CAMBRIDGESHIRE GUIDED BUSWAY

GUIDANCE FOR DEVELOPERS
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1 Purpose

1.1 The purpose of this document is to inform developers of what is acceptable when carrying out construction works near the Cambridgeshire Guided Busway ("CGB").

1.2 It is to be used for information purposes and all works should be agreed with the Cambridge County Council ("CCC") and be supported by relevant method statements and approved risk assessments and all other necessary documentation.

2 Objective

2.1 The document is designed to safeguard the CGB from works in the vicinity by implementing a safe working protocol for third party construction. It is designed to remove or reduce, as far as is practically possible the risk of injury or damage to passengers, employees, infrastructure and buses, and contractors.

2.2 Information provided in this document is intended as guidance and is given in good faith. Third parties should be aware of the Health and Safety at Work etc Act 1974 and the Construction (Design and Management) (CDM) Regulations. Developers should always carry out due diligence to ensure their activities will not affect the safety of the CGB’s operation.

2.3 In instances where the developer is carrying out works on or within CGB land, the developer will be asked to show that they have carried out relevant risk assessments of their methods, and have gone to reasonable measures to reduce associated risks to the CGB.

3 Introduction

3.1 The CGB is a public transport system 25 kilometres in length and runs from St Ives to Milton Road, Cambridge and from Cambridge Station to Trumpington Park and Ride. There are a total of 18 stops, and termini are located at St Ives and Trumpington with park and ride sites at St Ives, Longstanton and Trumpington.

3.2 Buses have a frequency of 6 – 10 > per hour and can travel at speeds of up to 100km/hour. The buses may operate from 6am through to 12pm every day.

3.3 The buses are fitted with small guide wheels that engage with raised kerbs laid along a smooth road surface – the guideway. Where buses use normal road, they will have priority measures including new bus lanes, and priority traffic signalling.
3.4 Although the station stops will be unstaffed, passenger security will be monitored with the use of close circuit television cameras (CCTV).

3.5 The buses still pose a safety risk in the same way normal buses do in their everyday operation. In some ways more so as the only control over the bus in guidance is acceleration/deceleration – they cannot swerve to avoid hazards.

3.6 When designing or constructing a development on or near to the CGB, consideration must be given to safety risks at every stage of design, detailed design, planning and implementation.

3.7 Under the Cambridgeshire Guided Busway Order 2005, the Busway as constructed has the status of a Statutory Undertaker, and is regarded as a tramway for the purposes of applying Part III of the New Roads and Street Works Act 1991 (NRSWA). This legislation must be taken into account when planning works on or adjacent to the CGB Corridor.

For all works carried out on behalf of CCC, compliance with this document is advisory. Where works are not on behalf of CCC, but are taking place within or over the CGB Corridor, compliance with this document is a requirement of the CCC’s land rights. Furthermore, any third party must comply with the terms of any agreement held by CCC relevant to land or rights affecting construction. Additionally, third parties are reminded of their statutory obligations with regard to Health and Safety legislation and of their liability as a result of non-compliance.

3.8 Development proposals within the Corridor must take into consideration the Railways and other Transport Systems (Approval of Works, Plant & Equipment) Regulations 1994 and under that legislation, those proposals may need to be referred to an inspector. The developer may be required to provide further information to support the safety and risk management of their proposed scheme.

3.9 Developers are reminded that they must, as far as is reasonably practicable, reduce risks and keep people protected, using compliance of current health and safety legislation as an absolute minimum standard.

4 Definitions

CGB means Cambridgeshire Guided Busway including the Maintenance Track, Stops, Park and Ride sites and associated structures and vehicles.

CGB Corridor see chapter 7

CGB Equipment means infrastructure, structures, services, conduits, foundations and all other equipment used in relation to the operation of the CGB
CGB Land means land owned by or leased to or that CGB has rights or infrastructure on, through under or over

CGB Team means the operational, engineering, property, planning departments and any other individuals or departments responsible for the safe operation of the CGB.

Developer means any person or entity that is the owner of land on which development or maintenance works take place, his principal contractor or agent.

Development refers to any activity, or presence, on land adjacent to the CGB, or any activity or presence (including but not limited to structures, machines, fluids, loads and pressures) that may trespass or affect CGB Land, or land over which CGB has rights or infrastructure of the Guideway.

Engineering Hours refer to the period of time outside of Operational Hours

Guideway means the passage used by the buses and includes (where relevant) the supporting structures and all related infrastructure

Maintenance Track means the tracks and pathways used to maintain the CGB during Operational and Engineering Hours

Operational Hours refers to the period of time that the CGB is in use

PICOW is the Person In Charge Of Work during a possession or Engineering Hours.

Possession means a period of time in which the CGB ceases operation for the purpose of carrying out works within the Corridor

Works refers to the demolition, permanent works being constructed or altered, completed and maintained including civil, electrical and mechanical systems and all temporary works of every kind required in connection

5 Information Flow

5.1 All proposals for development on or about the CGB must initially be addressed to:

Cambridgeshire Guided Busway Team
ET1026 Trumpington Park & Ride
43 Hauxton Road
Cambridge
CB2 9FT

Telephone: (01223) 845561 Fax.: (01223) 845791
5.2 It should be noted that CCC will not give consent for a Development until it is satisfied that the CGB will not be detrimentally affected by its construction, nor the passenger operations of the CGB be delayed or the safety compromised. Consent to works does not release the Developer from its responsibilities to carry out works in a safe and efficient manner.

5.3 The CGB Team may employ consulting engineers or other professionals to assess the proposals put forward by a Developer, the cost of additional resources will be recoverable from the Developer. The extent of any further consultation will depend on the type of works and their proximity to the CGB.

5.4 In order to consult efficiently the Developer should adhere to the following. This information is for guidance and information only:

- Provide outline information and attend an initial meeting with CGB to discuss:
  - Outline of proposed work
  - Technical aspects as they affect the CGB
  - Identification of CGB Land
  - Security arrangements for CGB Land
  - Legal, contractual and insurance issues as they affect the CGB
  - Programme of works
  - Future liaison meetings
  - Staff contacts
- Provide written agreement that the Developer will bear all reasonable costs incurred by CCC as a result of the works
- Submit a Health and Safety plan, and drawings for comment and consent
- Submit outline construction method statements for comment and consent
- Details of access that may be required onto CGB Land
- Details of temporary structures on or near the CGB
- Details of any works to be carried out in Engineering Hours
- Future liaison to ensure that contractual obligations are being adhered to and implemented satisfactorily
- Provide as-built drawings and O & M manuals as necessary

6 Insurance

6.1 CCC will allow works to take place near the CGB with the proviso that the works are insured. The level of insurance required is dependant on the type of works, and the vicinity to the CGB that the works are. The contractor will be responsible and liable to cover the cost of claims in the event of an accident occurring from their negligence, including any relevant operational costs such as access charges in the event that the Guideway is made unavailable.
6.2 The minimum level of public indemnity insurance required is £50,000,000. Works that carry less risk may be subject to smaller levels of insurance.

7 CGB Operational Corridor (the “Corridor”)

7.1 The Operational Corridor is effectively the space within which the CGB operates and includes the land, subsurface ground, airspace, structures, maintenance space, stops, depots, trackwork and equipment. It must be assumed that any proposals will avoid intrusion or changes within the Corridor. Any proposals that do impinge on the Corridor will be subject to detailed scrutiny and mitigation measures.

8. Procedures for Approval of Works on or Adjacent to the CGB

8.1 General

Contractors requiring access onto the Corridor, and for work adjacent to the Corridor will be required to comply with CGB’s safety and co-ordination procedures contained in its Operations Policy. Information must be provided in a timely manner to the CGB Team who will then co-ordinate with the relevant personnel to obtain comments including the need for any protective measures for the Corridor.

The decision on approval and rules and procedures to be followed will be that of the CGB Team.

8.2 Training

All personnel required to work on or near the Corridor must complete the relevant CGB Awareness Training.

Each working group must be supervised by a PICOW when working in or near the Corridor during Operational Hours. PICOWs must also complete a course and test and will then be issued with a pass which must be worn clearly and visibly for the duration of the supervised works. PICOWs will only be certified as such after completing no less than ten working occasions under a qualified PICOW.

The CGB Team can provide a PICOW, the cost of which will be borne by the Developer.

8.3 Access arrangements for works adjacent to the Corridor

Works outside the Corridor can be carried out during Operational Hours, however, the CGB Team expects the Developer to act with a sense of safety and risk avoidance in accordance with relevant Health & Safety legislation.
8.4 Access arrangements for works within the Corridor

These works fall into two categories;

1. works that will affect the operation of the CGB and therefore need to be carried out during Engineering Hours, and;
2. works that will not affect the operation of the CGB but construction works may require temporary protection measures that will need to be erected during Engineering Hours

8.5 Access arrangements for works carried out during Engineering Hours

For these kind of works the following protocol must be adhered to:

Note: The maximum periods allowed for Engineering Hours are shown below:

- Monday to Saturday 12.30hrs – 05.30hrs
- Sunday 12.30hrs – 05.00hrs

It may be the case that pre-booked Engineering Hours are altered at short notice by the CGB Team. This is at the discretion of the CGB Team and the financial risk remains with the Developer.

Developers must provide, along with a weekly plan of works to be undertaken:

- Method Statement to the CGB Project Manager
- Risk Assessment to the CGB Project Manager
- Work Request Form to the CGB Project Manager
- COSHH to the CGB Project Manager
- Relevant training certificates

The Work Request Form submitted must include dates for the proposed works, and include as much detail as possible. Specific note should be made to any works that include those below – this list is not exhaustive and is for guidance only:

- Making adjustment, or demolition of all or part of CGB Equipment and or CGB Land
- Making connections to, or disconnecting services, conduits and other related apparatus
- Using a crane near the Corridor, or in circumstances where the crane is likely to oversail the Corridor
- Excavating near CGB Land and CGB Equipment. A thorough ground investigation must be carried out prior to any works of this nature taking place
- When using thrust bores by any method
- Erecting scaffolding or using ladders
- Provision of temporary works
The Method Statements accompany the Work Request Form and include the following – this list is not exhaustive and is for guidance only

- Summary of work to be carried out
- Programme information including details of any contractors and or subcontractors
- Work task method statements, including labour and plant resource schedules
- Reference drawings
- Details of all parties involved
- Contingency arrangements i.e. emergency escape strategy etc
- Access arrangements and routes, signing on and off procedures
- Safety issues and the measures taken to ensure the safety of contractors and passengers alike
- Inspection and maintenance regime if temporary works are to be left in place
- Condition survey

Risk assessments must be provided for all aspects and phase of the works and should take into account not only the safety of the workforce but also ensuring the CGB Land and Equipment does not get damaged

In the event of an emergency the control room at the nearest depot should be contacted.

All staff must be made aware of these procedures prior to undertaking any works.

All operatives must ensure that they are suitably dressed, i.e. correct protective equipment, high visibility outerwear and suitable footwear.

### 8.6 Works during Operational Hours

Works during Operational Hours are not permitted on the CGB. However, works in certain areas may be permitted subject to temporary protective barriers being installed for the duration of the works.

### 9 Design and Technical Matters

#### 9.1 Lighting

If installing lighting as part of the works, consideration must be given to the drivers of the buses, and whether the increase glare will adversely affect their ability to operate the buses in a safe manner.

#### 9.2 New boundary fences

Where new fencing is being incorporated, sufficient space must be left for emergency services to access the Corridor, and also for maintenance works to be carried out without the need for possession time or additional access measures being taken. The ultimate approval for fencing will be that of the CGB Team.
9.3 Landscaping; the CGB encourages soft landscaping in the vicinity of the Corridor and CGB Land. However, consideration should be afforded to issues such as:

- Trees with large root balls which can block corridor drainage systems
- Landscaping will not be permitted where there is a risk that CGB Equipment could be damaged by its implementation

For guidance, the following trees should be avoided:

- Beech
- Horse Chestnut
- Poplar
- Sycamore
- Willows

This information is for guidance and is informative only.

9.4 Drainage; New or modified drainage must be directed away from the Corridor and connected into the local authority’s drainage system. Connections into the CGB drainage system are not permitted. Furthermore, soakaways are not permitted in the following situations:

- Where excavation could undermine CGB Equipment
- Where there is a risk of accident, damage or loss to CGB Land or Equipment
- Where the soakaway could adversely affect the water table in the vicinity of the Corridor

9.5 As Built data; on completion of the works, where they are situated on or close to CGB Land, the as built information should be made available to the CGB Team in order to keep CDM Health and Safety files accurate and up to date.

The information should be made available both as drawings and documents, of a quality suitable for microfilming or other archiving method. Additionally, electronic versions, preferably on CD for inclusion in any CAD system should also be provided.

9.6 Maintenance; generally the provisions for maintenance shall be the same as for the construction works where access onto CGB Land is required, or if the maintenance adversely affects CGB Equipment.

In instances where maintenance of adjoining buildings is carried out with cradles, the planning stage should ensure that these cradles will not overhang CGB Land – this is to minimise risk to passengers and users of the CGB from falling objects. Where ladders are used, again the planning stages should acknowledge the safety implications of using ladders in close proximity to the
Corridor. Care should be taken to avoid situations where, in the event that a ladder was to topple, it would not fall into the Corridor.

A maintenance zone of 5m should be adhered to along boundary fencing in order to provide sufficient room to maintain and repair that fence when necessary.

10 General Guidance on the use of cranes and similar Plant

10.1 Where lifting equipment is required, Developers and contractors are reminded that their process must adhere to current legislation, i.e. The Lifting Operations and Lifting Equipment Regulations (LOLER) and, where relevant the need to consult British Standards e.g. BS 7121, BS 2573, BS 5973 and BS 5744.

Positioning cranes should be carried out with a view that no part of the jib/mast nor its load can foul any part of the Corridor during normal operation or in the event of an accident.

10.2 The CGB implements a safety zone around the Corridor for the guidance of crane positioning;

- In the event of a collapse, the crane is prevented from falling on or within 5m or 1/10 of the crane height (whichever is the greater) of the Corridor
- Any part of the load being lifted is prevented from swinging over or within 5m or 1/10 of the crane height (whichever is greater) of the CGB Corridor

The safety zone applies, in the case of the Corridor, to the back edge of the Guideway. In the case of stations, the back edge of the structure or access routes remote from the CGB.

If this level of security cannot be afforded, measures must be taken to ensure lifting is carried out during Engineering Hours, or a substantial protective screen should be installed.

10.3 In addition to full compliance with relevant legislation, Developers should also be fully aware and in compliance with British Standards relating to construction and operation of cranes, such as; BS 5744 and BS 7121 Codes of Practice for Safe Use of Cranes and guidelines and other examples of safe practice issued by the Health and Safety Executive and or similar bodies.

10.4 Due to the risk potentially posed by cranes, and the uncontrollable nature of the risk elements, i.e. wind, where the crane is deemed to pose a serious threat to the safe operation of the CGB, the use of such plant and similar plant will not be permitted.