



Gedling Access Road, Gedling

Environmental Statement
Non-Technical Summary
July 2014



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1.0 Introduction

1.1 Background

- 1.1.1 This document summarises the Environmental Statement (ES) which accompanies the planning application by the Homes and Communities Agency (HCA) for a relief road bypassing Gedling in Nottinghamshire. The development, called the Gedling Access Road (GAR), comprises a single carriageway road with associated footways and street lights.
- 1.1.2 This document is a summary of the Environmental Impact Assessment (EIA) process in non-technical language. The main Environmental Statement (ES) (Volume 1) and the supporting Appendices (Volume 2) contain detailed information on the project and each of the environmental topics considered.

1.2 Environmental Assessment

- 1.2.1 EIA is a formal process by which the likely environmental effects of a project are assessed, and where there is potential for a significant negative effect that cannot be avoided, works are identified to lessen the effects (mitigation). The ES reports on the findings of the EIA and sets out those areas where likely significant environmental effects have been identified and the mitigation proposed to lessen predicted effects. It forms an important part of the planning application decision making process.
- 1.2.2 The Town and Country Planning (Environmental Impact Assessment) Regulations 2011 (hereafter termed the 'EIA Regulations'), require that, before consent is granted for certain types of development an EIA must be undertaken. The EIA Regulations set out the types of development which must always be subject to an EIA (Schedule 1 development) and other developments, which will only require assessment if they give rise to significant environmental effects (Schedule 2 developments).

- 1.2.3 The development of the proposed GAR falls under Section 7b of Schedule 1 of the EIA Regulations and therefore requires an EIA.
- 1.2.4 The topics to be included within the ES were established through a process known as 'scoping'. Scoping involves a consideration of how the development could potentially impact on the local environment, and identifies those areas where those impacts might be significant.
- 1.2.5 The scoping process identified that the following topics should be assessed as part of this EIA. These are contained in the following numbered chapters of the ES:
- Chapter 5: Planning Policy;
 - Chapter 6: Air Quality;
 - Chapter 7: Ecology;
 - Chapter 8: Landscape and Visual Impact Assessment;
 - Chapter 9: Archaeology and Historic Environment;
 - Chapter 10: Noise and Vibration;
 - Chapter 11: Traffic and Transport; and
 - Chapter 12: Socio-Economics.

1.3 Site Description

1.3.1 The proposed GAR route runs to the north east of the village of Gedling. Gedling village sits in a valley that starts on high ground at Mapperley Plains, and runs in a south-easterly direction down to the A612 Burton Road. At that point the valley opens out on to the open floodplain of the River Trent. The valley floor and most of the slopes on the western side are urbanised, forming the edge of the Nottingham conurbation; whilst much of the eastern side has little built development.

1.3.2 Towards the northern end of the route, the former Gedling Colliery spoil heap dominates the landscape on the eastern side of the route, facing back towards the built up area. The flanks of the colliery tip are generally steep, with some woodland cover, but also large open grassed areas. A shallow valley feature separates the two main parts of the tip, which have high points approaching 120m above sea level.

1.3.3 Further south the eastern side is more rural, with open fields and woodland extending out from residential areas. The most southerly part of the route drops down over the edge of a scarp slope.

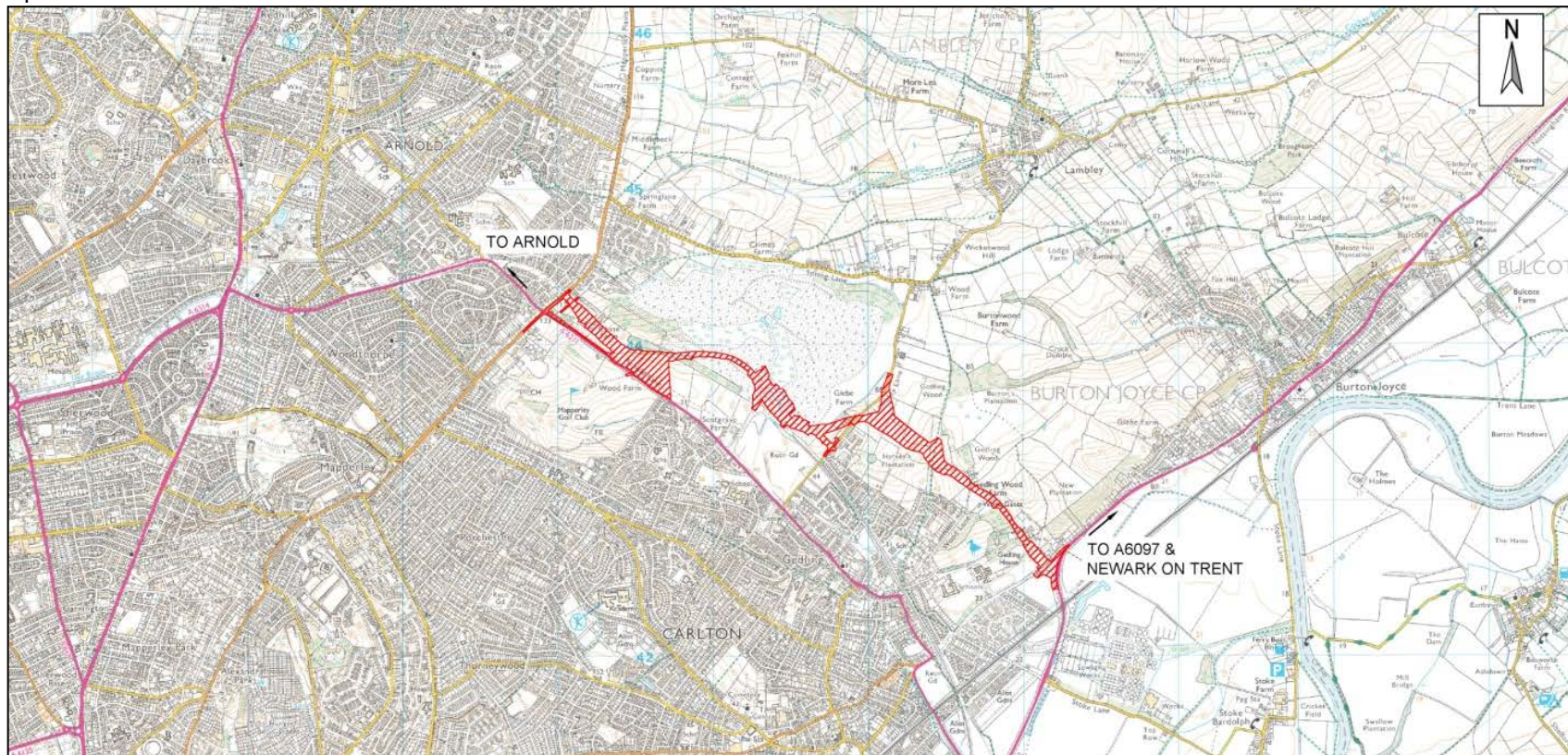


Figure 1 - Site location



2.0 The Proposals

2.1 Background and Need

2.1.1 The GAR will facilitate redevelopment of the Gedling Colliery/Chase Farm site for mixed-uses as set out in adopted Gedling Borough Replacement Local Plan (2005) and the emerging Broxtowe Gedling and Nottingham City Aligned Core Strategies. It will also provide a 'bypass' around Gedling to help ease traffic congestion on local roads.

2.2 Alternative Development Scenarios

2.2.1 The GAR represents the culmination of a long history of different proposals for a road around the eastern side of Nottingham and as such a number of alternative route layouts have been considered. Some of the more pertinent changes are detailed below.

On-line improvements to Arnold Lane

2.2.2 Consideration was given to utilising the section of Arnold Lane from the location of the proposed new 5-arm roundabout to an improved junction with Mapperley Plains Road at the location of the existing Arnold Lane/Mapperley Plains Road junction. This would have avoided the need for a new junction onto Mapperley Plains Road and the initial section of GAR that runs parallel to Arnold Lane between Mapperley Plains Road and the proposed new 5-arm roundabout. Such an arrangement would have removed the requirement to cross Mapperley Tunnel, reduced the need for the major embankments along this section of the route and kept the new road closer to the urban edge, with reduced landscape and visual impacts.

2.2.3 However, this option was rejected for the following main reasons:

- The existing Arnold Lane vertical profile includes gradients up to 12% and this was deemed unacceptable by the Highway Authority Nottinghamshire County Council.

- Improving Arnold Lane to meet the requirements of the County Council would prove more costly than providing the new section of carriageway and new junction onto Mapperley Plains Road.
- This work would require the closure of parts of Arnold Lane for significant periods, with the potential to create severe disruption to the local road network during the construction phase.

Moving the roundabout next to Arnold Lane further to the west

2.2.4 This change has been incorporated into the design due to an extension to the Development Area beyond the Local Plan allocation in order to accommodate more residential land. Consequent changes to the detailed design of the roundabout to accommodate different ground levels has also influenced the detail of the Preferred Option for the GAR at this point.

Alignment around former Gedling colliery Tip

2.2.5 In the area where the GAR runs close to the former colliery tip, the alignment varies from the Local Plan route. This is because the Local Plan route would present engineering difficulties in relation to tip stability. Therefore the Preferred Option moves the route slightly further away from the tip flanks.

2.3 Description of the Development

2.3.1 The current scheme is essentially the same as the 2008 scheme design, with minor adjustments to the planning application red-line boundary and consists of the following elements and characteristics:

2.3.2 From its southern junction with the A612 Trent Valley Way the Gedling Access Road will climb on a shallow embankment, heading north-westwards, roughly parallel to Whitworth Drive and passing through land which is currently part of the grounds and playing fields of Carlton-le-Willows Academy; and land which forms part of the



grounds of Gedling House, including a walled garden. The gradient of the road will be up to 8%, and has been designed to include an overtaking lane to permit overtaking on the incline.

- 2.3.3 The proposed route will cut through the south eastern tip of the Gedling House Wood Nature Reserve through a cutting of approximately 2.0m depth and running immediately to the south of Gedling Wood Farm before continuing northwest across open farm land. Just to the south of Lambley Lane the alignment of the road bends to the west through Glebe Farm, which would be demolished, before bending back to the north west, and passing through the former Gedling Colliery site and continuing on to join the B684 Mapperley Plains Road at its northern end.
- 2.3.4 The new road will be constructed in several cuttings along its length which will vary in depth from approximately 2.0m to 14.5m. It is proposed that a slope stabilisation technique called "Soil Nailing" will be used to strengthen cutting slopes walls and reduce the area of land take required. In addition to the cuttings along the course of the road there will also be an embankment at the northern end measuring up to 14m in height.
- 2.3.5 The scheme has been designed to achieve an earthworks 'cut/fill' balance across the whole of the road construction with the earth removal required to create the cuttings on the southern section being reused to create the embankments required for the northern section. This will minimise the need to import/export large quantities of material thereby achieving cost effective construction and helping to minimise construction traffic impacts.
- 2.3.6 In summary the scheme will consist of the following element:-
- A new 7.3m wide single-carriageway road, 3.8km in length with a speed limit of 40mph.
 - Street lighting and a shared footway/cycleway along the whole length of the new road.
 - At the north western end a new signal-controlled T-Junction onto the B684 Mapperley Plains Road located approximately 170m to the east

of the existing B684 Mapperley Plains Road/A6211 Arnold Lane/Gedling Road signal controlled cross roads junction.

- At its south eastern end a new signal-controlled junction onto the A612 Trent Valley Way at the location of the existing junction between Burton Road and the A612 Trent Valley Way.
- A new 5-arm roundabout connecting the Gedling Access Road with the A6211 Arnold Lane and future development on the Gedling Colliery/Chase Farm site.
- A new 4-arm roundabout connecting the Gedling Access Road with future residential and employment development on the Gedling Colliery/Chase Farm site.
- Two new priority 'Ghost-Island' T-junctions providing links with the northern and southern sections of Lambley Lane.
- A new 3-arm mini-roundabout connecting on Lambley Lane connecting the southern section of Lambley Lane to the Gedling Access Road.
- A new service road with a simple priority junction onto the Gedling Access Road to allow future maintenance access to balancing ponds to the north of the Gedling Access Road.
- A new private access junction onto the Gedling Access Road to serve Gedling Wood Farm.
- Embankments along much of the northern section of the road, up to a maximum of around 14m in height above existing ground levels.
- Cuttings on the southern section of the road, up to around 15m in depth below existing ground levels south of Lambley Lane, but shallow (up to 4m depth) further south.
- Provision of a climbing lane on the southern section of the Gedling Access Road over a distance of approximately 900m from its junction with the A612 Trent Valley Way.
- Pedestrian crossing facilities will be provided at the Gedling Access Road/B684 Mapperley Plains Road and Gedling Access Road/A612 Trent Valley Way junctions as part of the signal control arrangements at these locations.
- A "TOUCAN" signal-controlled crossing will be provided across the Gedling Access Road on the south eastern arm of the new 4-arm

roundabout provided to serve future development on the Gedling Colliery/Chase Farm site.

- Safe uncontrolled pedestrian crossing points will also be provided as follows:
 - On the southern arm of the new 4-arm roundabout.
 - On the eastern Gedling Access Road arm of the new 5-arm roundabout with the A6211 Arnold Lane.
 - On the Lambley Lane arm of the 'Ghost-Island' junction with Lambley Lane south.
 - On the Gedling Access Road at the point where the diverted footpath crosses it (approximately 350m to the southeast of the proposed new junction between the Gedling Access Road and the northern section of Lambley Lane).
 - On the Gedling Access Road between the 5-arm roundabout and the junction with the B684 Mapperley Plains Road.



Photograph 1 – View of the Route from Yew Tree Lane



Figure 2.1 – Proposed GAR Route, Redline Boundary Plan



3.0 Consultation

3.1.1 Consultation has taken place with Nottinghamshire County Council and Gedling Borough Council, together with the following consultees.

- Sport England;
- The Ramblers Association;
- Nottinghamshire County Council Highways Environment Agency;
- Arboricultural Officer Nottinghamshire County Council;
- Force Architectural Liaison Officer;
- Natural England Highway Agency CABA;
- Severn Trent Water;
- Nottinghamshire Wildlife Trust;
- Gedling Borough Council Public Protection; and
- English Heritage

3.1.2 These discussions have been used to inform the proposals, determine the need for an EIA and the topics that should be covered by the assessment.

3.1.3 In addition, consultation has been undertaken with the local community and a full breakdown of the consultation process can be found in the Gedling Access Road, Statement of Community Involvement (WYG 2014) which accompanies the planning application. This document sets out the consultation process in full.

3.1.4 It was decided a series of public exhibitions would form the main element of the consultation strategy to enable as many local people as possible to view the plans and have an opportunity to make comments and to discuss any concerns.

3.1.5 Comments received during these events and the resulting meetings that were held resulted in the following changes in the scheme's design.

- Scout Hut Access at Mapperley Plains: Provision of a 3m wide right turn lane protected by physical refuges;
- Existing Lagoon, Gedling Country Park: The proposed roundabout and adjoining carriageway of GAR has been shifted slightly south east to avoid the lagoons. This also assists in an improved alignment for all arms entering the roundabout;
- Land Opposite Gedling Wood Farm: Red line boundary shifted slightly to allow for additional landscape screening to be incorporated; and
- Whitworth Drive: Alignment has been adjusted between Gedling Wood and Burton Road to move the road away from Whitworth Drive and remove the impact on an existing tree screen. Approx. 9m shift at Meadowcroft and 5m shift at 246 Nottingham Road.

4.0 Environmental Impacts

4.1 Planning Policy

- 4.1.1 The route for the proposed GAR was identified for development within the 2005 Gedling Borough Replacement Local Plan.

4.2 Air Quality

- 4.2.1 WYG have undertaken a revised Air Quality Assessment for the proposed new access road in Gedling, also allowing for traffic from the proposed new housing development, in accordance with the methodology and parameters described within the Technical Report.
- 4.2.2 In the context of the proposed development, transportation is identified as the dominant emission source that is likely to cause potential risk of exposure to air pollutants at receptors. The air quality

assessment therefore consists of the quantified predictions of the change in nitrogen dioxide and particulate matter due to changes in traffic movement.

- 4.2.3 A total of 4906 properties are within 200m of roads affected by the scheme. 94.7% of these receptors are predicted to experience a reduction in exposure to nitrogen dioxide. In addition, 91.1% of these receptors are close to sections of the road on which particulate matter exposure is predicted to reduce.
- 4.2.4 The overall assessment indicates that the scheme has a net benefit in terms of receptor exposure to nitrogen dioxide and particulate matter.



Photograph 2 – View of Linden Grove



4.3 Archaeology and Historic Environment

- 4.3.1 Previous assessments for the Gedling Access Road have been reviewed and updated. Impacts to a walled garden associated with Gedling House, a Listed Building have been identified as a result of the development. This walled garden, although disused has a high value due to its association with the Listed Building. The road construction will only affect a small proportion of the walled garden. To reduce these effects a programme of further archaeological investigation has been proposed, in addition to the dismantling and rebuilding of the wall once the road construction is complete.
- 4.3.2 The assessment has also identified the requirement for Glebe Farm, a locally Listed Building, to be demolished. This farm is of interest in a district context and a programme of archaeological building recording has been proposed to reduce the effects. There is also the potential to impact upon buried archaeology, during earthwork, to the hollow way and ridge and furrow features to the south of Glebe Farm. A programme of archaeological investigation has been proposed to record these remains should they be discovered.
- 4.3.3 It is considered that these mitigation measures appropriately offset the potential effects to these historic features due to the construction of the GAR.

4.4 Noise and Vibration

- 4.4.1 A baseline noise survey has been undertaken, which has been used to verify the noise model. Based upon this model the following assessment has been made.
- 4.4.2 During construction, there is the likelihood that construction works will be audible at properties close to the road corridor. This noise will be for a relatively short period as works progress along the corridor. Noise will be largely mitigated by good working practices, however, additional mitigation is proposed for construction works within 100 m of properties around Chase Farm Cottage, 246 Nottingham Road and 40

Lambley Lane. This mitigation will either be in the form of 2m high solid barriers between the houses and the construction works, or by reducing the amount of time equipment is used in these locations from 100% for the full 8 hour day it is assumed equipment will be used to 50% of the time.

- 4.4.3 Once the GAR is fully open there will be increases in road traffic noise at properties particularly those surrounding Gedling Wood Farm east of the Lambley Lane junction. However the predicted increase in noise is not such that any properties would be entitled to mitigation in accordance with the criteria set out in the 1988 Noise Insulation Regulations.
- 4.4.4 Noise mitigation measures have been included in the scheme design and include the following:-
- Four separate 1.8 metre high solid noise barriers (fences) along the route, including a 210m long barrier alongside Gedling Wood Farm and a 365m long barrier alongside properties to the north of Maple Drive, Almond Walk, and Acorn Drive. Two further barriers are proposed, a 210m long barrier in front of properties adjacent to Whitworth Drive and a 190m long barrier south of Chase Farm.
 - Noise bunds (earth mounds) have also been included and these include a 2m high bund in front of Gedling Wood Farm and a 1.5m high bund around the junction where the GAR meets Lambley Lane.
 - Restricting speed limits to 40mph will also have a beneficial impact on noise levels from the new road.
- 4.4.5 There will however, be a noticeable improvement at a large number of properties along Arnold Lane and Spring Lane and, to a lesser extent along the facades of properties which are along Mapperley Plains, as traffic flow on these roads decrease due to the proposed scheme.

4.5 Landscape and Visual Impacts

- 4.5.1 The landscape and visual baseline for the GAR has been determined and used as the basis for the assessment. Eighteen viewpoints were



selected within a 1.5km study area to represent the views afforded in the surrounding area.

- 4.5.2 During construction and early operation of the GAR there would be an effect on landscape, based upon the loss of the existing vegetation on the site; the effects on the local landscape character; the effects on landscape amenity of residents adjoining the Site and the Public Right of Way crossing the site.
- 4.5.3 Visual effects will also occur during the construction and early operation of the GAR on: residents within the local area including those situated close to the site and on the rising ground overlooking the existing agricultural landscape within the site; users of the Public Right of Way crossing the site; users of the proposed country park at the former Gedling Colliery site; and local road users.
- 4.5.4 However, after 15 years the effects on the landscape and on views available of the highway would be lessened as the maturing woodland, tree and hedgerow planting along the highway would integrate the road into the landscape and in general provide screening or filtering of views of the road development.

4.6 Traffic and Transport

- 4.6.1 The transport assessment has assessed the forecasted changes in traffic flows due to the provision of the GAR and full redevelopment of the Gedling Colliery/Chase Farm site at a 2034 Design Year (15 Years Post Opening).
- 4.6.2 The results of the assessment show that the provision of GAR is forecast to reduce traffic flows on the adjacent A6211 corridor as traffic reassigns to make use of the new route. The forecast flow reductions are expected to have an overall beneficial effect on road safety on the A6211 corridor. In addition, the operation of existing junctions on the A6211 corridor will also benefit from the general reduction in traffic with fewer delays and queues experienced in the peak hours.

- 4.6.3 A range of complementary traffic management measures will be developed to effectively integrate GAR and the colliery redevelopment into the existing highway network and encourage appropriate use of the new route, particularly by HGVs and 'through' traffic. A list of potential measures is identified in the TA report however; the final package will be subject to agreement with Nottinghamshire County Council. It is anticipated that some complementary measures will be delivered in parallel with the road scheme, whereas others will be considered following a period of monitoring.
- 4.6.4 The operation of the proposed junctions on the GAR have been tested and demonstrated to operate within acceptable parameters at the 2034 Design Year assuming full redevelopment of the Gedling Colliery/Chase Farm site. The proposed junction layouts are therefore considered appropriate to accommodate forecast traffic flows.
- 4.6.5 Overall, provision of the Gedling Access Road is considered to be beneficial in terms of impacts on the local highway network and the scheme is therefore considered acceptable on transport grounds.

4.7 Socio-economics

- 4.7.1 It is considered that the Net Present Value of the scheme at £75,342 million is a positive beneficial effect. In addition, there will be other positive benefits to the local community from a reduction in traffic along Arnold Lane.



5.0 Summary

5.1 Conclusions

- 5.1.1 The ES has considered how the environment and the local community would be affected by the development.
- 5.1.2 The cumulative effects of 20 permitted and allocated developments, including the Gedling Colliery/Chase Farm site have also been assessed, specially in respect to the resulting increase in traffic and the resulting increase in noise and air pollution and have been included as part of this assessment.
- 5.1.3 A range of potential environmental effects have been predicted to occur as a result of the GAR development, both positive and negative. However, mitigation measures have been identified to appropriately reduce, minimise or offset any potential negative environmental effects.

5.2 Management of Environmental Impacts

- 5.2.1 The impacts of the construction activities will be managed through a Construction Environmental Management Plan. This will ensure that working hours, traffic management, control of pollution, waste management, noise, dust and vibration are all managed and controlled.

5.3 What happens next?

- 5.3.1 Prior to making a decision on the planning application, Gedling Borough Council will seek advice from statutory and non-statutory consultees as part of the determination process for the submitted planning application.
- 5.3.2 Gedling Borough Council will make the full Environmental Statement available for examination by members of the public at the Council's offices.

Printed copies of the non-technical summary and ES (including figures and appendices) may be obtained from:

Executive Park,
Avalon Way,
Anstey,
Leicester,
United Kingdom,
LE7 7GR

Tel: +44 (0)117 925 4393

The non-technical summary is available free of charge, and a limited number of hard copies of the Environmental Statement are available for £350* per copy (plus p&p). Alternatively, these documents are available as adobe acrobat files on CD from the same address at £25 (plus p&p) per copy or can be downloaded from the HCAs website (www.homesandcommunities.co.uk)

Copies of the ES may also be viewed on Gedling Borough Council's online services (<http://www.gedling.gov.uk/index.htm>)

* Includes VAT @20%