

TECHNICAL NOTE TN11 v3a

DATE:	09 June 2025	CONFIDENTIALITY:	Public
SUBJECT:	Bus Gate Design and Operation – Condition 17 Discharge		
PROJECT:	Highover Farm, Hitchin	AUTHOR:	Tim Parker
CHECKED:	Martin Paddle	APPROVED:	Tim Parker

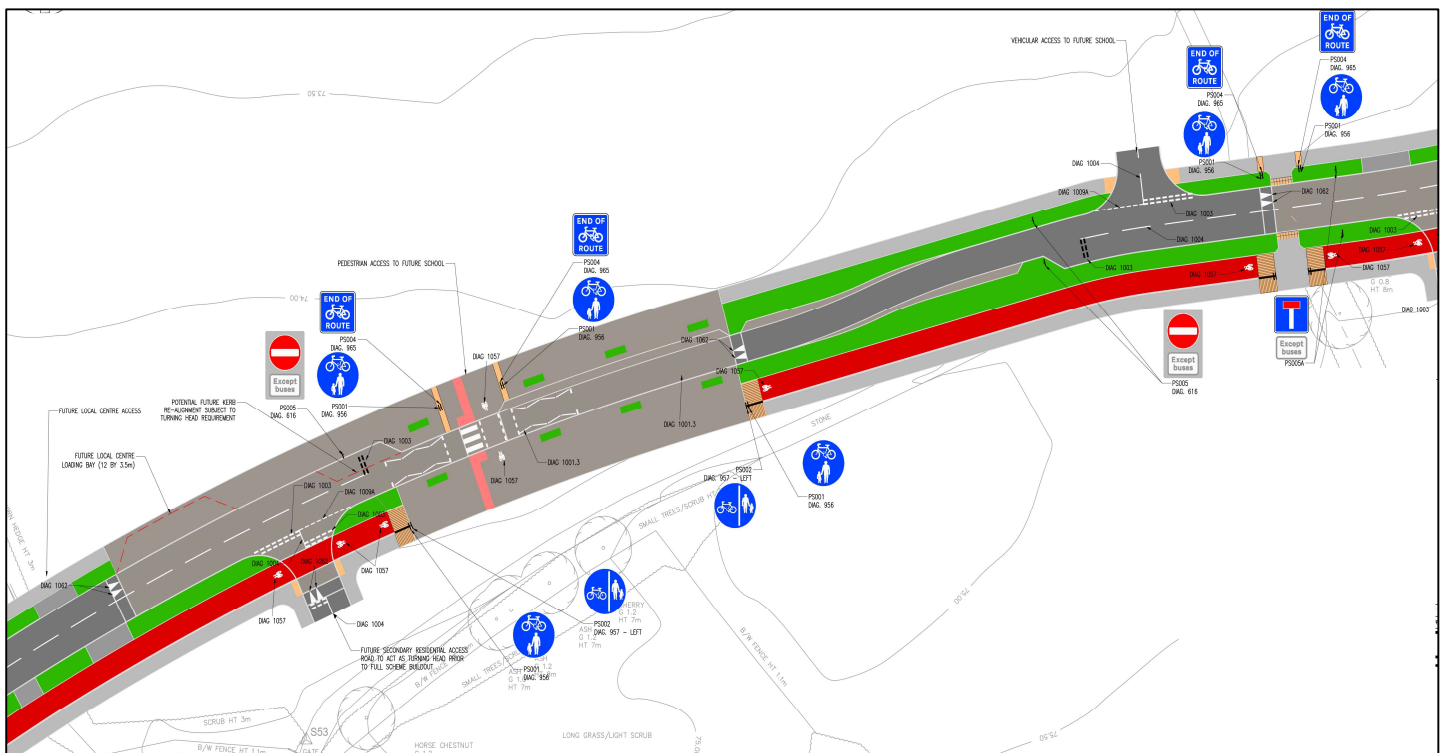
INTRODUCTION - BUS GATE DESIGN AND OPERATION

- 1.1. **Planning Condition 17** of the outline planning permission (application reference 18/01154/OP), requires submission of detailed information on the design and operation of the bus gate prior to any development beyond enabling and associated works. This Technical Note (TN) has been prepared to provide the necessary information in consultation with the highway authority Hertfordshire County Council (HCC) to enable the discharge of the condition.

Design Summary

- 1.2. The bus gate is located centrally within the development and takes the form of a raised, block-paved Square designed as a shared surface for all road users. A single-lane passes through the Square and is delineated by a small 25mm level change to denote the bus route. The design intentionally avoids physical barriers and instead relies on surface treatments, signage, and alignment to control access, as discussed and agreed with HCC as shown on **Drawing No. HDF-WSP-XXX-ZZ-SK-C-0021 P01**. An extract from this drawing is also shown in Figure 1 below.

Figure 1 - Design of the Bus Gate through the Square.



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- 1.3. The area has been designed to facilitate access for buses and emergency vehicles only to travel between Stotfold Road and High Dane, with the physical and visual characteristics of the space making it uninviting and unintuitive for general traffic to enter. Signage in accordance with the Traffic Signs Regulations and General Directions (TSRGD) has been included to reinforce the restriction of access for other vehicles. The single lane has been aligned in such a way that it would give drivers the perception of travelling on the ‘wrong’ side of the road, further deterring unauthorised access.
- 1.4. A formal Parrallel/Tiger crossing has been provided within the Square to guide pedestrian and cyclist movements to cross the route buses will take to a legible focussed location.
- 1.5. The proposed 25mm level difference between the bus route and the remainder of the Square serves a dual purpose. While it visually identifies the bus path through the Square, it also provides a detectable warning to partially sighted users that occasional vehicle movements may take place along the Spine Road corridor.
- 1.6. This design approach is focused on providing a safe, low speed traffic environment, whilst adopting the principles of inclusive design for all road users. The whole area would be prioritised for use by pedestrians and cyclists but also facilitate the passage of occasional buses.

OPERATIONAL ARRANGEMENTS

- 1.7. In consultation with HCC’s Public Transport Team, the following operational plan has previously been established:
 - Buses will enter the site from the proposed eastern access on Stotfold Road and proceed westbound through the development and through the bus gate Square onto High Dane.
 - Upon exiting onto High Dane, the service will loop via Tristram Way and Sturgeon’s Way, allowing it to turn around safely.
 - The bus will then re-enter the development from High Dane, travelling eastbound through the Square and back onto Stotfold Road.
- 1.8. This layout allows for a single bus route to operate in both directions through the site using a continuous circuit, thereby avoiding the need for buses to pass within the Square.
- 1.9. A meeting was held in July 2024 with Robert Handbury (Integrated Transport Unit, HCC) and Raymond Lewis (Bus Service Development Officer, HCC), which together with subsequent e-mail correspondence, to discuss this arrangement and confirm its appropriateness.
- 1.10. The general principle of a 6m-wide carriageway for the Spine Road through the development (which could be narrowed through the Square), was accepted on the basis that only one bus would serve the route and would not need to pass another in this area. Vehicle tracking has been

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undertaken to confirm the route's geometry supports this operation. A timetable (included as Figure 2) was also prepared and reviewed by Robert Handbury to demonstrate the operational intent.

Figure 2 – Anticipated timetable for the proposed bus service

Hitchin - Highover Farm																	82
14 June 2024																	
Monday to Saturday																	
Hitchin, Hermitage Road (Stop A)	06:55	07:25	07:55	08:30	09:05	09:35	10:05	10:35	11:05	11:35	12:05	12:35	13:05	13:35	14:05	14:35	15:05
Hitchin Railway Station (Stop F)	06:58	07:28	07:58	08:33	09:08	09:38	10:08	10:38	11:08	11:38	12:08	12:38	13:08	13:38	14:08	14:38	15:08
Hitchin, Cambridge Road/Queenswood Drive	07:02	07:32	08:02	08:37	09:12	09:42	10:12	10:42	11:12	11:42	12:12	12:42	13:12	13:42	14:12	14:42	15:12
Hitchin, Highover Farm	07:06	07:36	08:06	08:41	09:16	09:46	10:16	10:46	11:16	11:46	12:16	12:46	13:16	13:46	14:16	14:46	15:16
Miles	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Hitchin, Hermitage Road (Stop A)	15:35	16:05	16:35	17:10	17:45	18:15	18:45	19:15									
Hitchin Railway Station (Stop F)	15:38	16:08	16:38	17:14	17:49	18:19	18:49	19:19									
Hitchin, Cambridge Road/Queenswood Drive	15:42	16:12	16:42	17:18	17:53	18:23	18:53	19:23									
Hitchin, Highover Farm	15:46	16:16	16:46	17:22	17:57	18:27	18:57	19:27									
Miles	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4									
Hitchin, Highover Farm	06:38	07:08	07:38	08:08	08:43	09:18	09:48	10:18	10:48	11:18	11:48	12:18	12:48	13:18	13:48	14:18	14:48
Hitchin, Cambridge Road/Queenswood Drive	06:41	07:11	07:41	08:11	08:46	09:21	09:51	10:21	10:51	11:21	11:51	12:21	12:51	13:21	13:51	14:21	14:51
Hitchin Railway Station (Stop E)	06:45	07:15	07:45	08:16	08:51	09:25	09:55	10:25	10:55	11:25	11:55	12:25	12:55	13:25	13:55	14:25	14:55
Hitchin, Hermitage Road (Stop A)	06:52	07:22	07:52	08:24	08:59	09:32	10:02	10:32	11:02	11:32	12:02	12:32	13:02	13:32	14:02	14:32	15:02
Miles	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
Hitchin, Highover Farm	15:18	15:48	16:18	16:48	17:24	17:59	18:29	18:59	19:29								
Hitchin, Cambridge Road/Queenswood Drive	15:21	15:51	16:21	16:51	17:27	18:02	18:32	19:02	19:32								
Hitchin Railway Station (Stop E)	15:25	15:55	16:25	16:56	17:32	18:06	18:36	19:06	19:36								
Hitchin, Hermitage Road (Stop A)	15:32	16:02	16:32	17:04	17:40	18:13	18:43	19:13	19:43								
Miles	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6								
Service 82 Hitchin - Highover Farm																	
Route Description																	
From Hitchin, Hermitage Road (Stop A) operates via Hermitage Road, B656, Walsworth Road, Station Approach, Hitchin Railway Station, Station Approach, B656, A505, Cambridge Road, Stotfold Road, Highover Farm Access Roads to Hitchin, Highover Farm.																	
From Hitchin, Highover Farm operates via Highover Farm Access Roads, A505, Cambridge Road, A505, B656, Station Approach, Hitchin Railway Station, Station Approach, B656, A505, Nightingale Road, Bancroft, Hermitage Road to Hitchin, Hermitage Road (Stop A)																	

Emergency Access

- 1.11. While the route through the Square is intentionally narrowed to discourage general traffic, it has been designed to permit access by emergency vehicles at all times. In the unlikely event that a bus breaks down within the Square, the road layout would allow sufficient space for an emergency vehicle to pass safely. To support this, the full extent of the single lane route through the Square, including the additional marginal width required for emergency access (widened area shown in Figure 1), will be constructed to full-depth carriageway specification, ensuring it is structurally suitable for the weight and turning movements of buses and emergency vehicles.
- 1.12. The additional marginal width required would be finished to ensure it appears part of the pedestrian area or where the extra width is part of the verge, Grasscrete or similar would be used to maintain the appearance through this section.

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Construction and Phasing Considerations

- 1.13. The design has also accounted for interim construction access requirements. At the western end of the Square, the bus route has been kept marginally wider to facilitate a temporary turning head for general vehicles during the early phases of development. This is necessary prior to completion of the internal secondary loop road nearest to High Dane, and would provide turning facilities for non-permitted traffic. The turning head arrangement is also noted and illustrated on **Drawing No. HDF-WSP-XXX-ZZ-SK-C-0021 P01**. Once the internal secondary loop road is constructed, the temporary turning head will no longer be required, and the route through the Square could be narrowed across its full length to reinforce the restricted nature of the bus gate.
- It is proposed that the full length of the Spine Road, providing a direct connection between Stotfold Road and High Dane, be constructed in its entirety within the first phase of development, which will significantly improve the pedestrian connections to High Dane. The phasing plan for the wider development incorporates this arrangement and has been updated accordingly to reflect this commitment. However, prior to the associated surface treatments, signage, and alignment to control access being fully implemented within the Square no vehicles including buses will be able to travel through the site from High Dane to Stotfold Road (to prevent “rat running”). Until the full extent of measures are implemented within the square, if needed buses can temporarily turn within the site using the north eastern internal secondary loop road as illustratively shown in blue within **Figure 3**.

Figure 3 – Temporary arrangement for buses turning within initial phases of development



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Future Enforcement Provisions

- 1.14. While the proposed access restriction measures are both physical through engineering design and passive in nature, the road layout would also incorporate additional demand management measures. Electrical ducts and cabling will be installed during the construction of the Spine Road up to the western approach of the Square to enable the future installation of an Automatic Number Plate Recognition (ANPR) camera system should HCC consider that drivers consistently fail to comply with the posted restrictions.

Summary

- 1.15. This TN provides detail on the operation and design arrangements of the bus gate/restriction, along with the potential enforcement measures that may also be required if HCC deem there to be sufficient non-compliance with the posted restrictions. This TN in conjunction with **Drawing No. HDF-WSP-XXX-ZZ-SK-C-0021 P01** is submitted in the support of discharging Condition 17.



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Appendix A

Drawing No. HDF-WSP-XXX-ZZ-SK-C-0021 P01