

### **3. PROPOSED DEVELOPMENT**

#### **3.1 Development Proposals**

3.1.1 The development proposals involve the construction of 80 residential properties on part of the former Royston High School site, which benefits from an extant planning permission for mixed use development (Application No. 2012/1337).

3.1.2 The proposed mix of residential development associated with these latest proposals is as follows;

- 18x – 2 bed houses
- 47x – 3 bed houses
- 15x – 4 bed houses

3.1.3 The extant planning permission was for the construction of a 3,902m<sup>2</sup> foodstore with an associated petrol filling station (PFS), a 1350m<sup>2</sup> health centre and 143 residential properties. Since planning permission was granted only the residential portion of the development has been constructed and this is known as Scholars Gate.

#### **3.2 Vehicular Access**

3.2.1 As can be seen in the layout plan in **Appendix A**, vehicular access into the site will be taken from the existing junction with The Lane. This will allow for two way vehicle movements between the site and Midland Road.

3.2.2 In addition to the site accesses, it will also be possible for vehicles to connect with the existing residential area on Ruston Drive.

#### **3.3 Pedestrian and Cycle Access**

3.3.1 As noted in section 2, the development site is adjacent to an existing segregated pedestrian and cycle route known as Warren Walk running on an east to west axis. This can be accessed to the east from Station Road near the junction with Oakwood Road and from the west via Ruston Drive.

3.3.2 In addition to the above, pedestrian and cycle access will also connect in with the new footways and routes already provided as part of the Scholars Gate development.

3.3.3 The former school vehicular access onto Midland Road will be utilised as a new pedestrian and cycle access into the development. This will not only provide access for the new residential development, but will also improve connectivity for those walking or cycling to/from the Scholars Gate properties.

### **3.4 Public Transport**

3.4.1 As noted in section 2, existing bus services in Royston provide convenient and regular access to neighbouring settlements, including Barnsley and Wakefield. All of the existing services operate on either Midland Road or Station Road and as such are in accordance with the IHT 'Guidelines for Planning for Public Transport in Developments' (1999) document, which states the following:

*"The maximum walking distance to a bus stop should not exceed 400m and preferably be no more than 300m".*

3.4.2 The location of bus stops within 400m of the development is shown in Figure 3.1.

Figure 3.1 – Bus Stops within 400m



3.4.3 As can be seen in Figure 3.1, there are a number of bus stops along both Midland Road and Station Road and therefore the proposed pedestrian links will make these services accessible from the development site.

### **3.5 Parking**

3.5.1 The proposed level of parking for cars has been set in accordance with Barnsley Metropolitan Borough Council's 'Supplementary Planning Document – Parking (March 2012)', for each of the proposed land uses.

3.5.2 The maximum number of car parking spaces set out in the guidance document is as follows:

- **Housing**
  - 1 space for dwellings with 1 or 2 bedrooms
  - 2 spaces for dwellings with 3 or more bedrooms

3.5.3 In terms of the housing site, this will comprise the following of each housing type:

- 15 – 4 Bedroom Properties
- 47 – 3 Bedroom Properties
- 18 – 2 Bedroom Properties

3.5.4 The proposed level of car parking spaces for the housing development is therefore 1 space per dwelling with 2 bedrooms (with separate shared visitor parking) and 2 spaces per dwelling for 3 and 4 bedroom properties. The proposed level of parking for each property is shown on the layout drawing included in **Appendix A**.

### **3.6 Accidents**

3.6.1 An assessment of existing accident levels in section 2 suggested that there are currently no safety issues on the surrounding highway network. Based on this conclusion and the impact of the above proposals it is clear that the development will not lead to any additional or significant safety issues.

## 4. POLICY CONTEXT

### 4.1 Overview

4.1.1 The purpose of this section is to set out the relevant land use and transport planning policies to ensure that the development proposals are in accordance with national and local policy objectives.

### 4.2 National Policy Context

#### National Planning Policy Framework (2012)

4.2.6 In 2012 the Government introduced new planning policy guidelines, which replaced all previous Planning Policy Guidance (PPG) documents with a single National Planning Policy Framework (NPPF).

4.2.7 The NPPF states that its overall aim is “*to help achieve sustainable development*” based on three dimensions;

- **An economic role** - by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and innovation;
- **A social role** - supporting strong, vibrant and healthy communities, by creating a high quality built environment, with accessible local services that reflect the community’s needs and support its health, social and cultural well-being; and
- **An environmental role** - contributing to protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity, use natural resources prudently, minimise waste and pollution, and mitigate and adapt to climate change including moving to a low carbon economy.

4.2.8 The report emphasises that;

*“Development that is sustainable should go ahead, without delay – a presumption in favour of sustainable development that is the basis for every plan, every decision.”*

4.2.9 With specific regard to the transport element of the NPPF, the report states that;

*'All developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment.'*

- 4.2.10 The NPPF identifies that the design and location of new development should;
- accommodate the efficient delivery of goods and supplies;
  - give priority to pedestrian and cycle movements, and have access to high quality public transport facilities;
  - create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians, avoiding street clutter and where appropriate establishing home zones;
  - incorporate facilities for charging plug-in and other ultra-low emission vehicles; and
  - consider the needs of people with disabilities by all modes of transport.
- 4.2.11 Given the objectives set out in the NPPF, it is clear that the proposed development will be in accordance with current national planning policy relating to Sustainable Development and Transport.

### **4.3 Local Policy Context**

#### Local Transport Plan

- 4.3.1 In March 2011, the South Yorkshire Integrated Transport Authority published its 15 year Transport Strategy as part of their Local Transport Plan 3 (LTP3). This document set out the objectives for the links between transport, society and the economy over the next 15 years in the Sheffield City Region, which encompasses the local authority area of Barnsley where the proposed development is located. The LTP3 set out four key goals that are to be achieved over the duration of the 15 year Transport Strategy period and these are as follows:
- To support economic growth
  - To enhance social inclusion and health
  - To reduce emissions
  - To maximise safety

4.3.2 The Transport Strategy also identified a further 26 policies that will help to achieve the four key goals outlined above. As such those policies that directly relate to the proposed residential development are as follows:

Economic:

- To deliver interventions required for development and regeneration
- To develop high-quality public places
- To focus new development along key public transport corridors and in places adjacent to existing shops and services
- To apply parking policies to promote efficient car use, while remaining sensitive to the vulnerability of urban economies
- To develop public transport that connects people to jobs and training in both urban and rural areas

Social Inclusion and Health

- To ensure public transport is accessible to all
- To provide efficient and sustainable access to our green and recreational spaces, so that they can be enjoyed by all residents and attract tourism

Reduce Emissions:

- To encourage active travel and develop high quality cycling and walking networks
- To provide information and travel advice for the users of all modes of transport, so that they can make informed travel choices

Maximise Safety:

- To encourage safer road use and reduce casualties on our roads

4.3.3 As can be seen above, the proposed development will assist in delivering a number of the local transport goals and policies and therefore contributes to delivering the overall Transport Strategy for the Sheffield City Region during the 15 year Local Transport Plan (LTP3) period.

Barnsley Local Development Framework

4.3.4 Barnsley Metropolitan Borough Council (Barnsley Council) are currently in the process of developing and implementing their Local Development Framework (LDF), which is a series of documents that set out the vision for future development in the Barnsley area until 2026.

4.3.5 The Core Strategy is one of the key documents of the LDF as it sets out the approach of the long term physical development and reflects what the Council wants Barnsley and the surrounding areas to become. To help do this the Council have laid out 8 objectives within the Core Strategy.

1. To be the spatial interpretation of the Sustainable Community Strategy
2. To improve access, movement and connectivity with sustainable travel
3. To secure safe, healthy and inclusive communities and promote wellbeing
4. To make efficient use of land and infrastructure
5. To accelerate economic growth
6. To ensure all new development is sustainably designed and built to the highest standards
7. To deliver a sufficient supply of housing to provide balanced mixed communities and support economic growth
8. To protect and improve the countryside and natural environment

4.3.6 Based on the proposals outlined in section 3, it is clear that development will support a number of the Core Strategy objectives and in particular those relating to efficient use of land and infrastructure, economic growth and sustainability.

4.3.7 In addition to the above objectives, the Core Strategy also identifies Royston and the former school site as a location for future development:

*“The Core Strategy policy CSP8 identifies the Principal Towns such as Royston as a priority for development and the main local focus for housing, employment, shopping, leisure, education, health and cultural activities and facilities. CSP10 anticipates 1000 new homes for Royston over the plan period. Central Royston housing opportunities include the redundant Royston school site as well as peripheral greenfield sites.”*

*“CSP31 identifies Royston as a District Centre with an important role serving localised catchments and meeting more local needs and as such aims to direct new retail and town centre uses here.”*

*“We want to support growth and change in Royston. The redevelopment of the former school site offers the opportunity for regeneration and consolidation of the*

*town centre and its two shopping areas, possibly including new retail provision. Additionally the site is likely to deliver housing and green space that will transform this area of the town. Coupled with the housing and employment growth that will occur elsewhere in Royston over the plan period this will result in important changes for the town. We will ensure this is carried out in a way which increases the sustainability and accessibility of the town.”*

4.3.8 The CSP 27 Parking Strategy states:

*“We will develop a parking strategy that will help to influence people's travel choices”. The Strategy will include:*

- A review of the number and location of short and long term car parking spaces, taking account of development proposals in Barnsley town centre*
- An action plan to improve the management of new and existing car parks*
- Maximum car parking standards*
- Variable car parking charges dependant on location*
- Parking permits including residential parking schemes*
- A programme for monitoring car park usage*

4.3.9 CSP 27 also states that it will consider developing parking strategies to cover the Principal Towns, such as Royston.

4.3.10 CSP 28 Reducing the Impact of Road Travel states:

*“We will reduce the impact of road travel by:*

- Developing and implementing robust, evidence based air quality action plans to improve air quality*
- Working with our sub regional partners, fleet and freight operators to improve the efficiency of vehicles and goods delivery, and reduce exhaust emissions*
- Implementing measures to ensure the current road system is used efficiently.*

- 4.3.11 Given the above extracts, as well as the Core Strategy objectives, it is clear that the development proposals for a residential site in Royston are in accordance with local planning policy.

## **5. EXISTING TRAFFIC CONDITIONS**

### **5.1 Survey Data Collection**

5.1.1 In order to determine the existing traffic conditions on the surrounding highway network, survey data has been collected via Classified Turning Counts (CTC). Details of the surveys were agreed as part of a scoping exercise with consultants AECOM on behalf of highways officers at BMBC.

5.1.2 The turning counts were undertaken on Friday 17<sup>th</sup> June 2016 at the following locations:

- Midland Road / Church Street / High Street / Station Road
- Midland Road / The Lane

5.1.3 The Friday AM peak, turning movements were recorded between 0700 and 0930 and for the Friday PM peak turning movements were undertaken between 1600 and 1830. This raw Traffic Count Data is included as **Appendix B** for reference.

5.1.4 Examination of the data confirmed that the Weekday AM Peak hour occurs between 0800 and 0900 hours and the Weekday PM Peak hour occurs between 1645 and 1745 hours.

### **5.2 Future Year Assessments**

5.2.1 The DfT's Guidance on Transport Assessment (2007) states that:

*"A development should be assessed with regard to the LDF, and for a period of no less than five years after the date of registration of a planning application".*

5.2.2 As such the future year assessments will be carried out for the opening year of 2017 and a design year of 2021 (5 years from planning application submission).

5.2.3 The existing traffic observations have therefore been growthed using a combination of the DfT National Traffic Model (NTM) factors and a combined average of TEMPRO 6.2 national and local factors specific to Royston.

5.2.4 The growth factors for the AM and PM weekday peak periods are therefore as follows;

- Weekday AM Peak 2016 to 2017 = 1.0151
- Weekday PM Peak 2016 to 2017 = 1.0154
- Weekday AM Peak 2016 to 2021 = 1.0754
- Weekday PM Peak 2016 to 2021 = 1.0768

5.2.5 A copy of the highway network diagrams for each of the base traffic scenarios is included in **Appendix C**.

## **6. TRIP GENERATION AND DISTRIBUTION**

6.1 In order to estimate the volume of multi modal trips generated by the proposed development, the number of arrivals and departures has been calculated for each of the proposed land use types using the TRICS database. A summary of these results is provided in the remainder of this section and the full TRICS output for each land use is included as **Appendix D**.

### **6.2 Housing Trip Generation**

6.2.1 The housing trip generation was obtained from TRICS using the selection parameters of 03 – Residential and A – Houses Privately Owned. The weekday trip rates were obtained by entering in a range of between 10 and 372 dwellings. The trip rates generated for the weekday AM and PM peak hours are summarised in Table 6.1.

Table 6.1 – TRICS Housing Trip Rates

	Trip Rate	
	Arrivals	Departures
AM	0.151	0.407
PM	0.388	0.224

6.2.2 These trip rates have been used to calculate the actual number of trips generated by the housing development based on the proposed 80 dwellings and these are shown in Table 6.2.

Table 6.2 – Housing Trip Generation

	Trip Generation	
	Arrivals	Departures
AM	12	33
PM	31	18

### **6.3 Trip Distribution**

6.3.1 In order to determine the impact of the development traffic on the surrounding highway network, the above trips have been distributed across the network. These proportions are based on the existing distribution of trips passing the site along

Midland Road and the adjoining junction with High Street / Station Road / Church Street and are shown in the network diagrams in **Appendix C**.

#### **6.4 Extant Planning Permission Trip Generation Comparison**

6.4.1 As already noted, the extant planning permission included proposals for a 3,902m<sup>2</sup> Foodstore with an associated Petrol Filling Station (PFS) and a 1350m<sup>2</sup> Health Centre. However, neither of these developments has yet to be implemented and so it is therefore necessary to consider their trip generation impact compared to the latest residential proposals.

6.4.2 The trips associated with a 3,902m<sup>2</sup> Foodstore and a 1,350m<sup>2</sup> Health Centre have been extracted from the approved Transport Assessment submitted in support of the extant planning permission. These trips are shown in Tables 6.3 and 6.4 respectively.

Table 6.3 – Supermarket Trips

	Trip Rate		Trip Generation	
	Arrivals	Departures	Arrivals	Departures
AM	3.797	2.482	116	76
PM	6.335	6.835	194	210

Table 6.4 – Health Centre Trips

	Trip Rate		Trip Generation	
	Arrivals	Departures	Arrivals	Departures
AM	3.170	1.262	43	17
PM	1.781	2.693	24	36

6.4.3 As can be seen in Tables 6.3 and 6.4, the estimated total trip generation as a result of the new Foodstore and Health Centre would be 252 two-way trips during the weekday AM Peak and 464 two-way trips in the PM Peak.

6.4.4 By comparison, in Table 6.2 the residential development would be expected to produce 45 two-way trips in the weekday AM Peak and 49 trips in the PM Peak.

6.4.5 The residential development would therefore result in 207 fewer two-way trips generated in the AM Peak and 415 fewer trips in the PM Peak.

## **7. JUNCTION ASSESSMENTS**

7.1 The purpose of this section is to determine the impact of the proposed development on junctions in the vicinity of the site. The junctions that have been assessed were agreed with consultants AECOM on behalf of Barnsley Metropolitan Borough Council (BMBC) as part of the scoping exercise:

- Midland Road / Church Street / High Street / Station Road
- Midland Road / The Lane

7.2 The Midland Road / Church Street / High Street / Station Road signalised junction has been assessed using LINSIG version 3. The current staging and intergreens of the signals were observed on site and incorporated into the LINSIG model. The pedestrian 'all red' stage has been assumed to be called every other cycle, which was also observed on site. A summary of the LINSIG results for each of the assessed scenarios is included in Table 7.1.

Table 7.1 – Summary of LINSIG results

<b>Scenario</b>	<b>Degree of Saturation (%)</b>	<b>Max Queue (PCU)</b>
2016 Weekday AM Peak	67.5	10.1
2016 Weekday PM Peak	85.9	14.2
2017 Weekday AM Peak	68.5	10.3
2017 Weekday PM Peak	85.5	16.8
2021 Weekday AM Peak	72.7	11.5
2021 Weekday PM Peak	94.3	20.1
2017 Weekday AM Peak + Dev	70.0	10.7
2017 Weekday PM Peak + Dev	90.9	17.4
2021 Weekday AM Peak +Dev	74.5	13.1
2021 Weekday PM Peak + Dev	94.6	23.6

7.3 Within LINSIG, the Degree of Saturation (DoS) is determined on each approach. A DoS greater than 90% is commonly accepted as the threshold above which the approach to the junction is reaching capacity and queues will start to form with subsequent delays occurring.

- 7.4 As can be seen in Table 7.1, the junction slightly exceeds it's the 90% threshold in 3 of the 10 scenarios tested, all of these being during the PM Peak. The worst case scenario is during the 2021 PM Peak with development, where the junction is expected to operate with a 94.6% DoS and 23.6 Mean Max Queue. However, there is very little change between the 2021 PM scenario without development traffic included and examination of the change in traffic also confirms that any potential increase will be well within daily fluctuations of background growth. The full LINSIG output for each of the assessed scenarios is included as **Appendix E**.
- 7.5 An ARCADY assessment has been undertaken for the mini roundabout junction of Midland Road / The Lane to determine how the junction is currently operating and how it would with the addition of trip generation associated with the development. A summary of the assessment results for this junction is included in Table 7.2 and the full ARCADY output is included as **Appendix F**.

Table 7.2 – Summary of ARCADY results

Scenario	Midland Road (W)		The Lane		Midland Road (E)	
	RFC	Queue	RFC	Queue	RFC	Queue
2016 Weekday AM Peak	0.35	0.52	0.26	0.35	0.42	0.71
2016 Weekday PM Peak	0.65	1.84	0.35	0.54	0.45	0.81
2017 Weekday AM Peak	0.35	0.53	0.26	0.35	0.42	0.73
2017 Weekday PM Peak	0.66	1.93	0.36	0.56	0.46	0.83
2021 Weekday AM Peak	0.37	0.59	0.28	0.39	0.45	0.82
2021 Weekday PM Peak	0.70	2.32	0.39	0.63	0.49	0.94
2016 Weekday AM Peak +Dev	0.36	0.55	0.31	0.45	0.43	0.76
2016 Weekday PM Peak +Dev	0.69	2.19	0.38	0.62	0.46	0.86
2017 Weekday AM Peak +Dev	0.36	0.56	0.31	0.46	0.44	0.78
2017 Weekday PM Peak +Dev	0.70	2.29	0.39	0.64	0.47	0.88
2021 Weekday AM Peak +Dev	0.38	0.62	0.33	0.50	0.47	0.87
2021 Weekday PM Peak +Dev	0.74	2.79	0.42	0.72	0.50	1.00

- 7.6 As can be seen in Table 7.2, the highest Ratio of Flow to Capacity (RFC) value is 0.74, which occurred on Midland Road (W) in the 2021 Weekday PM Peak plus development scenario. The Design Manual for Roads and Bridges (DMRB)

TD42/95 suggests that the Ratio of Flow to Capacity (RFC) value from ARCADY should not exceed 0.85. As such the existing junction arrangement is able to operate sufficiently in 2021 with the addition of development traffic.

## **8. SUMMARY AND CONCLUSIONS**

- 8.1 This Transport Assessment (TA) has been produced in support of a planning application for a residential development site in Royston near Barnsley.
- 8.2 The development proposals involve the construction of 80 residential properties on part of the former Royston High School site, which benefits from an extant planning permission for mixed use development (Application No. 2012/1337).
- 8.3 The extant planning permission is for the construction of a 3,902m<sup>2</sup> foodstore with an associated petrol filling station (PFS), a 1350m<sup>2</sup> health centre and 143 residential properties. Since the planning permission was granted only the residential portion of the development has been constructed.
- 8.4 Comparison between the extant planning permission and the proposed development indicates that the estimated trip generation will be significantly lower as a result of the proposed residential development.
- 8.5 The results of the junction assessments suggest that the Midland Road / Church Street / High Street / Station Road junction will be operating at capacity in the 2021 PM Peak without the addition of development traffic. However, the potential increase in development trips is minimal and within daily fluctuations of background traffic passing through the junction.
- 8.6 A review of existing personal injury accident (PIA) levels over a 5 year period suggests that there are currently no safety issues and therefore the development is unlikely to result in a significant impact on road safety.
- 8.7 The location of the site in the centre of Royston means that the site has very good access by bus and the surrounding residential area provides an opportunity for many trips to be made on foot or by bicycle.
- 8.8 The Transport Assessment (TA) has also recognised that the development site is identified for redevelopment within the Local Development Framework (LDF) and is consistent with local and national transport and planning policy objectives.

- 8.9 In conclusion, this Transport Assessment (TA) has provided a robust assessment of the traffic and transportation impacts of the proposed development and will therefore enable Barnsley MBC to consider these issues as part of the planning application.