

Gedling Borough Council

Infrastructure Delivery Plan

Background Paper

Insert picture

March 2016

Contents	Page
1.0 Introduction	2
2.0 Policy Context	2
3.0 Methodology	4
4.0 Broad Viability by Topic	4
Transport	5
Utilities	7
Flooding and Flood Risk	10
Health and Local Services	13
Emergency Services	14
Waste Management	15
5.0 Reasonable Alternative Sites Infrastructure	18
6.0 Cumulative Impact Sites for further consideration	21
7.0 Allocated Sites: Cumulative Impact	24
8.0 Plan Wide Viability	27
Appendix 1: Infrastructure Requirements Reasonable Alternatives	
Appendix 2: Allocated Sites Infrastructure Requirements	31
Appendix 3: Site Allocation Maps	63

1.0 Introduction

- 1.1 The Gedling Borough Infrastructure Delivery Plan (IDP) is a supporting document forming a key part of the evidence base for the Local Planning Document (LPD). The purpose of the IDP is to identify infrastructure required to meet the spatial objectives and growth set out in the LPD. Infrastructure is defined as the facilities and services that support local communities ranging from strategic level provision such as a new road to the creation of local play space.
- 1.2 It provides a broad overview of the existing and committed infrastructure under different categories and the extent to which infrastructure needs would act as a constraint on delivery of the LPD. The IDP assesses the infrastructure requirements of the reasonable alternative development sites identified in the Site Selection Document and also considers the infrastructure needs arising from cumulative impacts from particular combinations of allocated sites.
- 1.3 The IDP should be read in conjunction with the 2013 Greater Nottingham Infrastructure Delivery Plan (GNIDP). The GNIDP was produced in support of the Aligned Core Strategy (ACS) which forms part 1 of the Gedling Borough Local Plan. This document assessed the potential impact on infrastructure arising from the projected housing growth, employment and other development over the Greater Nottingham area and was found sound at the Examination. The IDP will not repeat work already undertaken but focus on the infrastructure required to deliver the LPD. The preparation of the IDP has involved extensive consultation with service and infrastructure providers.

2.0 Policy Context

The NPPF states that Local Plans should plan positively for the development and infrastructure required in an area. In this context, local planning authorities should work with other authorities and service providers to assess the quality and capacity of infrastructure including for example, transport, utilities, health, education and flood risk in terms of meeting forecast demand. Government stresses that plans should be deliverable and therefore the allocated sites and scale of development identified should not be subject to such a scale of obligations that the economic viability of sites is threatened.

Aligned Core Strategy

- 2.1 In preparing the IDP full regard has been given to the recently adopted Aligned Core Strategy for Gedling Borough which sets out the development requirements for the Borough and for its broad distribution. The strategy of the

ACS is urban concentration with regeneration and this should ensure that the best use is made of existing infrastructure, services and facilities.

2.2 ACS Policy 2 uses a hierarchical approach to the distribution of development in the following order:

- 4,045 homes within and adjoining the urban area of Arnold and Carlton;
- 1,300 homes adjoining the Sub Regional Centre of Hucknall;
- Up to 1,945 homes within and adjoining Key Settlements; and
- Up to 260 homes in other villages to meet local need only.

2.3 The Aligned Core Strategy also allocates strategic sites including:

- Top Wighay Farm;
- Teal Close; and
- North of Papplewick Lane.

2.4 Gedling Colliery/Chase Farm is also identified as a strategic location for growth. The critical infrastructure for strategic allocations is identified in the GNIDP and summarised in appendix B of the ACS. For strategic locations the GNIDP identifies likely infrastructure requirements. Policy 18 (Infrastructure) of the ACS sets the principle that new development must be supported by the required infrastructure at the right stage of development. Policy 18 also requires contributions to be sought from development proposals which give rise to the need for additional infrastructure.

2.5 Policy 18 also acknowledges that there are known infrastructure constraints particularly relating to transport, education, open space and flood risk and further detailed assessment of these issues will be required through Local Development Documents (namely the Local Planning Document)

Local Planning Document (LPD)

2.6 The LPD identifies specific non-strategic housing sites and includes detailed policies for development management. More capacity for housing development has been identified within the main urban area than envisaged in the ACS and this has allowed for reductions elsewhere. In general this increased focus on the urban area should assist in making the best use of existing infrastructure.

2.7 The reductions applied to the rural area should generally tend to lessen the impact of new development on local infrastructure and therefore the assumptions for infrastructure requirements in the rural areas set out in the GNIDP are very much a worst case scenario and are updated by this document.

3.0 Methodology

3.1 The IDP needs to answer a number of key questions:

- A. Whether the overall level of growth in the Local Planning Document can be supported by the necessary infrastructure;
- B. What are the key impacts on infrastructure and services arising from the reasonable alternative sites and whether there are any showstoppers that would constrain the site; and
- C. The cumulative impacts of the allocated sites where they need to be considered together and to consider whether the requirements of allocations either on their own or cumulatively give rise to any plan wide viability issues.

3.2 The various strategies and programmes of the service providers and a number of studies of relevance to infrastructure and service provision carried out across Greater Nottingham have also been taken into account where relevant. These strategies, programmes and studies are an important source identifying service capacity constraints, issues giving rise to infrastructure need, future programme investment and potential sources of funding. Information has also been gathered through the responses of various providers to consultation on the Local Planning Document and the IDP.

3.3 The first section of the IDP takes a broad view of existing infrastructure by topic and whether there is any significant infrastructure constraints termed “showstoppers”. It then goes on to consider the site specific requirements of the reasonable alternative sites and the infrastructure costs of the sites. Lastly it considers the sites selected for allocation as set out in the Local Planning Document and any cumulative need for new infrastructure arising from these allocations. This provides the basis for assessing the delivery of the Local Planning Document against site viability evidence set out in the Plan Wide Viability Assessment and the scope for S106 contributions to both critical and non-critical infrastructure.

4.0 Broad Viability by Topic

4.1 The following categories of infrastructure are considered within this report:

- Transport
- Utilities - water
- Utilities – energy
- Utilities – digital infrastructure (IT)
- Flooding and flood risk
- Health services
- Education

- Leisure
- Emergency services (police fire and ambulance)
- Waste management
- Green infrastructure

Transport

Context

4.2 Key issues include:

- Accessing communities, services and facilities by sustainable modes of transport;
- Minimising congestion and pollution;
- Making best use of existing transport infrastructure; and
- Minimising and reducing carbon emissions.

4.3 Gedling Borough comprises of a high density urban area being part of the Nottingham conurbation and the more rural parts of the Borough to the north and east. The urban area has a good existing transport network and allocations within and adjoining the Nottingham urban area and the sites adjoining the Hucknall Sub Regional centre will benefit from existing transport infrastructure. Public transport in certain rural settlements is not as good although the Key Settlements generally have a good standard of service. The likely level of growth across the Gedling Borough and its implications for traffic growth has been assessed as part of the work on the GNIDP and this is summarised in the Strategic Transport assessment in paragraph 4.11 below.

Bus services

4.4 The GNIDP notes that buses are a major component of public transport network in the Greater Nottingham Urban area and provision is good in comparison with many other areas of the UK. Gedling Borough is well served with frequent bus services and it is estimated that 95%¹ of residents have hourly or better daytime services to a town centre, local centre or the City Centre and less than 400 m walk to a bus stop.

4.5 Bus services are provided largely by NCT and Trent Barton who both commented on the GNIDP and indicated (without prejudice) that for the most part new development proposed in the ACS is likely to be served by existing commercial services or alterations to existing services.

Rail Services

¹ Source: Gedling Borough AMR 2013/14

- 4.6 Gedling Borough has 4 rail stations providing services to Nottingham, Mansfield, Grantham, Lincoln and Worksop. Inter city services are available from Nottingham Midland Station.
- 4.7 The operator East Midlands trains responded to the consultation on the IDP and have raised no significant infrastructure constraints in terms of rail services. However, the response indicates that potentially impacts on services from Burton Joyce, Carlton, Hucknall and Newstead would need reviewing at the more detailed planning application stage.

Highways

Assessment: Strategic transport

- 4.8 The GNIDP has assessed the cumulative impact of the Aligned Core Strategies on the strategic highway network using the Greater Nottingham multi-modal Transport Model (GNTM). In summary, the modelling results indicated that subject to implementation of Smarter Choices and public transport measures the growth set out in the adopted ACSs can be delivered without significant detriment to the operation of the transport networks assuming the delivery of currently committed schemes.
- 4.9 ACS Policy 15 (Transport Infrastructure Priorities) identifies the Gedling Access Road as an important scheme critical to the delivery of the ACS. The GAR scheme is identified in the Local Transport Plan as a critical piece of infrastructure costing at £38m which would provide traffic relief for Gedling Village and also provide access opening up the former Gedling Colliery Site for mixed development. Whilst at the time of writing the GNIDP, no funding was in place, since then rapid progress has been made towards bringing this new road forward. A funding package has been put together including funding from the D2N2 Local Transport Board, Nottinghamshire County Council and Gedling Borough utilising the Community Infrastructure Levy (CIL). A planning application for the GAR was approved in 2014 and construction of the road is expected to start in 2017 with completion by 2019. The planning application that has now been submitted for the development site indicates that 660 new homes will be delivered on site by 2028.
- 4.10 The site selection process identified a pool of potential sites referred to as Reasonable Alternative Sites (see Site Selection Document March 2016). These were sites which in the view of Planning Officers warranted consideration in order to ensure that sufficient regard was had to alternative options. The reasonable alternative sites have been assessed to consider whether satisfactory access to the site can be gained from local highways and whether any access constraints could be overcome through mitigation work including in particular for any off site highway works that would add significantly to development costs. The assessment is based on the 6Cs Design Guide

which sets out assumptions about the number of access points and minimum width of access road depending upon the scale of development and the visibility splays required at the access points governed by approaching vehicle speed. This assessment is for the purposes of plan making only; detailed proposals submitted as part of future planning applications will be determined against the standards in place at that time and subject to a site visit and assessment. The conclusions from the assessment are included within the site schedules in **Appendix 1**.

- 4.11 The assessment indicates that in general for sites greater than 50 dwellings further work will be required in the form of transport statements or transport assessments for sites larger than 80 dwellings and if necessary travel plans. Sites where satisfactory access cannot be achieved are identified in the schedules in **Appendix 1**. In a number of cases, potential solutions to access constraints may be possible including through off site mitigation options and these are set out in the schedules.

Transport - Conclusions

- 4.12 The traffic modelling work undertaken as part of the GNIDP concludes that the level of growth planned for in the ACS can be delivered without detriment to the strategic highway network. Further transport modelling for the Borough is not required albeit development schemes will require detailed transport assessments as part of the planning application process.
- 4.13 In terms of major highways schemes, the implementation of the GAR will directly open up the Gedling Colliery/Chase Farm site for development and also will enable other sites to be developed on the edge of Carlton which are dependent upon the GAR. Smarter Choices and improved or alterations to public transport services especially bus services and potentially train services is likely to require developer contributions.
- 4.14 Other sites also require highway improvements; these are dealt with in more detail in the assessment of reasonable alternatives in the next section.

Utilities - Water

Context

- 4.15 Key issues include:
- Clean water supply for existing and new development;
 - Waste water (including surface water) and sewerage disposal; and
 - Impact on water resources and water quality.

- 4.16 The Water Cycle Scoping Study 2009 (WCS) and Outline Water Cycle Study (2010) were produced for Greater Nottingham and Ashfield District. These studies considered the impact of the ACS on the water resources/supply, waste water treatment and sewerage, sewer flooding and surface water drainage, water quality and fluvial flooding.
- 4.17 Severn Trent Water (STW) Plc is the provider for the Greater Nottingham Area and participated in the WCS. The WCS study concluded that without interventions STW forecasts a shortfall of water supply against demand. STW's Final Water Resources Management Plan (WRMP) published in 2014 sets out how the company will meet demand over the next 25 years. The Plan seeks to resolve the potential deficit in supply by increasing the capacity of existing water resources through demand management and reducing leakages. In this context STW supports the ACS approach to house design to limit water usage to 105 litres per person per day for new homes. Assuming the WRMP is successfully implemented then it is considered the water network would be able to meet the needs from new development.

Sewerage

- 4.18 STW were consulted as part of the ACS preparation and subject to more detailed modelling it is not anticipated that sewerage capacity would be a significant constraint to growth in Gedling Borough. This assumes that the impact of new development on waste water can be managed by ensuring that flows from new development are minimised including through house design to limit water consumption; and as a general rule surface water should not be connected to the foul sewer. STW would also expect surface water to be dealt with through the installation of sustainable urban drainage systems which are required in all development by LPD Policy 4 (Surface water Management).

Conclusions - Water

- 4.19 Generally there are no showstoppers although following more detailed hydraulic modelling, some local reinforcement of sewerage infrastructure may be required in certain locations. In general the cost of utilities is taken into account in development costs so there are no abnormal costs expected.

Utilities - Energy

Context

- 4.20 The key energy issue relates to:
- connecting new development to gas and electricity services without adverse impacts on existing provision;

Electricity

- 4.21 National Grid operates and maintains the national electricity transmission network of overhead lines, underground cable and substations providing electricity supplies from generating stations to local distribution companies. National Grid has confirmed that it is unlikely that site specific proposals in Gedling Borough are likely to have a significant impact on the electricity transmission network and also none of the sites are crossed by the high voltage electricity network.
- 4.22 The GNIDP identified that reinforcement to the electricity network would be required at Bestwood, Calverton and Ravenshead and to support growth on non-strategic sites in general. Western Power also indicated the need to update an existing 33/11kV primary at Calverton and also the possibility of a new primary substation in the area. Further discussions will be required with Western Power particularly in relation to any new primary substation at Calverton. The need for standard reinforcement works such as the installation of 11kV cables to individual sites and local substations to provide low voltage supplies to homes is likely, although Western Power has an extensive programme of local reinforcement. In this context, electricity supply is not considered a significant constraint.

Gas

- 4.23 National Grid owns the gas distribution network in the East Midlands delivering gas to the end customer. New gas transmission infrastructure developments are periodically required to meet increases in demand although this is generally in response to increasing demand across the region rather than due to site specific development.
- 4.24 Amec, acting on behalf of National Grid, have been consulted on the development sites within the Borough and commented that specific development proposals within Gedling Borough are unlikely to have a significant effect on National Grid's gas supply infrastructure and it is unlikely that any extra growth would cause capacity issues. On this basis it is unlikely that gas connection would be a significant constraint for particular development sites and normally developers would factor the costs of connection into the overall build costs of a development. The matter of gas connection may be addressed at the more detailed planning application stage.

Conclusions - Energy

- 4.25 No abnormal costs have been identified relating to electricity and gas transmission, distribution and supply. There may be additional costs relating to local electricity distribution especially if a new primary substation is required at

Calverton although this will need further discussion with Western Power. Although Western Power has an extensive capital programme for reinforcement which is not attributable to individual developments, they may recover costs of reinforcement works required to meet the needs of specific developments. Lead in times for electricity distribution is a potential constraint and early dialogue between developers and utility providers is important.

- 4.26 Developers may be required to pay for two main elements – the full costs of local infrastructure needed to serve a development site and a contribution to any higher voltage reinforcement in the network to enable the local connection based on the proportion to be used by the local development.

Utilities - Digital Infrastructure (IT)

Context

- 4.27 IT and telecommunications services can be provided by a range of suppliers but as with energy supply this IDP focusses on establishing whether, in principle, reasonable access can be provided to development sites. Two main suppliers for Greater Nottingham were invited to comment on the IDP – BT Openreach and Virgin Media.
- 4.28 BT Openreach owns and manages a local access network that connects homes and businesses to telephone exchanges. It also provides installation and maintenance services on behalf of communications providers. The Company's approach to serving new sites is set out within the Builder's guide to telecommunications infrastructure and installation. In response to the GNIDP, BT Openreach confirmed that there is unlikely to be any limitations to broadband and telephone services for new developments and the company is currently obliged to service new developments.

Conclusions - Digital Infrastructure

- 4.29 No abnormal constraints are identified for the delivery of the Local Planning Document. Lead in times for BT Openreach is 3 – 6 months for larger developments. BT has previously confirmed that a set of standard site costs apply to developers.

Flooding and Flood Risk

Context

- 4.30 Flood risk is a significant issue in Gedling Borough and one that is likely to become more challenging due to climate change and more unpredictable weather. A comprehensive and collaborative approach has been taken to flooding and flood risk across Greater Nottingham. A number of technical

studies have been prepared by or with close consultation with the Environment Agency and Severn Trent Water.

- Fluvial Trent Strategy (Environment Agency 2005)
- Trent Catchment Flood Management Plan (Environment Agency, 2008)
- River Leen and Day Brook Strategic Flood Risk Assessment (Black and Veatch, 2008)
- Scoping Water Cycle Study (Scott Wilson, 2009)
- Outline Water Cycle Study (Entec 2010)
- Greater Nottingham Strategic Flood Risk Assessment (Black and Veatch, 2008 and update 2010)
- Nottingham Left Bank Flood Alleviation Scheme (completed 2012)
- Environment Agency Flood Zone maps (current)

River Flooding

- 4.31 The main source of flooding in the Borough is from the River Trent and its tributaries including the River Leen, Day Brook and Ouse Dyke. Parts of Gedling Borough are located within flood zones 2 and 3 and significant flood events related to the River Trent occurred in 1998 and 2000. This led to a review of flood risk and the publication of the Fluvial Trent Flood Risk Management Strategy. This strategy and the Greater Nottingham Strategic Flood Risk Assessment have informed the River Trent Left Bank Flood Alleviation Scheme. This scheme, providing improved flood defences including for the Colwick area, has now been completed and provides for a level of protection to protect against the probability of a 1:100 year event happening.
- 4.32 The River Leen and Daybrook SFRA prepared in 2008 indicates that localised flooding occurs during a 1:100 year event along Thackeray's Lane and Mansfield Road, Daybrook in the vicinity of the confluence of the two branches of the Day Brook which flows along culverts through much of this area.
- 4.33 The flood risk from the Leen and Day Brook also affects existing properties including in Hucknall and also further downstream in the City of Nottingham. Although the River Leen and Daybrook SFRA notes that the rural catchments outside of Nottingham including within Gedling Borough do not add significant volumes of floodwater to the River Leen and Daybrook, it recommends that major development proposals within the catchment area should seek to reduce volumes and peak flow rates of surface water generated by development to pre-developed greenfield rates.
- 4.34 The Borough Council will continue to engage with Nottingham City and Ashfield District in order to address the cross boundary nature of flood risk and to coordinate the approach to flood risk management.

- 4.35 As part of the sustainability appraisal of the Local Planning Document, the potential site allocations have been assessed to consider whether they fall within a flood risk area, principally zones 2 and 3 as identified on the Environment Agencies Flood maps.

Surface water runoff

- 4.36 Both STW and the Environment Agency have identified issues of surface water flooding in the Arnold area. They advise that improvements on the current rates of runoff are sought when planning for new development, together with the expectation that surface water drainage should not be connected to the foul water sewers but dealt with through sustainable drainage techniques. Policy LPD 4 (Surface water Management) requires SUDS to be provided in all developments and for areas where surface water drainage is a critical issue to seek a reduction in current run off rates.
- 4.37 Surface water flooding has been raised as a particular issue at Woodborough and in Lambley. The risk of flooding from surface water has been taken into account as a significant constraint on development in these two villages. Developments in these village locations will also be required to provide flood attenuation in the form of sustainable drainage systems and where possible the Borough Council would be seeking an improvement on current drainage rates.

Groundwater flooding

- 4.38 The River Leen and Day Brook catchment area is located on rocks which are capable of storing large amounts of water. There has been a rise in water levels due in part to the decline of abstraction from traditional industries resulting in some flooding of basements in the Basford area in Nottingham City. The LPD will normally expect all development to incorporate sustainable drainage techniques limiting water runoff to the Leen and Day Brook catchment.

Reservoirs

- 4.39 The Environment Agency considers that reservoir flooding is extremely unlikely and legislation requires reservoirs to be well maintained and monitored. Potential flood risks from reservoirs are unlikely to be a constraint to development.

Conclusions - Flooding

- 4.40 Flood risk to site allocations from rivers and other watercourses has been assessed and no 'show stoppers' have been identified. Sites which are potentially impacted by fluvial sources have been identified in the Sustainability

Appraisal of the LPD which recommends that the development footprint avoids the Flood Risk Zone. Surface water flood risk has been identified as a key issue by consultees. Policy LPD4 (Surface water Management) would normally require all development sites to include sustainable urban drainage systems. In general there are not considered to be any insurmountable constraints to allocations relating to flood risk.

Health and Local Services

General practitioners

Context

- 4.41 The Borough has fourteen GP practices, the majority of which are located within Arnold/Carlton area. There are two in Burton Joyce and one at Calverton. Residents also access GP practices in locations outside the Borough including at Hucknall and Nottingham City, particularly Rise Park in the Bestwood part of the City. NHS Nottingham North East Clinical Commissioning Group have reviewed the proposed allocation sites and commented that new housing will add to demand on local health facilities. Subject to further detailed discussions it is anticipated that there may be capacity constraints at the following locations:

- Arnold
- Carlton (Mapperley);
- Calverton;
- Bestwood;
- Burton Joyce; and
- Outside the Borough at Hucknall (Ashfield) and in Nottingham City particularly at Rise Park.

- 4.42 It is therefore anticipated that development likely to give rise to additional demand for GP services in the above locations will be expected to make financial contributions to primary health care. On average the financial contribution to primary health care is costed at £551 per dwelling. This will be considered on a case by case basis as detailed proposals emerge.

Education

Context

- 4.43 The GNIDP defines education as a non-critical infrastructure category as physical delivery of a site is not directly dependent on school places. However, the provision of accessible education facilities is a very important element in delivering attractive and sustainable development.

4.44 Nottinghamshire County Council is the Local Education Authority (LEA) and has assessed capacity against current pupil projections. In general the LEA is seeking contributions from the allocated housing sites towards both primary and secondary education. The LEA has indicated where current schools are at capacity which includes:

- north east Arnold;
- Carlton; and
- Bestwood

4.45 Where schools have the capacity to expand in situ the cost of each additional school place is estimated at £11,455 for primary education and £17,260 for secondary provision.

Conclusions - Health and Education

4.46 In terms of health provision, the Nottingham North East CCG has identified potential capacity constraints in Carlton surgeries and in Hucknall/Rise Park, Bestwood surgeries (relating to Bestwood Village), and at Calverton surgery.

4.47 Whilst, school place provision is not necessarily a physical show stopper for development the provision of school places or new schools is important in achieving sustainable development. In general growth in school age children is placing significant pressure on schools capacity for both primary and secondary education in Nottinghamshire. Where new school places are required and expansion of existing schools buildings is possible contributions from developers are likely to be required although this will need to be considered on a case by case basis at the more detailed planning stage. Deficiencies in the capacity of existing primary schools have been identified in the Carlton (Gedling Colliery), north east Arnold and at Bestwood. Village primary schools at Burton Joyce, Lambley and Woodborough are also at or near capacity. In the case of Burton Joyce and Woodborough the local education authority has indicated that it can just cope with the likely pupils generated through adaption of the existing school estate and similarly at Lambley the local school is oversubscribed but education contributions could enhance other provision in the local area.

Emergency services

Context

4.48 The key emergency services issues are the provision of satisfactory levels of emergency services for existing and new development. This section considers the potential for new developments to be supported by appropriate emergency services. Consultation was undertaken as part of the GNIDP with Nottinghamshire Police, Nottinghamshire Fire and Rescue Services and the

East Midlands Ambulance Service and these emergency services were subsequently consulted again on the reasonable alternative site allocations in the Local Planning Document.

Police

- 4.49 During the preparation of the ACS, the Nottinghamshire Police raised no concerns over the level of development proposed in the Aligned Core Strategies in terms of providing policing services. Comments received referred to the design, mix and layout of development which could influence the potential for crime and fear of crime.

Fire

- 4.50 The Nottinghamshire Fire Service has commented that the level of growth proposed in the Local Planning Document has been taken into account and that there would be no significant impact on fire and rescue services. The Fire and Rescue Service did urge that future housing provision, especially housing for vulnerable persons, should consider the benefits of a domestic sprinkler system.

Ambulance

- 4.51 The East Midlands Ambulance Service has not raised any concerns about the housing provision.

Conclusions - Emergency Services

- 4.52 There are no abnormal costs associated with the Emergency Services.

Waste Management

Context

- 4.53 The planning and disposal of waste is the responsibility of Nottinghamshire County Council as Waste Local Planning Authority whilst Gedling Borough has responsibility for waste collection.
- 4.54 The ACS at Appendix A (Strategic Sites Schedules) indicates that the Top Wighay Farm strategic site should make contributions towards a waste recycling site to serve the wider area. Nottinghamshire County Council as Waste Local Planning Authority has commented that the housing numbers in the LPD would impact on the cost of waste disposal but there would be no additional requirement for waste disposal infrastructure and that waste arising would be disposed of within the current contractual arrangements utilising the Eastcote energy from waste facility and landfill. The Waste Local Planning Authority also commented that the new growth would impact on recycling

centre at Calverton but with more efficient management this facility is expected to accommodate need.

Conclusions - Waste Management

- 4.55 A new waste recycling site is sought in connection with the Top Wighay Farm strategic site. No additional requirements are identified as a result of the LPD.

Green infrastructure and Biodiversity

Context

- 4.56 Key issues include:
- Protection of green infrastructure assets; and
 - Promoting appropriate access to green infrastructure.
- 4.57 ACS Policy 16 sets out a strategic approach to green infrastructure, parks and open spaces. In principle the ACS seeks to protect and enhance green infrastructure. Priority for the provision of new or enhanced green infrastructure includes locations for major residential development and the Strategic River Corridors. The latter includes the River Trent which flows through the south east of the Borough. ACS Policy 16 (Green Infrastructure, Parks and Open Space) also seeks to protect and enhance parks and open space and provides for any deficiencies to be addressed in Local Plan Part 2 documents.
- 4.58 The site selection process has considered the impact of sites on green infrastructure and biodiversity and where appropriate mitigation measures proposed (see Site Selection Documents and site selection schedules).
- 4.59 The Gedling Borough Green Space Strategy 2012 – 2017 sets out local standards for the provision of different types of green space. Of note is the conclusion that under the local standards a large amount of new open space will be need to be created, much of it associated with new housing developments.
- 4.60 The Green Space Strategy also recommends that an audit of outdoor playing pitches is carried out. At the time of writing the Borough Council has commissioned consultants to undertaken the preparation of a playing pitch strategy for the Borough and the findings of the study will be incorporated into this evolving IDP.
- 4.61 The Local Planning Document Policy LPD 21 requires that sites over 0.4 ha will be required to provide 10% of the site area as public open space. The type of open space will be assessed on the basis of local needs and guidance set in the Green Space Strategy.

Habitat Regulations Assessment impacts of the prospective Special Protection Area.

- 4.62 Information in this section has been informed by the GNIDP and Habitats Regulations Assessments produced for the ACS. The Habitats Regulations Assessment (HRA) carried out alongside the ACS considered potential impacts on the prospective Sherwood Forest Special Protection Area (pSPA).
- 4.63 A Habitats Regulation Assessment Screening Record was undertaken for the Aligned Core Strategies. This found that there could be potentially significant effects on parts of the prospective Sherwood Forest Protection Area and a number of mitigation measures were identified and required to be in place to avoid significant effects from development at Calverton. These measures are set out in the GNIDP (see page 90). The Local Planning Document is supported by a Habitats Regulations Assessment (March 2016) which concludes that the majority of the policies have been ruled out as they will not have a Likely Significant Effect on the prospective Sherwood SPA (or other European sites) and therefore will not need to be taken forward to the next stage of Appropriate Assessment. A review of the proposed site allocations in the LPD confirms that there are no significant effects.

Conclusions - Green Infrastructure

- 4.64 Development offers significant opportunities to provide new or enhanced open space and green infrastructure including in areas of current deficiency. The presence of existing green infrastructure and biodiversity and further provision is not a constraint on the delivery of the LPD.

5.0 Reasonable Alternative Sites specific infrastructure Assessment

5.1 This information is obtained from the key service providers who have been asked to comment on the individual alternative sites and in particular to flag up any abnormal costs for particular sites. The infrastructure service providers and agencies consulted include:

- British Telecom;
- County Highways Authority;
- Environment Agency (EA);
- GBC Parks and Street Care Department;
- Local Education Authority (LEA);
- Midland Trains;
- National Grid;
- Nottingham City Clinical Commissioning Group;
- Nottingham City Transport;
- Nottingham North and East Clinical Commissioning Group;
- Severn Trent;
- Trent Barton; and
- Western Power.

5.2 The detailed schedule for each of these reasonable alternative sites is provided in **Appendix 1** which sets out the individual infrastructure requirements for each site. The schedules indicate where site related infrastructure is likely to be required or financial contributions needed for certain types of infrastructure. It should be borne in mind that this assessment reflects the evidence available at the time of writing.

Summary of IDP Assessment for Reasonable Alternatives

Community facilities

5.3 No site specific requirements for community facilities have been identified on any of the sites.

Contamination

5.4 Sites with known or likely contamination problems are identified in the schedule. In general brownfield sites, depending upon previous uses, are anticipated to require a ground condition survey. The plan wide viability work has built in assumptions relating to the need to remediate contaminated sites.

Education

- 5.5 The number of places and cost estimates are set out for each site in the schedule which is a worst case scenario. Primary schools within one mile of the Gedling Colliery/Chase Farm site are oversubscribed. ACS Appendix A (Strategic Site Schedules and Plans) identifies a need for a new primary school at Gedling Colliery/Chase Farm.
- 5.6 For other sites, particularly in the urban areas of Arnold and Carlton and at Bestwood Village, the need for new primary school provision arises from the potential cumulative impact of a number of sites. This is dealt with in the following section which looks at the cumulative impacts of the “clusters” of sites.

Emergency services

- 5.7 None of the sites raise any implications for the provision of emergency services.

Flood Risk

- 5.8 A number of sites drain towards areas where there is a significant risk of flooding from rapidly rising watercourses as a consequence of surface water runoff. In particular, these sites are located within the Arnold area and the villages of Lambley and Woodborough. There is a general policy presumption that normally all sites will require a sustainable drainage system and therefore it is assumed that there would be no abnormal costs as such features would be factored into the development cost. Consultees have asked that the Borough Council is ambitious in seeking an improvement in drainage rates to help improve downstream flooding relating to surface water. As a consequence drainage rates on sites will need to satisfy guidance from the Environment Agency at the more detailed planning application stage.

Green Infrastructure/Open Space

- 5.9 The general requirement that 10% of the site area should be open space has been applied to all sites. In the case of smaller sites, a preference for offsite contributions will be required where the onsite contribution would be less than 0.1 ha.

Health

- 5.10 There are potential capacity constraints on surgeries in Arnold, Carlton and also in Hucknall surgeries, Nottingham City, Rise Park and at Calverton. Financial contributions towards enhanced primary health care may well be required from sites in these locations as identified in the schedules.

Transport

- 5.11 The highways assessments identifies those sites where satisfactory access can be achieved and also sites where satisfactory access cannot be achieved (see

Appendix 1). Sites with access constraints include those where access cannot be physically provided within the site or where access and/or mitigation measures would require 3rd party land and, unless this can be controlled by the developer, then these sites are not considered suitable for allocation. For certain sites satisfactory access may be achieved through appropriate mitigation measures and these are briefly outlined in **Appendix 1**. No costings for such works are included for example, the costs of putting in a new road junction and Section 278 works, as these are highly dependent upon the site characteristics. All sites are likely to require contributions towards a public transport mitigation package. Certain sites in combination may give rise to cumulative traffic impact and these are dealt within the next section.

Utilities

- 5.12 Energy - None of the sites are identified as having any abnormal costs relating to energy utilities. Cumulative impact of sites on electricity supply is considered in the next section.
- 5.13 Sewerage – All sites will need further hydraulic modelling at the planning application stage.

6.0 Cumulative Impacts of the “sites for further consideration”

6.1 Infrastructure requirements have been taken into account as part of the assessment of reasonable alternatives alongside other planning considerations. This assessment has led to a number of sites being shortlisted as being potential housing allocations or “sites for further consideration”. Whilst, none of the “sites for further consideration” are individually unduly constrained by infrastructure it is necessary to consider whether there are any cumulative impacts arising which would prevent sites coming forward and/or which may affect site viability.

Arnold - north east

- 6/49: Brookfields Garden Centre
- 6/51: Howbeck Road
- 6/671: Mapperley Plains
- 6/671 Extension to Howbeck Road
- 6/50: Killisick Lane
- 6/871: Killisick Lane (GBC Site 1)
- 6/872: Killisick (GBC Site 2)
- 6/873: Killisick Lane (GBC Site 3)

Infrastructure	Summary assessment
Education	In combination these sites result in a cumulative requirement for a new primary school (149 places) which exceed the capacity of existing schools in the area. A new primary school is required to serve the area on 1.1 ha. Financial contributions towards build costs will be required from all sites on a proportionate basis.
Green infrastructure and Open Space	In combination significant demand for different types of open space in the area would arise where there is current under provision of facilities. The quantitative requirement would be at least 2ha in total. Sites should make provision of a “Kick about Area” or Multi Use Games Area
Highways	Consideration needs to be given to the cumulative impact of traffic in the area.

Arnold - A60 North

- 6/48 Lodge Farm Lane
- 6/778 Land to West of A60

Infrastructure	Cumulative impact
Highways	The development traffic would rely on using a very congested section of the A60 Mansfield Road between Leapool Island and

	Oxclose Lane. Due to land constraints, it is difficult to see where appropriate traffic mitigation can be introduced. Whilst it would be possible to heavily promote public transport services to encourage more sustainable travel, these services would ultimately be reliant on the same congested highway network unless adequately catered for by the introduction of bus priority measures. How this would be achieved is very unclear.
--	---

Carlton

- 6/52 Spring Lane
- 6/459 Willow Farm
- 6/542 Linden Grove
- 6/131 Gedling Colliery

Infrastructure	Summary assessment
Education	In combination these sites result in a cumulative requirement for 268 primary school places which exceed the capacity of existing schools. A new primary school is required to serve the area on 1.5 ha and should be provided on the Gedling Colliery/Chase Farm site with space reserved for expansion. Financial contributions towards primary school provision will be required from all sites on a proportionate basis.

Bestwood

- 6/484 The Sycamores
- 6/27 Westhouse Farm
- 6/20 Bestwood Business Park
- 6/28 Broad Valley Farm

Infrastructure	Summary assessment
Education	The existing school in Bestwood is at capacity and cannot be expanded in situ. New primary school provision in the area is required.

Sites at Bestwood, Calverton and Ravenshead

Infrastructure	Summary assessment
Electricity	Some reinforcement of local electricity supply required. Update of existing 33/11kV primary at Calverton – may also need to build a new 33/11 kV primary electrical substation in the area.

7.0 Allocated Sites: Cumulative Impacts

7.1 The Local Planning Document allocates the sites in the following table (see **Appendix 3** for the site allocations maps). The site allocations process has grouped together certain sites as a single allocation whilst other separate housing allocations are in very close proximity to each other. Consequently, it is therefore necessary to consider how any cumulative effects may affect site viability.

Ref	Site name	Housing units	Locality
Urban Area			
H1	Rolleston Drive	90	Arnold
H2	Brookfields Garden Centre	105	Arnold
H3	Willow Farm	110	Carlton
H4	Linden Grove	115	Carlton
H5	Lodge Farm lane	150	Arnold
H6	Spring Lane	150	Arnold
H7	Howbeck Road/Mapperley Plains	205	Arnold
H8	Killisick Lane	215	Arnold
H9	Gedling Colliery	1,050	Carlton
Edge of Hucknall			
H10	Hayden Lane	120	Hucknall
Key Settlements			
H11	The Sycamores	25	Bestwood Village
H12	Westhouse Farm	210	Bestwood Village
H13	Bestwood Business Park	220	Bestwood Village
H14	Dark Lane	70	Calverton
H15	Main Street	75	Calverton
H16	Park Road	390	Calverton
H17	Longdale Lane A	30	Ravenshead
H18	Longdale Lane B	30	Ravenshead
H19	Longdale Lane C	70	Ravenshead
Other Villages			
H20	Millfield Close	20	Burton Joyce
H21	Orchard Close	15	Burton Joyce
H22	Station Road	40	Newstead
H23	Ash Grove	10	Woodborough
H24	Broad Close	15	Woodborough

Arnold

- H2: Brookfields Garden Centre

- H7 Howbeck Road/Mapperley Plains
- H8 Killisick Lane

Infrastructure	Summary Assessment	Further Work	Likely Delivery mechanism
Highways	In combination the sites are likely to have cumulative impacts on the local highway network which may require mitigation works including potential off-site highway works and also require a public transport mitigation package.	Further consideration of any cumulative traffic impacts required in order to assess any necessary mitigation measures.	S106 contributions towards mitigation measures and public transport package.
Education	In combination these sites result in a cumulative requirement for 110 primary school places which exceed the capacity of existing schools in the area. A new 1 Form Entry Primary School is required on 1.1 ha. The most likely and accessible location would be on site H7. Financial contributions towards build costs will be required on a proportionate basis for all sites.	Further discussion with LEA required.	S106 contributions.
Green Infrastructure	In combination significant demand for different types of open space in the area would arise where there is current under provision of facilities. The quantitative requirement would be at least 2ha in total. Sites should make provision of a "Kick about Area" or Multi Use Games Area	Further discussion with Parks and Street Care.	S106 contributions.

Carlton

- H3 Willow Farm
- H4 Linden Grove

- H9 Gedling Colliery/Chase Farm

Infrastructure	Summary Assessment	Further Work	Likely Delivery mechanism
Education	In combination these sites result in a cumulative requirement for 268 primary school places which exceed the capacity of existing schools. A new primary school is required to serve the area on 1.5 ha and should be provided on the Gedling Colliery/Chase farm site with space reserved for expansion. Financial contributions towards primary school provision will be required from all sites on a proportionate basis.	Further discussion with LEA required.	S106 contributions

Bestwood

- H11: The Sycamores
- H12: Westhouse Farm
- H13: Bestwood Business Park

Infrastructure	Summary Assessment	Further Work	Likely Delivery mechanism
Education	In combination these sites result in a cumulative requirement for 96 primary school places. The existing school at Bestwood is at capacity and cannot be expanded. New primary school provision in the form of an annex or new school on a 1.5 ha site is required on H12 to serve the area. Financial contributions towards build costs will be required on a proportionate basis for all sites (financial contributions from Bestwood Business Park planning permission have already been secured).	Further discussion with LEA required.	S106 contributions.

8.0. Plan Wide Viability

- 8.1 Gedling Borough Council commissioned AMK Group to consider the broad deliverability of the Local Planning Document taking into account the likely costs of development and the cumulative impacts of Local Plan policy requirements on viability.
- 8.2 The Plan Wide Viability assessment is available on the Borough Council's Website² and takes into account the cost impacts of the policies proposed in the Local Planning Document and includes a number of assumptions:
- Allowance for S106 contributions and CIL;
 - That affordable homes targets are met in full;
 - Inclusion of abnormal costs where identified for example brownfield sites the cost of clearing up areas of contamination have been included at £25,000 per hectare.
 - Developer profit is set high at 20% to give flexibility
- 8.3 The study is a strategic assessment of whole plan viability and is not intended to represent a detailed viability assessment of every individual site. It applies generic costs in terms of affordable housing, planning policy costs, impacts and mitigation factors and it is acknowledged that more detailed mitigation and viability information may be required at the planning application stage.
- 8.4 Main findings:
- The assessment concludes that most of the development sites proposed by the Local Planning Document are viable and deliverable taking into account the cost impacts of the policies proposed by the Plan;
 - Additional margin exists beyond a reasonable return to the landowner and developer to accommodate CIL charges;
 - All reasonable alternative greenfield sites in the initial 0-5 year delivery period are viable based on the adopted assumptions;
 - A small number of brownfield sites demonstrate marginal viability in the 0-5 year delivery period but are still considered to be broadly viable and deliverable;
 - Viability improves in both the medium term (6-10 years) and longer term (11 – 15 years) with all sites demonstrating positive viability.

Conclusions on infrastructure requirements and viability

Contamination

2

<http://www.gedling.gov.uk/planningbuildingcontrol/planningpolicy/emerginglocalplan/supportingstudies/publications/>

- 8.5 For brownfield sites it is assumed that ground contamination surveys will be required. The viability work has included generic costs of dealing with contamination issues. For greenfield sites where it is assumed no contamination issues would arise. It is concluded that contamination would not act as a constraint on the delivery of any of the allocations.

Education

- 8.6 The LEA advises that it will seek contributions towards primary and secondary education and also where cumulative impacts give rise to the need for new primary schools where existing schools are at capacity. The viability evidence indicates that there is scope for contributions towards education where required and the need for education provision is not an overriding constraint to development or likely to undermine plan wide viability.

Green Infrastructure and Open Space

- 8.7 It is assumed that 10% of site area will be provided as open space. The Borough Council will also expect a commuted sum to be paid for future maintenance. No abnormal costs associated with open space are anticipated on any of the allocated sites on their own or in combination.

Flood Risk

- 8.8 Sustainable Urban Drainage Systems will be required on all sites and it is assumed will be part of standard build costs and therefore would not affect plan wide viability.

Health

- 8.9 Contribution to primary health care would be expected where capacity within existing surgeries is insufficient. The viability evidence indicates that there is scope for contributions towards health where required and health care is not viewed as an overriding constraint or undermine plan wide viability.

Highways

- 8.10 Further consideration of the cumulative impacts of traffic is required for the combination of sites H2, H7 and H8. Until this is carried out it is not possible to provide estimates of any mitigation work. Certain sites identified in the schedule may require new road junction and offsite highway works such as a signalised junction which may involve significant costs. Any abnormal highways critical infrastructure costs would need to be met by the developer although the plan wide viability evidence considers that there is scope and flexibility for developer contributions.

Utilities

- 8.11 Investigation through hydraulic modelling of sewer flows required for sites. However, no abnormal costs have been identified and connection costs for utilities would be assumed to be part of normal build costs and therefore is not expected to have any impact on plan wide viability.
- 8.12 Local reinforcement of the local electricity network is likely to be required but not considered abnormal. An updating of the existing primary substation at Calverton and possible requirement for a new primary electrical substation in the area may be required. This is unlikely to be a showstopper for sites in these locations subject to further discussions with Western Power.

Overall Conclusion

- 8.13 The IDP concludes that there are no significant infrastructure constraints relating to the individual allocated sites that would act as showstoppers. The cumulative impact of some sites (H2, H7 and H8) for highways impact requires further transport modelling although it is not expected that the costs of mitigation would render the sites unviable. Sites H2, H7 and H8 in combination also require the provision of a new primary school in the area requiring 1.1 ha of land and financial contributions towards build costs.
- 8.14 The plan wide viability work indicates that sites are broadly viable and in general there is scope to make S106 contributions. A number of recent planning permissions (including Bestwood Business Park – a brownfield site) have, through section 106 contributions, provided contributions to a range of infrastructure notably education, primary health care and public transport as well as affordable housing contributions. The IDP considers the Local Planning Document to be deliverable although further work principally through discussions with service providers will be required for all sites at the planning application stage where a more detailed consideration of site viability, the scope and scale of contributions to service and affordable housing can be carried out.

Appendix 1: Infrastructure Requirements for Reasonable Alternative Sites and maps by settlement <to be added>

Appendix 2: Allocated Sites: Infrastructure Requirements

H1 Rolleston Drive

Site summary

Timescale	Commence within 5 years
Site area	3.64ha
Housing units	90
Affordable housing	20% (19 units)
Ownership/developer	Ongoing dialogue with owner/developer

Infrastructure constraints/requirements summary

Infrastructure	Summary Assessment	Further Work/Funding
Community facilities	No requirement identified	
Contamination	As a brownfield site previously in employment use there is potential contamination. The Plan Wide Viability work includes a cost estimate of £90,000 for ground contamination and remediation work on the basis of a worst case scenario.	Ground condition survey required as part of planning application process.
Education	19 primary school places - £217,600 14 secondary school places - £241,600	Further discussion with LEA as part of planning application process. Potential contributions to be agreed as part of S106 discussions.
Emergency services	No requirements identified.	

Flood risk	The site has a surface flood route running along the northern boundary. It is also located downstream of an existing flood attenuation facility which has overtopped in recent years. Surface water mitigation measures and attenuation capacity may be required on site.	A site specific flood risk assessment should be prepared focussing on surface water flood risk. Further discussion with the EA, LLFA as part of the planning application process.
Health	Based on the multiplier of £551/dwelling cost estimate is £49,600.	Further discussion with CCG as part of planning application process.
Green Infrastructure Open space	10% of site area (0.36 ha) or contribution off site to Arnot Hill Park improvements.	Further discussions with GBC Parks and Street Care as part of planning application. Potential contributions to be agreed as part of S106 discussions.
Utilities	No requirements identified.	Sewerage – detailed hydraulic modelling required and further discussion with Utilities providers required as part of planning application.
Transport	Access to the site can be achieved via access point 1 (opposite Darlton Drive) although a new single point of access away from this location may be more appropriate. Alternative access is possible along the length of the sites frontage to Rolleston Drive Rolleston Drive is a straight road with good visibility in both directions.	Transport assessment and travel plan required. Highway mitigation and potential contributions to public transport to be agreed as part of S106 discussions

H2 Brookfields Garden Centre

Site summary

Timescale	Commence within 5 years.
Site area	3.52 ha
Housing units	105
Affordable Homes	30% (31 units)
Ownership/developer	Ongoing dialogue

IDP constraints/requirements

Infrastructure	Summary assessment	Further Work/Funding
Community facilities	No requirements identified	
Contamination	As a brownfield site the previous use raises potential for contamination.	Ground condition survey required as part of planning application process.
Education	22 primary school places £252,000 17 secondary school places £293,400 LEA advises will need to consider cumulative impact on primary school places and potential new primary school if adjacent sites allocated.	Further discussion required with LEA. Potential contributions to be agreed as part of S106 discussions
Emergency services	No requirements identified.	
Flood risk	The site is located on ground that slopes and drains towards the Day Brook catchment potentially contributing to downstream flooding problems within the urban area. SUDS will be required to limit discharge rates to agreed levels.	Further discussion with the EA, LLFA as part of the planning application process.

Health	Based on the multiplier of £551/dwelling cost estimate is £57,900	Further discussion with CCG as part of planning application process.
Green Infrastructure Open space	10% of site area (0.35 ha)	Further discussion with GBC Parks and Street care required. Potential contributions to be agreed as part of S106 discussions
Utilities	No requirements identified	Sewerage – detailed hydraulic modelling required and further discussion with Utilities providers required as part of planning application.
Transport	The current access is sufficient to support the level of development proposed; access could also be improved to the level required if additional development were required to be served from this access. It may be necessary to move the 40mph area further north and/or provide a signalised junction. Consideration needs to be given to any cumulative impact arising from adjoining allocated housing sites.	Transport assessment and travel plan required also needs to consider cumulative impact with adjoining sites. Highway mitigation and potential contributions to public transport to be agreed as part of S106 discussions

H3 Willow Farm

Site summary

Timescale	Commence within 5 years
Site area	4.17 ha
Housing units	110

Affordable housing	20% (22 units).
Ownership/developer	Proactive owner/developer.

IDP constraints/requirements

Infrastructure	Summary assessment	Further Work/Funding
Community facilities	No requirements identified	
Contamination	Greenfield site - no known contamination issues.	
Education	23 primary school places £263,500. 18 secondary school places £310,700.	Further discussions with LEA required. Potential contributions to be agreed as part of S106 discussions
Emergency services	No requirements identified	
Flood risk	The site is located on sloping ground and drains towards the Ouse Dyke catchment potentially contributing to downstream flooding problems in the urban area identified by the EA. SUDS will be required to limit discharge rates to agreed levels.	Further discussion with the EA, LLFA as part of the planning application process.
Health	Based on the multiplier of £551/dwelling cost estimate is £60,600.	Further discussion with CCG as part of planning application process.
Green Infrastructure Open space	10% of site area (0.4ha).	Further discussion with GBC Parks and Street care. Potential contributions to be agreed as part of S106 discussions

Utilities	No abnormal requirements	Sewerage – detailed hydraulic modelling required and further discussion with Utilities providers required as part of planning application.
Transport	Both access points have the width required to accommodate the additional development. While visibility is below the required level, it is considered that the actual speed of the road at this junction is lower than assumed and is likely to be acceptable.	Transport assessment and travel plan required. Highway mitigation and potential contributions to public transport to be agreed as part of S106 discussions

H4: Linden Grove

Site summary

Timescale	Commence within 5 years
Site area	3.84ha
Housing units	115
Affordable housing	20% (23 units)
Ownership/developer	Ongoing dialogue with developer/owner

IDP constraints/requirements

Infrastructure	Summary assessment	Further Work/Funding
Community facilities	No requirements identified	
Contamination	Greenfield site no known contamination issues.	

Education	24 primary school places £274,900 17 secondary places £310,700	Further discussions with LEA required. Potential contributions to be agreed as part of S106 discussions
Emergency services	No requirements identified	
Flood risk	Part of the site falls within Flood Zone 2. The development area should avoid the Flood Risk Zone.	
Health	Based on the multiplier of £551/dwelling cost estimate is £63,400	Further discussion with CCG as part of planning application process.
Green Infrastructure Open space	10% of site area (0.38ha). Should provide a play area and “kick about” area. May be a need for planting along eastern and southern boundaries fronting roads.	Further discussion with GBC Parks and Street Care. Potential contributions to be agreed as part of S106 discussions
Utilities	No requirements identified	Sewerage – detailed hydraulic modelling required and further discussion with Utilities providers required as part of planning application.
Transport	Access to the site can be achieved from the existing access. Consideration will need to be given to the operation of the adjacent signal controlled one way system and to the nearby school.	Transport assessment and travel plan required. Highway mitigation and potential contributions to public transport to be agreed as part of S106 discussions

H5: Lodge Farm Lane

Site summary

Timescale	Years 6 - 10
Site area	7.31 ha
Housing units	150
Affordable Housing	30% (45 units)
Ownership/developer	Proactive owner/developer.

IDP constraints/requirements

Infrastructure	Summary assessment	Further Work/Funding
Community facilities	No requirements identified	
Contamination	Greenfield site - no known contamination issues	
Education	32 primary school places - £366,600 24 secondary school places - £414,200.	Further discussions with LEA required. Potential contributions to be agreed as part of S106 discussions
Emergency services	No requirements identified	
Flood risk	The site is located on sloping ground which drains towards the River Leen catchment potentially contributing to downstream flooding problems within the urban area identified by the EA. SUDS will be required to limit discharge rates to agreed levels.	Further discussion with the EA as part of the planning application process.
Health	Based on the multiplier of £551/dwelling cost estimate is £82,650	Further discussion with CCG as part of planning application process.

Green Infrastructure Open space	10% of site area (0.73ha). Should provide a “kick about” area. Landscape and Visual Analysis study recommends strategic planting along northern and eastern boundaries to soften urban edge.	Further discussion with GBC Parks and Street Care. Potential contributions to be agreed as part of S106 discussions
Utilities	No requirements identified	Sewerage – detailed hydraulic modelling required and further discussion with Utilities providers required as part of planning application.
Transport	The A60 can provide access up to 10m enabling bus penetration if required. Access from Stockings Farm is also possible although the width of the roads is unlikely to allow bus access through to Calverton Road. The site should be designed to reduce the number accessed from the A60 without creating a rat run through from Stockings Farm.	Transport assessment and travel plan required. Highway mitigation and potential contributions to public transport to be agreed as part of S106 discussions

H6: Spring Lane

Site summary

Timescale	Within 5 Years and years 6 - 10
Site area	7.31 ha
Housing units	150
Ownership/developer	Proactive owner/developer

Note

Infrastructure requirements for Spring Lane dealt with through the grant of planning permission.

- £368,560 contribution towards primary school places provision;
- 20% affordable homes to be provided on site;
- 10% of site area for open space and £233,510 maintenance contribution;
- £78,500 towards resident's bus passes;
- £82,650 towards primary health care;
- £26,000 towards the provision of two new bus stops; and
- £5,807 contribution to library service.

H7: Howbeck Road/Mapperley Plains

Site summary

Timescale	Commencement years 6 - onwards
Site area	9.7 ha
Housing units	205
Affordable housing	30% (62 units)
Ownership/developer	Ongoing dialogue with owner/developer

IDP constraints/requirements

Infrastructure	Summary assessment	Further Work/Funding
Community facilities	None specifically identified	
Contamination	Greenfield site - no known contamination issues	

Education	43 primary school places £492,600 33 secondary school places £569,600 LEA advises will need to consider cumulative impact on primary school places and potential new primary school if adjacent sites allocated.	Further discussion with LEA required. Potential contributions to be agreed as part of S106 discussions
Emergency services	No abnormal requirements	
Flood risk	The site is located on ground that slopes and drains towards the Day Brook catchment potentially contributing to downstream flooding problems within the urban area. SUDS will be required to limit discharge rates to agreed levels.	Further discussion with the EA required at planning application stage
Health	Based on the multiplier of £551 cost estimate is £113,000	Further discussion with CCG as part of planning application process.
Green Infrastructure Open space	10% of site area (0.8 ha).	Further discussion with GBC Parks and Street Care required. Potential contributions to be agreed as part of S106 discussions
Utilities	No requirements identified	Sewerage – detailed hydraulic modelling required and further discussion with Utilities providers required as part of planning application.

Transport	<p>Access onto Mapperley Plains will require improvements to visibility or a reduction in speed to 40mph.</p> <p>Consideration needs to be given to any cumulative impact of traffic in the area arising from adjoining allocated housing sites. A signalised junction may be appropriate.</p>	Transport assessment and travel plan required also needs to consider cumulative impact with adjoining sites. Highway mitigation and potential contributions to public transport to be agreed as part of S106 discussions
-----------	--	--

H8: Killisick Lane

Site summary

Timescale	Commencement within 5 years
Site area	9.8 ha
Housing units	215
Affordable housing	30% (71 units)
Ownership/developer	Proactive developer/owner

IDP constraints/requirements

Infrastructure	Summary assessment	Further Work/Funding
Community facilities	No requirements identified	
Contamination	Greenfield site - no known contamination issues	
Education	<p>45 primary school places £515,500</p> <p>34 secondary school places £586,840</p> <p>LEA advises will need to consider cumulative impact on primary school places and potential new primary school if adjacent sites allocated.</p>	Further discussion with LEA required. Potential contributions to be agreed as part of S106 discussions
Emergency services	No abnormal requirements.	

Flood risk	The site is located on ground that slopes and drains towards the Day Brook catchment potentially contributing to downstream flooding problems within the urban area. SUDS will be required to limit discharge rates to agreed levels.	Further discussion with the EA required at planning application stage.
Health	Based on the multiplier of £551 per dwelling cost estimate is £118,500	Further discussion with CCG as part of planning application process.
Green Infrastructure Open space	Small part of site overlaps with the Local Nature Reserve. Requires a compensatory biodiversity area to be created on site to offset loss. The Landscape and Visual Impact study recommends the southern part of the site acts as a landscape buffer (most of this area has since been incorporated into the LNR); and also the study recommends a landscape buffer is provided on the higher ground to the north and east of the site. 10% of site area (1 ha).	Further discussion with GBC Parks and Street Care required. Potential contributions to be agreed as part of S106 discussions
Utilities	No requirements identified	Sewerage – detailed hydraulic modelling required and further discussion with Utilities providers required as part of planning application.

Transport	<p>There is sufficient space and visibility to achieve a new access onto the junction of Howbeck Road and Killisick Lane. Consideration will need to be given to the operation of Killisick Lane.</p> <p>Strathmore Road may not be suitable as the sole point of access for the combined site (6/50 and 6/873). Consideration would need to be given to alternative points of access or to a decrease in the number of homes to be served from this access point.</p> <p>Consideration needs to be given to any cumulative impact arising from adjoining allocated housing sites.</p>	Transport assessment and travel plan required also needs to consider cumulative impact with adjoining sites. Highway mitigation and potential contributions to public transport to be agreed as part of S106 discussions
-----------	--	--

H9: Gedling Colliery

Site summary

Timescale	Commence within 5 years
Site area	33 ha
Housing units	1050
Affordable Housing	20% (210 units)
Other uses	Local centre, retail, health centre, employment (E1)
Ownership/developer	Proactive owner/developer

IDP constraints/requirements

Infrastructure	Summary assessment	Further Work/Funding
Community facilities		

Contamination	Part brownfield – substantial contamination from previous use.	Ground condition survey required as part of planning application process.
Education	221 primary school places at £2,531,600. The ACS at Appendix A indicates a new primary school will be required on site. 168 secondary school places ££2,899,700	Further discussion with LEA required. Potential contributions to be agreed as part of S106 discussions
Emergency services	No abnormal requirements.	
Flood risk	The site is located on sloping ground draining towards the Ouse Dyke potentially contributing to downstream flooding. SUDs will be required to limit surface water runoff to agreed limits.	Further discussion with the EA required at planning application stage.
Health	Health Centre may be required and financial contribution.	Further discussion with CCG as part of planning application process.
Green Infrastructure Open space	Part of the site includes a Local Wildlife Site. There is scope to translocate the wildlife interest to the adjoining Country Park to compensate for any loss. Public open space 10% (3.3ha). Potential contributions to adjoining off site recreation facilities.	Wildlife mitigation and compensation strategy required. Further discussion with GBC Parks and Street Care. Potential contributions to be agreed as part of S106 discussions
Utilities	No requirements identified	Sewerage – detailed hydraulic modelling required and further discussion with Utilities providers required as part of planning application.

Transport	Given the size of the site and requirement for the Gedling Access Road, access will be from new roundabouts proposed on Arnold Lane and Lambley Lane and from the Gedling Access Road. A range of improvements to junctions/roads nearby are likely to be required. Opportunities for cycling and walking links to surrounding area including Carlton and Gedling Country Park.	Transport assessment and travel plan required. Highway mitigation and potential contributions to public transport to be agreed as part of S106 discussions
-----------	---	--

H10: Hayden Lane

Site summary

Timescale	Commencement within 5 years
Site area	5.99
Housing units	120
Affordable housing	30% (40 units)
Ownership/developer	Ongoing dialogue with owner/developer

IDP constraints/requirements

Infrastructure	Summary assessment	Further Work/Funding
Community facilities	No requirements identified	
Contamination	Greenfield site - no known contamination issues.	
Education	25 primary school places £286,400. Provision of land to extend new primary school on adjacent development site (planning permission ref: 2013/1406) plus financial contribution to extend school. 19 secondary school places £327,900.	Further discussion with LEA required. Potential contributions to be agreed as part of S106 discussions
Emergency services	No abnormal requirements	
Flood risk	Site drains to the River Leen catchment potentially contributing to downstream flooding. SUDS required limiting surface water runoff to agreed limits.	Further discussion with the EA required at planning application stage.

Health	Based on the multiplier of £551/dwelling cost estimate is £66,100	Further discussion with CCG as part of planning application process.
Green Infrastructure Open space	The Landscape and Visual Impact Study recommends a buffer along the northern boundary to maintain openness. Open space - 10% of site (0.6 ha) or off site contribution	Further discussion with Parks and Street Care required as part of planning application process. Potential contributions to be agreed as part of S106 discussions
Utilities	No requirements identified.	Sewerage – detailed hydraulic modelling required and further discussion with Utilities providers required as part of planning application.
Transport	The site was assessed as part of the SUE and the highways assessments indicates sufficient capacity in the network. The site can be satisfactorily accessed from Hayden Lane or Papplewick Lane.	Transport assessment and travel plan required. Highway mitigation and potential contributions to public transport to be agreed as part of S106 discussions

Planning permission granted (ref: 2007/0887)

Note

Infrastructure requirements dealt with as part of the grant of planning permission.

H12: Westhouse Farm

Site summary

Timescale	Commencement years 6 onward	
Site area	10.23 ha	
Housing units	210	
Affordable housing	30% (70 units)	
Ownership/developer	Proactive developer/owner	

IDP constraints/requirements

Infrastructure	Summary assessment	Further Work/Funding
Community facilities	No requirements identified	
Contamination	Greenfield site no known contamination issues	
Education	44 primary school places £504,000. 34 secondary school places £586,800 The LEA considers that the cumulative impact of development sites in Bestwood will need to be considered as the existing school is at capacity. Planning application for a primary school has been submitted for this site.	Further discussions with LEA required. Potential contributions to be agreed as part of S106 discussions
Emergency services	No requirements identified.	
Flood risk	The site is located on sloping ground where surface water runoff to Leen catchment potentially could increase risk of flooding downstream. SUDs required limiting water runoff to agreed limits..	Further discussion with the EA required at planning application stage.
Health	Based on the multiplier of £551 per dwelling cost estimate £121,200	Further discussion with CCG as part of planning application process.

Green Infrastructure Open space	Landscape and Visual Impact Study recommends landscape buffer along northern boundary. Contributions links to Village centre; Mill lakes and Bestwood Country Park Public open space - 10% of site area (1.25 ha)	Further discussion with GBC Parks and Street Care required. Potential contributions to be agreed as part of S106 discussions
Utilities	No requirements identified.	Sewerage – detailed hydraulic modelling required and further discussion with Utilities providers required as part of planning application.
Transport	Two points of on the B683 with connections also to Keepers Close and Lean Close. Satisfactory access can be provided from two points on Moor Road. A footway would be required along Moor Road frontage. If a new school is provided on this site pedestrian links should be provided to the existing Village centre. The potential to improve links to NET via Mill Lakes should also be considered.	Transport assessment and travel plan required. Highway mitigation and potential contributions to public transport to be agreed as part of S106 discussions

H13: Bestwood Business Park

Planning permission granted (ref: 2014/0214)

Note: Infrastructure requirements dealt with as part of the grant of planning permission and include:

- Primary school contribution £763,000;
- Secondary school contribution £604,100;
- Public open space 0.64 ha and £152,396 maintenance contribution;
- Health care contribution £105,600;
- Public transport contributions £50,500

- Travel Plan monitoring £1,140

H14: Dark Lane

Planning permission granted (ref: 2005/0910)

Note: Infrastructure requirements dealt with as part of the grant of planning permission and include:

- Affordable housing 20% (14 units);
- Primary health care contribution £68,400;
- Open space £30,232 in lieu of onsite provision plus £55,777.50 maintenance contribution.

H15: Main Street

Site summary

Timescale	Commencement within 5 years
Site area	2.98
Housing units	75
Affordable housing	20% (units)
Ownership/developer	Ongoing dialogue with developer/owner

IDP constraints/requirements

Infrastructure	Summary assessment	Further Work/Funding
Community facilities	No requirements identified	
Contamination	Greenfield site no known contamination issues	

Education	16 primary school places - £183,300 12 secondary places - £207,100	Further discussion with LEA at planning application stage. Potential contributions to be agreed as part of S106 discussions
Emergency services	No requirements identified	
Flood risk	Calverton has experienced surface water flooding issues. SUDS required limiting water runoff to agreed limits.	Further discussion with EA as part of planning application.
Health	Based on the multiplier of £551 per dwelling cost estimated at £41,300	Further discussion with CCG as part of planning application process.
Green Infrastructure Open space	10% of site area (0.3 ha)	Further discussions with GBC Parks and Street Care at planning application stage. Potential contributions to be agreed as part of S106 discussions
Utilities	No requirements identified.	Sewerage – detailed hydraulic modelling required and further discussion with Utilities providers required as part of planning application.

Transport	Access from Main Street is likely to be suitable subject to change in the speed of the road (due to visibility issues). A footway along the north side of Main Road may also be required. Access from West End/Long West Croft is also likely to be suitable.	Transport assessment and travel plan required. Highway mitigation and potential contributions to public transport to be agreed as part of S106 discussions
-----------	---	--

H16: Park Road

Site summary

Timescale	Commencement within 5 years
Site area	14.3 ha
Housing units	390
Affordable housing	20% (78 dwellings)
Ownership/developer	Proactive owner/developer

IDP constraints/requirements

Infrastructure	Summary assessment	Further Work/Funding
Community facilities	No requirements identified	
Contamination	Greenfield site no known contamination issues	
Education	74 primary places - £847,700 56 secondary places - £966,600	Further discussion with LEA at planning application stage. Potential contributions to be agreed as part of S106 discussions
Emergency services	No abnormal requirements	

Flood risk	Development area is located outside Flood Zone. Drains towards nearby watercourse. SUDS required limiting water runoff to agreed limits.	Further discussion with EA as part of planning application.
Health	Based on multiplier of £551 per dwelling cost estimate is £192,900.	Further discussion with CCG as part of planning application process.
Green Infrastructure Open space	Strategic planting across northern boundary to protect landscape buffer to the north. 10% (1.4ha). Potential offsite contributions towards adjoining facilities on William Lees Memorial Park.	Further discussion with GBC Parks and Street Care required. Potential contributions to be agreed as part of S106 discussions
Utilities	No requirements identified	Sewerage – detailed hydraulic modelling required and further discussion with Utilities providers required as part of planning application.
Transport	Access from Oxton Road is likely to be suitable. While narrower than required there is not considered to be a need for footways in this location and the width of access can be achieved. A signalised junction may be appropriate. Access can also be achieved from points along Park Road with improvements such as a footway along the northern side and the use of mini-roundabouts for access. Access from Hollinwood Lane/North Green may be appropriate for a small number of homes; while reasonably wide the sharp turns and existing traffic (associated with the recycling centre and lorry park) need to be considered.	Transport assessment and travel plan required. Highway mitigation and potential contributions to public transport to be agreed as part of S106 discussions

H17: Longdale Lane A

Site summary

Timescale	Commencement year 6 onwards	
Site area	1.36ha	
Housing units	30	
Affordable housing	30% (9 homes)	
Ownership/developer	Ongoing dialogue	

IDP constraints/requirements

Infrastructure	Summary assessment	Further Work/Funding
Community facilities	No requirements identified	
Contamination	Greenfield no known contamination issues	
Education	6 primary school places £68,700 5 secondary school places £86,300	Further discussion with LEA at planning application stage. Potential contributions to be agreed as part of S106 discussions
Emergency services	No requirements identified	
Flood risk	Longdale Lane has experienced flooding from surface water flows. SUDS required.	
Health	Potential contributions to health care based on the multiplier of £551 per dwelling estimate £16,500	Further discussion with CCG may be required.
Green Infrastructure Open space	10% (0.1 ha). Potential offsite contribution.	Further discussion with the Parish Council required. Potential contributions to be agreed as part of S106 discussions

Utilities	No requirements identified	Sewerage – detailed hydraulic modelling required and further discussion with Utilities providers required as part of planning application.
Transport	Satisfactory access to Longdale Lane can be achieved through adjoining development site which has planning permission.	Highway mitigation and potential contributions to public transport to be agreed as part of S106 discussions

H18: Longdale Lane B

Site summary

Timescale	Commencement year 6 onwards	
Site area	0.89 ha	
Housing units	30	
Affordable housing	30% (9 homes)	
Ownership/developer	Proactive owner/developer	

IDP constraints/requirements

Infrastructure	Summary assessment	Further Work/Funding
Community facilities	No requirements identified.	
Contamination	Greenfield no known contamination constraints	

Education	6 primary school places £68,700 5 secondary school places £86,300	Further discussion with LEA at planning application stage. Potential contributions to be agreed as part of S106 discussions
Emergency services	No requirements identified	
Flood risk	Longdale Lane has experienced flooding from surface water flows. SUDS required.	
Health	Potential contributions to health care based on the multiplier of £551 per dwelling estimate £16,500	Further discussion with CCG may be required.
Green Infrastructure Open space	10% (0.1 ha). Potential offsite contributions.	Further discussion with the Parish Council required. Potential contributions to be agreed as part of S106 discussions
Utilities	No requirements identified	Sewerage – detailed hydraulic modelling required and further discussion with Utilities providers required as part of planning application.
Transport	The site can be satisfactorily accessed from Longdale lane. A footway will be required along the frontage of the site to connect to existing footways.	Highway mitigation and potential contributions to public transport to be agreed as part of S106 discussions

H19: Longdale Lane C

Planning permission granted (ref)

Note

Infrastructure requirements dealt with through grant of planning permission and include:

- 30% - 9 affordable bungalows on site and contribution towards offsite contribution;
- Offsite highway works £128,000;
- Secondary school contributions based on multiplier of £17260 for housing less bungalows to be provided on site; and
- Contributions to primary school places.

H20: Millfield Close

Planning permission (ref: 2015/0424) granted on 03/02/16 subject to the applicant entering into a Section 106 agreement to make financial contributions towards education provision, affordable housing and public transport.

H21: Orchard Close

Site summary

Timescale	Commencement within 5 years
Site area	0.74 ha
Housing units	15
Affordable housing	30% (5 homes)
Ownership/developer	Proactive owner/developer

IDP constraints/requirements

Infrastructure	Summary assessment	Further Work/funding
Community facilities	No requirements identified	
Contamination	Greenfield site no known contamination issues	
Education	3 primary school places – £34,400 2 secondary school places - £34,500	Further discussion with LEA at planning application stage. Potential contributions to be agreed as part of S106 discussions
Emergency services	No requirements identified	
Flood risk	Located on sloping ground which drains towards the River Trent. SUDS required limiting surface water runoff to agreed limits.	Further discussion with EA as part of planning application.
Health	2 GP surgeries in Village. If required ootential contributions to primary health care based on multiplier of £551 per dwelling. Cost estimate £8,265	Further discussion with CCG as part of planning application process.
Green Infrastructure Open space	Strategic planting along northern boundary in order to screen the site from the public right of way and countryside to the north. Likely to be offsite contributions towards open space provision.	Further discussion with the Parish Council required. Potential contributions to be agreed as part of S106 discussions
Utilities	No abnormal requirements	Sewerage – detailed hydraulic modelling required and further discussion with Utilities providers required as part of planning application.

Transport	Access to Orchard Close would be acceptable for the level of development. County Highways have indicated that the necessary gradients required are possible with this smaller development.	Highway mitigation and potential contributions to public transport to be agreed as part of S106 discussions
-----------	--	---

H22: Station Road

Site summary

Timescale	Commencement within years 6 onward
Site area	1.67 ha
Housing units	40
Affordable housing	10% (4 homes)
Ownership/developer	Ongoing dialogue

IDP constraints/requirements

Infrastructure	Summary assessment	Further work/Funding
Community facilities	No requirements identified	
Contamination	Greenfield site no known contamination issues.	
Education	8 primary school place - £91,600 6 secondary school places - £103,600	Further discussion with LEA required at planning application stage. Potential contributions to be agreed as part of S106 discussions
Emergency services	No requirements identified	
Flood risk	Low risk of surface water flooding. SUDS required limiting runoff to agreed limits.	Further discussion with the EA required at the planning application stage.

Health	No requirements identified	Further discussion with CCG may be required as part of planning application process.
Green Infrastructure Open space	Replacement sports pitches provided adjoining the Robin Hood Line Potential contribution to offsite provision.	Further discussion with Parish Council required. Potential contributions to be agreed as part of S106 discussions.
Utilities	No requirements identified	Sewerage – detailed hydraulic modelling required and further discussion with Utilities providers required as part of planning application.
Transport	It would have to be demonstrated that pedestrian footways could be provided along Station Road to link with existing facilities in the Village. .	Further discussions with Rail Track concerning access along Station Road required.

H23: Ash Grove

Planning permission granted (ref: 2007/0495)

Note: Infrastructure requirements dealt with as part of grant of planning permission.

H24: Broad Close

Site summary

Timescale	Commencement years 6 onward
Site area	0.75 ha

Housing units	15
Affordable housing	30% (5 homes)
Ownership/developer	Ongoing dialogue

IDP constraints/requirements

Infrastructure	Summary assessment	Further work/Funding
Community facilities	No requirement identified	
Contamination	Garden land no known contamination issues	
Education	5 primary school places - £57,300 2 secondary school places £34,500	Further discussion with the LEA at planning application stage. Potential contributions to be agreed as part of S106 discussions
Emergency services	No requirements identified	
Flood risk	Surface water runoff has been identified as a potential issue in Woodborough by the EA. SUDS required limiting runoff to agreed limits.	Further discussion with the EA at planning application stage.
Health	Based on multiplier of £551 per dwelling cost estimate is £8,300	Further discussion with CCG as part of planning application process.
Green Infrastructure Open space	Likely to require off site contribution to open space.	Further discussion with Parish Council required. Potential contributions to be agreed as part of S106 discussions

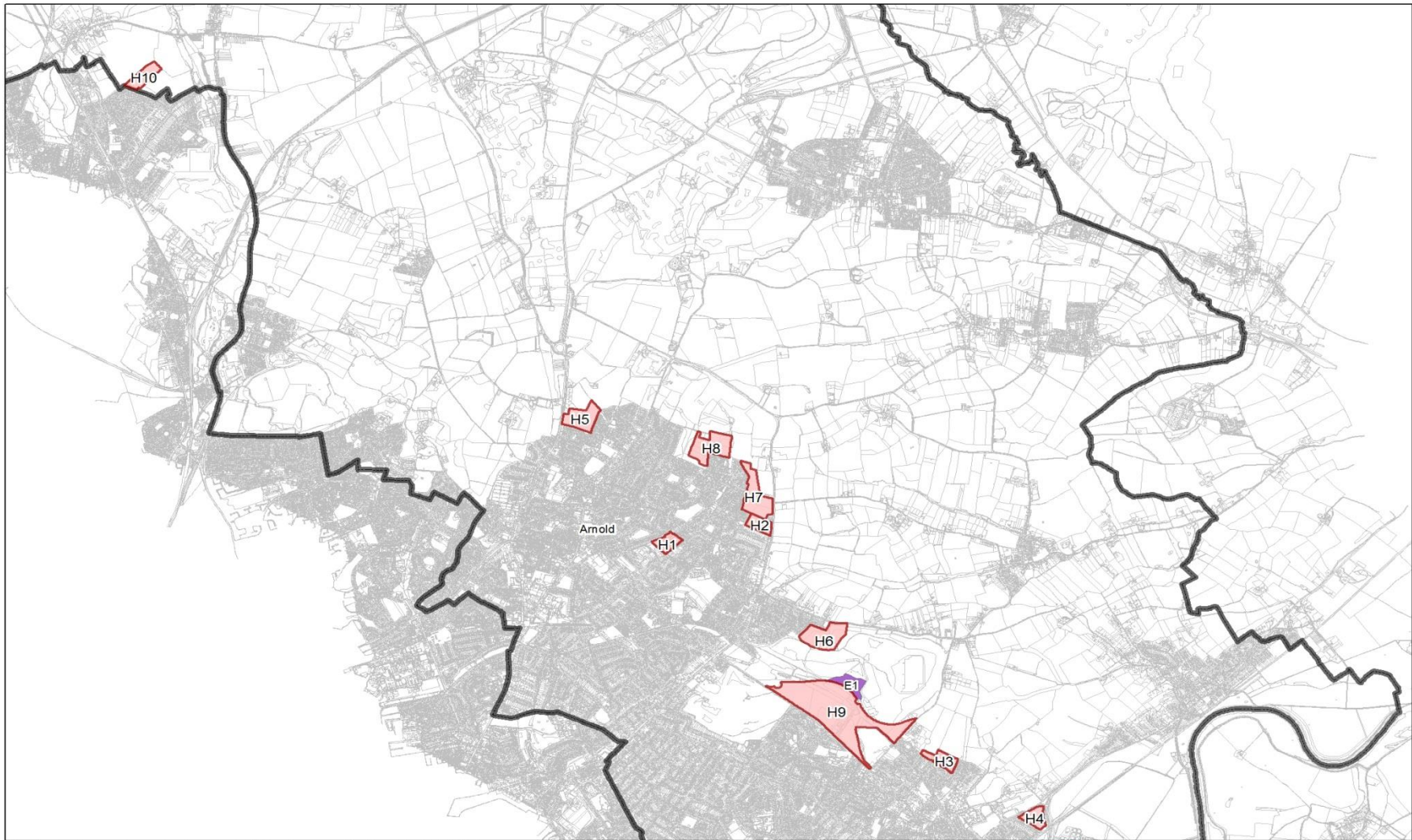
Utilities	No requirements identified	Sewerage – detailed hydraulic modelling required and further discussion with Utilities providers required as part of planning application.
Transport	Satisfactory access to the site can be achieved from Broad Close for this level of development.	Highway mitigation and potential contributions to public transport to be agreed as part of S106 discussions

E2: Hillcrest Park

Timescale	Within Plan period
Site area	1 ha
Ownership/developer	Ongoing dialogue with owner developer

Infrastructure	Summary Assessment	Further Work
Community facilities	No requirements identified	
Contamination	No known contamination.	
Education	No requirements identified	
Emergency services	No requirements identified	
Flood risk	No requirements identified	
Health	No requirements identified	
Green Infrastructure	No requirements identified	
Open space		
Utilities	No requirements identified	
Transport	Access via existing industrial estate onto Hoyle Road/Mansfield Lane.	

Appendix 3: Allocated Site Maps



Reproduced with the permission of the Controller of H.M.S.O. Crown copyright. Licence No. LA100021246.
 Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings.

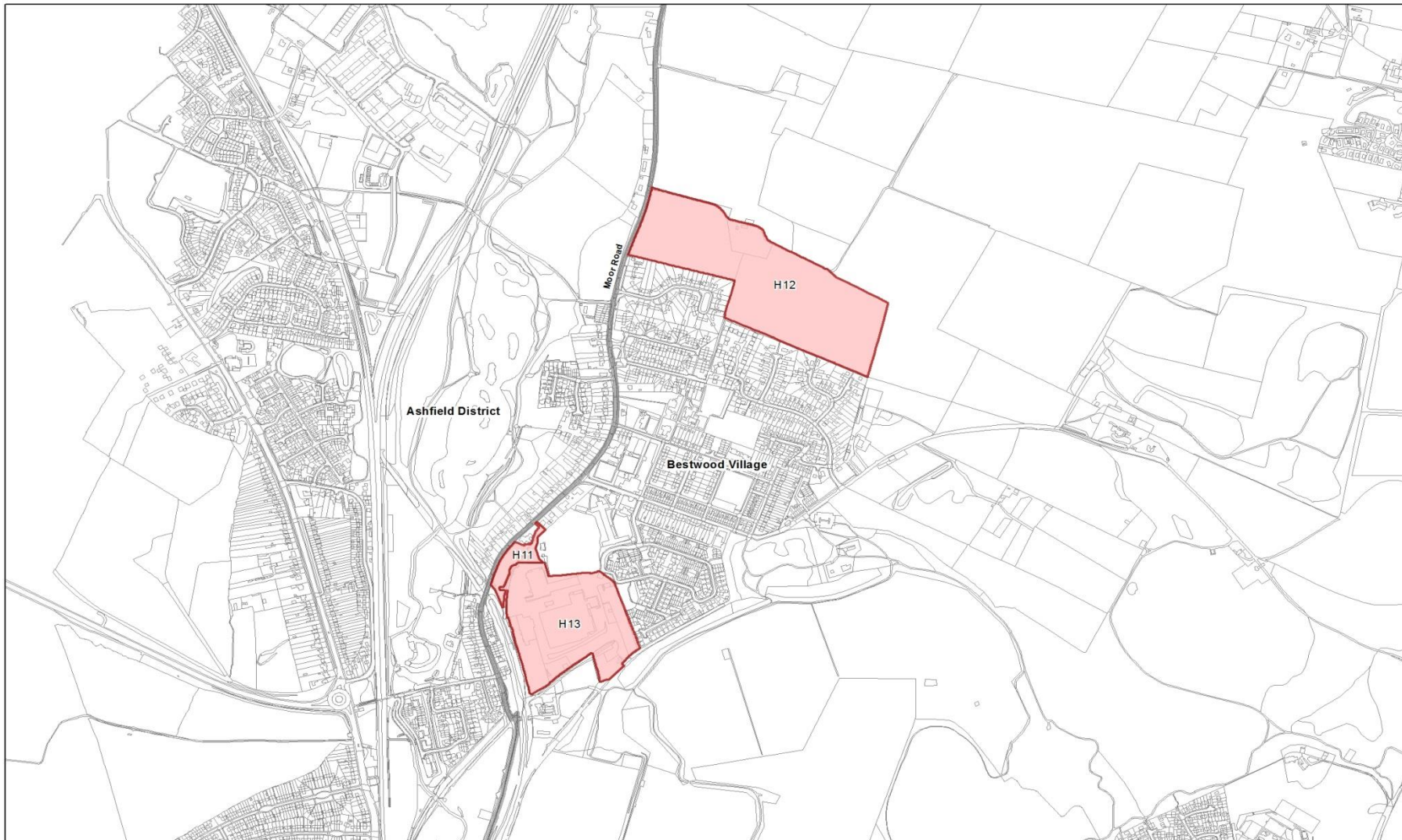


Civic Centre, Arnot Hill Park, Arnold,
 Nottinghamshire, NG5 8LU

Policy LPD 64 Urban Area

- Housing sites
- Employment sites
- Borough Boundary







Reproduced with the permission of the Controller of H.M.S.O. Crown copyright, Licence No. LA100021246.
 Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings.

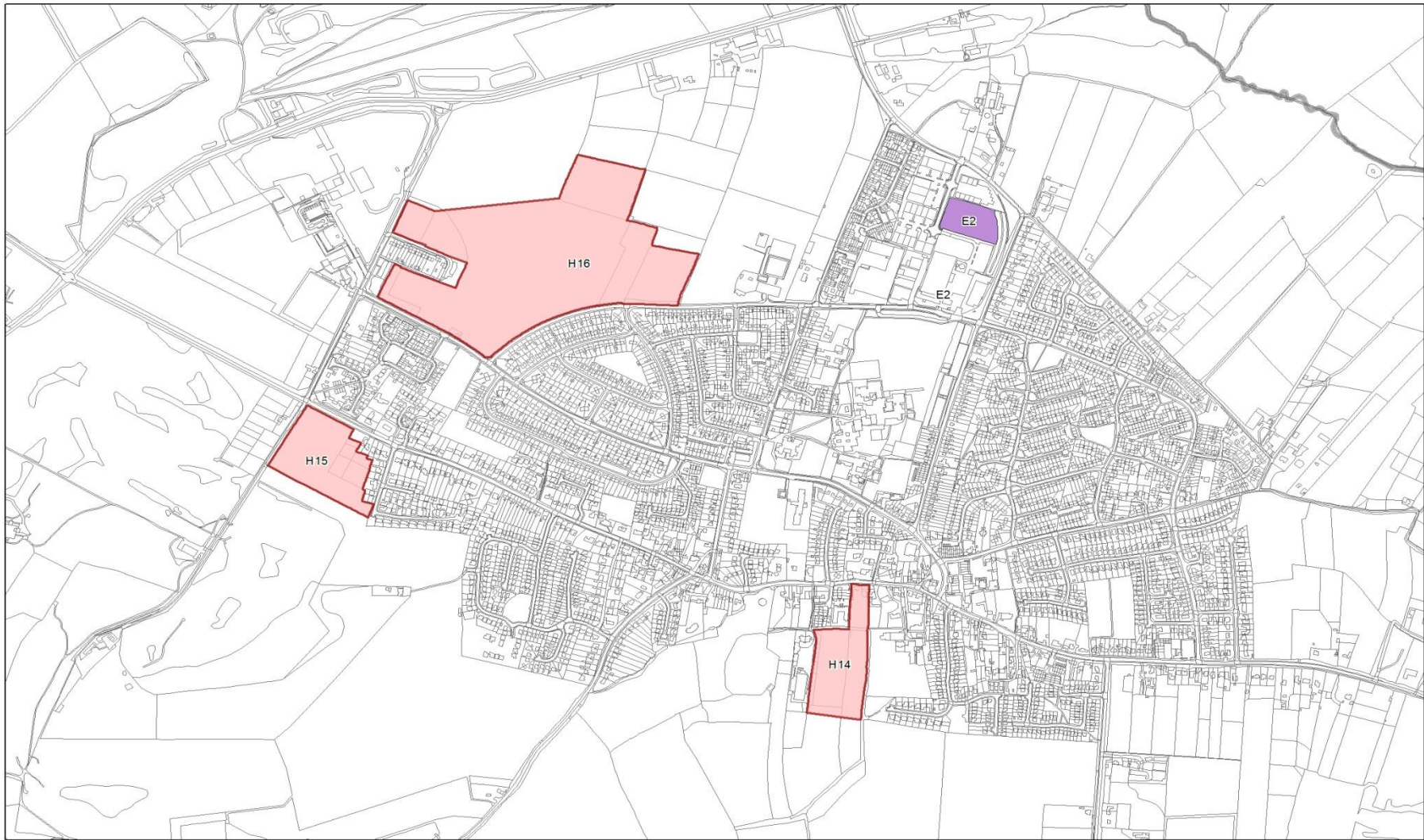


Civic Centre, Arnot Hill Park, Arnold,
 Nottinghamshire, NG5 8LU

Policy LPD 65 Bestwood Village

 Housing sites
 Borough Boundary





Reproduced with the permission of the Controller of H.M.S.O. Crown copyright, Licence No. LA100021246.
 Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings.



Civic Centre, Amot Hill Park, Arnold,
 Nottinghamshire, NG5 6LU

Policy LPD 66 Calverton

- Housing Sites
- Employment Sites
- Borough Boundary







Reproduced with the permission of the Controller of H.M.S.O. Crown copyright, Licence No. LA100021246.
 Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings.



Civic Centre, Arnot Hill Park, Arnold,
 Nottinghamshire, NG5 6LU

Policy LPD 67
 Ravenshead

 Housing sites
 Borough Boundary





Reproduced with the permission of the Controller of H.M.S.O. Crown copyright, Licence No. LA100021246.
 Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings.

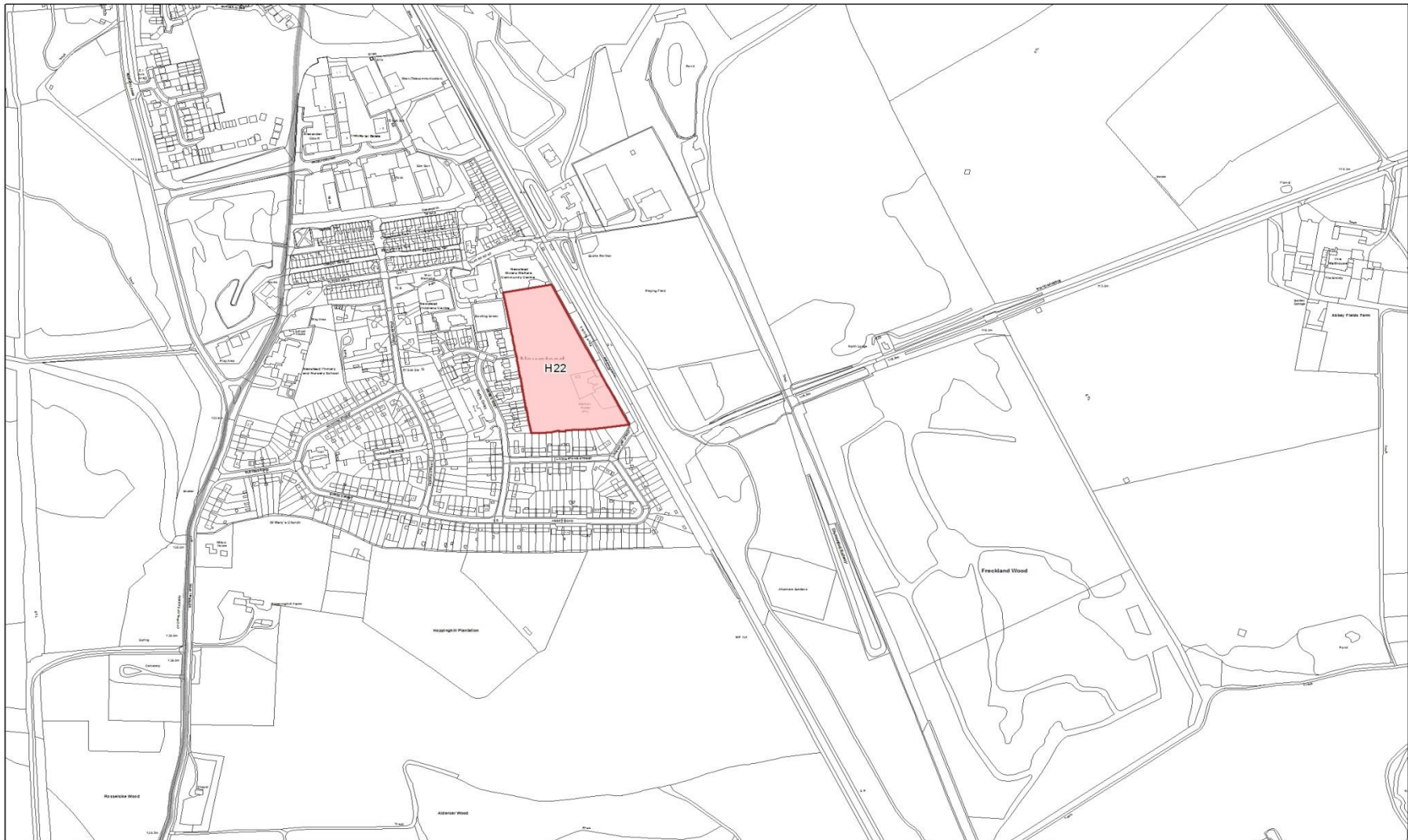


Civic Centre, Arnot Hill Park, Arnold,
 Nottinghamshire, NG5 8LU

Policy LPD 68 Burton Joyce

- Housing sites
- Borough Boundary





Reproduced with the permission of the Controller of H.M.S.O. Crown copyright, Licence No. LA100021246.
 Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings.



Civic Centre, Amot Hill Park, Arnold,
 Nottinghamshire, NG5 6LU

Policy LPD 69 Newstead

- Housing sites
- Borough Boundary





Reproduced with the permission of the Controller of H.M.S.O. Crown copyright, Licence No. LA100021246.
 Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings.



Civic Centre, Arnot Hill Park, Arnold,
 Nottinghamshire, NG6 6LU

Policy LPD 70 Woodborough

- Housing sites
- Borough Boundary

