

Land Surrounding Burloes Cottages Newmarket Road, Royston

Transport Assessment

19 April 2024

Prepared for
Vistry Group Plc



Prepared for:
Vistry Group Plc

Prepared by:
Markides Associates
2nd Floor, The Bridge
73 – 81 Southwark Bridge Road
London SE1 0NQ
United Kingdom

T: +44 (0)20 7442 2225
E: info@markidesassociates.co.uk
W: markidesassociates.co.uk

Project Number: 23324
Doc Number: TA01

Rev	Issue Purpose	Author	Checked	Reviewed	Approved	Date
	Final	AKS	AKS	AKS	AKS	05/04/24
A	Final	AKS	AKS	AKS	AKS	19/04/24

Copyright 2024 Markides Associates Ltd. The concepts and information contained in this document are the property of Markides Associates. Use or copying of this document in whole or in part without the written permission of Markides Associates constitutes an infringement of copyright.

Limitation: This report has been prepared on behalf of, and for the exclusive use of the client of Markides Associates, and is subject to, and issued in accordance with, the provisions of the contract between the client and Markides Associates. Markides Associates accepts no liability or responsibility whatsoever for, or in respect of, any use of, or reliance upon, this report by any third party.

Contents

1.	INTRODUCTION	1
2.	POLICY CONSIDERATIONS	6
3.	EXISTING SITUATION.....	10
4.	DEVELOPMENT PROPOSALS	17
5.	TRIP GENERATION AND TRAFFIC IMPACT	25
6.	SUMMARY AND CONCLUSION.....	31

Drawings

23324-MA-XX-XX-DR-C-0100 General Arrangement Proposed Site Access Priority Junction

23324-MA-XX-XX-DR-C-0130 Visibility Splays

22324-MA-XX-XX-DR-C-7000 Swept Path Analysis Single Decker Bus

22324-MA-XX-XX-DR-C-7001 Swept Path Analysis Refuse Vehicle

22324-MA-XX-XX-DR-C-0250 Burloes Emergency / Construction Access

Appendices

Appendix A – Approved Site Access

Appendix B – Application 19/03032/FP Site Access and Burloes Lane site Access

Appendix C – Illustrative Framework Plan

Appendix D – Full Extent site Layout

Appendix E - Newmarket Road atc surveys

Appendix F – Proposed Full Extent Adoption Extent

Appendix G – Full extent Car Parking Allocaton

Appendix H – Full Extent Refuse Access

Appendix I - Full Extent Fire Access

Appendix J – Full Extent Bus Access

Appendix K - TRICS Outputs

Appendix L – AM/PM Peak Traffic Distribution

Appendix M – Application 21/00765/OP HCC Response

1. Introduction

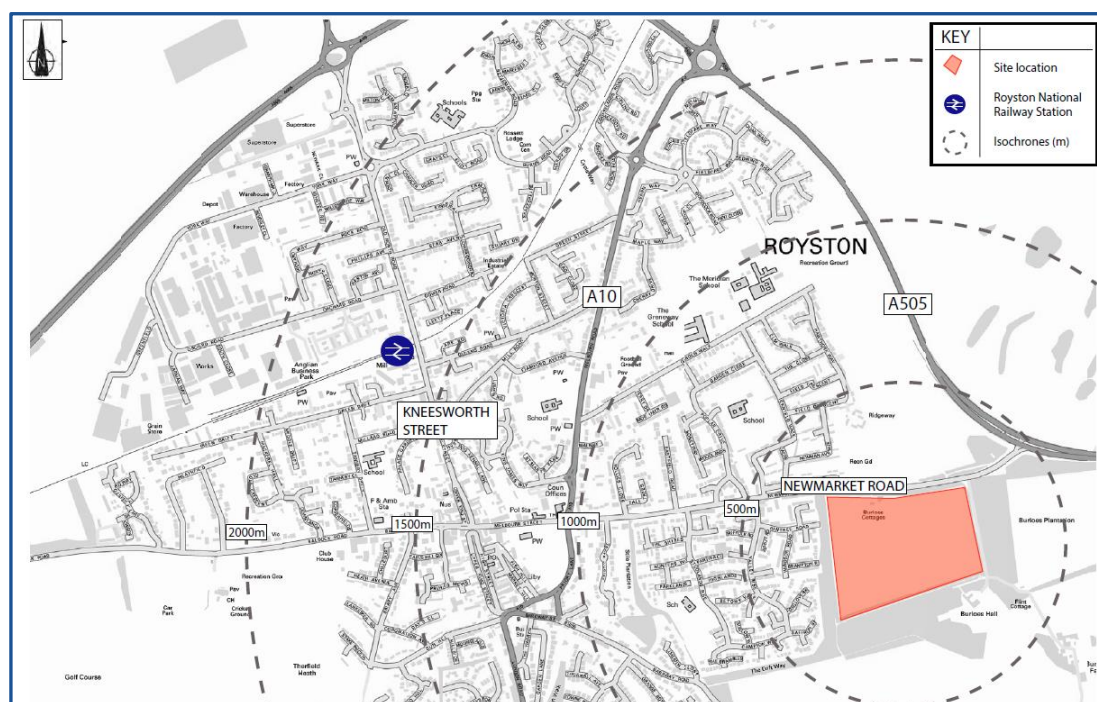
1.1 Planning Application 17/00110/1

- 1.1.1 In February 2020, North Hertfordshire Council (NHC) granted approval (application reference 17/00110/1) for an outline planning application at a site located within Royston, with development description as follows:

Outline application for up to 325 dwellings including single site access and temporary construction access, with all other matters reserved including landscaping (including open space, and pedestrian links), appearance, layout and scale

- 1.1.2 The site, referred to as 'Land surrounding Burloes Cottages,' is undeveloped agricultural land site, located south of Newmarket Road, with location indicated below at **Figure 1.1**.

Figure 1.1: Site Location Plan



- 1.1.3 The application was supported by a Transport Assessment (forthwith referred to as the Original Transport Assessment (OTA)) prepared by Markides Associates (MA). The OTA identified that the site was an appropriate location for residential development, that the site could be readily accessed by all user groups and that the impact of the development could be accommodated within the local highway network, albeit subject to some minor off-site mitigation to improve junction capacity at specific locations.
- 1.1.4 Following consultation with Hertfordshire County Council (HCC), both prior to submission and during the formal consultation period, the following aspects were agreed with regards to transport and access:

- Vehicular access to the site was acceptable from Newmarket Road, taking the form of a simple priority junction, and that visibility splays could be achieved based on the requisite sight stopping distance, informed by speed surveys undertaken on Newmarket Road. The approved access drawing, **16028-01-REVB**, is attached at **Appendix A**;
- That this single access could serve the full scale of development totalling 325 units;
- That an emergency access was necessary to serve the site and that this could be taken from Burloes Lane on the eastern edge of the site;
- That a signalised pedestrian crossing would be necessary to support safe crossing movements from the site to the existing footway margin on the northern side of Newmarket Road;
- That any internal site layout should include a turning circle to allow bus access within the site;
- That the impact of the development proposal on the local highway network was acceptable, subject to minor interventions to increase capacity, and;
- Construction access could be taken from the Burloes Lane, subject to an agreeable traffic management solution on Newmarket Road, supported by localised widening on Burloes Lane to allow construction vehicles to pass and amendments to the Burloes Lane kerbline where it forms a junction with Newmarket Road to allow construction vehicles to independently enter and egress the junction.

1.1.5 The application was conditionally approved in February 2020.

1.1.6 A S106 legal agreement secured transport related financial contributions as follows:

- A Sustainable Transport Contribution toward extending the existing bus service 16 into the site, totalling £400k;
- An Off-Site Highways Contribution towards improvement works at the A505/A10 Roundabout, A505/A1198 Roundabout and A10/Newmarket Road/Melbourn street Roundabout totalling £50k; and
- A Travel Plan Evaluation and Support Contribution of £6k.

1.1.7 This outline application has now lapsed.

1.2 Subsequent Approvals

1.2.1 Following the outline approval, a number of subsequent applications have been approved, including applications to discharge planning conditions and a Reserved Matter application (reference 20/01138) in relation to an early phase of development that would have delivered 83 units, which was approved in April 2022.

1.2.2 Application 19/03032/FP was associated with the '*construction of infrastructure road network, attenuation basin, substation and emergency/construction access*,' approved November 2021. As part of this application a more developed site access plan to that included within the OTA was prepared, attached at **Appendix B**. This application also agreed

the construction access arrangement from the Burloes Hall access road, reliant on traffic management measures being put in place for the junction with Newmarket Road during course of the works and the introduction of a passing place on Burloes Lane and localised widening of the junction radii at the Newmarket Road junction, reflecting the strategy included within the original OTA. These drawings are also provided at **Appendix B**.

1.3 Development Proposals

1.3.1 As the original outline application approval has lapsed, Vistry Group (the Applicant) is preparing a new application, but for exactly the same scale of development and retaining the same access strategies and locations as previously approved.

1.3.2 The new application is, however, to be submitted in hybrid form, with description of development as follows:

Hybrid application for residential development of up to 325 dwellings comprising: (a) full planning application for Phase 1 comprising 102 dwellings and associated infrastructure including access from Newmarket Road, emergency and pedestrian/cycle access from Burloes Hall Drive, internal highways, public open space, landscaping and drainage and (b) outline application for up to 223 dwellings and associated infrastructure with all matters reserved apart from primary means of access and emergency and pedestrian/cycle access from Burloes Hall Drive.

1.3.3 Together, the full application extent and outline application extent are indicated on an illustrative Framework Plan, attached at **Appendix C**, with extract below at **Figure 1.2**.

1.3.4 The full application extent, which primarily covers the western part of the site, encompasses the proposed site access from Newmarket Road, adjacent signalised pedestrian crossing, internal spine road that encompasses a bus turning loop and internal road and footpath network, including connections with the established permissive footpath network to the west of the site that connects with the established footway network within the adjacent residential estate via Aintree Road.

1.3.5 The existing Burloes Cottages are retained, though the proposals remove the existing vehicle crossover from Newmarket Road, with access to the cottages achieved via a new crossover accessed from the proposed spine road.

1.3.6 The full application extent also encompasses the emergency access from Burloes Lane and the associated works to Burloes Lane to facilitate construction vehicle access. The full application extent is attached at **Appendix D**, with extract below at **Figure 1.3**.

1.3.7 The outline extent is supported by a series of parameter plans, which identify the extent of development within the remaining part of the site.

Figure 1.2: Illustrative Framework Plan (Source: McBains Drawing ROY01-MCB-ZZ-ZZ-DR-A-0140-D5-P1_Illustrative Framework)



Figure 1.3: Full Application Extent Plan (Source: McBains Drawing ROY01-MCB-ZZ-ZZ-DR-A-0230-D5-P1-Site Layout Plan)



1.4 Report Scope and Structure

- 1.4.1 Pre-application discussions with NHDC have required the application to be supported by an updated Transport Assessment (TA), with the access proposals in particular needing to be informed by up-to-date quantitative analysis.
- 1.4.2 MA have therefore been instructed by the Applicant to prepare this TA.
- 1.4.3 Following this Introduction, the TA is structured as follows:
- Section 2 identifies the relevant policy considerations;
 - Section 3 describes the existing situation, taken largely from the Transport Assessment that was submitted in support of the outline approval, updated where necessary. This section also summarises the results of updated speed surveys on Newmarket Road given the original outline application was supported by speed surveys undertaken in 2016;
 - Section 4 provides a description of the development proposals;
 - Section 5 provides an updated vehicular trip generation assessment, using the most recent version of the TRICS database, and establishes that the current application does not need to be informed by detailed off-site traffic impact analysis;
 - Section 6 concludes.

1.5 Other Documentation

- 1.5.1 In addition to this TA, the application is supported by a Framework Travel Plan (TP), which sets out a range of measures that will be introduced to support and encourage sustainable travel to/from the site by residents.

2. Policy Considerations

2.1 Outline Approval

2.1.1 The OTA prepared in support of the original outline approval was prepared against the following policy considerations:

- National Planning Policy Framework 2012
- HCC Local Transport Plan 3 2011
- NHDC Local Plan 1996 Saved Policies
- Proposed Submission Local Plan 2016

2.2 Current Policy Considerations

The National Planning Policy Framework (NPPF) (2023)

2.2.1 The NPPF sets out Government planning policy, provides a framework within which local planning policies should be produced, and is a material consideration in planning decisions.

2.2.2 With regards to transport, the NPPF states that: *“Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.”*

2.2.3 Paragraph 112 states that applications for development should:

- *Give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second- so far as possible – to facilitate access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;*
- *Address the needs of people with disabilities and reduced mobility in relation to all modes of transport;*
- *Create places that are safe, secure, and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;*
- *Allow for the efficient delivery of goods, and access by service and emergency vehicles; and*
- *Be designed to enable charging of plug-in and ultra-low emission vehicles in safe, accessible and convenient locations.*

2.2.4 Paragraph 113 states that: *“All developments that will generate significant amounts of movement should be required to provide a travel plan and should be supported by a transport statement or transport assessment.”*

2.2.5 With regards to car parking, paragraph 108 states that maximum parking standards for residential development should only be set where there is clear and compelling justification that they are necessary for managing the local road network and that standards should be

based on the accessibility of development, the type mix and use of development, the availability of public transport and local car ownership levels.

2.3 Hertfordshire Local Transport Plan LTP4 (2018-2031)

- 2.3.1 The Hertfordshire Local Transport Plan LTP4 sets out the transport strategy for the county for the period up to 2031. A key element of this plan is more emphasis on improving conditions for sustainable modes such as walking, cycling and public transport, with the broader intention of reducing vehicle traffic growth, reducing environmental impact, increasing physical activity and improving health.
- 2.3.2 Chapter Six includes a series of policies which seek to contribute to achieving the vision. **Policy 1** outlines the preferred **hierarchy for transport users** in the county, which is in the following order: reducing travel demand / the need to travel, vulnerable road users (pedestrians & cyclists), passenger transport users, powered two-wheeler users, and all other motor vehicle users.
- 2.3.3 **Policy 2: Influencing land use planning** seeks to encourage the location of new development in areas served by, or with the potential to be served by, high quality passenger transport facilities so that they can form a real alternative to the car, and where key services can be accessed by walking and cycling.
- 2.3.4 **Policy 5: Development Management** states that the county will work with development promoters and district/borough councils to,

Ensure access arrangements are safe, suitable for all people, built to an adequate standard and adhere to the county council's Highway Design Standards

Consider the adoption of access roads and internal road layouts where they comply with the appropriate adoption requirements and will offer demonstrable utility to the wider public. Where internal roads are not adopted the county council will expect suitable private management arrangements to be in place

Secure developer mitigation measures to limit the impacts of development on the transport network, and resist development where the residual cumulative impact of development is considered to be severe

Ensure that any new parking provision in new developments provides facilities for electric charging of vehicles, as well as shared mobility solutions such as car clubs and thought should be made for autonomous vehicles in the future.

2.4 North Hertfordshire District Local Plan (2011-2031)

- 2.4.1 The North Hertfordshire Local Plan 2011-2031 was adopted November 2022 and replaces the saved policies of the District Plan Second Review with Alterations. The Local Plan forms part of the statutory development plan for the district which is used to determine planning applications.

2.4.2 **Policy RY10** 'Land South of Newmarket Road,' allocates the site for development of 300 homes, establishing the principle of development in this location as being acceptable.

2.4.3 **Policy SP6: Sustainable Transport**, states that NHDC will:

Encourage development in locations which enable sustainable journeys to be made to key services and facilities;

Assess development proposals against the parking standards set out in this Plan and having regard to relevant supplementary advice;

Require applicants to provide assessments, plans and supporting documents to demonstrate the safety and sustainability of their proposals;

2.4.4 **Policy SP7: Infrastructure Requirements and Developer Contributions**, requires developers to provide financial support that is fairly and reasonable related to the impact of the development.

2.4.5 **Policy T2** addresses parking, stating that planning permission will be granted provided that "parking for residential development is provided in accordance with the minimum standards set out in Appendix 4 of this Plan." **Table 0-1** below sets out the minimum residential car and cycle parking standards.

Table 0-1 Residential Parking Standards

Use Class C3	Car Parking Standard	Minimum Cycle Parking Standard
1 bedroom	1 space per dwelling minimum	1 secure covered space per dwelling, none if garage or secure area provided within curtilage of dwelling
2-3 bedrooms	2 spaces per dwelling minimum	
Visitor / unallocated	Between 0.25 and 0.75 spaces per dwelling (rounded up to nearest whole number) with the higher standard being applied where there are no garages in the schemes and the lower standard applied where every dwelling in the scheme is to be provided with a garage	For above C3 general housing - if no garage or secure area is provided within curtilage of dwelling then 1 covered and secure space per dwelling in a communal area for visitors

2.4.6 The policy also states the following:

Garages will be counted towards meeting the standards only if they are at least 7m x 3m measured internally

For the visitor / unallocated parking standards, reductions in provision will be considered where:

Alternative publicly available off-street parking is available within 2 minutes' walk of the site;

Visitor parking arising from small-scale (i.e infill) development can be accommodated on-street without compromising highway safety, the amenity of existing residents or the ability for businesses to operate

2.5 Policy Compliance

- 2.5.1 The allocation of the site within the NHDC Local Plan has established that the principle of development within this location is acceptable.
- 2.5.2 The TA will otherwise establish that the site can be readily accessed by all user groups, that the proposals ensure connectivity with established pedestrian routes and improve connectivity via the provision of the proposed signalised pedestrian crossing and allowance for bus access. The TA will demonstrate that the proposed vehicular access meets relevant design standards. The TA will quantify the traffic generation associated with the proposed scale of development and will demonstrate that any associated impact has been considered to be acceptable as part of cumulative impact assessments undertaken as part of applications associated with other recently approved development, albeit that the principle of contributing towards off-site junction improvements is established and accepted.

3. Existing Situation

3.1 Site Location

- 3.1.1 The site is located on land south of Newmarket Road, approximately 1.5km east of Royston town centre, with a frontage along Newmarket Road of approximately 430m in length.
- 3.1.2 The site is currently used for agricultural purposes, but also accommodates two semi-detached cottages that are located centrally along the site frontage, with an established vehicular access from Newmarket Road. These cottages will be retained. The associated access to these properties will, however, be amended so that they are served from the site's internal access roads. This will ensure that there is only one vehicular access point onto Newmarket Road in this location, addressing any concerns related to junction spacing.
- 3.1.3 The site is bound to the north by Newmarket Road from which it is accessed. The site is otherwise surrounded by woodland, beyond which is Burloes Lane to the east, a private road that provides access to the Burloes Estate, which lies south of the site. Beyond the woodland to the west, which falls within the ownership of NHDC, there is an established residential community, centred around Valley Rise and Studlands Rise and accessed from Newmarket Road.
- 3.1.4 The site accommodates an undulating topography, with only the central part of the site being level with Newmarket Road, with the site rising to the west and falling to the east along the Newmarket Road frontage. These topographical constraints influenced the vehicular access strategy adopted as part of the outline planning application.

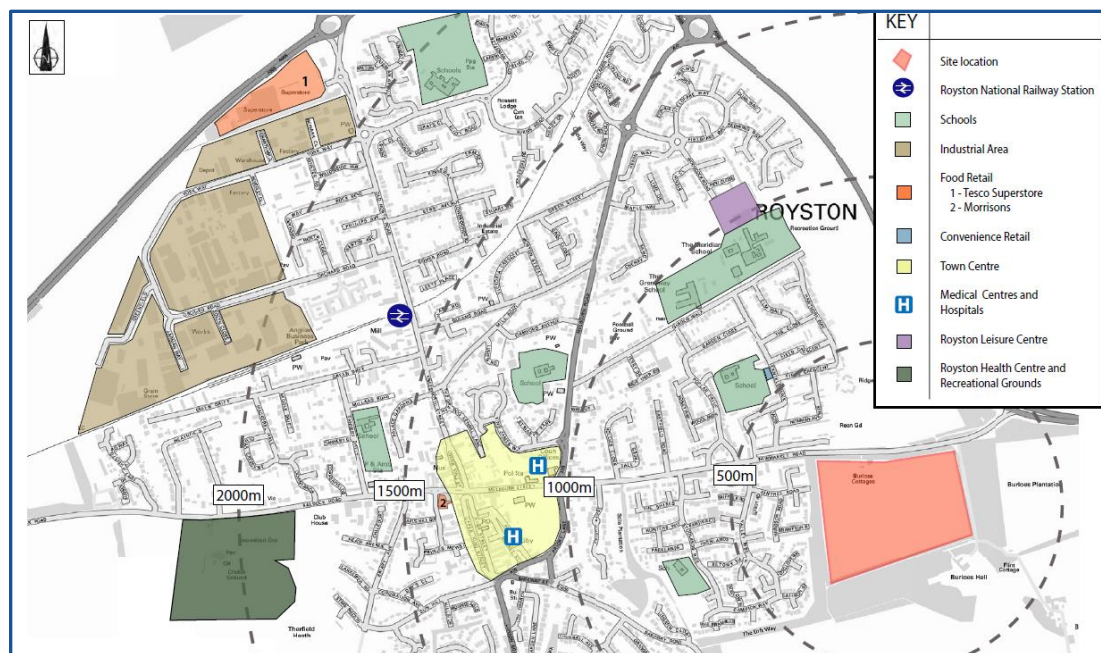
3.2 Accessibility

- 3.2.1 The site benefits from being located within close proximity of a range of social infrastructure that acts as typical trip attractors for a residential land use, including education, food retail, leisure and health land uses, ensuring residents would not be wholly reliant on travel by private car to access essential goods and services.
- 3.2.2 Examples of this social infrastructure, and their associated walk distance from the centre of the site, are detailed below in **Table 3.1** and indicated on **Figure 3.1**.

Table 3.1: Walk Distance to Trip Attractors from Edge of Site

Attractor Land Use	Site	Assumed Travel Route	Walk Distance from the Centre of the site	Cycle Time
Primary School	Icknield Walk First School (4-9)	Newmarket Road / Poplar Drive	950m / 12 minutes	2 mins
Middle/Secondary School	Greneway Middle School (9-13)	Newmarket Road / Recreational Grounds / Icknield Walk / Garden Walk	1100m / 14 minutes	3 mins
	Meridian Secondary School (13-18)	Newmarket Road / Recreational Grounds / Icknield Walk / Garden Walk	1100m / 14 minutes	4 mins
Food Retail	Morrisons	Newmarket Road / Melbourn Street / Baldock Street	1600m / 20 minutes	4 mins
	Icknield stores	Newmarket Road / Recreational Grounds / Icknield Walk	800m / 10 minutes	2 mins
	Tesco express	Newmarket Road / Priory Lane / Market Hill	1500m / 19 minutes	6 mins
Health	Royston Health Centre	Newmarket Road / Melbourn Street	1200m / 15 minutes	3 mins
	Lloyds pharmacy	Newmarket Road / Melbourn Street / King Street	1400m / 18 minutes	6 mins
Leisure	Royston Leisure Centre	Newmarket Road / Poplar Drive / Garden Walk / Melbourn Road / Maple Way / Woodcock Road	1960m / 24 minutes	5 mins
	Royston Town Football Club	Newmarket Road / Poplar Drive / Garden Walk	1500m / 19 minutes	4 mins
	Royston Town Centre	Newmarket Road / Melbourn Street / King Street	1500m / 19 minutes	4 mins
Public Transport	Royston National Rail Station	Newmarket Road / Melbourn Street / Kneesworth Street	2100m / 26 minutes	7 mins
	Royston Bus Station	Newmarket Road / Priory Lane	1500 / 19 minutes	5 mins
	Bus Stop Icknield Walk	Newmarket Road / Icknield Walk	530m / 7 minutes	1 min
Employment	Orchard Road Industrial Estate	Newmarket Road / Melbourn Street / Kneesworth Street / Old North Road / York Road	2700m / 34 minutes	9 mins

Figure 3.1: Site Accessibility



- 3.2.3 The proximity demonstrated in **Table 3.1** ensures that these trip attractors can be accessed by modes other than the private car and realistically on foot by most able-bodied residents, thereby reflecting fundamental requirements of national, county and local planning policy for creating sustainable communities. The site location is therefore appropriate for residential development.
- 3.2.4 It is acknowledged that, for some residents, some of these walk distances maybe excessive. In this regard, the existing 'Town Service' circular bus route (16) provides an alternative means of access, which the development proposals are intending to accommodate.

3.3 Pedestrian Infrastructure

- 3.3.1 Along Newmarket Road, west from the junction with the A505, there is no footway provision along the southern side of Newmarket Road until Valley Rise, and therefore along the full site frontage.
- 3.3.2 Along the northern side of the carriageway there is also no footway provision until the Burloes Lane junction where a narrow 0.75m footway commences, which continues west toward Icknield Walk. Opposite the existing cottages access the footway widens to approximately 1.2-1.5m, although vegetation has encroached over the back of footway, reducing the effective width in places. Approximately 80m west of the cottages access, the footway narrows again to approximately 1m wide, adjacent to where a roadside verge commences. At this location, the back of footway is generally level with the recreation ground, located to the rear, which is understood to fall within the ownership of NHDC. Within this area there is currently no formalised connection between the recreation ground and this Newmarket Road footway. The Newmarket Road footway then continues for another 150m,

after which the verge ceases and the footway widens to approximately 1.8m up to the junction with Icknield Road.

- 3.3.3 Newman Avenue, a residential cul-de-sac that provides access to the recreation ground, runs parallel with Newmarket Road, and provides an alternative route for pedestrians to access the wider highway network, supported by footway provision on the northern side of the carriageway. There is currently no formalised connection between Newmarket Road and Newman Avenue.
- 3.3.4 West of Valley Rise there are footways on both sides of Newmarket Road measuring between 1-1.5m in width. There is also a pedestrian crossing in-between Poplar Drive and Wheatfield Crescent which would be used primarily at School peak times due to Icknield Walk First School located on Poplar Drive to the north west of the site.
- 3.3.5 The wooded area immediately west of the site, Bury Plantation, is currently used recreationally, with a number of tracks evident, although these are not formal Public Rights of Way. An informal crossing location on Newmarket Road links the informal track with similar on the northern side of the carriageway, although visibility in this location is obscured by a crest in the carriageway to the west and is not therefore a safe crossing point.
- 3.3.6 There are then wider recreation routes surrounding the site, including Icknield Way, which runs east/west along the northern edge of Newmarket Road, before crossing to the southern side of Newmarket Road at the Burloes Lane junction.

3.4 Cycle Infrastructure

- 3.4.1 There are currently no formal cycle routes that link with the site, although the residential roads to the north are conducive to cycling. The nearest cycle route is located on Poplar Drive approximately 620m to the north west of the Site. This cycle route links to the northern residential part of Royston offering connections to local facilities, schools, and Royston Rail Station. These local cycle routes link to the A10 cycle route which travels northwards from Royston and offers a traffic free route linking to Melbourn which runs parallel to the A10.
- 3.4.2 There is an on-street cycle route accessible on Briary Lane approximately 1.3km to the west of the Site. This provides access to a wider circular cycle network linking Therfield, Reed and Shaftenhoe End.

3.5 Public Transport

Rail

- 3.5.1 Royston National Rail Station is located approximately 1.5 miles walk distance from the site, although it is also accessible via the existing circular bus route through the town and has secure cycle parking and car parking on-site. Royston Station offers access to Great Northern and Thameslink services between London King's Cross/St Pancras and Cambridge, with Thameslink services continuing through to London Bridge, Gatwick and Brighton.

- 3.5.2 The rail services and frequency available from Royston Station is summarised in **Table 3.2**, confirming that Royston benefits from a relatively frequent service toward major regional employment centres. It is noted that train frequency has improved from Royston since the original outline approval.

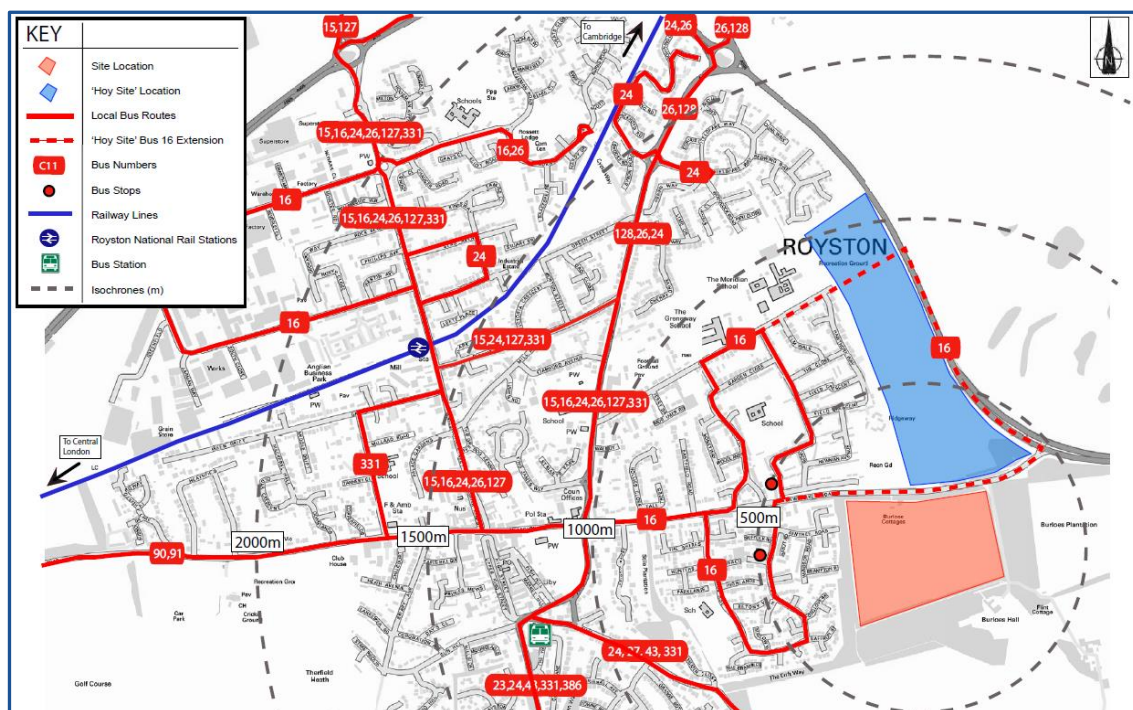
Table 3.2 Rail service frequency

Destination (and vice versa)	Weekday Peak Hours	Duration of Journey (Approximately)
To Cambridge	6	14-20 mins
To London Kings Cross/St Pancras	5	39-52 mins

Public Bus

- 3.5.3 The closest bus stops to the site are located on Icknield Walk, approximately 300m walk distance from the edge of the site and 625m from the site centre. These bus stops accommodate the Royston circular route 16, which operates Monday to Saturday, with between 1-2 services per hour between 07.00hrs and 18.00hrs.
- 3.5.4 The service provides access to Royston National Rail Station, Orchard Road industrial estate and the town centre, offering interchange opportunities with other bus services that operate via the town centre, with existing routes indicated on **Figure 3.2**.

Figure 3.2: Public Transport



- 3.5.5 It is understood that the 'Hoy' development site, which is currently being delivered north of Newmarket Road, indicated on **Figure 3.2** above, was to fund the extension of the existing bus route to allow it to enter that site from the A505. Discussions with HCC's PTU at the time of the original outline planning application confirmed that this extension would result in the existing bus route continuing east along Newmarket Road toward the A505 junction, rather than left turning into Icknield Way. This diversion offers the potential for the service to be diverted within the subject site and increasing the site's accessibility, an opportunity that will be accommodated within the proposed site layout.

3.6 Local Highway Network

- 3.6.1 Newmarket Road is a 7.3m wide single carriageway road, providing a link between the A505 to the east and Royston town centre, where it forms a roundabout junction with the A10 and Melbourn Street.
- 3.6.2 Along the site frontage the speed limit of Newmarket Road changes from National speed limit (60mph) to 40mph adjacent to the existing site access. Moving west, the speed limit then further reduces to 30mph immediately east of the junction with Icknield Walk.
- 3.6.3 The A505, which bypasses the town centre and runs between the M11 and A1(M), duals as it passes Newmarket Road, with no right turn entry into Newmarket Road for southbound vehicles on the A505.
- 3.6.4 Approximately 2km north of the junction with Newmarket Road, the A505 forms a roundabout junction with the A10 Melbourne Way, which serves Cambridge to the north. A further 1.5km west and the A505 forms a roundabout junction with the A1198/Old North Road. Both the A10 and A1198 Old North Road provide access into Royston town centre.
- 3.6.5 From Icknield Walk, west of the site, Newmarket Road rises, with a crest located in line with the western site boundary. The gradient then falls toward the site access, before rising again toward the eastern site boundary, which continues to a crest approximately 80m east of Burloes Lane, after which it falls again toward the A505 junction.
- 3.6.6 The access strategy associated with the outline planning application was informed by existing vehicles speeds recorded at two locations on Newmarket Road in April 2016. In order to ensure the current proposals are informed by up to date survey data, new speed surveys were undertaken on Newmarket Road in November 2023. The results of the survey in terms of 85th percentile speeds and peak hour/daily traffic flows are summarised below in **Table 3.3**, along with the survey results of the 2016 surveys, to allow a comparison to be made. The 2023 survey results are provided at **Appendix E**.

Table 3.3: ATC Results

Scenario	Direction	AM Peak (HGV) (5 day average)	PM Peak (HGV) (5 day average)	Daily (HGV) (5 day average)	85 th Percentile Speed (mph) (7 day average)
2016 Surveys	Eastbound	292 (9)	162 (7)	2169 (137)	44.7
	Westbound	117 (9)	219 (5)	1650 (120)	52.6
	Total	409 (18)	381 (12)	3819 (257)	NA
2023 Surveys	Eastbound	304 (9)	176 (3)	2562 (93)	42.4
	Westbound	139 (9)	275 (6)	2110 (115)	49.6
	Total	444 (18)	451 (9)	4673 (208)	NA

- 3.6.7 **Table 3.3** therefore confirms that eastbound and westbound 85th percentile vehicle speeds recorded in 2023 have not exceeded the surveys recorded in 2016, with reductions of at least 2mph and speeds being below 50mph.
- 3.6.8 On this basis, the visibility splays adopted within the outline planning application are robust as they are based on higher observed speeds.
- 3.6.9 **Table 3.3** also indicates that whilst there is an increase in weekday traffic across the full day, there is no material change in traffic movements during traditional network peak hours.

4. Development Proposals

4.1 Scale of Development and Application Form

- 4.1.1 As stated in the introduction, and repeated here, the original outline application approval has lapsed. The current proposals are however for exactly the same scale of development and retaining the same access strategies and locations as previously approved.
- 4.1.2 Rather than an application wholly in outline form, the new application is submitted in hybrid form, with description of development as follows:

Hybrid application for residential development of up to 325 dwellings comprising: (a) full planning application for Phase 1 comprising 102 dwellings and associated infrastructure including access from Newmarket Road, emergency and pedestrian/cycle access from Burloes Hall Drive, internal highways, public open space, landscaping and drainage and (b) outline application for up to 223 dwellings and associated infrastructure with all matters reserved apart from primary means of access and emergency and pedestrian/cycle access from Burloes Hall Drive.

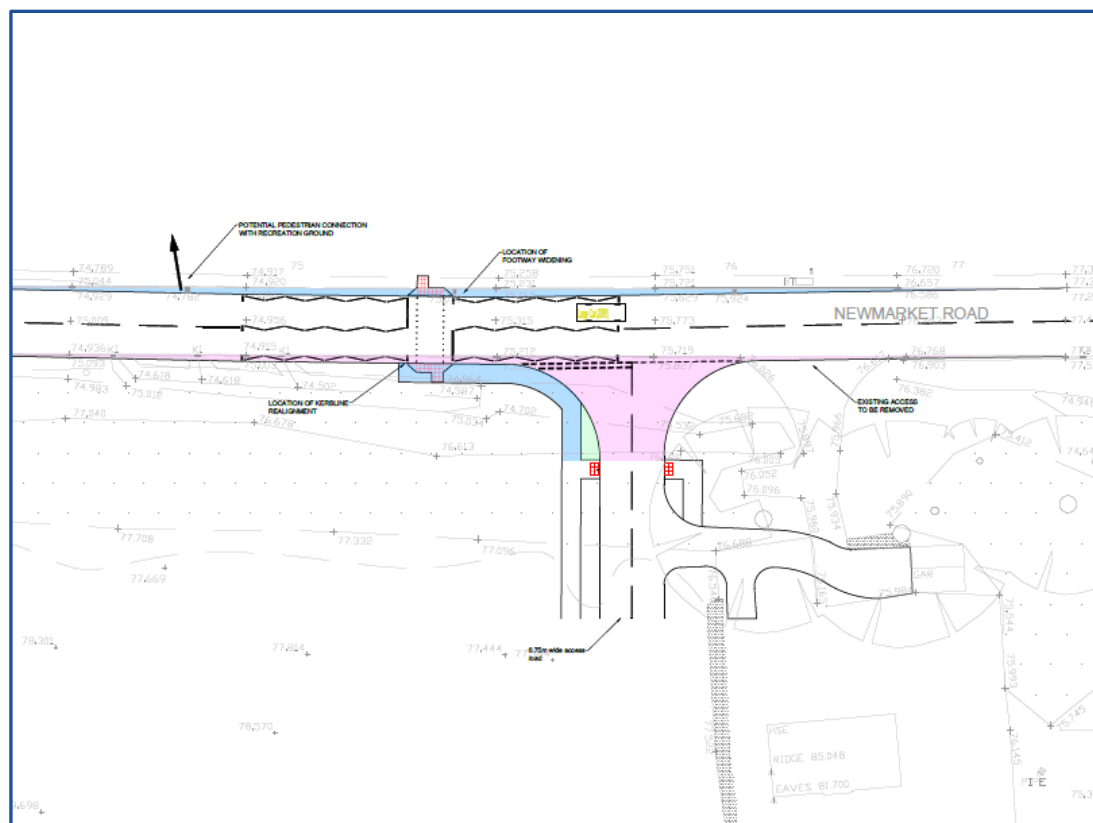
- 4.1.3 Together, the full application extent and outline application extent are indicated on an illustrative Framework Plan, attached at **Appendix C**.
- 4.1.4 The outline extent is supported by a series of parameter plans, which identify the extent of development within the remaining part of the site.
- 4.1.5 Detailed consideration of the site layout within this TA therefore relates to the full application extent and the proposed access arrangements.

4.2 Vehicular Access

Newmarket Road

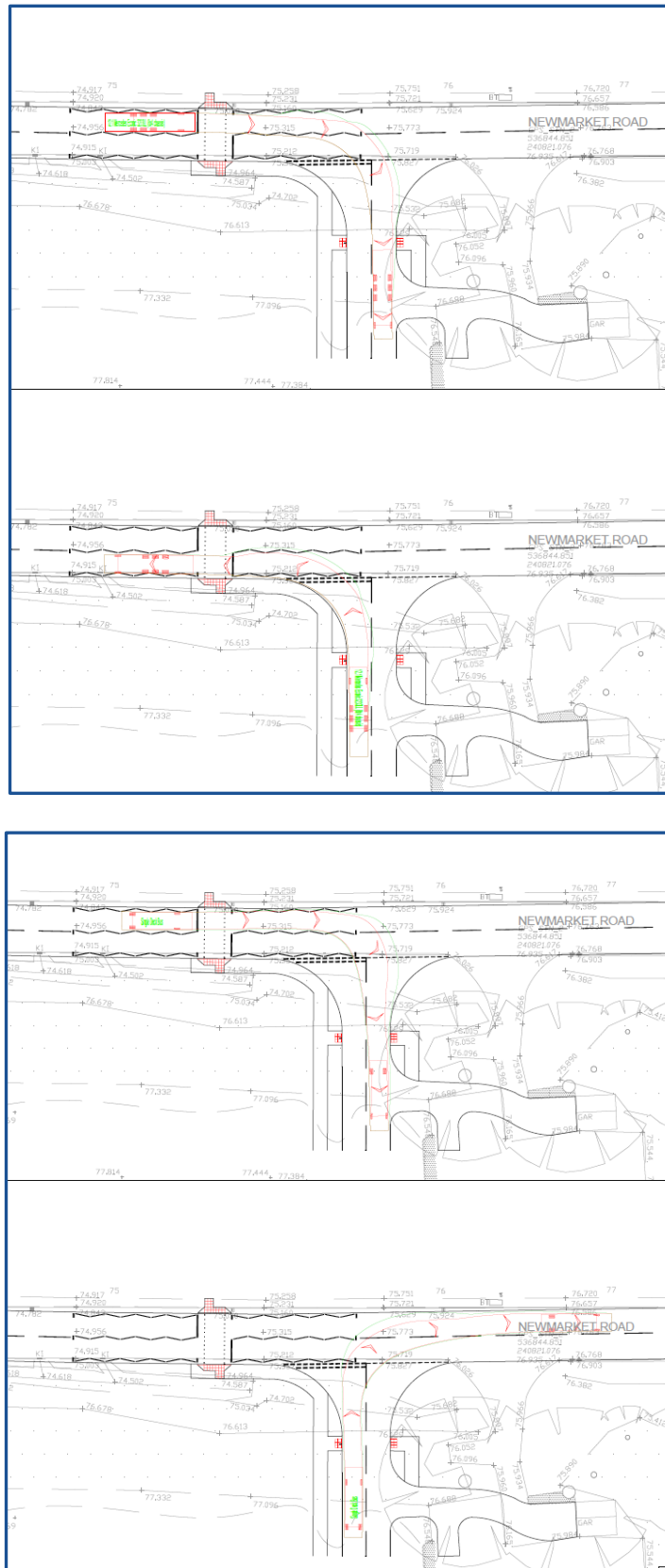
- 4.2.1 The proposals retain the same access arrangements as previously approved, with the retention of a single point of access to serve the site, in the form of a simple priority junction.
- 4.2.2 The proposed Newmarket Road junction is indicated on **Drawing 23324-MA-XX-XX-DR-C-0100**, with extract below at **Figure 4.1**.

Figure 4.1: Newmarket Road Access



- 4.2.3 The access is located immediately west of the existing cottages, roughly half way along the site frontage, within the 40mph section of Newmarket Road. In terms of junction visibility, the previous outline application used the observed speed surveys to dictate visibility requirements of 180m to the east and 140m to the west. As the new surveys have recorded reduced vehicle speeds on Newmarket Road, it is robust to retain the previously adopted visibility splays, which are indicated on **Drawing 23324-MA-XX-XX-DR-C-0130**.
- 4.2.4 The junction accommodates 10m radii, serving a 6.75m wide access road, with this width dictated by the need to accommodate bus access.
- 4.2.5 Vehicle swept path analysis confirming a public bus and large refuse can negotiate this access junction is indicated in Drawing **23324-MA-XX-XX-DR-C-7000/7001**, with extract below at **Figure 4.2**.

Figure 4.2: Newmarket Road Access Tracking Analysis



- 4.2.6 The access is also located sufficiently east of the hill crest on Newmarket Road so that vertical visibility requirements of 1.05m driver height to 0.26m object height can be achieved, with long sections indicated on **Drawing 23324-MA-XX-XX-DR-C-0130**. The drawing also indicates that vehicles waiting to turn right into the site have sufficient forward visibility of vehicles approaching the site from the east.
- 4.2.7 In order to address any concerns regarding junction spacing, the existing access to the cottages will be removed, with alternative access to the cottages provided internally from within the site.
- 4.2.8 This original access proposal was the subject of a road safety audit, appended to the OTA, which raised no problems relating to the access proposals.

Burloes Lane Emergency / Construction Access

- 4.2.9 The proposals retain the same access arrangements as previously approved, with the retention of an emergency access from Burloes Lane, which will also be used as a construction access into the site.
- 4.2.10 To facilitate construction vehicle access, it is necessary to introduce a passing place along Burloes Lane, widening the existing carriageway on each side and introducing some form of permeable hardstanding. Following completion of construction, the passing places could be retained to support its use as an emergency access route, should this eventuality ever occur.
- 4.2.11 To facilitate construction vehicle access and allow sufficient space for a construction vehicle to wait within the junction bellmouth fully off the Newmarket Road carriageway, the proposals also include some minor realignment of the Burloes Lane kerblines into the adjacent verge at the Newmarket Road junction.
- 4.2.12 These proposals are indicated on Drawing **23324-MA-XX-XX-DR-C-0250**, with extract below at **Figure 4.3**.

Figure 4.3: Burloes Lane Emergency/Construction Analysis



- 4.2.13 The delivery of the outline extent will include some form of removal bollards/barrier to ensure the access is not used by vehicles on a day-to-day basis. The detailed extent is not of a scale where a separate emergency access is necessary.

4.3 Pedestrian Access

- 4.3.1 The proposals include a signalised pedestrian crossing immediately west of the proposed site access, ensuring safe connectivity with the existing Newmarket Road footway on the northern side of the carriageway.

- 4.3.2 In order to ensure sufficient widths on each side of the crossing the proposals include a minor realignment of the kerbline on each side of the carriageway, reflected in the access proposals shown on **Drawing 23324-MA-XX-XX-DR-C-0100**.
- 4.3.3 Pedestrians are then able to continue west toward Royston using the existing footway along Newmarket Road.
- 4.3.4 Should it be considered necessary, the Applicant is willing to contribute toward the delivery of a pedestrian footpath that provides a link from the Newmarket Road footway toward Newmans Road, via the adjacent recreation ground, acknowledging that as this land is not within public highway it is not in their gift to deliver directly. There is a potential alignment with sufficient gap between existing trees to the rear of the Newmarket Road footway and with no significant change in levels where this route could be delivered.

4.4 Full Extent

Scale and Mix

- 4.4.1 The full application extent primarily covers the western part of the site, with a scale of development totalling 102 units, with accommodation mix as follows:
- 2 x 1 bed maisonettes
 - 2 x 2 bed maisonettes
 - 4 x 2 bed bungalows
 - 6 x 2 bed houses
 - 41 x 3 bed houses
 - 47 x 4 bed houses

Road Layout

- 4.4.2 From the Newmarket Road, a 6.75m spine road enters the site, continuing south to a landscaped turning area that will allow buses to enter and exit the site in forward gear.
- 4.4.3 From the spine road there are a number of 5.5m wide side roads that in turn provide access to 4.8m wide shared surfaces, reducing down to 4.1m where they serve a small number of units.
- 4.4.4 Visibility requirements at side road junctions are readily met.
- 4.4.5 The proposed internal road network, excluding the 4.1m shared surfaces, are proposed to be built to and offered for adoption, with adoption extent indicated at **Appendix F**.

Pedestrian Arrangement

- 4.4.6 The full application extent is supported by footway provision from the site access on each side of the spine road, set back from the edge of carriageway with a road verge.
- 4.4.7 These footways connect with footway provision along the side roads, which then tie in with shared surfaces, with change in level addressed via raised tables on entry.
- 4.4.8 A recreational footpath is then provided around the perimeter of the site, which will in turn connect with similar provision across the outline extent. It is from this perimeter route that pedestrian connections to Bury Plantation will be provided to the west.

Car Parking

- 4.4.9 The proposals adopt a parking strategy where each unit is provided with at least two allocated parking spaces, apart from the 2 x one-bedroom maisonettes, which are ground floor wheelchair accessible units, provided with a single blue badge parking space each. A total of 210 allocated spaces are provided for the dwellings.
- 4.4.10 The proposals then include a total of 28 unallocated visitor spaces, a ratio of 0.27 spaces per unit.
- 4.4.11 The proposals therefore include a total of 238 car parking spaces.
- 4.4.12 The proposed car parking allocations are indicated at **Appendix G**.
- 4.4.13 The proposals are therefore in accordance with adopted parking standards.
- 4.4.14 Electric vehicle charging provision will be provided in accordance with the building regulations Part S.

Cycle Parking

- 4.4.15 Cycle parking will be provided within the curtilage of each property.

Servicing and Refuse Collection

- 4.4.16 The internal road network is sufficient in size to accommodate emergency vehicle, delivery vehicle and refuse vehicle access.
- 4.4.17 In terms of refuse, the proposals include a number of bin collection points, where residents will bring their individual bins on collection days.
- 4.4.18 Refuse vehicles will then be able to get within an acceptable drag distance of these bin collection points, with turning heads provided where reversal distances would otherwise be excessive.

4.4.19 Swept path analysis indicating refuse vehicle access across the site is provided at **Appendix H**.

4.4.20 Swept path analysis indicating fire tender access across the site is provided at **Appendix I**.

4.5 Bus Access

4.5.1 Pre-application discussions with HCC's PTU as part of the original outline application established that bus access into the site is required in order to ensure that each residential unit will be within 400m of a bus route.

4.5.2 It is envisaged that the existing circular bus route 16 will access the site as part of its diverted route that will occur in association with the Hoy site, with the route continuing east toward the A505, from which it will access the Hoy site before travelling east toward Royston town centre.

4.5.3 The proposals accommodate this via the 6.75m spine road and bus turning loop.

4.5.4 Swept path analysis indicating public bus access around the loop is provided at **Appendix J**.

5. TRIP GENERATION AND TRAFFIC IMPACT

5.1 Trip Generation

- 5.1.1 The OTA submitted as part of the original outline planning application used vehicular trip rates contained within the transport assessment that was prepared in support of the Hoy site.
- 5.1.2 These vehicular trip rates were sourced from the industry standard TRICS database (version 7.1.1), based on a site selection criteria of privately owned houses, with a unit range of between 75-500 units, within edge of town, suburban or neighbourhood centre locations. The resultant peak hour trip rates are reproduced below at **Table 5.1**.

Table 5.1: Original Vehicle Trip Generation

	AM Peak (08.00-09.00)			PM Peak 17.00-18.00		
	IN	OUT	TOTAL	IN	OUT	TOTAL
Trip Rate	0.15	0.41	0.56	0.39	0.23	0.62

- 5.1.3 The version of TRICS used to generate these trip rates was released in December 2013 and is therefore 10 years old.
- 5.1.4 An updated TRICS assessment has therefore been undertaken using the current version, 7.10.4, as this will include a wider sample. The same site selection criteria has been adopted, other than to remove surveys undertaken during COVID and sites with a housing mix that is specified as including flats. This updated search resulted in a selection totalling 27 sites, with TRICS outputs attached at **Appendix K** and peak hour trip rates presented in **Table 5.2** below.

Table 5.2: Updated Vehicle Trip Generation

	AM Peak (08.00-09.00)			PM Peak 17.00-18.00		
	IN	OUT	TOTAL	IN	OUT	TOTAL
Trip Rate	0.134	0.337	0.471	0.326	0.150	0.476

- 5.1.5 Comparing the trip rates in **Table 5.2** and **5.1** it is clear therefore that the original assessment is more robust.
- 5.1.6 Applying these original trip rates to the proposed scale of development resulted in the following peak hour vehicular trip generation, which was then used as part of a wider traffic impact assessment.

Table 5.3: Vehicle Trip Generation

	AM Peak (08.00-09.00)			PM Peak 17.00-18.00		
	IN	OUT	TOTAL	IN	OUT	TOTAL
Trip Rate	49	133	182	127	75	202

5.2 Trip Distribution

- 5.2.1 The OTA submitted as part of the original outline planning application used origin/destination data taken from the 2011 Census in order to distribute these vehicular trips across the local highway network.
- 5.2.2 Origin/destination data for the 2021 census has not yet been released in a format that could be used to inform traffic assignment assessments.
- 5.2.3 The same trip distribution profiles are therefore maintained for this current application, with AM and PM peak distribution profiles provided at **Appendix L**.

5.3 Traffic Impact

Original Assessment

- 5.3.1 The OTA prepared in support of the approved outline application undertook capacity assessments for the same study area as the Hoy site, which encompassed the following junctions, also indicated in **Figure 5.1**.
- A505/Newmarket Road priority junction;
 - A505/A10 roundabout junction;
 - A505/A1198 roundabout junction; and
 - A10/Newmarket Road/Melbourn Street roundabout junction.

Figure 5.1: Capacity Assessment Study Area



5.3.2 In terms of scenario testing, the Hoy site assessments were based on 2014 traffic surveys, which were growthed to a 2021 future year baseline scenario using TEMPRO growth factors, which also included the cumulative impact associated with a number of committed development sites, encompassing Fairview Homes Site A/B and Land at Ivy Farm.

5.3.3 In order to mitigate the impact of the Hoy site development on the operation of the local highway network to a position of at least nil detriment, the assessment included mitigation measures at a number of the off-site junctions within the study area, which included increases in entry width and flare length. Therefore, as these mitigation measures were associated with the Hoy site and were therefore a committed improvement, they were also included within the baseline scenario assessment for the subject site within the OTA.

5.3.4 These improvements are summarised as:

- A505/A10 roundabout junction;
 - A505 West arm entry width increased from 7.5m to 8m and flare length increased from 5m to 7m
- A505/A1198 roundabout junction; and
 - A505 East arm entry width increased from 7.3m to 8m and flare length increased from 2m to 9m
 - A505 West to increase entry width from 7.3m to 8m and flare length from 2m to 12m
 - A1198 South to increase entry width from 8m to 8.25m and flare length from 30m to 35m

5.3.5 Under the With Development scenario for the subject site, it was then found that at two of these junctions additional mitigation on top of that approved for the Hoy site was needed to fully negate the impact of the proposed development, summarised as follows:

- A505/A10 roundabout junction;
 - A10 north arm entry width increased from 6.5m to 6.7m
 - A505 West arm entry width increased from 8m to 8.2m
- A505/A1198 roundabout junction; and
 - A505 East arm entry width increased from 8m to 8.2m
 - A1198 South arm entry width increased from 8.25m to 8.35m
 - A505 West arm entry width increased from 8m to 8.1m

- 5.3.6 With these additional changes a position of nil detriment was reached at these junctions, mitigating the impact of the development to an acceptable level. As explained in the Introduction to this TA, financial contributions towards the delivery of these highway capacity improvements were secured via a S106 Agreement.
- 5.3.7 For the A505/Newmarket Road priority junction and A10/Newmarket Road/Melbourn Street Roundabout Junction, the analysis demonstrated that these continued to operate within capacity under a With Development scenario and on this basis mitigation was not necessary at these junctions.
- 5.3.8 The site access junction also operated well within capacity.

Land North of Flint Hall (21/00765/OP)

- 5.3.9 An outline planning application (21/00765/OP) is currently pending for a development proposal at a site, 'Land Off Barkway Road And North Of Flint Hall, located south west of the subject site, with development description, *'Outline Planning Application for Residential Development of up to 280 dwellings (including affordable housing) with all matters reserved except for access which is to be taken from Barkway Road, green infrastructure including public open space, landscape boundaries and SUDS.*
- 5.3.10 The application is supported by a Transport Assessment and Transport Assessment Addendum, which include a traffic impact assessment informed by traffic flows sourced in December 2020, growthed in accordance with HCC requirements to remove any COVID influence on potentially dampening background traffic flows.
- 5.3.11 The assessment considered future year analysis for 2022 and 2027, applying TEMPRO Growth Rates to the observed flows and including additional traffic flows associated with a number of committed developments, listed below:
- Land Surrounding Burloes Cottages Newmarket Road Royston (325 Homes) -17/00110/1 – Granted 28 February 2020;
 - Land Across Verges At Royston Bypass Royston Hertfordshire – 17/02470/1 – Granted May 2018;
 - Land East Of Garden Walk And North Of Newmarket Road Garden Walk Royston – 14/02485/1 - Granted December 2016;
 - Land West Of Royston & North Of Baldock Road Royston SG8 9NT (279 Homes + Land for Primary School) - 16/00378/1 – Granted 6 February 2019;
 - Land At Safeline Avs Ltd, Royston Business Park, Greenfield, Royston Hertfordshire SG8 5HN - 17/04357/FP – Granted 26 June 2018; and
 - Anglian Business Park, Royston - 19/01172/HYA – Granted 13 October 2020.
- 5.3.12 It is pertinent to note therefore that the analysis includes the subject site and therefore accounts for a worst case scenario of all developments being operational.
- 5.3.13 The assessment encompassed a study area that included the same junctions that were assessed within the OTA, as well as additional junctions within the town centre.

5.3.14 With regards to traffic impact analysis at these junctions, HCC's consultation response to the assessment included within the Transport Assessment Addendum (reference NH/6208/2021), attached at **Appendix M**, notes the following:

- A505/Newmarket Road priority junction;
 - *The approaches to A505/ Newmarket Road Priority Junction are shown to be operating substantially within an operational threshold in both 2022 and 2027 therefore the development impact at this junction is not considered severe by HCC Highways.*
- A505/A10 roundabout junction;
 - *However, the analysis has shown that the impact of the development in this location is minimal and thus HCC Highways in terms of the NPPF cannot consider it severe. At worst during the peak 15minutes of the 2022 PM peak the development would add only 1 extra vehicle to the A10 north approach and the development results in no additional queuing in the AM peak. In 2027 AM peak the development could result in 1 additional vehicle A505 west and during the PM peak there is again predicted to be 1 additional vehicle on the A10 north approach.*
- A505/A1198 roundabout junction; and
 - *However, the analysis has shown that the impact of the development in this location is minimal and thus HCC Highways in terms of the NPPF cannot consider it severe. At worst during the peak 15minutes of the 2022 PM peak the development would add only 1 extra vehicle to the A605 east approach and the development results in no additional queuing in the AM peak or in either peak in 2027.*
- A10/Newmarket Road/Melbourn Street roundabout junction.
 - *The 2027 Baseline (including committed development) analysis indicates that the approaches to this junction would go beyond operational threshold capacity (with an RFC of 0.89) during the PM peak due to predicted growth prior to development, and hence would be predicted to become unstable. The analysis within the TA indicates that the development will cause the predicted queue on Melbourn Street to rise from 7 vehicles (or passenger car units) to 15 vehicles, during the peak 15minutes of the 2027 PM peak. As with 2022 however the junction would operate within absolute capacity thresholds (an RFC of 0.97). The developer has demonstrated that by implementation of the mitigation scheme shown on*

Drawing J325129-PS-100 that no net detriment could be achieved at the junction (An RFC on the A10 Priory Lane approach of 0.89). HCC Highways however, have concerns as to how the proposals will affect the existing pedestrian crossing across the A10 Priory Lane and consider that in order to promote a LTN4 compliant development that mitigation should concentrate on the establishment of a sustainable connection from the development to town as way of mitigation.

- 5.3.15 It is apparent therefore that HCC did not consider mitigation to be necessary at these junctions under a cumulative impact scenario that included the impact of the subject site. Furthermore, it is noted that the assessments at the A505 junctions did not appear to include any of the mitigation interventions proposed within the Hoy assessments or additional interventions within the OTA.
- 5.3.16 On this basis, it is not considered necessary for the TA to be supported by any updated traffic impact analysis given HCC are comfortable that under a cumulative scenario mitigation is not needed at these junctions as part of their consideration of application 21/00765/OP.
- 5.3.17 Notwithstanding, the Applicant would not object to the previously agreed financial contributions towards capacity improvements being retained, subject to further viability considerations.

6. Summary and Conclusion

- 6.1.1 In summary, this Transport Assessment has been prepared by Markides Associates in support of a hybrid planning application for a proposed residential development totalling 325 units at a site, *'Land Surrounding Burloes Cottages, Newmarket Road, Royston.'*
- 6.1.2 The site is allocated for development under North Hertfordshire Local Plan Policy RY10 'Land South of Newmarket Road,' for 300 homes.
- 6.1.3 The site already benefits from an outline planning approval for the same scale of development under application reference 17/00110/1, approved February 2020. This has however now lapsed.
- 6.1.4 The approved outline planning application was supported by a Transport Assessment, prepared by Markides Associates, which established the principle that the site was an acceptable location for development based on the site's proximity to a range of social infrastructure. This Transport Assessment identifies that that stance is maintained.
- 6.1.5 The new application is however in hybrid form, with a full extent encompassing primarily the western part of the site, with a scale of development totalling 102 dwellings. The remaining outline extent is supported by a series of parameter plans confirming the extent of development.
- 6.1.6 The current proposals retain key principles that were established as part of the original approval, as follows:
- A single vehicular access from Newmarket Road, taking the form of a simple priority junction, with visibility splays based on the requisite sight stopping distance, informed by speed surveys undertaken on Newmarket Road;
 - An emergency access taken from Burloes Lane on the eastern edge of the site, which will in turn support construction vehicle access, supported by wider changes to Burloes Lane to accommodate construction vehicles;
 - A signalised pedestrian crossing to support safe crossing movements from the site to the existing footway margin on the northern side of Newmarket Road; and
 - An access and internal site layout that will accommodate a turning circle to allow bus access within the site;
- 6.1.7 The Transport Assessment has used up to date speed survey data on Newmarket Road to demonstrate that the visibility splay requirements established as part of the original outline planning application are robust and can therefore be retained.
- 6.1.8 It is envisaged that the delivery of the highway works associated with the access and crossing will be delivered via way of a S278 Agreement.
- 6.1.9 The Transport Assessment has reviewed the full extent layout, access arrangements and parking proposals and demonstrated they are in accordance with design standards and

policy, with the layout allowing for pedestrian connections to established recreation paths to the west.

- 6.1.10 The original Transport Assessment included off-site capacity analysis to demonstrate that the impact of the development could be readily accommodated, albeit with some localised mitigation at certain arms of off-site junctions, the delivery of which was secured via S106 Agreement. The Transport Assessment has revisited the trip generation assumptions adopted within the original Transport Assessment and demonstrated that they are robust. The Transport Assessment has then reviewed the status of a pending application, Land North of Flint Hall (21/00765/OP), which has been informed by off-site capacity analysis that demonstrates that the cumulative impact of that development and other committed developments across Royston, including the subject site, can be readily accommodated without severe impact. This position is agreed by Hertfordshire County Council as set out within their most recent consultation response. On the basis that this analysis includes the impact associated with the subject site it is believed that capacity analysis is not necessary. Notwithstanding, the Applicant would not object to the previously agreed financial contributions towards capacity improvements being retained, subject to further viability considerations.
- 6.1.11 On this basis, Markides Associates are of the view that the proposals should be supported from a highways and transport perspective.

DRAWINGS

23324-MA-XX-XX-DR-C-0100 General Arrangement Proposed Site Access Priority Junction

23324-MA-XX-XX-DR-C-01300 Visibility Splays

22324-MA-XX-XX-DR-C-7000 Swept Path Analysis Single Decker Bus

22324-MA-XX-XX-DR-C-7001 Swept Path Analysis Refuse Vehicle

22324-MA-XX-XX-DR-C-0250 Burloes Emergency / Construction Access



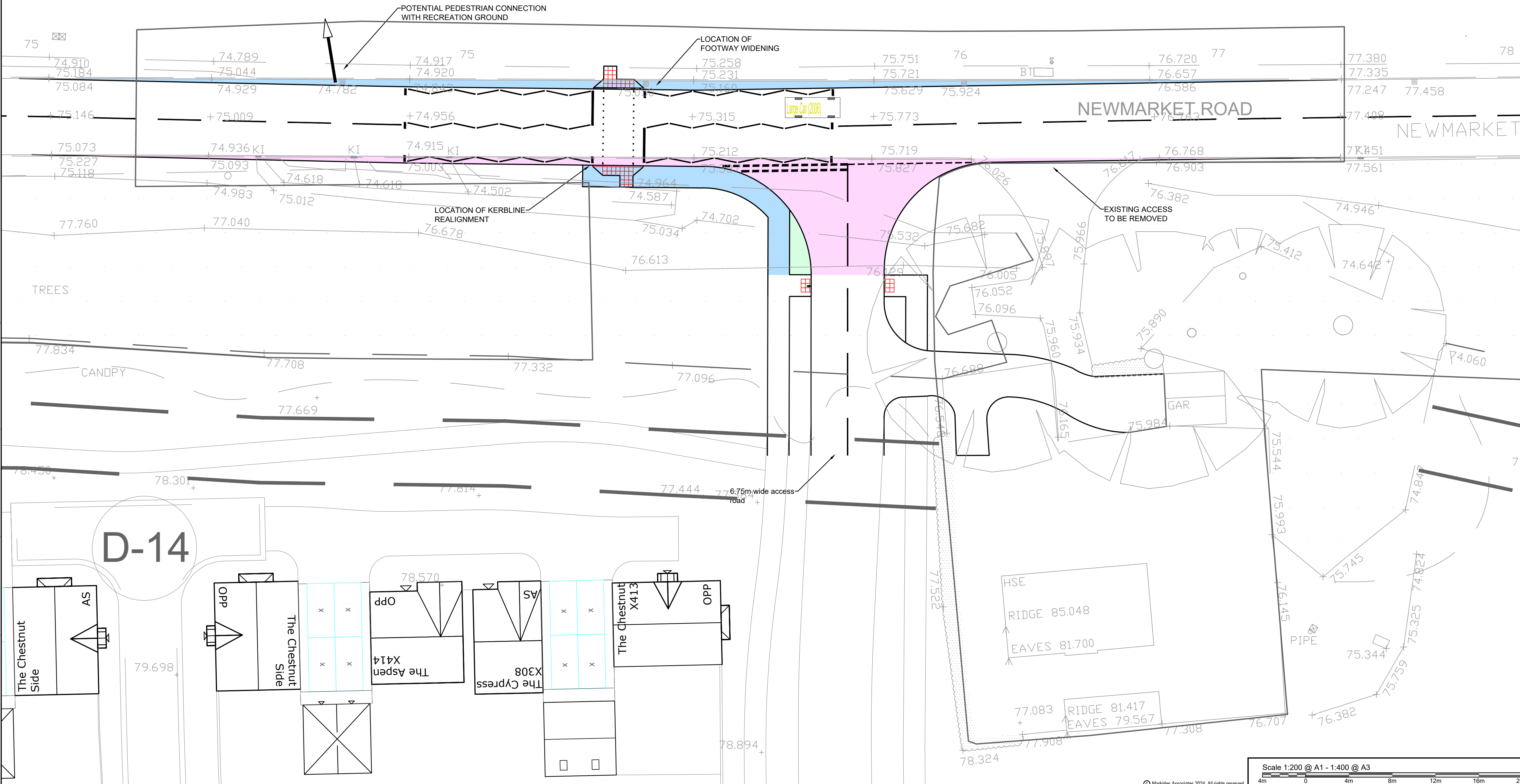
DO NOT SCALE OFF THIS DRAWING

NOTES

1. This drawing is indicative and subject to discussions with local & national highway authorities. This design is also subject to confirmation of land ownership, topography, location of statutory services, detailed design and traffic modelling.
2. This drawing is based upon drawing number XXX supplied by XXX and Markides Associates shall not be liable for any inaccuracies or deficiencies.
3. Markides Associates accept no responsibility for any unauthorised amendments to this drawing. Do not rely on dimensions scaled from this plan.
4. Highway boundary information has been provided by XXX County Council on XXX and has been transcribed by Markides Associates onto an Ordnance Survey base. Markides Associates accepts no liability for the accuracy of the data provided and the highway boundary information shown is subject to checks by a licensed conveyancer.
5. Any swept path analysis has been undertaken using Autodesk vehicle tracking software (AutoTRACK) and Markides Associates shall not be liable for any inaccuracies or deficiencies.

KEY

- NEW FOOTWAY
- NEW CARRIAGEWAY
- NEW VERGE



Revision History					
P02	FOR INFORMATION		NB	AS	AS
P01	FOR INFORMATION		NB	AS	AS
Rev	Comment		By	Chkd	Appr
Current Revision					
P02	FOR INFORMATION		NB	AS	AS
Rev	Comment		By	Chkd	Appr

S2 - FOR INFORMATION

VISTRY GROUP PLC

MARKIDES ASSOCIATES

TRANSPORT PLANNING AND ENGINEERING

2nd floor
73-83 Southwick Bridge Road
London SE15 0DQ

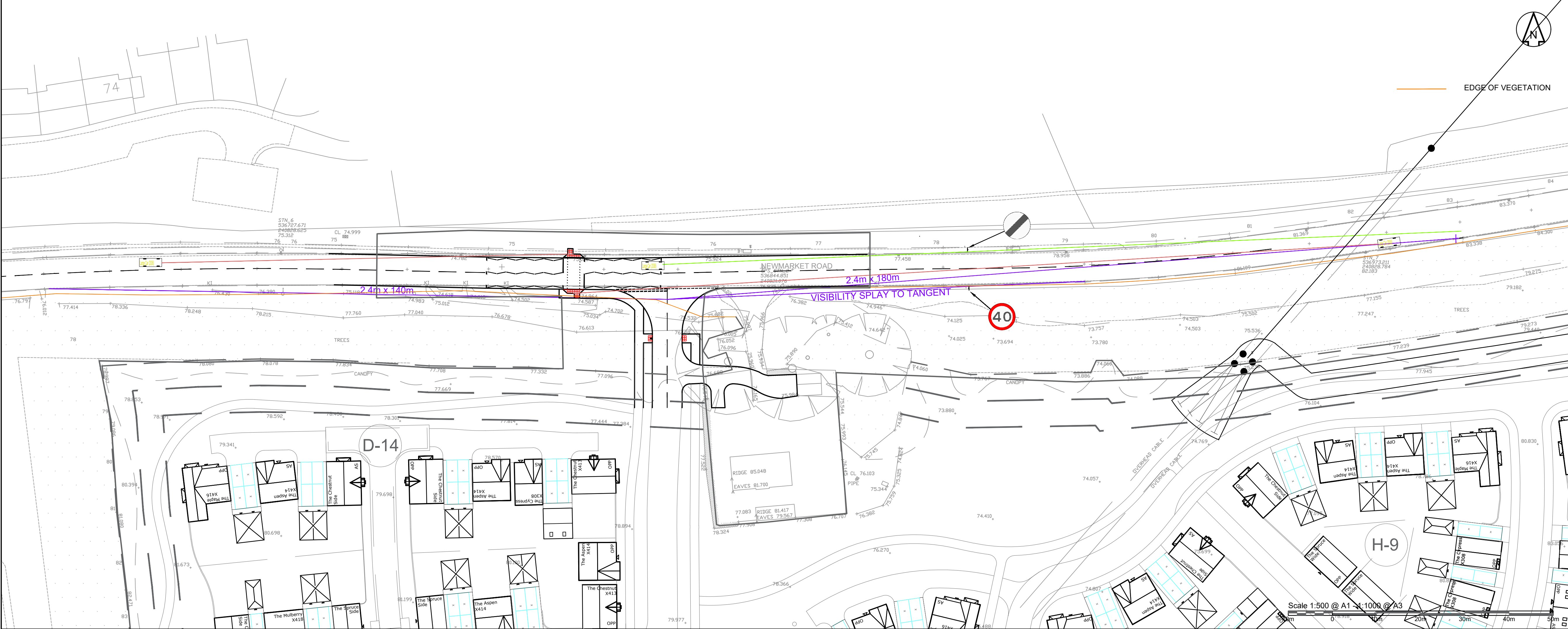
Telephone: 0207 442 2225
E: enquiries@markidesassociates.co.uk
W: www.markidesassociates.co.uk

Project
NEWMARKET ROAD, ROYSTON

Drawing Title
GENERAL ARRANGEMENT
PROPOSED SITE ACCESS PRIORITY
JUNCTION

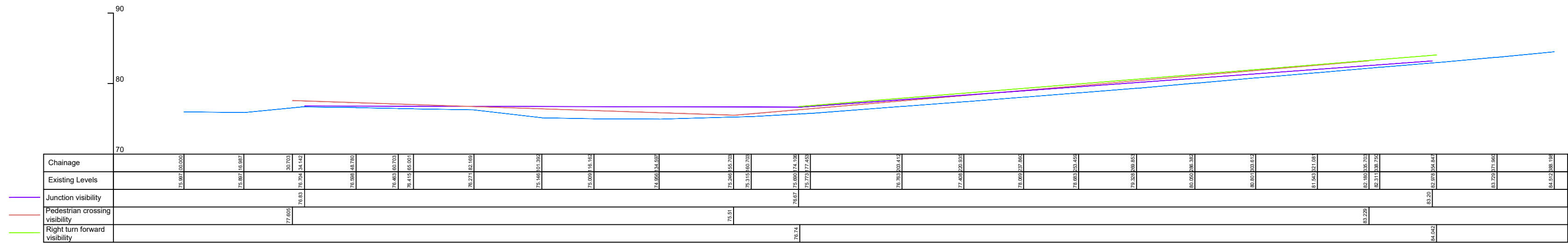
Markides Associates reference: 23324 1:200 @ A1
23324-MA-XX-DR-C-0100 - P02

I:\projects\23324-MA-XX-DR-C-0100\01 CAD\23324-MA-XX-DR-C-0100.dwg



- DO NOT SCALE OFF THIS DRAWING
- NOTES
1. This drawing is indicative and subject to discussions with local & national highway authorities. This design is also subject to confirmation of land ownership, topography, location of statutory services, detailed design and traffic modelling.
 2. This drawing is based upon drawing number XXX supplied by XXX and Markides Associates shall not be liable for any inaccuracies or deficiencies.
 3. Markides Associates accept no responsibility for any unauthorised amendments to this drawing. Do not rely on dimensions scaled from this plan.
 4. Highway boundary information has been provided by XXX County Council on XXX and has been transcribed by Markides Associates onto an Ordnance Survey base. Markides Associates accepts no liability for the accuracy of the data provided and the highway boundary information shown is subject to checks by a licensed conveyancer.
 5. Any swept path analysis has been undertaken using Autodesk vehicle tracking software (AutoTRACK) and Markides Associates shall not be liable for any inaccuracies or deficiencies.

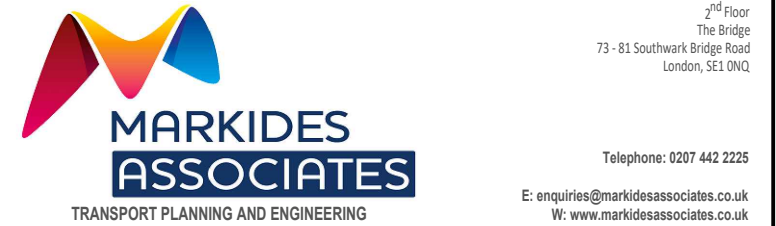
\\markides\server\Share\Markides Associates\Team Folder\Projects\2020\23324 - Newmarket Road - Royston\001 CAD-BIM\03.01 CAD-A Primary\23324-MA-XX-XX-DR-C-0130 Visibility Splays P02.dwg



Revision History					
P02	FOR INFORMATION		NB	AS	AS 04.04.24
P01	FOR INFORMATION		NB	AS	AS 26.01.24
Rev	Comment		By	Chkd	Appr Date
Current Revision					
P02	FOR INFORMATION		NB	AS	AS 04.04.24
Rev	Comment		By	Chkd	Appr Date

S2 - FOR INFORMATION

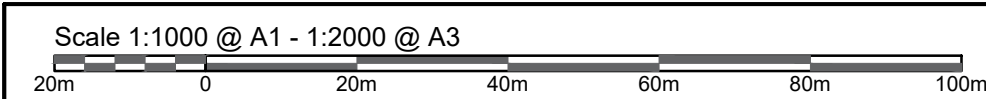
VISTRY GROUP PLC



Project
NEWMARKET ROAD, ROYSTON

Drawing Title
VISIBILITY SPLAYS

Markides Associates reference: 23324 AS SHOWN
23324-MA-XX-XX-DR-C-0130 - P02





DO NOT SCALE OFF THIS DRAWING

NOTES

1. This drawing is indicative and subject to discussions with local & national highway authorities. This design is also subject to confirmation of land ownership, topography, location of statutory services, detailed design and traffic modelling.

2. This drawing is based upon drawing number XXX supplied by XXX and Markides Associates shall not be liable for any inaccuracies or deficiencies.

3. Markides Associates accept no responsibility for any unauthorised amendments to this drawing. Do not rely on dimensions scaled from this plan.

4. Highway boundary information has been provided by XXX County Council on XXX and has been transcribed by Markides Associates onto an Ordnance Survey base. Markides Associates accepts no liability for the accuracy of the data provided and the highway boundary information shown is subject to checks by a licensed conveyancer.

5. Any swept path analysis has been undertaken using Autodesk vehicle tracking software (AutoTRACK) and Markides Associates shall not be liable for any inaccuracies or deficiencies.

12.1 Mercedes Eonic 3233LL (8x4 chassis)

Overall Length

Overall Width

Overall Body Height

Min Body Ground Clearance

Track Width

Lock to lock time

Wait to Wait Turning Radius

12.100m

2.490m

3.749m

0.302m

2.480m

4.00s

11.250m

KEY

VEHICLE BODY LINE

VEHICLE WHEEL LINE

REVERSE GEAR

Revision History

Rev	Comment	By	Chkd	Appr	Date
P02	FOR INFORMATION	NB	AS	AS	04.04.24
P01	FOR INFORMATION	NB	AS	AS	26.01.24

Current Revision

Rev	Comment	By	Chkd	Appr	Date
P02	FOR INFORMATION	NB	AS	AS	04.04.24
P01	FOR INFORMATION	NB	AS	AS	26.01.24

S2 - FOR INFORMATION

VISTRY GROUP PLC

MARKIDES ASSOCIATES

TRANSPORT PLANNING AND ENGINEERING

2nd floor

The Bridge

73-83 Southwark Bridge Road

London SE1 1HQ

Telephone: 0207 442 2225

E: enquiries@markidesassociates.co.uk

W: www.markidesassociates.co.uk

Project

NEWMARKET ROAD, ROYSTON

PROJECT TITLE

Drawing Title

SWEPT PATH ANALYSIS

REFUSE VEHICLE

Markides Associates reference: 23324

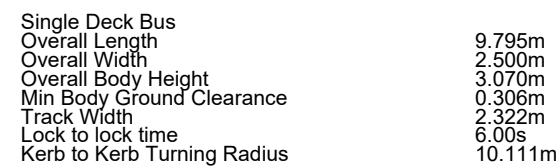
1:200 @ A1

23324-MA-XX-XX-DR-C-7000 - P02



NOTES

1. This drawing is indicative and subject to discussions with local & national highway authorities. This design is also subject to confirmation of land ownership, topography, location of statutory services, detailed design and traffic modelling.
2. This drawing is based upon drawing number XXX supplied by XXX and Markides Associates shall not be liable for any errors or deficiencies.
3. Markides Associates accept no responsibility for any unauthorised amendments to this drawing. Do not rely on dimensions scaled from this plan.
4. Highway boundary information has been provided by XXX County Council on XXX and has been transcribed by Markides Associates onto an Ordnance Survey base. Markides Associates accept no liability for the accuracy of the data provided and the highway boundary information shown is subject to check by a licensed surveyor.
5. Any swept path analysis has been undertaken using Autodesk vehicle tracking software (AutoTRACK) and Markides Associates shall not be liable for any inaccuracies or deficiencies.



KEY

- VEHICLE BODY LINE
- VEHICLE WHEEL LINE
- REVERSE GEAR

Revision History							
02	FOR INFORMATION		NB	AS	AS	04.04.24	
01	FOR INFORMATION		NB	AS	AS	26.01.24	
rev	Comment		By	Chkd	Appr	Date	
Current Revision							
02	FOR INFORMATION		NB	AS	AS	04.04.24	
rev	Comment		By	Chkd	Appr	Date	

S2 - FOR INFORMATION

VISTRY GROUP PLC



2nd Floor
The Bridge
73 - 81 Southwark Bridge Road

Telephone: 0207 442 2225

E: enquiries@markifesassociates.co.uk
W: www.markifesassociates.co.uk

project

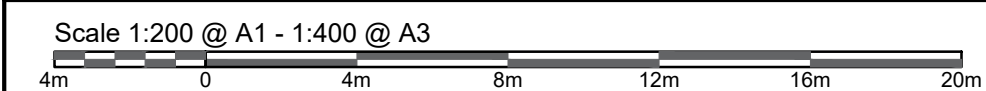
NEWMARKET ROAD, ROYSTON

PROJECT TITLE

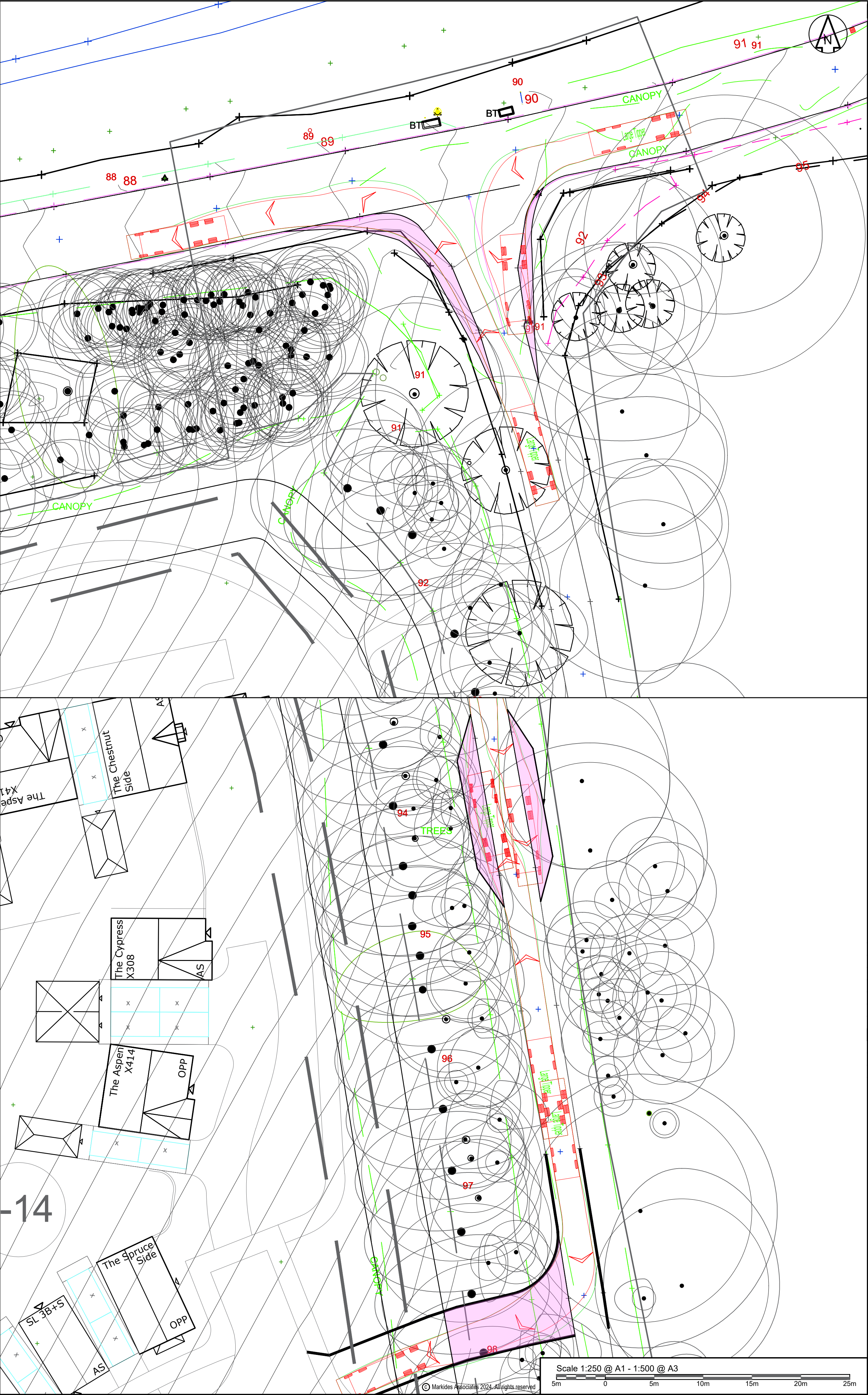
SWEPT PATH ANALYSIS
SINGLE DECKER BUS

Markides Associates reference: 23324 1:200 @ A1

23324-MA-XX-XX-DR-C-7001 - P02



© Markides Associates 2024. All rights reserved.



DO NOT SCALE OFF THIS DRAWING

NOTES

1. This drawing is indicative and subject to discussions with local & national highway authorities. This design is also subject to confirmation of land ownership, topography, location of statutory services, detailed design and traffic modelling.
2. This drawing is based upon drawing number XXX supplied by XXX and Markides Associates shall not be liable for any inaccuracies or deficiencies.
3. Markides Associates accept no responsibility for any unauthorised amendments to this drawing. Do not rely on dimensions scaled from this plan.
4. Highway boundary information has been provided by XXX County Council on XXX and has been transcribed by Markides Associates onto an Ordnance Survey base. Markides Associates accepts no liability for the accuracy of the data provided and the highway boundary information shown is subject to checks by a licensed conveyancer.
5. Any swept path analysis has been undertaken using Autodesk vehicle tracking software (AutoTRACK) and Markides Associates shall not be liable for any inaccuracies or deficiencies.

Large Tipper
Overall Length 10.201m
Overall Width 2.495m
Overall Body Height 2.890m
Min Body Ground Clearance 0.341m
Track Width 2.471m
Lock to lock time 6.00s
Kerb to Kerb Turning Radius 11.550m

KEY

- VEHICLE BODY LINE
- VEHICLE WHEEL LINE
- REVERSE GEAR
- NEW CARRIAGEWAY

Revision History						
Rev	Comment	By	Chkd	Appr	Date	
P01	FOR INFORMATION	ML	AKS	AKS	05.04.24	

Current Revision						
Rev	Comment	By	Chkd	Appr	Date	
P01	FOR INFORMATION	ML	AKS	AKS	05.04.24	

S2 - FOR INFORMATION

COUNTRYSIDE

MARKIDES ASSOCIATES
TRANSPORT PLANNING AND ENGINEERING

2nd floor
The Bridge
73 - 83 Southpark Bridge Road
London SE16 6DQ

Telephone: 0207 442 2225
E: enquiries@markidesassociates.co.uk
W: www.markidesassociates.co.uk

Project
NEWMARKET ROAD

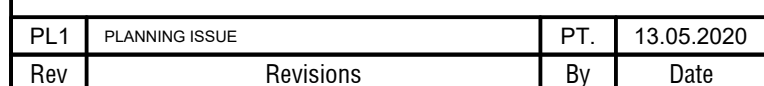
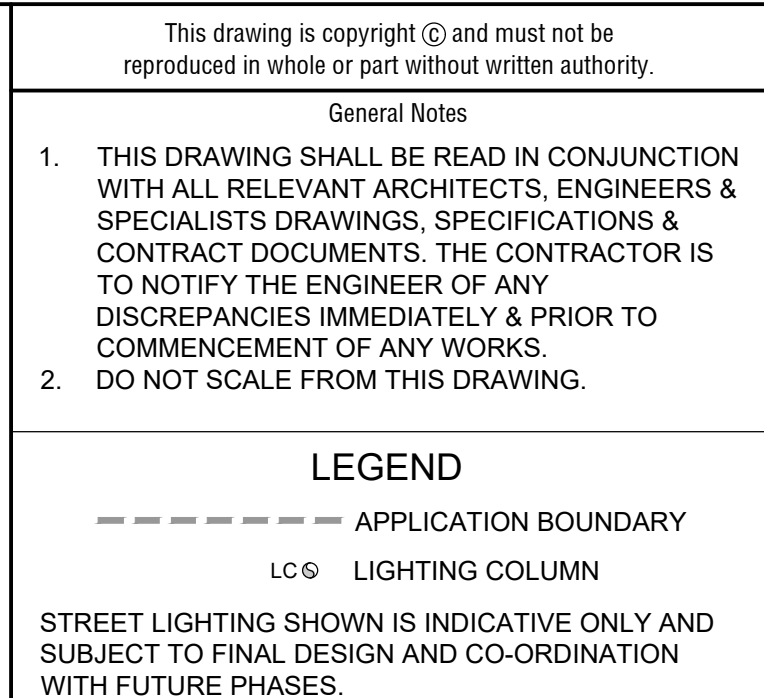
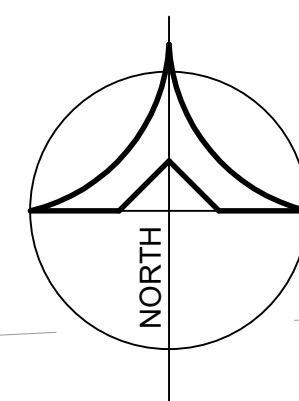
Drawing Title
BURLOES LANE ACCESSES

Markides Associates reference: 23324 1:250 @ A1

23324-MA-XX-DR-C-0250 - P01

APPENDIX A – APPROVED SITE ACCESS

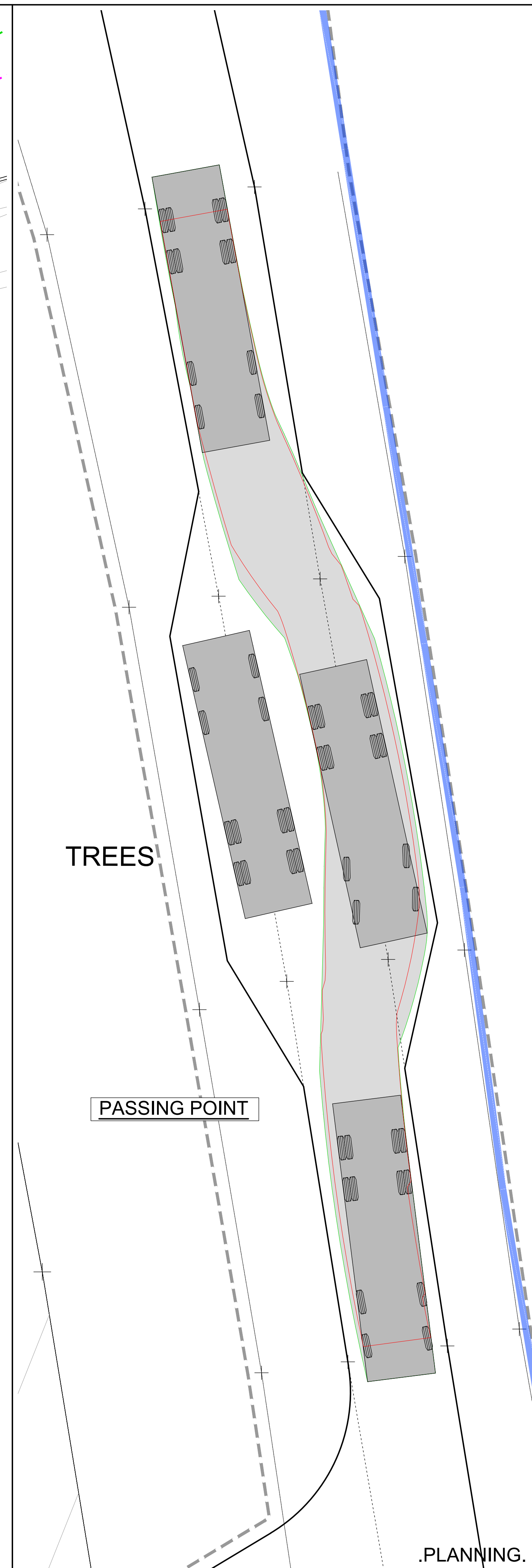
APPENDIX B– APPLICATION 19/03032/FP SITE ACCESS AND BURLOES LANE SITE ACCESS



Drawing Title:

PHASE 1
WORKS TO EXISTING
NEWMARKET ROAD AT
PRIMARY JUNCTION.

Scale: AS SHOWN @ A1		Drawn: PT.		Approved: GW		Date: 13.05.2020	
Drawing Number							
Project No	Org	Scope Element	Location	Type	Role	Org Number	Rev
C00184	BRN	IG	XX	DR	C	11405-8062	PL1
BCE QMA REF:			11405-00-8062				
www.brandconsultingpltd.co.uk							



Clinical Trial Identification Number							
Project	Org	Scope Element	Location	Type	Role	Drug Number	Rev
0184	BRN	IG	XX	DR	C	11405-8012	PL1
EudraCT REF: 11405-00-8012 www.eudra.europa.eu/eudra/proc/ct/proc.htm							

APPENDIX C– ILLUSTRATIVE FRAMEWORK PLAN

- KEY:
- 1. Proposed Access.
 - 2. Proposed pedestrian link to western development and existing permissive route.
 - 3. Overhead cable to be redirected.
 - 4. Retained existing trees belt with exception of localised breaks to accommodate access/pedestrian movements.
 - 5. Proposed redirected cable.
 - 6. 6/12m offset from planting edge.
 - 7. Green corridor.
 - 8. Proposed drainage features (SUDs and infiltration basin).
 - 9. Existing Trees to be retained.
 - 10. Proposed emergency access.



Note: This drawing and schedule is based on the information supplied by others, the accuracy of which we cannot guarantee. No consultation has taken place with the planning authority and the above proposal should not be used as a basis for financial or commercial transactions.