Strata Sterling Barnsley West Ltd
Proposed Roundabout at Barugh Green Road, Barnsley

Transport Statement

21 November 2019
Version 1.0
Issue


Fore

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1 Introduction

1.1 Commission

Fore Consulting Limited (Fore) has been commissioned to prepare a Transport Statement (TS) for submission with a detailed planning application for the provision of a roundabout at the Barugh Green Road / Cannon Way junction. The roundabout is to be delivered through the Sheffield City Region Investment Fund (SCRIF), and provides for a future access to a link road that will be delivered through the adjacent allocation site (MU1). In the Barnsley Local Plan, which was adopted in January 2019, MU1 is defined as a strategic development site which is intended to accommodate a significant proportion of the new housing, employment and education within the district.

The development of MU1 is centred on a new strategic link road, the "Claycliffe Link Road", which will form a spine road through the site and provide a key route from M1 Junction 37 up to A635 Barugh Green Road, providing a north-western gateway into Barnsley. As a result, delivery of the link road will also help alleviate local traffic issues, particularly for residents of Higham and Barugh Green to the west of the site, with Higham Lane and High Common Road currently providing the primary access for heavy goods vehicles travelling between the M1 and Claycliffe Business Park.

The need for a new strategic link road between M1 Junction 37 and A635 Barugh Green Road is a long-held transport aspiration for BMBC and is supported by the Sheffield City Region Combined Authority. Fore has developed the roundabout proposal to meet the requirements of all stakeholders.

The new link road, and the associated employment and residential development, will be subject to a separate future planning application as part of site MU1.

1.2 The Planning Application

The proposed development comprises the provision of a new priority controlled four-arm roundabout. This will replace the existing simple three-arm priority junction with Cannon Way and provide a connection to a future new link road. The general arrangement and engineering layout for the roundabout is shown on the technical drawings prepared by Fore, that are contained at Appendix A.

1.3 Purpose of this Report

The planning application for the roundabout is accompanied by full design information. This Transport Statement considers the traffic scenarios associated with the delivery of the roundabout. As a sensitivity test the report also considers the potential impacts of traffic generated through construction of the link road and Barnsley West development.

1.4 Structure of this Report

This Transport Assessment is structured as follows:

- Chapter 2 describes the existing transport networks in the vicinity of the proposed development.
- Chapter 3 identifies how the proposed development accords with the national and local transport planning context for the site.
- Chapter 4 presents an outline of the proposed development and the potential impacts of the link road.
- Chapter 5 presents assessments of the operational performance of the proposed roundabout. This includes a sensitivity test to ensure that the proposed roundabout would satisfactorily accommodate traffic associated with the future MU1 development and any link road re-assignment traffic.
- Chapter 6 summarises and concludes the outcomes of the Transport Assessment.

2 Existing Situation

2.1 Site Location

The roundabout forms part of the 'Claycliffe Link Road' and wider Barugh Green development MU1 as identified in the adopted Local Plan, located to the south of Barugh Green Road.

The location of the site is shown on Figure 1.

2.2 Strategic Road Network

The site is situated a few hundred metres to the north of Junction 37 of the M1 motorway. The M1 forms part of the Strategic Road Network, connecting London to Leeds, where it joins the A1(M) near Aberford. M1 Junction 37 is a four-arm grade separated roundabout with the motorway passing under the junction.

2.3 Local Highway Network

A635 Barugh Green Road is a single-carriageway road is approximately 7.3m in width and runs from a junction with Redbrook Road in the east (the road name changes to A635 Wilthorpe Road beyond this point) to the Barugh Green crossroads in the west. The road is partially fronted by residential properties, with a number of side roads providing access to light industrial and distribution centres. The speed limit is 40mph along the frontage of the site, reducing to 30mph before the Barugh Green crossroads.

A637 Claycliffe Road leads north from a roundabout with A635 Barugh Green Road towards the settlement of Darton. It is a single-carriageway road of approximate 7.3m width, subject to a 40mph speed limit. A635 Wilthorpe Road is the eastern continuation of A635 Barugh Green Road, leading towards Barnsley town centre from a junction with Redbrook Road. It is a single-carriageway road with residential development set back from the carriageway. The speed limit is 40mph.

Redbrook Road is a single-carriageway road of approximate 7.3m width, running from a priority junction with A635 Barugh Green Road to the northeast of the site towards Barnsley town centre, passing by Barnsley Hospital. Almost entirely residential in character, the speed limit is 30mph throughout.

Higham Common Road / Higham Lane is a single-carriageway road linking Barugh Green crossroads in the north with Capitol Park and A628 Whinby Road in the south, via the settlement of Higham and a bridge over the M1. Where the road runs alongside the south-western boundary of the site, the speed limit is 30mph and a bus turning circle is present.

2.4 Road Safety

A review of personal injury accident data recorded over the most recent five-year period has been undertaken. There have been no recorded accidents in the most recent five-year period in the vicinity of the Barugh Green Road / Cannon Way Junction.

2.5 Pedestrian and Cycle Infrastructure

The key pedestrian routes and facilities within the vicinity of the site are outlined below:

- Good quality footways are provided along both sides of most local roads, connecting the site to Barnsley town centre and the wider area. Street lighting is present on all of the main pedestrian routes.

- Signal-controlled pedestrian crossing facilities are provided at the Barugh Green crossroads and at locations close to Barnsley Hospital. Elsewhere, uncontrolled crossing points are typically present at junctions and other locations on the local road network where there is an adjacent footpath.

There are no dedicated cycle routes within the vicinity of the site.

2.6 Public Transport

The closest bus stops in relation to the site are on A635 Barugh Green Road, providing access to services to Barnsley, Kexborough, Mapplewell and Wakefield.

Table 1 provides a summary of the services available from the bus stops outlined above, including details of the typical frequencies and destinations served.

Table 1: Bus Services, Destinations and Frequencies

Nearest Bus Stop to the Site	Service Number	Route Summary	Approximate Daytime Service Frequency		
			Mon-Fri.	Saturday	Sunday
A635 Barugh Green Road	93/93A/ 95/95A	Barnsley - Gawber - Wilthorpe (95/95A) - Barugh - Darton - Kexborough (95/95A) - Mapplewell (93A)	10 minutes	15 minutes	30 minutes
	94/94A	Barnsley - Gawber - Cawthorne	60 minutes	60 minutes	120 minutes
	96	Barnsley – Kexborough - Wakefield	60 minutes	60 minutes	120 minutes

Note: Services correct as of Nov 2019.

3 Transport and Planning Policy

This chapter identifies national and local transport policy that is relevant to the proposed development.

3.1 National Planning Policy

3.1.1 National Planning Policy Framework

A revised 'National Planning Policy Framework' (NPPF) was published by the Ministry of Housing, Communities and Local Government (MHCLG) on 19 February 2019. It sets out national planning policy for England and in particular how the planning system is to contribute to achieving sustainable development through the following interdependent objectives:

- An economic objective, contributing to building a strong, responsive and competitive economy through ensuring that land of the right type is available in the right places and at the right time to support growth, innovation and improved productivity.

- A social role, supporting strong, vibrant and healthy communities by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering a well-designed and safe built environment, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being.

- An environmental role, protecting and enhancing the natural, built and historic environment through making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change.

In relation to transport, the NPPF states that the planning system should manage patterns of growth to address potential impacts of development on transport networks; realise opportunities from existing or proposed transport infrastructure and technology; promote walking, cycling and public transport; identify and assess the environmental impacts of traffic; and integrate transport consideration into the design of schemes.

In relation to considering development proposals, the NPPF states that all developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment to ensure the likely impacts of development are assessed. Paragraph 109 states:

"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."

3.2 Planning Practice Guidance

Planning Practice Guidance (PPG) was published by the Department for Communities and Local Government on 6 March 2014. It provides advice on when Transport Assessments and Transport Statements are required and what they should contain[1]:

"Transport Assessments are thorough assessments of the transport implications of development, and Transport Statements are a 'lighter-touch' evaluation to be used where this would be more proportionate to the potential impact of the development (i.e. in the case of developments with anticipated limited transport impacts)."

Furthermore, it states that:

"Transport Assessments and Statements can be used to establish whether the residual transport impacts of a proposed development are likely to be "severe", which may be a reason for refusal, in accordance with the National Planning Policy Framework."

And:

"The Transport Assessment or Transport Statement may propose mitigation measures where these are necessary to avoid unacceptable or "severe" impacts."

3.2.1 Circular 02/2013: The Strategic Road Network and the Delivery of Sustainable Development

Circular 02/2013 sets out the way in which Highways England will engage with communities and the development industry to deliver sustainable development and, thus, economic growth, whilst safeguarding the primary function and purpose of the Strategic Road Network. It replaces the policy set out in Circular 02/2007 and Circular 01/2008.

The Circular reinforces Highways England's role as a delivery partner to promote sustainable economic growth. In examining development proposals, the Circular sets out how Highways England will seek to apply the following:

- Assessment of development impact.
- Travel Plans.
- Demand management.
- Capacity enhancements.

[1] Travel plans, transport assessments and statements in decision-taking, Planning Practice Guidance, Department for Communities and Local Government, 2014.

Paragraph 9 of the Circular states that:

> *"Development proposals are likely to be acceptable if they can be accommodated within the existing capacity of a section (link or junction) of the strategic road network, or they do not increase demand for use of a section that is already operating at over-capacity levels, taking account of any travel plan, traffic management and/or capacity enhancement measures that may be agreed. However, development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe."*

Furthermore, Paragraph 21 of the Circular notes:

> *"Where development proposals are consistent with an adopted Local Plan, the Highways Agency does not anticipate the need for engagement in a full assessment process at the planning application stage. In such circumstances, considerations will normally be limited to the agreement of the details of the transport solution, including any necessary mitigation measures, and to ensuring that the transport impacts are included in the overall environmental assessment provided to the local planning authority, rather than the principle of the development itself."*

The Strategic Road Network: Planning for the Future was published by Highways England in September 2015 and provides additional information and clarification to Circular 02/2013 in respect of the assessment of the impacts of development on the Strategic Road Network.

3.3 Local Planning Policy

3.3.1 Background

Barnsley's Local Plan was adopted by the Council on 3 January 2019, this document, together with the Joint Waste Plan prepared with Doncaster and Rotherham and adopted in March 2012, are the Statutory Development Plan. The Barnsley Local Plan considers the future use of all land within the borough, including Barnsley town centre, and establishes policies and proposals up to the year 2033.

3.3.2 Barnsley Local Plan 2019

The following policies within the Barnsley Local Plan are of relevance to the development of Barnsley West from a transportation perspective:

Policy GD1 General Development

Policy GD1 states that proposals for development will be approved if, amongst other things, adequate access and internal road layouts are provided to allow the complete

development of the entire site for residential purposes and to provide appropriate vehicular and pedestrian link throughout the site and into adjacent areas.

Policy Mixed Use Sites 1

Policy Mixed Use Sites 1 states that planning permission will be expected to be granted if details are provided in accordance with the site-specific policies.

In relation to Site MU1 ("Land south of Barugh Green Road"), amongst other things, on- and off-site highway infrastructure works are to be carried out, including a link road (Claycliffe Link) and improvements at Junction 37, as necessary.

Policy T3 New Development and Sustainable Travel

Policy T3 states that new development will be expected to:

- Be located and designed to reduce the need to travel, be accessible to public transport and meet the needs of pedestrians and cyclists.
- Provide at least the minimum levels of parking for cycles, motorbikes, scooters, mopeds and disabled people set out in the relevant Supplementary Planning Document.
- Provide a Transport Statement or Assessment in line with guidance set out in the National Planning Policy Framework and guidance including where appropriate regard for cross boundary local authority impacts; and
- Provide a Travel Plan Statement or a Travel Plan in accordance with guidance set out in National Planning Policy Framework including where appropriate regard for cross boundary local authority impacts. Travel plans will be secured through a planning obligation or a planning condition.

The policy goes on to explain that where levels of accessibility through public transport, cycling and walking are unacceptable, developers will be expected to take action or make financial contributions, secured through a planning obligation or planning condition.

Policy T4 New Development and Highway Improvement

Policy T4 states that new development will be expected to be designed and built to provide safe, secure and convenient access for all road users. The policy goes on to explain that if a development is not suitably served by the existing highway, or would create or add to highway safety problems or the efficiency of the highway for all road users, developers will be expected to take mitigating action or to make a financial contribution to make sure the necessary improvements go ahead.

Policy GS2 Green Ways and Public Rights of Way

Policy GS2 identifies that where development affects an existing Green Way or Public Right of Way it must either protect the existing route within the development or include an equally convenient and attractive alternative route. Where new development is close to a Green Way or Public Right of Way it may be required to:

- Provide a link to the existing route; and/or
- Improve an existing route; and/or
- Contribute to a new route.

In some cases, developers will be asked to make a financial contribution to meet these requirements.

4 Development Proposals

4.1 Description of Development

The proposals comprise the implementation of a four-arm roundabout to replace the existing three-arm priority junction at the intersection of Barugh Green Road / Cannon Way. Following the delivery of a future new link road through site MU1, this will provide a future highway connection from Barugh Green Road south to Higham Common Road. The roundabout is designed to provide access to the new link road and the future development, as identified in the adopted Local Plan for site MU1.

The proposed layout is demonstrated on the scheme drawings prepared by Fore, provided at Appendix A, comprising:

- The point of connection into the Barugh Green site and the new link road will be in the form of a fourth arm spur off the proposed roundabout located at the Barugh Green Road / Cannon Way junction.
- The roundabout is designed to DMRB standards.
- Access to the new link road (through the MU1 development site) will be provided.
- Pedestrian crossings are provided along each arm of the roundabout, with pedestrian crossing islands located on the link road approach and the two Barugh Green Road approaches.
- A Road Safety Audit (Stage 1 and 2) is currently being undertaken for the proposals.

4.2 Vehicle Access

A key feature and major benefit of the development of Barnsley West is that it will help facilitate the delivery of the Claycliffe Link Road, a strategic link road that is a long-held transport aspiration for BMBC and is supported by the Sheffield City Region Combined Authority. Delivery of the new link road will provide a connection between A635 Barugh Green Road to the north and A628 Whinby Road to the south, adjacent to M1 Junction 37. As a result, the link road will reduce the need for travel on the existing local highway network and, importantly, it will provide access to, and unlock development on, the site.

The future implementation of the new link road will lead to reassignment of traffic flows associated with existing uses on the highway network. One of the main effects will be to remove traffic from Barugh Green and when completed, the road will provide benefit to the operation of the highway network in Barugh Green and the surrounding areas.

4.3 Construction

The construction of the highway and associated works will be undertaken in a single phase. A construction compound will be sited in the field adjacent to the scheme to the south of Barugh Green Road. The main construction compounds will include staff parking, site cabins, materials storage, facilities to wash vehicles and plant and vehicle maintenance areas. Material will be imported onto site to construct the road. Exact routes to the site are to be confirmed.

Construction works will be undertaken on weekdays (0730-1800) and Saturday (0800-1300). The total anticipated duration of the construction works is estimated to be 6 to 9 months.

A Construction Environmental Management Plan (CEMP) will be required from the contractor in order to control construction activities and to protect road safety and residential amenity. The plan will need to identify measures to mitigate impacts associated with construction traffic on the local and strategic transport networks, which includes the following:

- Scheduling of deliveries to minimise potential disturbance on local residents and conflicts with the highway peak hours.
- Consideration of appropriate routes for construction traffic to access the site.
- Provision of wheel washing facilities at site egress points to minimise the potential for site debris to be transferred to the external highway network.
- Consideration of temporary changes to the speed limit on Barugh Green Road in the vicinity of the construction works.

Potential effects would be mitigated, as far as possible, through active community engagement under the considerate constructor's scheme. This will ensure that the public is aware of the construction routes and potential impacts of the construction processes.

4.4 Pedestrian Access

Pedestrian routes will be provided through the roundabout across all arms of the junction. The roundabout design ensures continuous footways are provided which link to existing infrastructure on each arm of the junction.

Uncontrolled crossings will be provided on each arms of the proposed roundabouts, including pedestrian crossing islands on the proposed link road access and Barugh Green approaches. In this way, infrastructure proposed as part of the roundabout provides and improvement on the existing situation and provides opportunity to connect areas of any future Barugh Green development site with external networks.

5 Operational Assessment of Proposed Roundabout

5.1 Introduction

The operational performance of the proposed roundabout has been considered, in terms of highway capacity, for several assessment scenarios.

To ensure that the proposed roundabout would satisfactorily accommodate traffic associated with the MU1 development and any link road re-assignment traffic, a sensitivity test has been undertaken to assess this potential scenario. This includes the traffic changes associated with the completed link road between the Barugh Green Road and the Higham Common Road roundabouts and the SCRIF funded highway improvements.

5.2 Existing and Future Traffic Flows

Existing and future traffic flow assumptions are as follows:

- Weekday peak hours are assessed, as they are anticipated to represent the worst-case combination of existing and allocation-related traffic flows. The surveyed traffic data indicates that the weekday peak hours vary across the junctions in the existing highway network. The peak hour of each junction has been identified, which represents a robust assessment. In terms of development traffic, peak hours identified from the trip rates and resulting trip generation have been assumed. As such, the assessment is considered to be robust.

- A future assessment of 2033 has been assumed, in line with Highways England guidance in assessing the end of the Local Plan period.

- NTM/Tempro has been used to derive local traffic growth figures for the period from 2019 to 2021, 2026 and 2033. The full outputs from NTM/Tempro are presented in Table 2.

Traffic associated with committed developments agreed with BMBC and Highways England have been reviewed and incorporated where appropriate in the future traffic flows. These developments are summarised in Table 3.

Table 2: Local Traffic Growth Factors

Peak Period	Local Traffic Growth			Local Traffic Growth 2019 to 2033 (Motorway Road Type)		
	2019-2021	2019-2026	2019-2033	2019-2021	2019-2026	2019-2033
Weekday AM peak period	1.0325	1.1078	1.1789	1.0363	1.1172	1.1931
Weekday PM peak period	1.0311	1.1065	1.7778	1.0348	1.1159	1.1920

Table 3: Committed Developments

Planning Reference	Application Summary
2016/0259	Smithy Wood Lane - Residential development of 36 dwellings
2016/0268	Green Road – Residential development of 50 dwellings
2017/1002	Capitol Park – development of approximately 7,000 sqm of industrial land use
2016/0713	Capitol Park Industrial Estate – outline application for 16,499 sqm GFA of industrial development
2017/0987	Capitol Park – NHS blood storage facility on Unit C
B/04/1998/DO	Capitol Park – Industrial development with a site area of 0.95 hectares
2019/0286	Capitol Park – Employment development of approximately 16,723 sqm

No allowance has been made to adjust the TEMPRO traffic growth factors to take account of committed developments that are likely to be reflected in the TEMPRO household and employment projections. Consequently, the future year assessment is likely to include some double counting of traffic growth and can therefore be considered extremely robust.

5.3 Assessment Scenarios

The assessment scenarios are as follows:

- 2021 Opening Year. This is considered to robustly represent a future year situation on the local highway network without the new link road or MU1 development. The scenario includes the surveyed peak hour traffic flows at each junction derived from base traffic surveys, plus all relevant local traffic growth and committed developments implemented. The classified traffic data has been converted into equivalent PCU values.

- 2026 Phase 1 is considered to represent a future year situation where some residential and employment development at the MU1 site is built out and occupied, without the full link road being in place. The scenario includes all relevant local traffic growth, committed developments and the phase 1 development traffic.

- 2033 Assessment Year with Development represents a future year situation on the local highway network with the new link road and MU1 development taking place. The scenario includes all relevant local traffic growth, committed developments and the full MU1 development traffic. The scenario also includes traffic re-assignment, as a result of the future new link road, as modelled by AECOM using the Barnsley SATURN model.

The traffic flows for each of the assessment scenarios are presented on Figure 2 and Figure 3 for the AM and PM peak hours, respectively.

5.4 Junction Capacity Assessment

A Junctions 9 model has been developed to reflect the proposed layout of the proposed Barugh Green Road roundabout. Amongst other performance indicators and statistics, the programme calculates the maximum Ratio of Flow to Capacity (RFC) and the maximum average queue length (Q) on each approach (measured in PCU).

The RFC is a key indicator of the likely performance of a turning movement at a junction under a given set of traffic flows. An RFC of 0.85 is widely accepted as being at the level at which a junction's operational capacity is reached. However, an RFC in excess of 0.85 does not indicate a situation that is inherently unacceptable; it indicates that further consideration of operating conditions (including impacts on queues and delay) is appropriate.

A summary of the model results is provided in Table 4 for all the scenarios outlined in Chapter 5.5.

Table 4: Proposed Junction - Modelling Summary

Approach	Weekday AM Peak Hour		Weekday PM Peak Hour	
	RFC	Q	RFC	Q
2021 Opening Year				
Cannon Way	0.08	0.1	0.13	0.2
Barugh Green Road east	0.22	0.3	0.33	0.5
Site Access	0.00	0.0	0.00	0.0
Barugh Green Road west	0.36	0.6	0.26	0.4
2026 Phase 1				
Cannon Way	0.09	0.1	0.16	0.2
Barugh Green Road east	0.27	0.4	0.38	0.6
Site Access	0.08	0.1	0.09	0.1
Barugh Green Road west	0.42	0.7	0.32	0.5
2033 With Full Development				
Cannon Way	0.15	0.2	0.27	0.4
Barugh Green Road east	0.50	1.0	0.70	2.3
Site Access	0.44	0.8	0.54	1.2
Barugh Green Road west	0.54	1.2	0.44	0.8

The assessment demonstrates that the proposed roundabout is predicted to operate satisfactorily during the AM and PM peak hours, with negligible queueing in all scenarios. The roundabout has been designed in order to accommodate any future development as identified in the Local Plan at site MU1, this has been demonstrated in the 2033 sensitivity test scenario.

On this basis, the likely traffic associated with any future development of the MU1 site can be satisfactorily accommodated by the proposed junction layout.

It is noted that the new link road, and the associated employment and residential development, will be subject to a separate future planning application as part of site MU1, and there will be separate assessments undertaken to examine the impacts of these proposals.

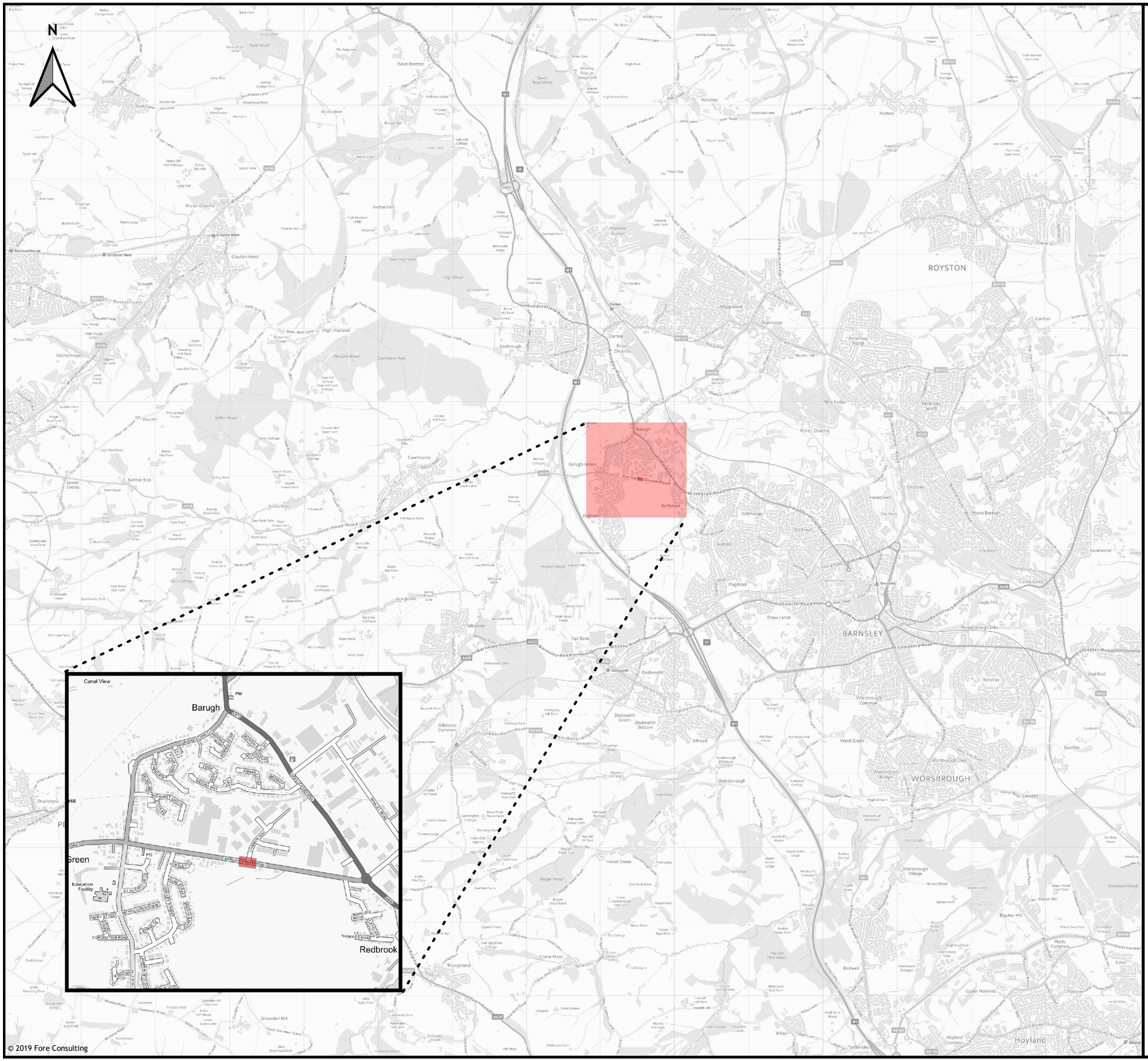
6 Summary and Conclusions

Fore Consulting has prepared this Transport Statement to be submitted to accompany a planning application for the provision of a new four-arm roundabout at the Barugh Green Road / Cannon Way junction. The findings of this report demonstrate that:

- There is no specific existing issue in terms of road safety at the Barugh Green Road / Cannon Way junction.
- The proposed roundabout will not generate any new trips itself. Operational capacity assessments demonstrate that the proposed layout is predicted to be able to satisfactorily accommodate traffic growth and committed developments.
- A sensitivity test has been undertaken, confirming that traffic associated with the wider MU1 development site would be satisfactorily accommodated by the proposed layout.
- Pedestrian and cycle connections will be provided as part of the roundabout, which will support the sustainable movement strategy for the wider MU1 development proposals in due course.

Considering the above, it is concluded that the proposals are acceptable from a transport and highways perspective.

Figures



Key:

Indicative Site Location

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Client:
Srata Sterling Barnsley West Ltd

Project:
Proposed Roundabout at Barugh Green Road, Barnsley

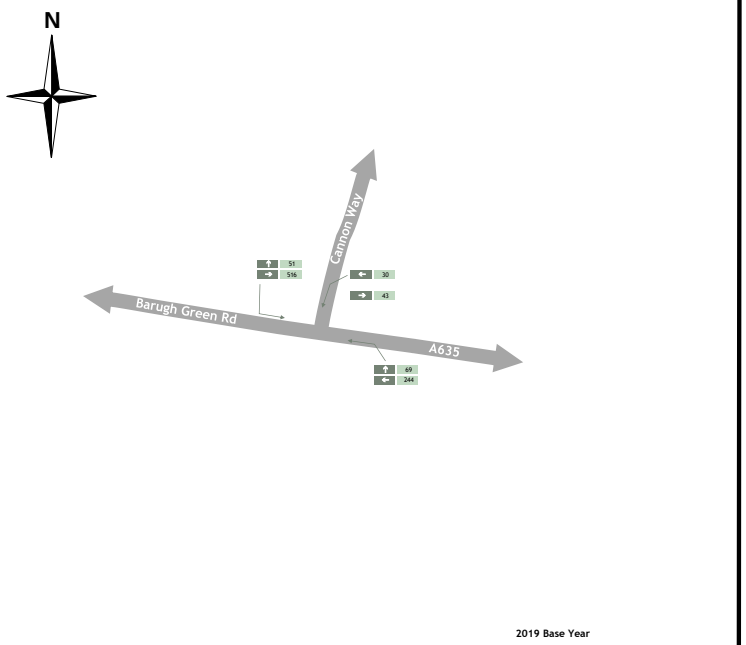
Figure Title:
Indicative Site Location

Scale:
1:50,000

Figure Status:
Issue

Job Number:
3062

Figure Number:
Figure 1



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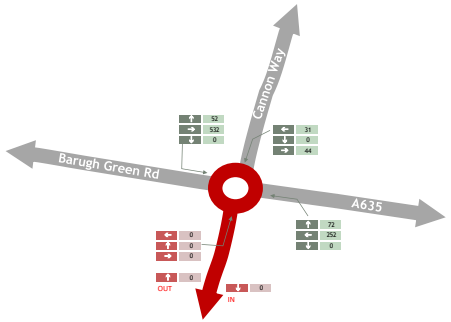
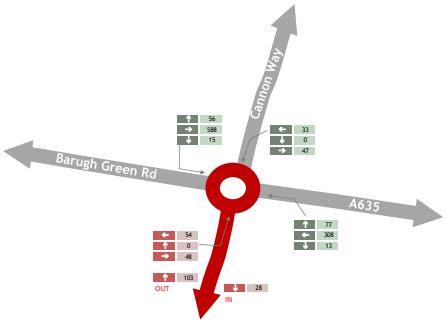


2021 Opening Year



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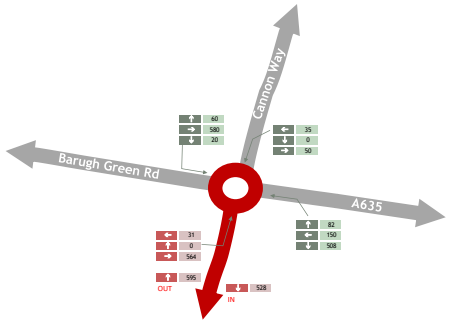
2026 Phase 1



2033 With Development

Key:

- Primary Road
- Secondary Road
- Site Access

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Client:
Strata Sterling Barnsley West Ltd

Project:
Proposed Roundabout at Barugh Green Road, Barnsley

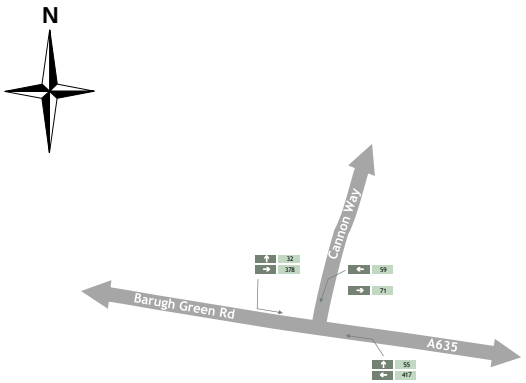
Figure Title:
Traffic Flows (PCU)
AM Peak Hour

Scale:
Not to scale

Figure Status:
Issue

Job Number:
3062

Figure Number:
Figure 2



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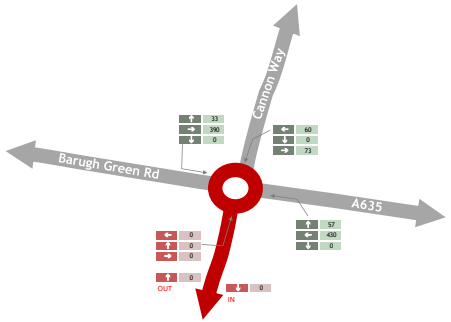

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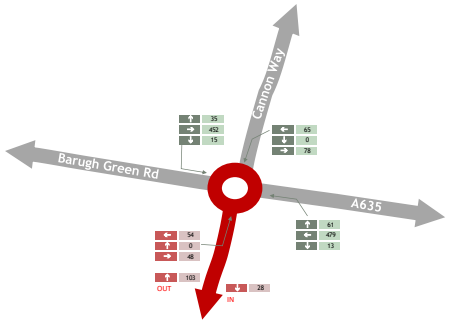
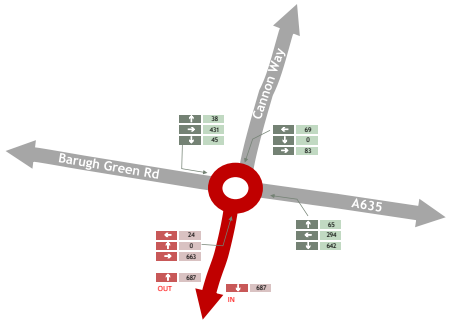


2026 Phase 1



2033 With Development

Key:

Primary Road

Secondary Road

Site Access

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Client:
Strata Sterling Barnsley West Ltd

Project:
Proposed Roundabout at Barugh Green Road, Barnsley

Figure Title:
Traffic Flows (PCU)
PM Peak Hour

Scale:
Not to scale

Figure Status:
Issue

Job Number:
3062

Figure Number:
Figure 3

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Appendix A

Drawings

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N O T E S

GENERAL NOTES

a. THE TOPOGRAPHICAL SURVEY IS BASED ON INFORMATION PRODUCED BY HAYCOCK & TODD, JOB NO. S9417, FILE S9417-3D BARNSLEY WEST.DWG, DATED MAY 2019. THE INFORMATION USED IN PREPARATION OF THIS AND ALL OTHER FORE CONSULTING DESIGNS AND DRAWINGS IS NOT WARRANTED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL SURVEY INFORMATION PROVIDED AND REPORT ANY ANOMALIES TO FORE CONSULTING.

DESIGN NOTES

1. ALL DESIGN AND WORKS TO COMPLY WITH CURRENT VERSION OF THE FOLLOWING DOCUMENTS:
   - DESIGN MANUAL FOR ROADS AND BRIDGES (DMRB);
   - SPECIFICATION FOR HIGHWAY WORKS (SHW);
   - MANUAL FOR STREETS (MFS); AND
   - BARNSLEY METROPOLITAN BOROUGH COUNCIL (BMBC) DESIGN GUIDE AND SPECIFICATION.
2. FOOTPATH GRADIENT AT TACTILE PAVING TO BE A MAXIMUM OF 1:12.
3. EXISTING FENCES, VERGES/SHUBBERY, FOOTWAY, AND OTHER PHYSICAL FEATURES TO BE REMOVED WITHIN THE AREA OF WORKS.
4. ALL KERBS TO BE HB2, EXCEPT DROPPED KERBS AT PEDESTRIAN CROSSING.
5. ALL IRONWORK WITHIN EXTENT OF WORKS TO BE LOWERED / RAISED AS REQUIRED.
6. ALL PROPOSED ROAD MARKINGS TO BE IN ACCORDANCE WITH THE FOLLOWING:
   - TRAFFIC SIGNS REGULATIONS AND GENERAL DIRECTIONS (TSRGD);AND
   - TRAFFIC SIGNS MANUALS CHAPTER 5 - ROAD MARKINGS.
7. BARUGH GREEN RD DESIGN SPEED: 30mph
   CANNON WAY DESIGN SPEED: 30mph
   PROPOSED ROAD LINK DESIGN SPEED: 30mph
8. EARTHWORKS SLOPES TO BE MAXIMUM 1:3.
9. CHANNEL BLOCKS TO BE INSTALLED ALONG ALL THE NEW KERBS.

KEY

- CARRIAGEWAY
- FOOTWAY
- BLOCK PAVING
- GRASS VERGE/LANDSCAPING

REV	DESCRIPTION	DATE	BY

Client:
STRATA STERLING BARNSLEY WEST LTD

Project
BARNSLEY WEST
BARUGH GREEN ROAD ROUNDABOUT

Drawing Title
GENERAL ARRANGEMENT

FOR COMMENT

Fore Consulting Limited
2nd Floor, Queens House
34 Wellington Street
Leeds
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0113 2460204
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Drawn by	Checked by	Issue Date	Scale	Format
ML	PI	18.10.2019	1:250	A0

Job Number	Drawing Number	Revision
9014	A1-100-SK-100	-

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DO NOT SCALE

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REV	DESCRIPTION	DATE	BY

Client:

STRATA STERLING BARNSLEY WEST LTD

Project

BARNSLEY WEST
BARUGH GREEN ROAD ROUNDABOUT

Drawing Title

ENGINEERING LAYOUT

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ML	PI	18.10.2019	1:250	A0

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9014	A1-100-SK-101	-

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