles from utilising the emergency / bus link               |
| <b>Acc Type:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Sideswipe type collisions                                                               |
| <p>The northern section of Tape Lane is a two-way single carriageway road that benefits from a footway to the east. The proposals include the provision of a priority access off the western side of Tape Lane that is to serve as an emergency / bus link for a development of circa 99 homes. The scheme drawings illustrate the swept path of various vehicles utilising the proposed link to include a pumping appliance and a 12 metre coach. The proposed link is narrow and inadequate for two-way traffic which raises no road safety concerns as it is understood that one-way bus services will be observed exiting only, however, an egressing coach is required to encroach the entire carriageway. Visibility splays of 2.4x43 metres are achievable from the proposed link and therefore the driver of the passenger service vehicle should not commence a manoeuvre until it is safe to do so, however, the Audit Team have concerns that on-street parking is permitted along Tape Lane and that a vehicle parked in proximity of the proposed link, will restrict a coach from exiting the link which could lead to a sideswipe type collision as one attempts to exit.</p> |                                                                                         |
| <b>RECOMMENDATION:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                         |
| <p>It is recommended that measures are provided to prevent on-street parking taking place in the vicinity of the emergency / bus link.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                         |

**Location Plan:**

**DESIGN ORGANISATION RESPONSE** provided by i-Transport on the 17<sup>th</sup> July 2024 following formal issue of this Stage 1 Road Safety Audit on the 8<sup>th</sup> July 2024

Acknowledged – On-street parking is temporary and no on-street parking was observed within the vicinity of the proposed emergency / bus access during site observations. Furthermore, Rule 243 of the Highway Code states that vehicles must not park opposite, or within 10 metres, of a junction or access. However, if necessary at the detailed design stage, parking restrictions in the form of signing and lining could be introduced to prevent on-street parking within the vicinity of the emergency / bus access.

**AUDITOR'S VIEW OF DESIGN ORGANISATION RESPONSE** dated 19<sup>th</sup> July 2024

*Confirmation that parking restrictions could be introduced, addresses the road safety concern raised at this stage.*

**A.3**      **JUNCTIONS**

*No Road Safety Concerns regarding JUNCTIONS have been raised at this stage*

**A.4**      **WALKING, CYCLING AND HORSE RIDING**

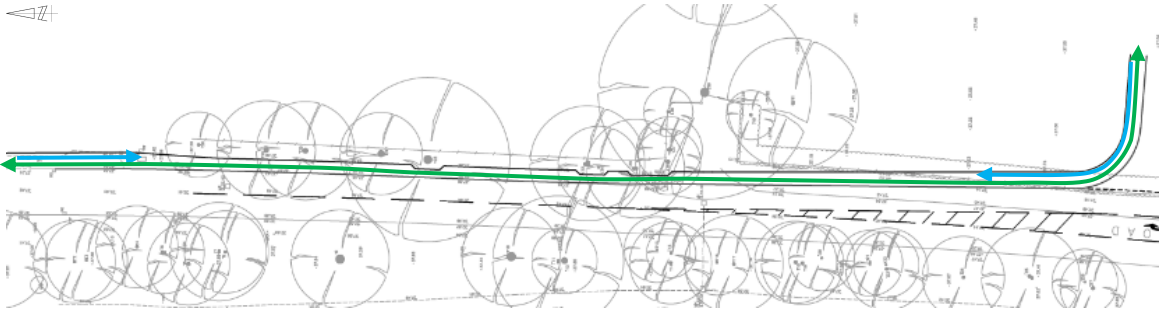
**A.4.1**      **PROBLEM**

**Location:** Lodge Road

**Summary:** Pedestrians and wheelchair users may not be able to pass one another

**Acc Type:** Pedestrian trip slip fall and personal injury

Along the frontage of the application site, Lodge Road accommodates a verge both sides of the carriageway that accommodates a number of mature trees but benefits from a footway along at least one side of the carriageway within the built-up area of Hurst, that commences circa 160 metres to the north. The proposals include the provision of a priority access off the eastern side of Lodge Road and a footway along the eastern side to connect with the existing network to the north. The proposed 2.0 metre footway is to taper to 1.5 metres on approach to a number of trees where the footway will be locally reduced to 1.0 metres over short sections and be provided in a 'no dig' construction to ensure that the proposal does not impact on tree roots. The Audit Team understand that a 1.0 metre footway will accommodate all users in single file and that a 1.5 metre footway will allow two users to pass one another. Although understood to be a rare occurrence, the Audit Team have concerns that the proposed 1.5 metre footway is not adequate for a potential

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| <p>wheelchair user to pass another user. A wheelchair user attempting to pass a pedestrian could inadvertently fall into the proposed footway leading to personal injuries or a vehicle to pedestrian type collision.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                          |
| <p><b>RECOMMENDATION:</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                          |
| <p>It is recommended that the width of the footway either side of the 1.0 localised narrowings, is increased to allow all potential users to pass one another.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                          |
| <p><b>Location Plan:</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                          |
| <p><b>DESIGN ORGANISATION RESPONSE</b> provided by i-Transport on the 17<sup>th</sup> July 2024 following formal issue of this Stage 1 Road Safety Audit on the 8<sup>th</sup> July 2024</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                          |
| <p>Acknowledged – The footway has been designed carefully with expert Arboricultural advice to ensure the retention of a number of trees on the eastern side of Lodge Road. A 1.5m width has been provided either side of the 1.0m narrowings and is adequate for two pedestrians to walk side by side or to pass one another.</p> <p>The proposed footway along Lodge Road will not form the principal pedestrian desire line from the site, with additional pedestrian points of access provided onto Tape Lane to the northeast and southeast respectively. All users (including those who are mobility impaired) will therefore have multiple options to safely access the site.</p> <p>On the rare occasion that a wheelchair user may utilise the footway on Lodge Road, the design ensures that intervisibility between users is good and provides adequate opportunities for a user to wait at the 2.0m wide sections of the footway to allow a wheelchair user to pass (and vice versa).</p> |                                                                                                                          |
| <p><b>AUDITOR'S VIEW OF DESIGN ORGANISATION RESPONSE</b> dated 19<sup>th</sup> July 2024</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                          |
| <p><i>The Audit Team understand that the footway has been designed following Arboricultural advice and visibility is of a good level to allow a pedestrian to wait at an appropriate location should a wheelchair / perambulator be observed.</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                          |
| A.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | TRAFFIC SIGNS, CARRIAGEWAY MARKINGS AND LIGHTING                                                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <i>No Road Safety Concerns regarding TRAFFIC SIGNS, CARRIAGEWAY MARKINGS AND LIGHTING have been raised at this stage</i> |

## 5.0 STAGE 1 ROAD SAFETY AUDIT TEAM STATEMENT

5.1 We certify that this Road Safety Audit has been carried out in accordance with GG119.

### Audit Team Leader

Name: **Jamie Fenning** *BSc (Hons), MIHE, MCIHT, MSoRSA, HE RSA Certificate of Competency*

Signed:



Position: Road Safety / Highway Engineer

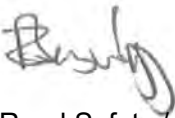
Organisation: Fenley Road Safety Limited

Date: 19<sup>th</sup> July 2024

### Audit Team Member

Name: **Zane Beswick** *MCIHT, MSoRSA*

Signed:



Position: Road Safety / Highway Engineer

Organisation: Fenley Road Safety Limited

Date: 8<sup>th</sup> July 2024

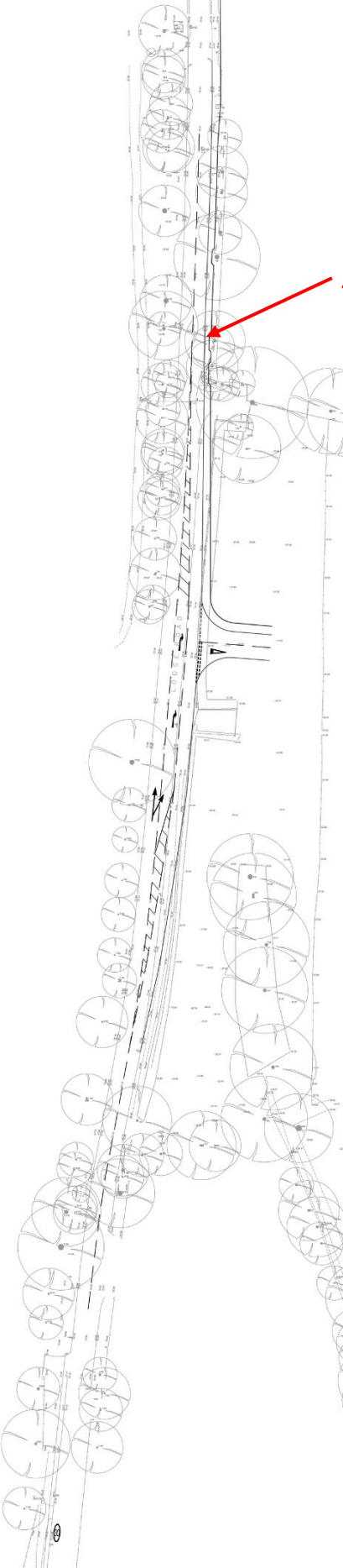
## Appendix A1

### Documents and Drawings provided for this Stage 1 Road Safety Audit

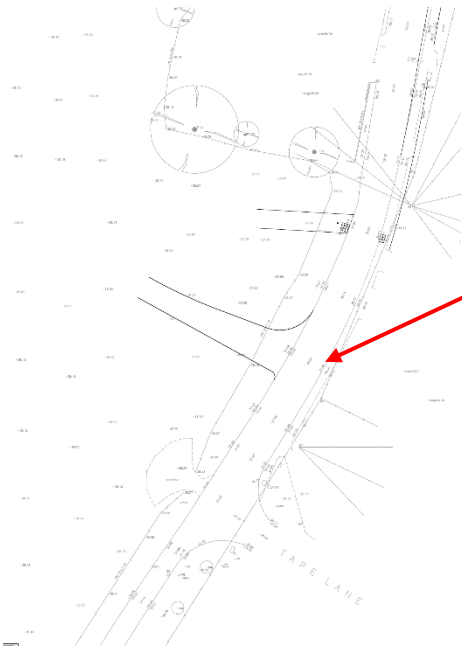
| <u>Audit Stage</u> | <u>Doc. No.</u> | <u>Rev</u> | <u>Title</u>                                                                      |
|--------------------|-----------------|------------|-----------------------------------------------------------------------------------|
| Stage 1            | ITB19328-007    | -          | Stage 1 Road Safety Audit Brief                                                   |
|                    |                 |            |                                                                                   |
|                    | <u>Dwg No.</u>  | <u>Rev</u> | <u>Title</u>                                                                      |
|                    | ITB19328-GA-001 | C          | Potential Site Access Arrangement                                                 |
|                    | ITB19328-GA-005 | -          | Swept Path Analysis – Refuse Vehicle                                              |
|                    | ITB19328-GA-003 | A          | Potential Emergency / Bus Access Arrangement                                      |
|                    | ITB19328-GA-006 | -          | Potential Emergency / Bus Access Arrangement<br>Swept Path Analysis – Fire Tender |
|                    | ITB19328-GA-131 | -          | Potential Offsite Pedestrian / Cycle Improvement Scheme                           |

## **Appendix A2**

### **Item Location Plan**



A.4.1



A.2.1

## Appendix A3

### Drawings associated with the Design Organisation Response

| <u>Audit Stage</u> | <u>Drawing No.</u> | <u>Rev</u> | <u>Title</u> |
|--------------------|--------------------|------------|--------------|
| Stage 1            |                    |            |              |

fenley

# Road Safety Audit Report

**Incorporating  
Stage 1 Completion of Preliminary Design;  
Design Organisation Response to items raised; and  
Auditors View of Design Organisation Response.**



## Proposed Highway Works to Improve Walking and Cycle Access to Twyford Station

Client:  
i-Transport

Client reference:  
ITB19238

Fenley  
2 Blaenant  
Emmer Green  
READING  
RG4 8PH

E: [office@fenley.co.uk](mailto:office@fenley.co.uk)  
[www.fenley.co.uk](http://www.fenley.co.uk)

Report Status      4

|                   |                                               |             |    |             |           |
|-------------------|-----------------------------------------------|-------------|----|-------------|-----------|
| Job no            | <b>RSA-24-074</b>                             | Issue no    | 4  | Date        | July 2024 |
| Prepared by       | JJF                                           | Verified by | ZB | Approved by | JJF       |
| Filename and Path | Fenley/Road Safety Audits/RSA-24/RSA-24-074-4 |             |    |             |           |

1.0 PROJECT DETAILS

|                                  |                                    |
|----------------------------------|------------------------------------|
| Report Title:                    | Stage 1 Road Safety Audit          |
| Date:                            | July 2024                          |
| Document reference and revision: | RSA-24-074-4                       |
| Prepared by:                     | Fenley Road Safety Limited         |
| County Highway Authority:        | Wokingham Borough Council          |
| Design Organisation:             | i-Transport                        |
| Project Sponsor:                 | Mactaggart & Mickel Strategic Land |

| REV | ISSUE PURPOSE                                                                                                                                                              | AUTHOR                                  | CHECKED | APPROVED | DATE                       |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|---------|----------|----------------------------|
| 0   | Stage 1 Road Safety Audit drafted for Audit Team discussions                                                                                                               | JJF                                     |         |          | 28 <sup>th</sup> June 2024 |
| 1   | Stage 1 Road Safety Audit finalised and issued to the Design Organisation                                                                                                  | JJF                                     | ZB      | JJF      | 8 <sup>th</sup> July 2024  |
| 2   | Stage 1 Road Safety Audit Report format amended to incorporate a row for inclusion of a Design Organisation Response in order to maintain a concise record of items raised | JJF                                     |         |          | 8 <sup>th</sup> July 2024  |
| 3   | Design Organisation Response incorporated                                                                                                                                  | Ben Burrows<br>on behalf of i-Transport |         |          | 17 <sup>th</sup> July 2024 |
| 4   | Auditor's View of Design Organisation Response                                                                                                                             | JJF                                     |         |          | 19 <sup>th</sup> July 2024 |

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|     | A.3 Junctions                                        |    |
|     | A.4 Walking, Cycling and Horse Riding                |    |
|     | A.5 Traffic Signs, Carriageway Markings and Lighting |    |
| 5.0 | Audit Team Statement                                 | 12 |

Appendices:

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| Stage 1 | A1 | Documents and Drawings provided for this Road Safety Audit              |
|         | A2 | Item Location Plan                                                      |
|         | A3 | Documents and Drawings associated with the Design Organisation Response |

## 2.0 INTRODUCTION

- 2.1 This report has been prepared by Fenley Road Safety Limited and results from a Stage 1 Road Safety Audit of the proposed highway works along Lodge Road, Broadwater Road and Hust Road between Hurst and Twyford. The proposals include the provision of advisory cycle lanes with the removal of the road centreline and coloured surfacing across junctions, the provision of footway widening to form shared footway cycleway with priority crossings of side roads, uncontrolled crossing points and reduced corner radii at some side roads. The proposals are to be undertaken as part of a proposed development of 99 homes in order to improve connectivity between Hurst and Twyford Train Station.
- 2.2 The Audit Brief identifies that the proposals do not include any Departures from Standard, whether related to strategic decisions or otherwise.
- 2.3 This Road Safety Audit was undertaken during June and July 2024 in accordance with the Road Safety Audit Brief provided on the 18<sup>th</sup> June 2024 by the Design Organisation, i-Transport, on behalf of the Project Sponsor, Mactaggart & Mickel Strategic Land. The Road Safety Audit comprised of a site visit as well as an examination of the documents provided, detailed at **Appendix A1**. The Audit Team were satisfied that the Audit Brief was sufficient for the purpose of the Audit instructed. It has been confirmed that street lighting will be provided and that items such as surface water drainage, existing and proposed signage and utilities to include covers and telegraph poles, are to be assessed during the detail design stage of the scheme.
- 2.4 The Road Safety Audit has been undertaken by an Audit Team whose qualifications and experience accord with the requirements of GG119. The Audit Team consists of the following members:

### **Audit Team Leader**

**Jamie Fenning** *BSc(Hons), MIHE, MCIHT, MSoRSA, National Highway RSA Certificate of Competency*  
Road Safety / Highway Engineer

### **Audit Team Member**

**Zane Beswick** *MCIHT, MSoRSA*  
Road Safety / Highway Engineer

- 2.5 The site visit associated with this Audit were undertaken during the early afternoon of 24<sup>th</sup> June between the hours of 15:45 and 16:45 as well as 18:00 and 19:00. The site visits involved walking and driving around the local highway network for a 120-minute period whilst observing local infrastructure and current traffic conditions. The weather during the site visits was cloudy with clear patches, the road surface was dry and visibility was good. A number of pedestrians and cyclists were observed during the site visits to include travelling between

Twyford and Hurst. Vehicular traffic was also observed to include motorcycles, cars, public service vehicles, light and medium goods vehicles. The traffic flow was light to moderate.

- 2.6 The terms of reference of this Road Safety Audit are as described in GG119. The scheme has been examined and this report compiled, only with regard to the safety implications for road users of the scheme as presented. It has not been examined or verified for compliance with any other standards or criteria. However, in order to clearly explain a safety problem or the recommendation to resolve a problem, the Audit Team may on occasion have referred to a design standard for information only. All comments and recommendations are referenced to the design drawings supplied with the Audit Brief and the location of road safety concerns raised have been illustrated beneath the items along with relevant photographs for clarity, where appropriate, as well as on the Location Plan attached at **Appendix A2**.

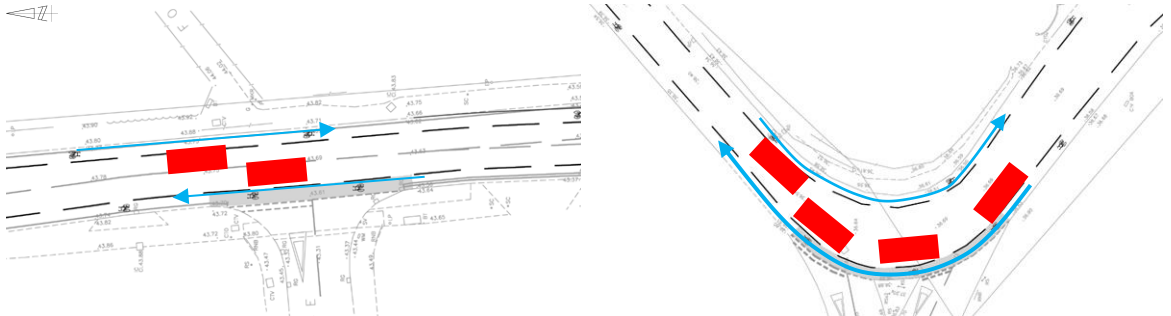
#### ***Design Organisation Response***

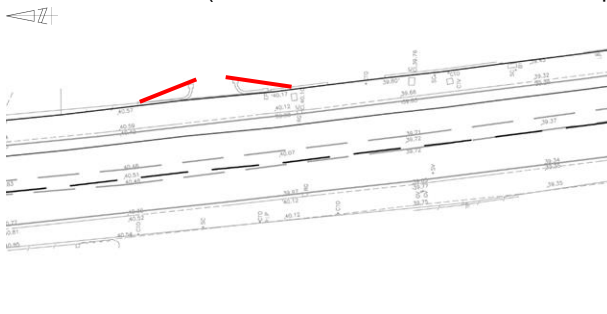
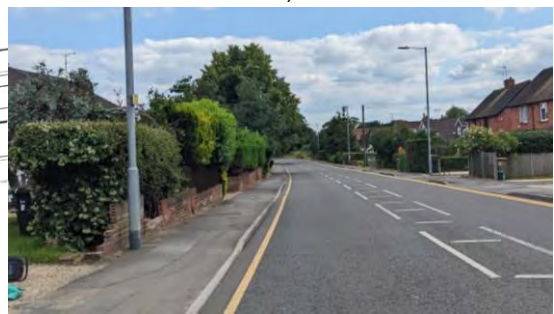
- 2.7 In accordance with national standards, this Road Safety Audit was finalised and issued to the Design Organisation as per the Road Safety Audit Report Template within Appendix D of GG119, which can be provided upon request from either the Audit Team or Design Organisation. The format of the Audit Report was subsequently revised to incorporate these paragraphs under the sub-heading as well as sufficient space beneath the items and recommendation, within Section 4, for the inclusion of a Design Organisation Response. This is generally contained within a separate Design Organisation Response Report but is included within this document in order to maintain a single record of all problems, recommendations and responses for the benefit of a concise Road Safety Audit trail to be held on file for Quality Assurance purposes.
- 2.8 The Design Organisation Response has been prepared by:  
Name: Ben Burrows  
Position / Organisation: Associate, i-Transport
- 2.9 Any drawings or documents associated with the Design Organisation Response are listed at **Appendix A3**, if applicable.
- 2.10 Upon the request of the Design Organisation and following receipt of the Design Organisation Response with any associated drawings, the Road Safety Audit Team Leader has provided a further comment on the item raised. The "Auditor's View on the Design Organisation Response" is included within a row beneath each item, for clarity.

### **3.0 ITEMS RAISED IN ANY PREVIOUS ROAD SAFETY AUDITS**

- 3.1 Fenley Road Safety Limited have not been made aware of any previous road safety audits associated with the current proposals.

#### 4.0 ITEMS RAISED AT THIS STAGE 1 ROAD SAFETY AUDIT

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| A.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | LOCAL ALIGNMENT                                                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <i>No Road Safety Concerns regarding LOCAL ALIGNMENT have been raised at this stage</i> |
| A.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | GENERAL                                                                                 |
| A.2.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>PROBLEM</b>                                                                          |
| <b>Location:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Scheme                                                                                  |
| <b>Summary:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Insufficient space is available for opposing traffic                                    |
| <b>Acc Type:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Vehicle to cyclist and Sideswipe type collisions                                        |
| <p>Lodge Road, Broadwater Road and Hurst Road are single carriageway two-way roads that accommodate lane widths of between 2.85 metres and 3.5 metres with an area of central hatching present along Broadwater Road where the carriageway width exceeds 6 metres. The proposals include the provision of 1.2 metre advisory cycle lanes both sides of the carriageway and the removal of the road centreline along parts of Lodge Road as well as both Broadwater Road and Hurst Road. Advisory cycle lanes are formed with a broken warning line that advises road users that they must not cross unless it is unavoidable. It is therefore general practice that traffic does not encroach the advisory cycle lanes. The provision of the proposed advisory cycle lanes will reduce the width available for two-way vehicular traffic to circa 3.3 metres. Data provided within the documents associated with the Audit Brief, identify that Lodge Road, Broadwater Road and Hurst Lane observe annual average weekday traffic flows of 4,249, 7,912 and 6,352 respectively. Whilst the proposed advisory cycle lanes allow for two-way traffic as vehicles are permitted to encroach the cycle lanes if it is unavoidable, the Audit Team have concerns that the removal of the road centreline along a two-way traffic lane that is below 4.0 metres in width and observes traffic flows exceed 4000 vehicles per day, could introduce conflict and lead to vehicles to cyclist or sideswipe type collisions. This is of particular concern in proximity to bends in the carriageway where intervisibility between opposing vehicles, is limited.</p> |                                                                                         |
| <b>RECOMMENDATION:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                         |
| It is recommended that the road centrelines are retained.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                         |
| <b>Location Plan:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                         |

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| <b>DESIGN ORGANISATION RESPONSE</b> provided by i-Transport on the 17 <sup>th</sup> July 2024 following formal issue of this Stage 1 Road Safety Audit on the 9 <sup>th</sup> July 2024                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                            |
| Accepted – the design has been amended to reinstate the centreline road markings where necessary.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                            |
| <b>AUDITOR'S VIEW OF DESIGN ORGANISATION RESPONSE</b> dated 19 <sup>th</sup> July 2024                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                            |
| Confirmation that the road centreline is to be retained, addresses the road safety concern raised at this stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                            |
| <b>A.2.2</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>PROBLEM</b>                                                                                             |
| <b>Location:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Hurst Road                                                                                                 |
| <b>Summary:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Insufficient intervisibility is achievable at the driveways for the provision of a shared footway cycleway |
| <b>Acc Type:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Vehicle to cyclist type collisions                                                                         |
| <p>Hurst Road accommodates a footway and allows direct access to the driveways off both sides of the carriageway in places upon entry to the village of Twyford. The proposals include the upgrade of the footway to the east of Hurst Road as it enters Twyford before terminating just to the south of Wellington Close where hazard warning tactile paving is provided and the cycle route transitions to on-carriageway advisory cycle lanes. It is noted that some of the driveways off the eastern side of the carriageway do not benefit from a good level of pedestrian visibility due to boundary treatments. It is understood that the limited intervisibility at the driveways has not been a road safety concern, however, the Audit Team have concerns that the upgrade of the footway to a shared footway cycleway will result in cyclists approaching the driveways at speeds in excess of that observed by pedestrians which could lead to a vehicle egressing a driveway into the path of an approaching cyclist resulting in a vehicle to cyclist type collision.</p> |                                                                                                            |
| <b>RECOMMENDATION:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                            |
| It is recommended that adequate intervisibility is achievable.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                            |
| <b>Location Plan:</b> (NB: not all locations where this item is present, are illustrated below)<br>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                            |
| <b>DESIGN ORGANISATION RESPONSE</b> provided by i-Transport on the 17 <sup>th</sup> July 2024 following formal issue of this Stage 1 Road Safety Audit on the 9 <sup>th</sup> July 2024                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                            |
| Accepted – to assist intervisibility the design has been amended to include an edge of footway marking a distance 250mm from the back edge of the shared footway/cycleway where driveways are present. This will ensure that cyclists will be a minimum of 250mm from existing driveways.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                            |

**AUDITOR'S VIEW OF DESIGN ORGANISATION RESPONSE dated 19<sup>th</sup> July 2024**

*The provision of line marking along the back edge of the footway cycleway will discourage cyclists from travelling close to the boundaries and should therefore maximise the achievable intervisibility between vehicles egressing driveways and cyclists.*

**A.2.3 PROBLEM**

**Location:** Hurst Road

**Summary:** Passenger service vehicles within bus stop may encroach the through carriageway

**Acc Type:** Vehicle sideswipe type collisions

Hurst Road follows a 90° bend in proximity to Twyford Train Station where a bus layby is present immediately adjacent to the southern entrance. The proposals include the relocation of the bus layby to the west of the southern entrance allowing a larger pedestrianised area. The relocation of the bus stop away from the entrance does not raise any road safety concerns, however, no swept path analysis has been provided with the Audit Brief to illustrate that a passenger service vehicle can access and stand within the layby without encroaching the adjacent carriageway. The Audit Team have concerns that a passenger service vehicle could partially encroach the Hurst Road carriageway around the bend in the road where the entire lane width is utilised by larger vehicles which could lead to sideswipe type collisions.

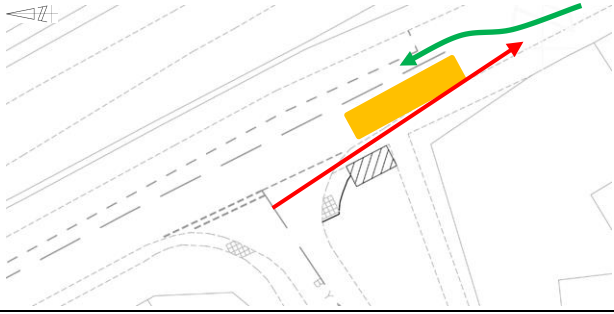
**RECOMMENDATION:**

It is recommended that the expected vehicles can stand within the proposed layby without encroaching the through carriageway.

**Location Plan:**

**DESIGN ORGANISATION RESPONSE provided by i-Transport on the 17<sup>th</sup> July 2024 following formal issue of this Stage 1 Road Safety Audit on the 9<sup>th</sup> July 2024**

Acknowledged – the existing bus stop adjacent to Twyford Railway Station comprises a 2.0m wide layby and therefore results in a bus partially encroaching into the Hurst Road carriageway. The existing 128/129 bus service operates hourly Monday-Saturday and therefore this occurs relatively infrequently throughout a typical weekday. Hurst Road adjacent to Twyford Railway Station also has an unblemished highway safety record over the most recently available 5-year period and therefore it is understood that this existing arrangement has not led to any impacts on the safe operation of Hurst Road.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| <p>The design proposals provide a significantly improved bus stop and bus layby arrangement that will improve access to public transport services for all users. As part of the proposals, the bus layby will be widened to c. 3.0m. Whilst it is accepted that a bus will continue to partially encroach into the carriageway when standing at the bus layby, this revised design represents a significant betterment to the existing situation.</p> <p>However, if deemed necessary, the layby proposals could be modified further at the detailed design stage.</p>                                                                                                                                                                                     |                                                                                   |
| <p><b>AUDITOR’S VIEW OF DESIGN ORGANISATION RESPONSE dated 19<sup>th</sup> July 2024</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                   |
| <p><i>It is understood that the proposals are a betterment over the bus layby as the relocation should ensure that all approaching northbound motorists have clear visibility of a stationary passenger service vehicle encroaching the carriageway ahead.</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                   |
| <b>A.2.4</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>PROBLEM</b>                                                                    |
| <b>Location:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Hurst Road                                                                        |
| <b>Summary:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Passenger service vehicles will block visibility for traffic egressing Byron Road |
| <b>Acc Type:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Vehicle side and rear impact type collisions                                      |
| <p>Hurst Road benefits from bus stops both sides of the carriageway to include one approximately 25 metres to the east of Byron Road. The proposals include the relocation of the bus stop to a location immediately west of Byron Road as well as the provision of a bus shelter. The Audit Team have concerns that a stationary passenger service vehicle at the relocated bus stop, will block visibility for motorists wishing to turn out of Byron Road where traffic could be overtaking the stationary vehicle. Limited visibility at a priority junction could result in a vehicle attempting to undertake a manoeuvre when it is not safe to do so, into the path of an approaching vehicle leading to a side or rear impact type collisions.</p> |                                                                                   |
| <p><b>RECOMMENDATION:</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                   |
| <p>It is recommended that the existing bus stop is retained.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |
| <p><b>Location Plan:</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                   |
| <p><b>DESIGN ORGANISATION RESPONSE provided by i-Transport on the 17<sup>th</sup> July 2024 following formal issue of this Stage 1 Road Safety Audit on the 9<sup>th</sup> July 2024</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                   |
| <p>Acknowledged – the revised bus stop location comprises a minor modification to the existing arrangement on Hurst Road, which is positioned c. 15m to the east of the existing Hurst Road /</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                   |

Byron Road priority junction. The bus stop is served by the 128/129 bus service which operates at an hourly frequency Monday-Saturday.

Byron Road is a minor residential street and provides access to a small number of private residential dwellings. Access to Byron Road is achieved via two separate points of access onto Hurst Road, the most northern of which is located within the vicinity of the revised bus stop location near Twyford Railway Station. On this basis, the likely number of vehicle movements using the northern Byron Road junction will be low over the duration of a typical day. This, when combined with the hourly frequency of the existing 128/129 bus service, serves to limit the likelihood that any vehicle will arrive at the junction whilst a bus is temporarily waiting at the proposed bus stop location.

Furthermore, the revised bus stop is positioned c. 30-40m to the west of an existing pedestrian refuge island and adjacent to a length of on-street parking bays adjacent to Twyford Railway Station. These existing features will prevent vehicles from overtaking a stationary bus whilst it temporarily waits at the proposed bus stop.

Nevertheless, appropriate measures, i.e. signing and lining to alert existing users of the presence of the bus stop will be investigated and introduced as necessary at the detailed design stage.

#### **AUDITOR'S VIEW OF DESIGN ORGANISATION RESPONSE dated 19<sup>th</sup> July 2024**

*Motorists should not attempt to undertake a manoeuvre unless it is safe to do so and therefore a vehicle existing Byron Road should not proceed if a stationary bus is restricting their visibility. It is understood that no road traffic collisions have been reported in proximity of the existing bus stop.*

#### **A.3 JUNCTIONS**

*No Road Safety Concerns regarding JUNCTIONS have been raised at this stage*

#### **A.4 WALKING, CYCLING AND HORSE RIDING**

##### **A.4.1 PROBLEM**

**Location:** Scheme

**Summary:** Traffic may pass close to cyclists

**Acc Type:** Vehicle to cyclist, cyclist loss of control type collision

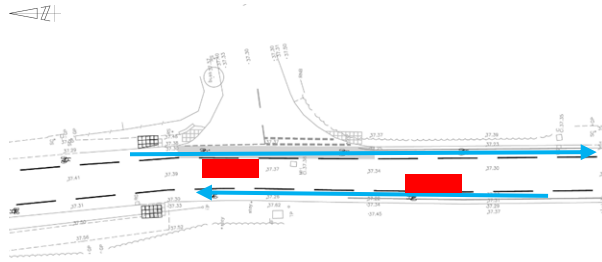
Lodge Road, Broadwater Road and Hurst Road observes cyclists which is likely to consist of commuters travelling between Hurst and Twyford Train Station as well as those cycling for leisure. The proposals introduce an advisory cycle lane along parts of Lodge Road, Broadwater Road and Hurst Road that based on measurements from the scheme drawings, are to be 1.2 metres wide. The provision of advisory cycle lanes is beneficial as they delineate an area of the carriageway that is intended for the use of cyclists and indicate a recommended line of travel, however, the Audit Team have concerns that the 1.2 metre width is too narrow and could encourage close passing of cyclists by motorists who judge their road position with reference to the nearside

marking. Vehicles passing cyclists too close, could lead to vehicle to cyclist as well as cyclist loss of control type collisions due to close passing.

#### RECOMMENDATION:

It is recommended that the width of the advisory cycle lanes is increased where possible and removed with the proposed cycle symbols retained to highlight the potential presence of cyclists, where not.

#### Location Plan:



#### DESIGN ORGANISATION RESPONSE provided by i-Transport on the 17<sup>th</sup> July 2024 following formal issue of this Stage 1 Road Safety Audit on the 9<sup>th</sup> July 2024

Accepted - the design has been amended to replace the advisory cycle lanes with advisory on-carriageway cycle symbol markings. Where necessary, the on-carriageway cycle symbol markings have been evenly spaced along Lodge Road, Broadwater Lane and Hurst Road respectively and include coloured road surfacing to clearly highlight the possible presence of cyclists to existing road users.

#### AUDITOR'S VIEW OF DESIGN ORGANISATION RESPONSE dated 19<sup>th</sup> July 2024

Confirmation that the advisory cycle lanes have been removed from the proposal, addresses the road safety concern raised at this stage. The proposed cycle symbols that are to be highlighted with a contrasting coloured surface, should encourage motorists to proceed appropriately.

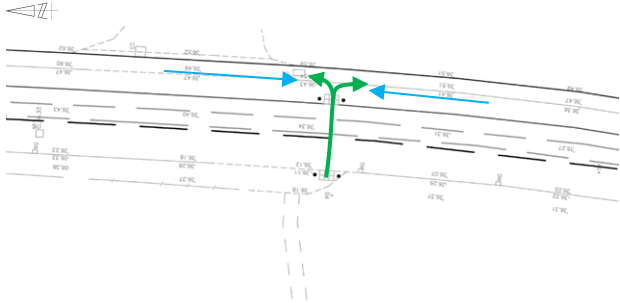
#### A.4.2 PROBLEM

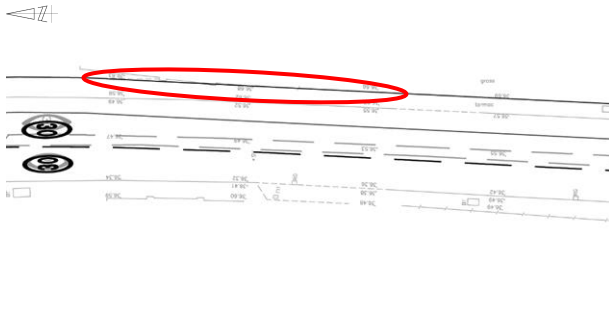
**Location:** Scheme

**Summary:** Visually impaired pedestrians may not appreciate that cyclists utilised the footway

**Acc Type:** Cyclist to pedestrian type collision

Broadwater Road accommodates a footway along the eastern side of the carriageway between the village of Hurst and Twyford. The proposals widen the existing footway to upgrade it to a footway cycleway. The footfall along the existing footway is not considerable and therefore a shared footway cycleway should operate adequately. It is noted, however, that the proposed tactile paving is configured to highlight the presence of a segregated footway cycleway and that measures to warn of the presence of the transition from a footway to a shared footway cycleway are missing in places. The Audit Team have concerns that the proposed ladder and tramline

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|
| tactile paving could confuse the visually impaired and the lack of measures highlighting the change in characteristics at some locations, could lead to cyclist to pedestrian type collisions.                                                                                                                                                                                                                                                                                                                                                                              |                                                      |
| <b>RECOMMENDATION:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                      |
| It is recommended that tactile paving is provided in accordance with guidance.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                      |
| <b>Location Plan:</b> (NB: not all locations where this item is present, are illustrated below)<br>                                                                                                                                                                                                                                                                                                                                                                                        |                                                      |
| <b>DESIGN ORGANISATION RESPONSE</b> provided by i-Transport on the 17 <sup>th</sup> July 2024 following formal issue of this Stage 1 Road Safety Audit on the 9 <sup>th</sup> July 2024                                                                                                                                                                                                                                                                                                                                                                                     |                                                      |
| Accepted – the tactile paving arrangements will be refined at the detailed design stage to ensure accordance with all necessary guidance.                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                      |
| <b>AUDITOR’S VIEW OF DESIGN ORGANISATION RESPONSE</b> dated 19 <sup>th</sup> July 2024                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                      |
| Confirmation that the tactile paving arrangements throughout the scheme will be further developed, addresses the road safety concern raised at this stage.                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                      |
| <b>A.4.3</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>PROBLEM</b>                                       |
| <b>Location:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Broadwater Road                                      |
| <b>Summary:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Cyclists could fall over the existing bridge parapet |
| <b>Acc Type:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Cyclist fall and personal injury                     |
| Broadwater Road accommodates a footway along the eastern side of the carriageway and passes across the Twyford Brook where bridge parapets are provided that are circa 0.75 metres high. The proposals widen the existing footway to upgrade it to a footway cycleway. The scheme drawing notes that the ‘height of the parapet wall (is) to be considered’, however, no details are provided at this stage. The Audit Team have concerns that the existing parapet will not contain a cyclist that falls off his bicycle which could lead to considerable personal injury. |                                                      |
| <b>RECOMMENDATION:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                      |
| It is recommended that measures are provided to prevent the possibility of cyclists falling over the parapet.                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                      |

|                                                                                                                                                                                                                    |                                                                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <div><div>Location Plan:</div><div></div></div> |                                                                                                                   |
| <b>DESIGN ORGANISATION RESPONSE</b> provided by i-Transport on the 17 <sup>th</sup> July 2024 following formal issue of this Stage 1 Road Safety Audit on the 9 <sup>th</sup> July 2024                            |                                                                                                                   |
| Accepted – the design has been amended to confirm that the height of the bridge parapets will be raised appropriately, with the details of this to be confirmed at the detailed design stage.                      |                                                                                                                   |
| <b>AUDITOR’S VIEW OF DESIGN ORGANISATION RESPONSE</b> dated 19 <sup>th</sup> July 2024                                                                                                                             |                                                                                                                   |
| Confirmation that the parapets will be provided in accordance with requirements, addresses the road safety concern raised at this stage.                                                                           |                                                                                                                   |
| A.5                                                                                                                                                                                                                | TRAFFIC SIGNS, CARRIAGEWAY MARKINGS AND LIGHTING                                                                  |
|                                                                                                                                                                                                                    | No Road Safety Concerns regarding TRAFFIC SIGNS, CARRIAGEWAY MARKINGS AND LIGHTING have been raised at this stage |

## 5.0 STAGE 1 ROAD SAFETY AUDIT TEAM STATEMENT

5.1 We certify that this Road Safety Audit has been carried out in accordance with GG119.

### Audit Team Leader

Name: **Jamie Fenning** *BSc (Hons), MIHE, MCIHT, MSoRSA, HE RSA Certificate of Competency*

Signed:



Position: Road Safety / Highway Engineer

Organisation: Fenley Road Safety Limited

Date: 19<sup>th</sup> July 2024

### Audit Team Member

Name: **Zane Beswick** *MCIHT, MSoRSA*

Signed:



Position: Road Safety / Highway Engineer

Organisation: Fenley Road Safety Limited

Date: 8<sup>th</sup> July 2024

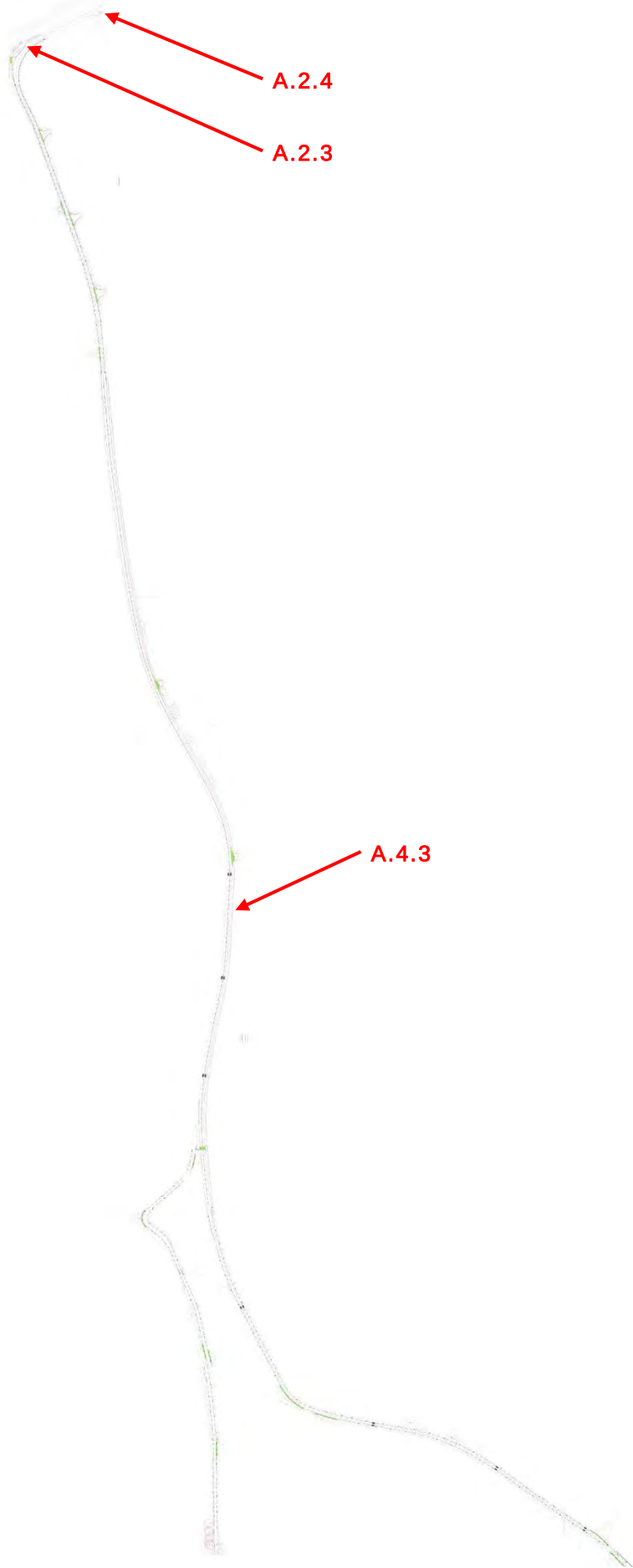
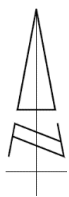
## Appendix A1

### Documents and Drawings provided for this Stage 1 Road Safety Audit

| <u>Audit Stage</u> | <u>Doc. No.</u> | <u>Rev</u> | <u>Title</u>                                                        |
|--------------------|-----------------|------------|---------------------------------------------------------------------|
| Stage 1            | ITB19328-007    | -          | Stage 1 Road Safety Audit Brief                                     |
|                    |                 |            |                                                                     |
|                    | <u>Dwg No.</u>  | <u>Rev</u> | <u>Title</u>                                                        |
|                    | ITB19328-GA-001 | -          | Potential Off-site Pedestrian / Cyclist Improvement Scheme Sheet 1  |
|                    | ITB19328-GA-002 | -          | Potential Off-site Pedestrian / Cyclist Improvement Scheme Sheet 2  |
|                    | ITB19328-GA-003 | -          | Potential Off-site Pedestrian / Cyclist Improvement Scheme Sheet 3  |
|                    | ITB19328-GA-004 | -          | Potential Off-site Pedestrian / Cyclist Improvement Scheme Sheet 4  |
|                    | ITB19328-GA-005 | -          | Potential Off-site Pedestrian / Cyclist Improvement Scheme Sheet 5  |
|                    | ITB19328-GA-006 | -          | Potential Off-site Pedestrian / Cyclist Improvement Scheme Sheet 6  |
|                    | ITB19328-GA-007 | -          | Potential Off-site Pedestrian / Cyclist Improvement Scheme Sheet 7  |
|                    | ITB19328-GA-008 | -          | Potential Off-site Pedestrian / Cyclist Improvement Scheme Sheet 8  |
|                    | ITB19328-GA-009 | -          | Potential Off-site Pedestrian / Cyclist Improvement Scheme Sheet 9  |
|                    | ITB19328-GA-010 | -          | Potential Off-site Pedestrian / Cyclist Improvement Scheme Sheet 10 |
|                    | ITB19328-GA-011 | -          | Potential Off-site Pedestrian / Cyclist Improvement Scheme Sheet 11 |
|                    | ITB19328-GA-012 | -          | Potential Off-site Pedestrian / Cyclist Improvement Scheme Sheet 12 |
|                    | ITB19328-GA-013 | -          | Potential Off-site Pedestrian / Cyclist Improvement Scheme Sheet 13 |

## **Appendix A2**

### **Item Location Plan**



- Various
- A.2.1
  - A.2.2
  - A.4.1
  - A.4.2

## Appendix A3

### Drawings associated with the Design Organisation Response

| <u>Audit Stage</u> | <u>Drawing No.</u> | <u>Rev</u> | <u>Title</u>                                                        |
|--------------------|--------------------|------------|---------------------------------------------------------------------|
| Stage 1            | ITB19328-GA-001    | A          | Potential Off-site Pedestrian / Cyclist Improvement Scheme Sheet 1  |
|                    | ITB19328-GA-002    | A          | Potential Off-site Pedestrian / Cyclist Improvement Scheme Sheet 2  |
|                    | ITB19328-GA-003    | A          | Potential Off-site Pedestrian / Cyclist Improvement Scheme Sheet 3  |
|                    | ITB19328-GA-004    | A          | Potential Off-site Pedestrian / Cyclist Improvement Scheme Sheet 4  |
|                    | ITB19328-GA-005    | A          | Potential Off-site Pedestrian / Cyclist Improvement Scheme Sheet 5  |
|                    | ITB19328-GA-006    | A          | Potential Off-site Pedestrian / Cyclist Improvement Scheme Sheet 6  |
|                    | ITB19328-GA-007    | A          | Potential Off-site Pedestrian / Cyclist Improvement Scheme Sheet 7  |
|                    | ITB19328-GA-008    | A          | Potential Off-site Pedestrian / Cyclist Improvement Scheme Sheet 8  |
|                    | ITB19328-GA-009    | A          | Potential Off-site Pedestrian / Cyclist Improvement Scheme Sheet 9  |
|                    | ITB19328-GA-010    | A          | Potential Off-site Pedestrian / Cyclist Improvement Scheme Sheet 10 |
|                    | ITB19328-GA-011    | A          | Potential Off-site Pedestrian / Cyclist Improvement Scheme Sheet 11 |
|                    | ITB19328-GA-012    | A          | Potential Off-site Pedestrian / Cyclist Improvement Scheme Sheet 12 |
|                    | ITB19328-GA-013    | A          | Potential Off-site Pedestrian / Cyclist Improvement Scheme Sheet 13 |

fenley

# Road Safety Audit Report

**Incorporating  
Stage 1 Completion of Preliminary Design;  
Design Organisation Response to items raised; and  
Auditors View of Design Organisation Response.**



## Proposed Highway Works to Improve Pedestrian Access to Hurst Village

Client:  
i-Transport

Client reference:  
ITB19238

Fenley  
2 Blaenant  
Emmer Green  
READING  
RG4 8PH

E: [office@fenley.co.uk](mailto:office@fenley.co.uk)  
[www.fenley.co.uk](http://www.fenley.co.uk)

Report Status      4

|                   |                                               |             |    |             |           |
|-------------------|-----------------------------------------------|-------------|----|-------------|-----------|
| Job no            | RSA-24-075                                    | Issue no    | 4  | Date        | July 2024 |
| Prepared by       | JJF                                           | Verified by | ZB | Approved by | JJF       |
| Filename and Path | Fenley/Road Safety Audits/RSA-24/RSA-24-075-4 |             |    |             |           |



1.0 PROJECT DETAILS

|                                  |                                    |
|----------------------------------|------------------------------------|
| Report Title:                    | Stage 1 Road Safety Audit          |
| Date:                            | July 2024                          |
| Document reference and revision: | RSA-24-075-4                       |
| Prepared by:                     | Fenley Road Safety Limited         |
| County Highway Authority:        | Wokingham Borough Council          |
| Design Organisation:             | i-Transport                        |
| Project Sponsor:                 | Mactaggart & Mickel Strategic Land |

| REV | ISSUE PURPOSE                                                                                                                                                              | AUTHOR                                  | CHECKED | APPROVED | DATE                       |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|---------|----------|----------------------------|
| 0   | Stage 1 Road Safety Audit drafted for Audit Team discussions                                                                                                               | JJF                                     |         |          | 28 <sup>th</sup> June 2024 |
| 1   | Stage 1 Road Safety Audit finalised and issued to the Design Organisation                                                                                                  | JJF                                     | ZB      | JJF      | 9 <sup>th</sup> July 2024  |
| 2   | Stage 1 Road Safety Audit Report format amended to incorporate a row for inclusion of a Design Organisation Response in order to maintain a concise record of items raised | JJF                                     |         |          | 9 <sup>th</sup> July 2024  |
| 3   | Design Organisation Response incorporated                                                                                                                                  | Ben Burrows<br>on behalf of i-Transport |         |          | 17 <sup>th</sup> July 2024 |
| 4   | Auditor's View of Design Organisation Response                                                                                                                             | JJF                                     |         |          | 19 <sup>th</sup> July 2024 |

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Appendices:

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| Stage 1 | A1 | Documents and Drawings provided for this Road Safety Audit              |
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|         | A3 | Documents and Drawings associated with the Design Organisation Response |

## 2.0 INTRODUCTION

- 2.1 This report has been prepared by Fenley Road Safety Limited and results from a Stage 1 Road Safety Audit of the proposed highway works along Tape Lane, Hust Road and Station Road in Hurst. The proposals include the widening of the existing footway along Tape Lane to the north and Broadwater Lane through marginal narrowing of the carriageway, the provision uncontrolled crossing points across Broadwater Lane and School Lane and the provision of a footway followed by a virtual footway along Tape Lane to the south. The proposals are to be undertaken as part of a proposed development of 99 homes in order to improve pedestrian connectivity to / from Hurst Village.
- 2.2 The Audit Brief identifies that the proposals do not include any Departures from Standard, whether related to strategic decisions or otherwise.
- 2.3 This Road Safety Audit was undertaken during June and July 2024 in accordance with the Road Safety Audit Brief provided on the 18<sup>th</sup> June 2024 by the Design Organisation, i-Transport, on behalf of the Project Sponsor, Mactaggart & Mickel Strategic Land. The Road Safety Audit comprised of a site visit as well as an examination of the documents provided, detailed at **Appendix A1**. The Audit Team were satisfied that the Audit Brief was sufficient for the purpose of the Audit instructed. It has been confirmed that street lighting will be provided and that items such as surface water drainage, existing and proposed signage and utilities to include covers and telegraph poles, are to be assessed during the detail design stage of the scheme.
- 2.4 The Road Safety Audit has been undertaken by an Audit Team whose qualifications and experience accord with the requirements of GG119. The Audit Team consists of the following members:

### **Audit Team Leader**

**Jamie Fenning** *BSc(Hons), MIHE, MCIHT, MSoRSA, National Highway RSA Certificate of Competency*  
Road Safety / Highway Engineer

### **Audit Team Member**

**Zane Beswick** *MCIHT, MSoRSA*  
Road Safety / Highway Engineer

- 2.5 The site visit associated with this Audit were undertaken during the early afternoon of 24<sup>th</sup> June between the hours of 15:00 and 15:45. The site visit involved walking and driving around the local highway network for a 45-minute period whilst observing local infrastructure and current traffic conditions. The weather during the site visit was cloudy with clear patches, the road surface was dry and visibility was good. A number of pedestrians and cyclists were observed during the site visit to include a couple of pedestrians that travelled between the Tape Lane cul-de-sac opposite the field gate to the application site to and from the Village

Shop. Vehicular traffic was also observed to include motorcycles, cars, public service vehicles, light and medium goods vehicles. The traffic flow was light to moderate with stationary traffic observed due to the presence of parked cars limiting the carriageway to one-way working.

- 2.6 The terms of reference of this Road Safety Audit are as described in GG119. The scheme has been examined and this report compiled, only with regard to the safety implications for road users of the scheme as presented. It has not been examined or verified for compliance with any other standards or criteria. However, in order to clearly explain a safety problem or the recommendation to resolve a problem, the Audit Team may on occasion have referred to a design standard for information only. All comments and recommendations are referenced to the design drawings supplied with the Audit Brief and the location of road safety concerns raised have been illustrated beneath the items along with relevant photographs for clarity, where appropriate, as well as on the Location Plan attached at **Appendix A2**.

#### ***Design Organisation Response***

- 2.7 In accordance with national standards, this Road Safety Audit was finalised and issued to the Design Organisation as per the Road Safety Audit Report Template within Appendix D of GG119, which can be provided upon request from either the Audit Team or Design Organisation. The format of the Audit Report was subsequently revised to incorporate these paragraphs under the sub-heading as well as sufficient space beneath the items and recommendation, within Section 4, for the inclusion of a Design Organisation Response. This is generally contained within a separate Design Organisation Response Report but is included within this document in order to maintain a single record of all problems, recommendations and responses for the benefit of a concise Road Safety Audit trail to be held on file for Quality Assurance purposes.
- 2.8 The Design Organisation Response has been prepared by:  
     Name: Ben Burrows  
     Position / Organisation: Associate, i-Transport
- 2.9 Any drawings or documents associated with the Design Organisation Response are listed at **Appendix A3**, if applicable.
- 2.10 Upon the request of the Design Organisation and following receipt of the Design Organisation Response with any associated drawings, the Road Safety Audit Team Leader has provided a further comment on the item raised. The “Auditor’s View on the Design Organisation Response” is included within a row beneath each item, for clarity.

### 3.0 ITEMS RAISED IN ANY PREVIOUS ROAD SAFETY AUDITS

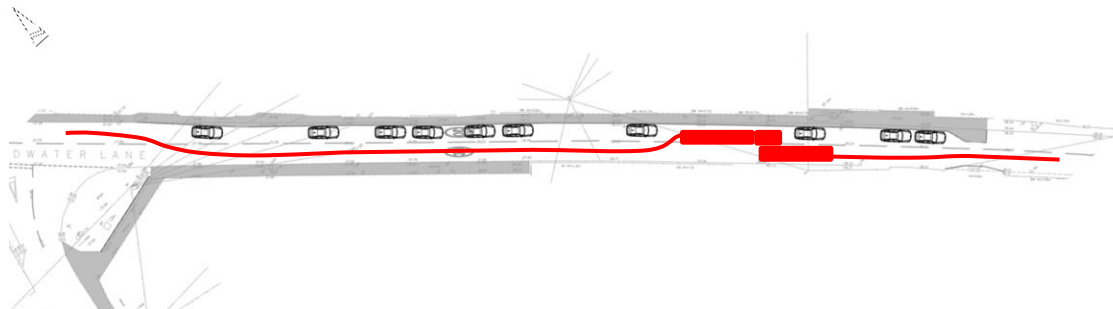
- 3.1 Fenley Road Safety Limited have been made aware that the proposed uncontrolled crossings of School Road were subject to a previous Stage 1 Road Safety Audit by others, in November 2022. That document raised one road safety concerns associated with parked cars in proximity of the proposed uncontrolled crossings on School Road. This document reassesses the scheme in its entirety and raises any road safety concerns that should be addressed at this stage.

### 4.0 ITEMS RAISED AT THIS STAGE 1 ROAD SAFETY AUDIT

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| A.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | LOCAL ALIGNMENT                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <i>No Road Safety Concerns regarding LOCAL ALIGNMENT have been raised at this stage</i>                        |
| A.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | GENERAL                                                                                                        |
| <b>A.2.1</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>PROBLEM</b>                                                                                                 |
| <b>Location:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Broadwater Lane                                                                                                |
| <b>Summary:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Insufficient space is available to enable opposing large vehicles to pass along the carriageway simultaneously |
| <b>Acc Type:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Vehicle Sideswipe type collisions                                                                              |
| <p>Broadwater Lane passes through Hurst where the carriageway narrows to between circa 5.5 metres and 6.1 metres, as does the single footway that is present to the east of the carriageway. On-street parking is observed along Broadwater Lane throughout much of the day, particularly in the vicinity of the Village Post Office and Convenience Store. Due to the existing on-street parking that is observed through much of the day, Broadwater Lane is reduced to one-way working where stationary vehicles are present. The proposals include the widening of the existing footway through the narrowing of the carriageway to a constant 5.5 metres, which is the narrowest width at present. Broadwater Lane is a bus route and observes HGV traffic that forms part of the annual average daily traffic flow of 3695. Various guidance notes highlight that a carriageway that forms a bus route, should be at least 6.0 metres wide which can be reduced over short sections where good intervisibility is achievable. It is noted that Broadwater Lane is straight in alignment and intervisibility is achievable between sections where the carriageway width equates to 6.0 metres. The Audit Team have concerns, however, that not all drivers of large goods vehicles, will appreciate the narrow width of the carriageway particularly as any on-street parking may limit visibility of the carriageway width. Two large vehicles attempting to travel along the proposed 5.5 metre wide section of Broadwater Lane simultaneously could lead to sideswipe type collisions.</p> |                                                                                                                |

**RECOMMENDATION:**

It is recommended that measures are provided to deter large vehicles from attempting to pass along Broadwater Road simultaneously.

**Location Plan:**

**DESIGN ORGANISATION RESPONSE** provided by i-Transport on the 17<sup>th</sup> July 2024 following formal issue of this Stage 1 Road Safety Audit on the 9<sup>th</sup> July 2024

Accepted – The scheme proposals do not materially amend the width of Broadwater Lane for vehicular traffic, owing to the presence of existing on-street parking that effectively limits Broadwater Lane to one-way working for large periods throughout the day. As indicated by the ATC data, HGVs comprise a relatively small proportion of the vehicular traffic on Broadwater Lane and therefore the likelihood of HGVs meeting and being required to pass one another is very small.

However, the design has been amended to include a build-out at the northern crossing point. On approach to the scheme, priority give-way markings have also been introduced at the gateway features (where forward visibility is good) to encourage traffic to slow and large vehicles to wait for opposing large vehicles should they already be travelling along Broadwater Lane. The revised design is shown on drawing no. **ITB19328-GA-104A**.

**AUDITOR'S VIEW OF DESIGN ORGANISATION RESPONSE** dated 19<sup>th</sup> July 2024

*Confirmation that the scheme has been revised to encourage the driver of a large vehicles to wait for opposing large vehicles where the carriageway width is adequate for the vehicles to pass one another, addresses the road safety concern raised at this stage.*