



# Northern Arc, Burgess Hill Infrastructure Delivery Plan & Phasing Strategy

September 2018

**AECOM**

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## 1. Introduction

Homes England are bringing forward proposals for Burgess Hill Northern Arc- a 3,500 dwelling, mixed-use and sustainable new community to meet the growth needs of Mid Sussex. This Infrastructure Delivery Plan is submitted alongside a Masterplan document for approval by Mid Sussex District Council. Once approved, these documents will inform the preparation of a planning application for Burgess Hill Northern Arc.

The Burgess Hill Northern Arc is a critical element of the Mid Sussex District Council Local Plan. Policy DP7 sets out the principles for strategic development in Burgess Hill. Strategic Allocation Policy DP9 makes provision for a mixed-use development north and north-west of Burgess Hill, that adheres to the principles for strategic development set out in Policy DP7. Policy DP9 envisions a development that comprises of; approximately 3,500 homes, mixed-use neighbourhood centres including retail, education, health, employment, leisure, recreation and community uses, designated land for employment use, two new primary school campuses with nursery provision co-located, a new secondary campus, and a Centre for Community Sport located in the vicinity of the Triangle Leisure and St Paul's College. This is to be supported by a new link road running east-west through the site, as well as associated highways improvements on and off-site.

Furthermore, Policy DP9 requires each application for development on the site to be accompanied by an allocation-wide masterplan, Infrastructure Delivery Strategy, Phasing Strategy and Financial Appraisal. These documents are to be approved by the Local Authority before any planning application can be determined. It is intended for this document to be read alongside the Masterplan document submitted to the Local Authority to firstly allow determination of an extant application for the Freeks Farm site submitted separately for 460 homes, followed by a planning application for development on the rest of the Masterplan area. The intention is to submit the allocation-wide Financial Appraisal alongside the Northern Arc planning application. This report deals specifically with the strategic and local infrastructure required to unlock and serve the Masterplan, enable its successful delivery, mitigate its impact and support its future residents and business.

### Purpose and Status of the IDP

The role of this Infrastructure Delivery Plan (IDP) is to identify and plan for the delivery of the infrastructure that is needed to achieve the planning objectives and policies relating to Policy DP7 the general principles for strategic development at Burgess Hill and Burgess Hill Northern Arc Strategic Allocation DP9. These policies and objectives are contained within the Local Plan, which was adopted by the Council in March 2018. This IDP and Phasing Strategy is submitted for approval by the District Council in accordance with these policies. Each planning application for development within the allocation area should accord with this IDP unless otherwise agreed by the local planning authority.

This IDP seeks to identify the infrastructure necessary to facilitate and support the development of Burgess Hill Northern Arc. In view of the scale of the project and the long term delivery programme, a supporting phasing plan has been prepared to indicate the likely progress of the development over time. Each phase covers an approximate period of 4-5 years. This IDP identifies the infrastructure necessary and appropriate for the development of each sequence, the estimated total cost of each element of infrastructure (which may span more than one phase) and the time period over which it will be provided. It also identifies the intended provider and whether the infrastructure is critical, essential or desirable as part of the delivery of the new community at Burgess Hill.

### *Relationship of the IDP to S106 Agreement and OPA*

The Section 106 Agreement forming part of any future planning permission will set out the specific commitments and undertakings of the signatories and triggers for payments of contributions by Homes England to ensure timely and appropriate infrastructure delivery at Burgess Hill. The Section 106 Agreement and conditions attached to a planning permission will be informed by the recommendations of this Infrastructure Delivery Plan.



## Document Structure

The contents of this document include:

- Summary review of existing planning policy and site context;
- An overview of the masterplan for Burgess Hill Northern Arc;
- An overview of the proposed amount of housing and employment development;
- A review of the Burgess Hill Northern Arc population assumptions;
- A review of existing studies and data of relevance to infrastructure provision across the district, adjoining local authority areas and West Sussex County;
- A summary of the infrastructure required to unlock, mitigate and promote the new community to work with and complement the existing infrastructure baseline presented;
- A description of the proposed infrastructure delivery by phase;
- A summary of the infrastructure costs associated with the new community;
- A review of potential infrastructure funding and delivery partners who will jointly contribute to the delivery of the infrastructure set out in this document;
- A detailed project schedule setting out each specific infrastructure item with associated details on scale of provision, cost, delivery triggers (where appropriate) and phasing.

## Definition of Infrastructure

The term 'infrastructure' covers a wide variety of structures and facilities that are required to support development and to ensure that development can be successful and sustainable. This means that the role of infrastructure is to allow development to support the economy, to promote a high quality of life and to protect the environment.

This IDP includes infrastructure which is needed to support the delivery of the development at Burgess Hill Northern Arc, although the infrastructure detailed here is also intended to benefit existing communities wherever possible and ensure that the development of the new community provides a positive contribution to the quality of life in Burgess Hill as a whole.

Infrastructure in this IDP includes:

- Transport, Movement and Access
  - On Site Roads
  - Road and Footbridges
  - Highway Access Points
  - Public Transport
  - Sustainable Travel
  - Walking and Cycling
  - Active Mode Main Access Points
  - Off-site Highway Works
- Utilities, Flood risk & Waste
  - Energy
  - Potable Water
  - Foul Water
  - Surface Water
  - Telecommunications
  - Waste & Recycling
- Social Infrastructure
  - Education
  - Health and Social Care
  - Community and civic
  - Sports and Leisure
- Green Infrastructure
  - Parkland
  - Woodland
  - Natural Open Space



## 2. Planning Policy Review

This chapter summarises the relevant planning policy context at national, regional and local level. The National Planning Policy Framework (NPPF) also constitutes a material consideration as the overarching national planning document.

### National Planning Policy

The NPPF places an emphasis on the need to promote the provision of infrastructure and includes this as part of the economic role of sustainable development. Local planning authorities are expected to set policies that seek to address the barriers faced by business investment, including infrastructure deficits and to identify priority areas for infrastructure provision.

The need to plan positively for the infrastructure required to encourage development is stressed in the 'Plan making' section of the NPPF where authorities are asked to work with their neighbours to assess the quality and capacity of infrastructure and to take account of the need to plan for strategic infrastructure. This policy is reinforced by the definition of 'soundness' in the NPPF which includes a need for plans to be "positively prepared" which is described as plans which are based on a strategy which seeks to meet objectively assessed development and infrastructure requirements.

The NPPF also seeks the identification of infrastructure costs and the timescales for delivery to ensure that there is a reasonable prospect that planned infrastructure is deliverable in a timely fashion. In order to facilitate this, it expects authorities to prepare infrastructure and development policies at the same time as part of the Local Plan..

### Local Planning Policy

The Mid Sussex District Plan, adopted in March 2018, seeks to ensure sustainable development of the district and support housing growth through several strategic allocations. In addition, a number of policies are aimed at promoting sustainability outlining a vision for sustainable growth in the district with consideration given to net gain in biodiversity and ecology, green infrastructure, sustainable economic growth, and securing mixed-use development with appropriate supporting social facilities.

The District Plan aims to facilitate 16,390 new homes in the 17-year plan period of 2014 – 2031, which will address the Objectively Assessed Need (OAN) of 14,892, as well as contributing towards the unmet need of neighbouring authorities. This is indicative of a 5 year stepped trajectory of 876 dwellings per annum from 2014-2024, and thereafter, 1,090 dwellings per annum to 2031.

Moreover, the District Plan supports the development of the Northern Arc to make a significant contribution to meeting local housing need and to help accelerate the regeneration of Burgess Hill. The site is identified for development under Strategic Allocation Policy DP9, which makes provision for 3,500 additional homes, contributing significantly towards meeting the target of 16,390 new homes.

## Supplementary Planning Guidance and wider evidence base

The District Plan is supported by a suite of relevant supplementary planning guidance and a wealth of evidence base documents which are relevant to this infrastructure delivery plan. These include but are not limited to:

- Development Infrastructure and Contributions SPD July 2018
- Affordable Housing SPD July 2018
- Development Viability SPD July 2018
- Burgess Hill Town Wide Strategy 2011
- Mid Sussex Capacity Study 2016
- Strategic Housing Market Assessment
- Assessment of Open Space, Sport and Recreation
- Burgess Hill Neighbourhood Plan 2016
- Mid Sussex Playing Pitch Strategy 2015-2031
- Leisure and Cultural Strategy for Mid Sussex 2009-2020
- West Sussex Infrastructure Study (AECOM for West Sussex County Council, 2016)
- West Sussex Transport Plan 2011-2026
- Mid Sussex Transport Study – Stage 1 (December 2012), Stage 2 (September 2013) and Stage 3 Report (2016)
- Burgess Hill Transport Investment Plan (AECOM for West Sussex County Council, January 2016)

### *Mid Sussex District Council Infrastructure Delivery Plan (August 2016)*

The Mid Sussex Infrastructure Delivery Plan (IDP) published in August 2016 provides a review of the existing infrastructure capacity, and identifies infrastructure requirements for the District to support development. Where possible it presents which organisation is responsible for delivering the infrastructure, when it is provided, how it is provided and the indicative cost and available funding for each infrastructure project. It draws on a detailed evidence base and outlines key infrastructure pressures for Mid Sussex and what strategic infrastructure may be needed to support this.

Key issues with regards to the Northern Arc allocation and wider infrastructure emerge within the Mid Sussex IDP. Firstly, the junction between the new link road to be implemented through the site and A2300 is identified as a key piece of highways infrastructure. Additionally, investment from Southern Water for Goddards Green Wastewater Treatment Works, scheduled for delivery in 2018, has provided 'headroom' for development at the scale of the Northern Arc. The IDP suggests that further expansion of the wastewater treatment centre may be possible, and would benefit the Northern Arc development, subject to Environment Agency approval.

### 3. Site and Area of Influence

The Northern Arc is a strategically important site, located to the north and north-west of Burgess Hill, Mid Sussex. The Northern Arc occupies a strategic position in the Gatwick Diamond with good access to Gatwick Airport to the north, and easy access to Brighton to the south. The site is well-linked to sub-regional transport nodes in Burgess Hill and Haywards Heath, providing connections to major towns in the region, as well as a direct route into London.

The site covers an area comprising of arable countryside, woodland, grassland, and a golf course in the centre of site. The area to the north of the site is predominantly rural with agriculture as the main land use. There are a number of farmhouses located on the borders of the site, particularly along Freeks Lane towards the east of the site. The site lies to the north and east of the A273 (Jane Murray Way, Sussex Lane and Merchants Way), adjacent to the urban area of Burgess Hill to the south. The town centre is located approximately 1km south of the site, and Wivelsfield railway station is approximately 350m to the south-east. The town of Haywards Heath is approximately 3.2km north, and Hassocks 5km to the south of the site.

Figure 1 show the Masterplan boundary of the site which is bounded:

- To the north by field boundaries and arable countryside;
- To the east by Bedelands Nature Reserve;
- To the south by Burgess Hill; and
- To the west by Goddard's Green Wastewater Treatment Site, the A2300 and arable countryside. .

The Masterplan area also includes land to the west of Freeks Lane, shown blue in Figure 3.1, which the subject of an extant planning application for the Freeks Farm site (submitted in February 2018) within the wider Northern Arc allocation. This area has been applied for 460 homes in outline, with associated infrastructure including roads, surface water attenuation, public open space and recreation space.

The application site is the immediate area in which development will come forward and the area in which infrastructure proposals are likely to be required to support that development. For the purposes of infrastructure planning however the surrounding areas has also been taken into account as existing social infrastructure, open space, utilities and transport provision will undoubtedly be affected by residents and businesses in the new community coming forward at Burgess Hill Northern Arc. This is illustrated in Figure 3.2.



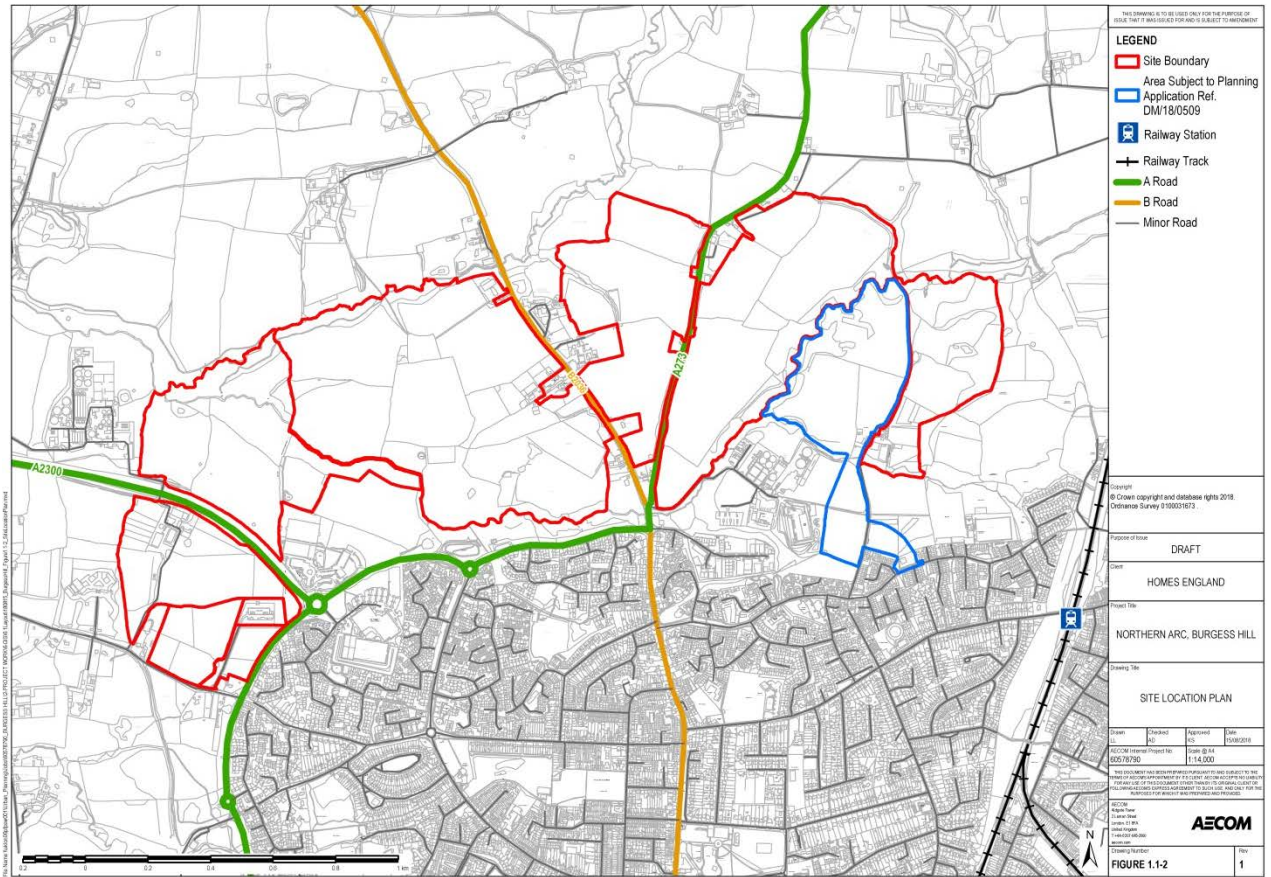


Figure 3.1: Masterplan Boundary

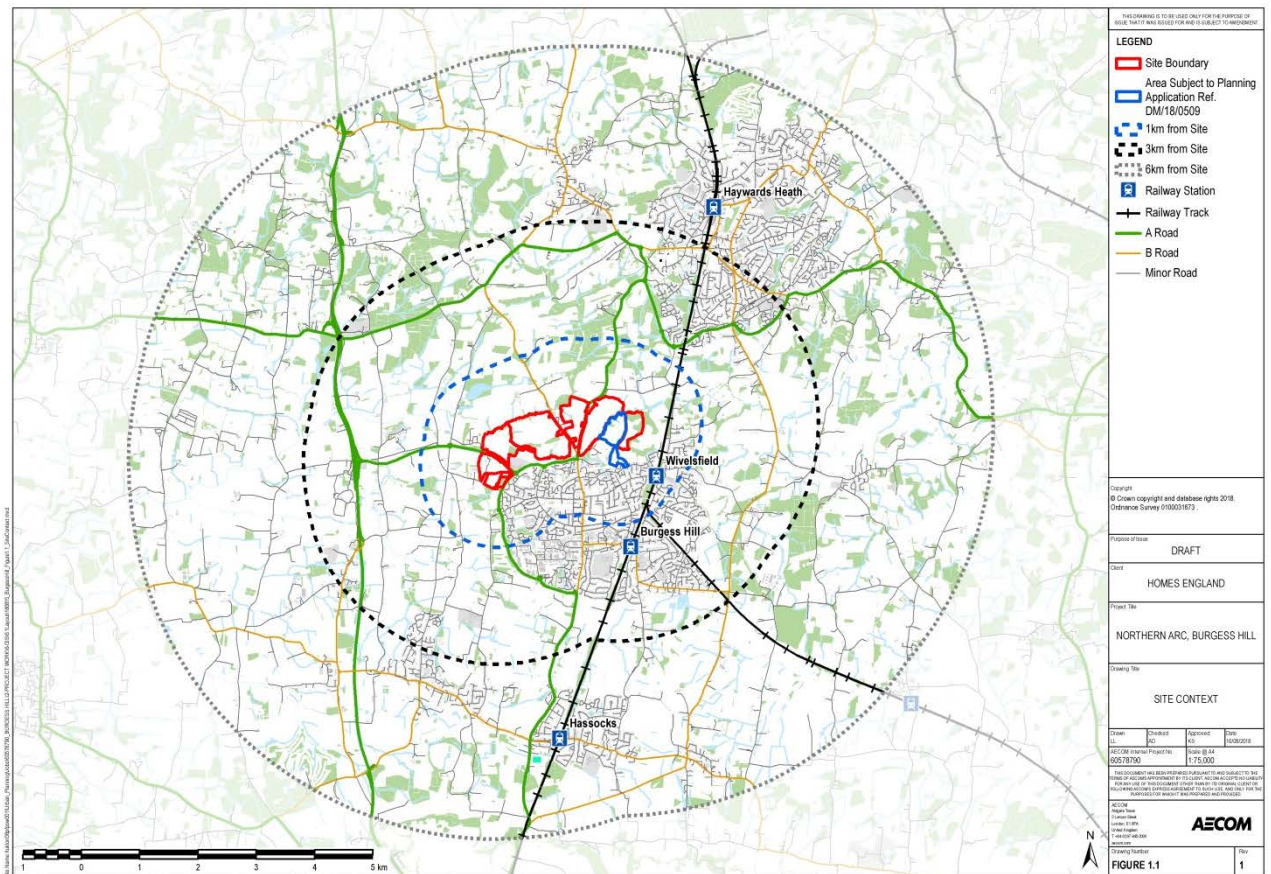


Figure 3.2: Area of Influence

## 4. The Masterplan

### Description of Development

The Description of Development for the Masterplan is as follows:

*"Mixed-use development, between two- and five-storeys in height once completed, comprising of approximately 3,500 dwellings, public open space, recreation areas, play areas, local centres with retail space, high quality business park, two primary school campuses and a secondary school campus, a Centre for Community Sport, associated infrastructure including roads, landscaping, surface water attenuation and associated demolition."*

The approximately 3,500 dwellings noted in this description include the 460 homes proposed within the separate Freeks Farm outline planning application, which was submitted in February 2018.

Figure 4.1 illustrates the masterplan.



THE NORTHERN ARC MASTERPLAN

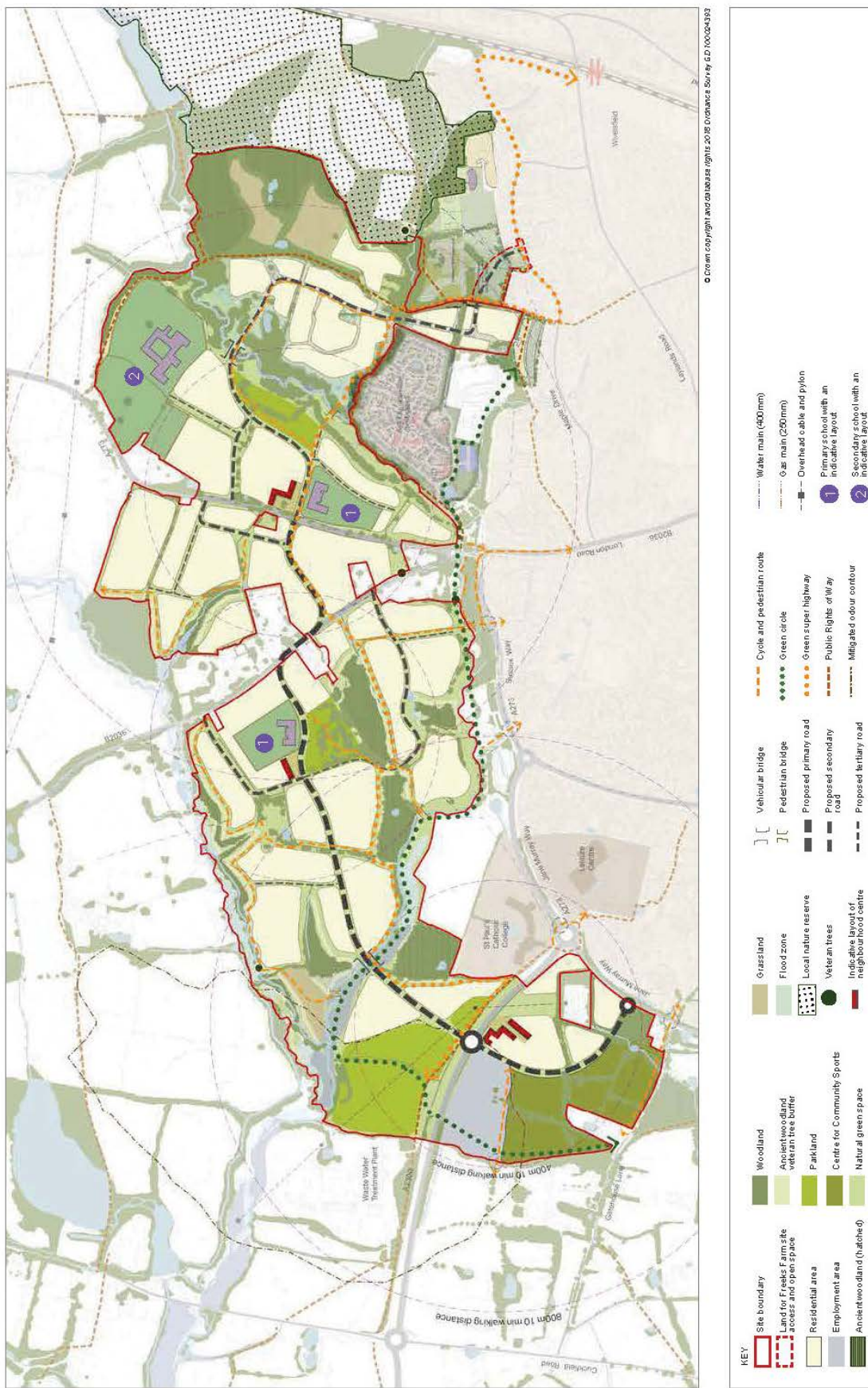


Figure 4.1: Masterplan

## Land Use Budget

The land use budget which sets out the quantum of development proposed is included in Table 4.1. This table should be read in conjunction with the description of development.

**Table 4.1 Land Use Budget**

Land Use Component	Area (ha)
Residential	78.00
Primary Schools	4.28
Secondary School	9.70
Employment	4.00
Parkland	19.30
Centre for Community Sport	9.00
Natural Open Space	63
Infrastructure	10.00
Existing Infrastructure	2.5
<b>Total</b>	<b>200</b>



## Delivery Phases

The phasing and construction of the development will take place over a sequenced programme, which may commence in 2020/21 - subject to the outcome of any Outline Planning Application and subsequent Reserved Matters Applications.

This IDP presents the sequencing of the development in four phases as follows:

- Phase 1: 2020 – 2025 (which includes 460 homes at Freeks Farm site)
- Phase 2: 2025 - 2028
- Phase 3: 2028 - 2032
- Phase 4: 2032 - 2035

These phases are referred to throughout the IDP and are presented in detail in chapter 8.

## Housing Trajectory

The indicative housing trajectory for the development spans from 2020/21 until 2034/35 and emulates a pace of housing delivery informed by local and national market research and analysis of the potential residential plots released in each of the main delivery phases with multiple delivery outfits operating across the site as a whole.

Figure 4.2 shows the annual unit completion over this period.

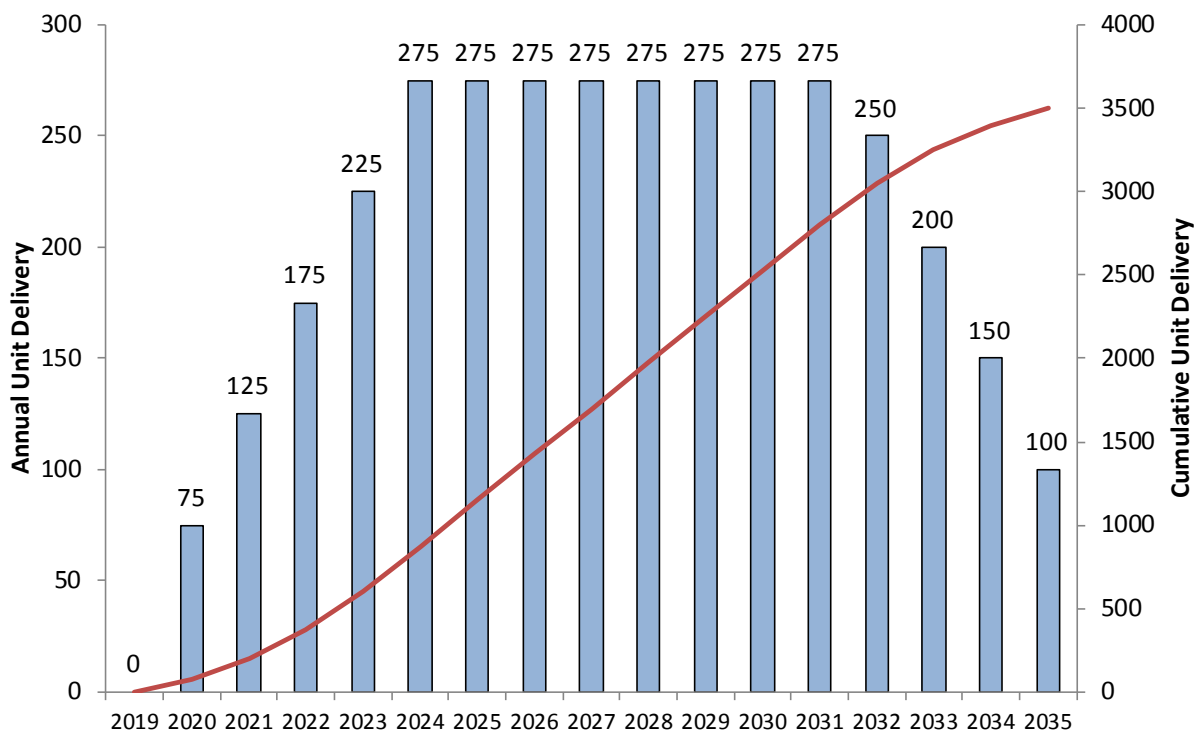


Figure 4.2 Indicative Housing Delivery between 2019 and 2035

## Housing Proposals

### Indicative Housing Tenure Mix

The masterplan for the site has been developed on the basis that 3,500 residential units will come forward as proposed under the Local Plan Strategic Allocation. Mid Sussex District Plan Policy DP31 sets out the District Council's affordable housing requirements for residential developments. For major developments, Policy DP31 requires a provision of 30% on-site affordable housing. Further, a mix of tenure of affordable housing is outlined at 75% social or affordable rented homes, with the remaining 25% for intermediate homes, unless there is evidence to support a different mix. This affordable housing provision should be integrated with market housing in a pepper-potted fashion, and should meet national technical standards for housing. The development will also provide private rented and rent-to-buy housing, together with custom build accommodation to meet the variety of local housing need.

Homes England is committed to the delivery of affordable homes alongside market homes. During the whole development period at least 30% of the total site-wide number of homes consented through reserved matters applications will be affordable homes. 30% affordable housing will be expected to be delivered at each and every phase, but this can be applied flexibly depending on specific circumstances, supported by financial appraisal and other supporting information, such as design related or wider market factors

**Table 4.2 Indicative Housing Tenure Mix**

	%	%	Units
<b>Market</b>	70	70	2,450
<b>Affordable Social Rent</b>	30	22.5	788
<b>Affordable Intermediate</b>		7.5	263
<b>Total</b>	<b>100</b>	<b>100</b>	<b>3,500</b>

### Indicative Housing Unit Mix

Table 4.3 sets out the indicative housing unit mix to be provided on site. This indicative housing mix represents a target based upon affordable housing policy requirements of Mid Sussex District Council combined with a market driven mix to ensure an appropriate balance of housing types across the Northern Arc development that will ensure the new homes represent a balanced community.

This indicative mix of unit types is relevant to the IDP because by using an assumed mix of specific household sizes, we are able to generate an assumed population profile for the scheme in more detail and therefore assess the associated requirements for social and green infrastructure arising from the new population.

**Table 4.3 Indicative Housing Unit Type Mix by Housing Tenures**

	Flats		Houses		
	1 bed	2 bed	2 bed	3 bed	4 bed+
<b>Market</b>	5.0%	5.0%	17.5%	43.5%	29.0%
<b>Affordable Social Rent</b>	33.0%	23.0%	28.5%	14.5%	1.0%
<b>Affordable Intermediate</b>	0.0%	35.0%	30.0%	30.0%	5.0%
<b>Total</b>	10.9%	11.3%	20.9%	36.0%	20.9%

## Employment Proposals

The development includes an area designated for employment uses, towards the west of the site and immediately south of the A2300. This site will bring forward up to 4 ha of employment land, anticipated to include Business (B1 Use Class) and General Industrial (Use Class B2).

The District Centre and local centres as well as other mixed use parcels across the site will include a series of commercial and business uses together with facilities to support the residential development. The proposal is anticipated to bring forward food and non-food retail floorspace, primarily located within the District Centre. There will also be some provision within other mixed use parcels across the site.

Facilities such as Community Centre, health and education facilities are also proposed within the District Centre and Local Centres.

## 5. New Community Demographics

In order for this IDP to review and confirm the infrastructure provision required to support the housing proposals, it is necessary to estimate the potential demographic impacts of the scheme and how the population will grow and change over the build out period and into the future. The existing baseline demographics of the Area of Study are also important to establish.

### Existing Demographics

The new community covers a site which is primarily agricultural land with minimal existing residential properties and residents. The wider area and its residents must however be taken into account.

#### *District Level Age Profile*

As shown in Table 5.1, MSDC has an older age profile than the comparable South East England and England as a whole in 2011. Between Census years there has been a growth in the older population in MSDC, more so than across the South East and England as a whole. In addition, the Borough has experienced a decrease in the number of children, and represents a typical demographic pattern across England as a whole; where many locations are witnessing an ageing population. MSDC has experienced a 3.5% drop in the percentage of residents aged 0-15, compared to a 6% increase in those people aged 65 and over.

**Table 5.1 Age Profile Change between Census Years (rounded)**

2001 Age Profile	MSDC	South East England	England
Young Population (0-15 years)	20.1%	19.9%	20%
Working Age Population (16-64 years)	63.3%	63.1%	64%
Older Population (65+ years)	16.6%	16.4%	16%
2011 Age Profile	MSDC	South East England	England
Young Population (0-15 years)	19.4%	19%	18.9%
Working Age Population (16-64 years)	63.0%	63.8%	64.8%
Older Population (65+ years)	17.6%	17.1%	16.4%

#### *District Level Population Projections*

The ONS 2016-based sub-national population projections (SNPP) indicate that, by the year 2036, there will be 169,701 people living in MSDC, in comparison to 150,079 in 2018. This represents a 13% increase in population between 2018 and 2036.

MSDC is anticipated to experience an above average rate of growth in the near future. It should be noted however that the ONS SNPP does not take into account future housing developments and is based upon the trend of migration in previous years. Therefore, given the scale of housing forecast for Burgess Hill as a result of the Northern Arc proposals this ONS SNPP should be treated with caution.

## Population Impacts from the Development

It is important to understand MSDC's household characteristics in order to sense check the population impacts according to proposed housing type. As set out in the previous chapter, an indicative housing mix has been tested for the development which can be compared against possible household characteristics to provide an indication of likely direct population impacts from the scheme

Table 5.2 sets out average household sizes for market and affordable housing across all existing properties in Mid Sussex District, according to the 2011 Census. This provides a useful basis to estimate the future population of similar housing types on the Northern Arc development.

**Table 5.2 Average Household Size of Properties in Mid Sussex District (2011)**

	Flats		Houses		
	1 bed	2 bed	2 bed	3 bed	4 bed+
<b>Market</b>	1.28	1.64	1.82	2.42	3.00
<b>Affordable Social Rent</b>	1.18	2.21	2.42	3.22	4.34
<b>Affordable Intermediate</b>	1.28	1.64	1.82	2.42	3.00

The presented household characteristic assumptions have been applied to the indicative housing proposals in order to determine the population impacts associated with Northern Arc Development. Table 5.3 presents the future population by dwelling type estimated to be generated by the built development at full occupation across both tenure types. The total on site population generated through this approach is approximately **8,028** residents.

**Table 5.3 Population calculated through application of Household Sizes to indicative housing mix**

	Flats		Houses			Total
	1 bed	2 bed	2 bed	3 bed	4 bed+	
<b>Market</b>	157	201	780	2,580	2,135	<b>5,852</b>
<b>Affordable Social Rent</b>	307	400	544	368	34	<b>1,652</b>
<b>Affordable Intermediate</b>	0	150	143	191	39	<b>524</b>
<b>Total</b>	<b>465</b>	<b>751</b>	<b>1,466</b>	<b>3,138</b>	<b>2,208</b>	<b>8,028</b>

Based upon analysis of age profiles by unit type the following age profile is generated.

**Table 5.4 Population Age Profile**

Northern Arc Age Profile		
Young Population (0-15 years)	1,522	19.0%
Working Age Population (16-64 years)	4,915	61.2%
Older Population (65+ years)	1,592	19.8%
Total Population	8,028	100.0%

## 6. Infrastructure Requirements

This section sets out the transport, utilities, social and green infrastructure proposed to support the Northern Arc Development. Section 8 of the IDP presents the delivery of this infrastructure according to the four phases described in Section 4.

### Transport

This section sets out the proposed transport infrastructure. For the purpose of delivering appropriate transport infrastructure within the Northern Arc Development, proposals have been grouped as follows:

- On Site Road Network
- Road and Footbridges
- Highway Access Point Works
- Public Transport Projects
- Sustainable Travel Projects
- Walking and Cycling Projects
- Active Mode Main Access Point Works
- Off-site Highway Works

The following documents were reviewed to identify potential projects required to deliver the proposed development:

- West Sussex Transport Plan
- Mid Sussex Infrastructure Delivery Plan
- Mid Sussex Transport Study
- Mid Sussex District Plan
- Burgess Hill Transport Investment Plan
- Burgess Hill Public Transport Strategy
- Burgess Hill Town Wide Strategy
- Burgess Hill Neighbourhood Plan
- Land at Freeks Farm (Phases 1 and 2 Burgess Hill Northern Arc East) Transport Assessment

In addition to reviewing documents the following meetings were held where infrastructure delivery was discussed:

- Transport Assessment Scoping meeting with Highways England (HE), WSCC and MSDC on 3rd July 2018.
- Synthesis Workshop meetings with WSCC and MSDC on 16th July 2018 and 30th July 2018
- IDP meeting with WSCC and MSDC on 15th August 2018

In addition, a provisional highway network assessment was undertaken to identify potential infrastructure requirements in the early phases of the development.

The following projects have been identified from the review of documents, assessment and meetings held:

### *On Site Road Network*

- **Primary Road Network**– This covers the proposed Northern Arc Avenue, providing a highway link between the A2300 and A273.
- **Secondary Road Network**– This covers secondary roads within the development. Delivery of the Secondary and Tertiary Road Networks will be covered by plot developers.

### *Road Bridges*

- **Roadbridge at the western part over River Adur** - to connect Primary Road Sections, including carriageway with a shared cycle footway on one side and designated footway on the other side
- **Roadbridge at the eastern part over River Adur** - to connect Freeks Farm, 3 span structure, including carriageway with a shared cycle footway on one side and designated footway on the other side

### *Footbridges*

- **Footbridge 1** - with appropriate access ramps to allow pedestrian and cycle access adjacent to Sussex Way.
- **Footbridge 2** – with appropriate access ramps to allow pedestrian and cycle access between Central site and Freeks Lane site.
- **Footbridge 3** – with appropriate access ramps to allow pedestrian and cycle access between Western site and WSCC land.

### *Highway Access Point Works*

To be secured through planning application DM/18/0509 (Land to the West of Freeks Lane):

- **Maple Drive Access** – Delivery of a junction over MSDC land to connect Freeks Farm with Maple Drive for construction and occupation of 130 homes at Freeks Farm (any additional homes will be constructed and accessed from a new highway access from Isaac's Lane).

The following site access points will be delivered to provide new or improved access:

- **A273 Roundabout Site Access**– Provision of a roundabout to serve the Northern Arc western development and provide a connection between the A273 and link to the A2300 through the site.
- **A2300 Roundabout Site Access**– Full funding of the delivery of a new site access roundabout on the A2300 to serve the development.
- **B2036 Northern Main Access Street Junction** – Delivery of a new junction between the B2036 Cuckfield Road and the Main Access Street on the western site.
- **B2036 Southern Main Access Street Junction** – Delivery of a new junction between the B2036 Cuckfield Road and the Main Access Street on the central site.
- **A273 Isaac's Lane Main Access Street Junction** – Delivery of a new junction between the Main Access Street (both west and east of the A273) and the A273
- **A273 Isaac's Lane Northern Secondary Access Junction** – Delivery of a new junction between the Central site development and A273 Isaac's Lane
- **B2036 Residential Secondary Access South** - Delivery of a new junction between the B2036 Cuckfield Road and the western site.
- **B2036 Residential Secondary Access North** - Delivery of a new junction between the B2036 Cuckfield Road and the western site.

### *Off-site Highway Works*

To be secured through planning application DM/18/0509 (Land to the West of Freeks Lane):



- **Fairbridge Way Roundabouts** – Delivery of capacity improvements to the southern roundabout (A273 junction with Marchants Way and London Road)
- **Leylands Road/Leylands Park Mini-roundabout** – Delivery of capacity improvements to the Leylands Road/Leylands Park Mini-roundabout

Where further detailed highway modelling undertaken as part of the Transport Assessment demonstrates that mitigation is required, this will be secured through the planning application for the Northern Arc. The following schemes will be required:

- **A2300 Dualling** – A contribution towards the funding for dualling of the A2300 between the Northern Arc site access roundabout and A23 Hickstead Interchange. The calculation of the contribution will be agreed with West Sussex County Council as part of the planning application process.

The following schemes may be required to accommodate the development on the highway network, subject to detailed highway modelling within the transport assessment that accompanies the planning application:

- **London Road/Dunstall Avenue/Maple Drive** – Delivery of capacity improvements to traffic signal junction
- **A273 Jane Murray Way/York Road** – Delivery of capacity improvements to roundabout
- **A23/A2300 Western Roundabout** – Delivery of capacity improvements to roundabout
- **B2036 to Ansty Traffic Management** – Contribution towards traffic management measures on the B2036 in vicinity of Northern Arc
- **London Road/Leylands Road/West Street Mini-roundabouts** – Delivery of capacity improvements to mini-roundabout junctions
- **A273 Jane Murray Way Roundabouts** – Delivery of capacity improvements to three roundabout junctions on A273 Jane Murray Way south of A2300

### *Public Transport Projects*

- **Phase 1 Public Transport Strategy** – Contribution towards delivery of a new bus service/extension of an existing bus route between the Northern Arc and Town Centre.
- **Phase 1 Bus Stop Infrastructure** – Provision of bus stop infrastructure on site to serve Phase 1 development
- **Bus Gate Northern Arc to The Hub** – Provision of a bus gate between the Northern Arc western site and Hub employment site (subject to agreement)
- **Funding to increase the frequency of the Route 33** – to create a higher frequency north-south service
- **Phase 2 Public Transport Strategy** – Contribution towards delivery of a new bus service/extension of an existing bus route between the Northern Arc and Town Centre.
- **Phase 2 Bus Stop Infrastructure** – Provision of bus stop infrastructure on site to serve Phase 2 development
- **Phase 3 Public Transport Strategy** – Contribution towards delivery of a new bus service/extension of an existing bus route between the Northern Arc and Town Centre.
- **Phase 3 Bus Stop Infrastructure** – Provision of bus stop infrastructure on site to serve Phase 3 development
- **Phase 4 Bus Stop Infrastructure** – Provision of bus stop infrastructure on site to serve Phase 4 development

### *Walking and Cycling Projects*

To be secured through planning application DM/18/0509 (Land to the West of Freeks Lane):

- **Freeks Farm to Wivelsfield Station Walking and Cycling Improvements** – Contribution towards delivery of an improved walking and cycling route between Maple Drive and Wivelsfield Railway Station
- **Freeks Farm to Sheddingdean Primary School Walking and Cycling Improvements** – Delivery of an improved walking and cycling route on Maple Drive between Freeks Lane and Sheddingdean Primary School.
- **Freeks Lane Walking and Cycling Improvements** – Contribution towards delivery of an improved walking and cycling route on Freeks Lane between the Freeks Farm development site and the town centre and existing community facilities.

The Northern Arc Development will deliver a Green Super Highway, a new pedestrian and cycle route connecting to the enhanced Green Circle.

The Walking and Cycling Audit being undertaken by AECOM will identify the active mode improvements required to deliver the development. Depending upon the emerging sustainable transport package, the following packages will be required to accommodate the development on the transport network:

- **A2300 Walking and Cycling Improvements** – Delivery of shared cycle/footways on the A2300 between the A2300 site access roundabout and the A273 roundabout.
- **Gatehouse Lane and Sussex Way Walking and Cycling Improvements** – Delivery of improved walking and cycling facilities on Gatehouse Lane and A273 between Gatehouse Lane and A2300
- **West Site to Town Centre Walking and Cycling Improvements** – Delivery of improved walking and cycling facilities between the A273 and Town Centre
- **A273 Sussex Way Walking and Cycling Improvements** – Delivery of improved walking and cycling facilities on the A273 between the junction with A2300 and Isaac's Lane
- **B2036 Cuckfield Road Walking and Cycling Improvements** – Delivery of improved walking and cycling facilities on the B2036 between the northern development access and Isaac's Lane
- **A273 Isaac's Lane Road Walking and Cycling Improvements** – Delivery of improved walking and cycling facilities on the A273 between the northern development access and Sussex Way

The following scheme may be required subject to further assessment:

- **Other Walking and Cycling Improvements** – Delivery in appropriate phases of improved walking and cycling facilities within Burgess Hill (including at public transport interchanges) and to other neighbouring settlements (extents to be defined through AECOM study and ongoing Sustainable Transport Package work).

### *Active Mode Main Access Point Works*

- **A273 Sussex Way Pedestrian/cycle connection** – Pedestrian and cycle connection across MSDC land to connect with A273 Sussex Way and provision of shared cycle/footways and a controlled crossing point.
- **A273 Sussex Way Aspirational Pedestrian/cycle connection** – Pedestrian and cycle connection across WSCC and MSDC land to connect with A273 Sussex Way and provision of shared cycle/footways and a controlled crossing point.

### *Sustainable Travel Projects*

- **Freeks Farm Travel Plan** – Implementation and monitoring of residential Travel Plan on the Freeks Farm site
- **Phase 1 Employment Travel Plan** – Implementation and monitoring of workplace Travel Plan on the Phase 1 site
- **Phase 1 Residential Travel Plan** – Implementation and monitoring of residential Travel Plan on the Phase 1 site
- **Phase 2 Residential Travel Plan** – Implementation and monitoring of residential Travel Plan on the Phase 2 site
- **Phase 3 Residential Travel Plan** – Implementation and monitoring of residential Travel Plan on the Phase 3 site
- **Phase 4 Residential Travel Plan** – Implementation and monitoring of residential Travel Plan on the Phase 4 site

## Utilities

This section sets out the proposed utilities infrastructure. For the purpose of delivering appropriate utilities infrastructure within the Northern Arc Development, utilities infrastructure proposals have been grouped as follows:

- Energy projects
- Potable Water Projects
- Foul Water Projects
- Surface Water Projects
- Telecommunication Projects
- Waste & Recycling

The following documents and meetings have been used to establish the baseline analysis for the site and provide further detail about the infrastructure proposed:

- Asset plan provided by the utility providers
- Meetings with UKPN, SEW and SGN
- Previous assessment reports provided by Homes England
- Development constraints report
- Environmental Impact Assessment Scoping Report (Wates)
- Geophysical Survey Report - Archaeological (Wates)
- Environmental Constrains report
- Infrastructure delivery strategy (Gleeson-Rydon-Wates)
- Transport assessment
- Framework travel plan
- Link road design
- Utilities report
- Hydraulic model - Stuart Michael Associates Limited
- Environmental statement
- Development at Burgess Hill, Goddards Green Initial Optioneering Study Mott McDonald

### *Multi Utility Services*

- The current assumption is that the contestable works within the site to be carried out by a Multi Utility Company rather than the incumbent utility companies.

### *Energy Projects*

- **Electrical Main distribution network** – Installation and connection of underground cables (included in the Multi Utility Services) and Builders work only for Local Substations 12 local substations
- **Electrical vehicle charging points** – Delivery of 30 public charging points spread across the 3 neighbourhood centres. Private electric vehicle charging points will be delivered by on-plot developers throughout the site..
- **Gas main distribution** – Diversion of Medium Pressure Main due to potential roundabouts on A273. The scheme assumes that no new gas supply will be provided.

### *Potable Water Projects*

- **Potable water main distribution** – Delivery of potable water main distribution

### *Surface Water Projects*

- **Surface Water main distribution to primary roads** – Delivery of surface water drainage elements through primary roads routes
- **Surface Water Phase 1 distribution to secondary roads** - Delivery of surface water drainage elements through the Phase 1 secondary roads routes
- **Surface water attenuation ponds / reed bed areas**- Delivery of surface water attenuation ponds and reed bed areas

### *Foul Water Projects*

- **Foul water main distribution to primary roads** - Delivery of foul water drainage elements through the primary roads routes
- **Foul water Phase 1 Main distribution to secondary roads roads** - Delivery of foul water drainage elements through the Phase 1 secondary roads routes
- **Foul water Rising main and Pumping Stations**- Delivery of 1 main foul water rising main pumping station and 9 secondary pumping stations for the west area, central area, and east area
- **Foul water storage tanks**– Delivery of foul water storage tanks at the proposed pumping station for 24 hour emergency storage.
- **Foul water connection to existing Goddards Green Wastewater Treatment plant** – Connection of the new foul water network to the existing foul water treatment plant

### *Telecommunication Projects*

- **Telecommunications main distribution** – Insertion of lengths for primary, secondary roads and protection/diversion of existing cables during all works to existing highways.
- **“Dig Once” Approach to Broadband** – Potential to roll out broadband provision across the Northern Arc in line with Mid Sussex District Councils own Dig Once Full Fibre Programme.

### *Civil Engineering*

- **Common Services Trench** – Deliver of common services trench for Multi Utility Services
- **General Allowance** – Deliver other statutory service diversions, including undergrounding 11KV / 33KV

### *Off-site Works*

- **Electrical off-site network reinforcement** – New 30MVA Primary Substation and 2km 11kv connection alongside Jane Murray Way to serve the Eastern end of the site. Additional circuit added to existing primary substation.
- **Potable water off-site works** – Delivery of off-site upgrade works to guarantee the supply to the site network
- **Foul Water connection to existing Goodards Green Foul Treatment Works** - Assumed that all costs for the upgrade will be covered by Southern Water through HIF and LEP funding

### *Waste and Recycling Projects*

- **Waste and Recycling** – On Site Provision of a Recycling centre and Waste collection infrastructure

## Social Infrastructure

For the purposes of delivering appropriate social infrastructure within the Northern Arc Development, social infrastructure proposals have been grouped as follows;

- Education
  - Early Years, Primary, Secondary, Sixth form and Special Educational Needs.
- Health and Social Care
  - Primary Healthcare facilities, Hospitals, and Adult Social Care
- Community
  - Community Facilities (Incl. meeting spaces and libraries etc.),
- Sports and Leisure
  - Indoor Sport Facilities (incl. Fitness Suites and Swimming Pools), outdoor sports and Children's Playspace

The following calculations, documents and meetings have been used to establish the baseline analysis for the site and provide further detail about the infrastructure proposed:

- Meetings:
  - MSDC and WSCC attendance at Masterplan development workshops
  - MSDC and WSCC attendance at IDP Meeting
  - WSCC Education Meeting
  - Healthcare Meeting with Horsham and Mid Sussex Clinical Commissioning Group (CCG)
- Documents and Analysis
  - Mid Sussex Development Infrastructure and Contributions (2018)
  - Mid Sussex Infrastructure Delivery Plan (2016)
  - Mid Sussex District Council Playing Pitch Strategy
  - West Sussex County Council – Planning School Places
  - Mid Sussex Infrastructure Contributions towards West Sussex County Council Services Calculator. (2018)
  - Burgess Hill Centre for Community Sport Initial Independent Review – Final Report

The IDP forms a partner document to the Masterplan Report and should be read in conjunction with that document. For this reason the baseline context for social infrastructure can be reviewed within the masterplan report and is not repeated in this IDP.

## Education Projects

- **Early Year Provision**
  - Based upon WSCC pupil multipliers, the Northern Arc generates the need for between 169 and 175 early year pupils. Early year requirements from the site will be accommodated within the proposed primary schools situated to the east of the site and in the central area.
- **Primary Schools**
  - Based upon WSCC pupil multipliers, the Northern Arc generates the need for between 686 and 875 pupils which equates to between 3.2 FE and 4.2FE of pupil demand. There is a range due to the indicative nature of the housing mix at this stage. As the housing mix is confirmed in due course the demand figures will be revised.
  - This demand will be accommodated through the provision of two on site primary schools.
  - The first 2 FE Primary School including early year's provision and SEN facilities, with a site area of 2.14 ha, is delivered towards the end of the first phase to support freaks farm residents and the impact of development in the west of the site. This also provides capacity for the residential unit commencing in phase 2.
  - The Second 2 FE Primary School including early year provision, with a site area of 2.14 ha is delivered towards the beginning of the third phase to support the continued requirements from development across the site. This also provides primary school capacity for all remaining residential units commencing in phase 4.
  - It is assumed the primary schools would be delivered by the master developer along with the required land allocation.
  - If the development generates the maximum potential demand of 875 pupils then the 35 pupils generated above the 840 pupil capacity on site will be accommodated off site and this will be financed through appropriate contributions from the developer to WSCC.
- **Secondary School**
  - Based upon WSCC pupil multipliers, the Northern Arc generates the need for between 490 and 630 pupils which equates to between 3.2FE and 4.2FE of pupil demand. There is a range due to the indicative nature of the housing mix at this stage. As the housing mix is confirmed in due course the demand figures will be revised.
  - A 6FE Secondary School including SEN provision is proposed within the Northern Arc Site, completed in Phase 1 to provide school places generated across the site in addition to serving pupils from the wider catchment area, helping to resolve existing capacity shortfalls forecast across the District.
  - The County Council has highlighted the need for the secondary school to be expandable to 8FE at a future date. A site of 9.7ha has therefore been incorporated within the masterplan which is sufficient to provide the secondary school and sixth form, its potential expansion and the necessary outdoor pitches and playspace.
  - It is assumed the secondary school would be delivered through the Secretary of State for Education identifying a free school sponsor or by a competition process administered by the County Council with the necessary land allocation provided by the master developer along with a percentage of the build cost based on the number of children on the development. The contribution towards the build cost will be collected in line with the increase in pupils generated as the development is built out.
- **Sixth Form Provision**
  - Based upon WSCC pupil multipliers, the Northern Arc generates the need for between 106 and 136 sixth form pupils. It is envisaged that the proposed secondary school will include capacity for sixth form provision to accommodate this demand. Reflecting the approach



towards secondary school contributions, the contribution towards sixth form provision will also be collected in line with the increase in pupils generated as the development is built out.

- **Special Education Needs (SEN) Provision**

- Based upon WSCC pupil multipliers, the Northern Arc also generates the need for between 20 and 25 special education places. It is envisaged that the primary and secondary schools will include capacity for special education needs with an emphasis on sufficient special resources to form a continuum of provision through from primary to secondary.

### *Health and Social Care Projects*

- **Primary Healthcare Provision**

- Based upon Horsham and Mid Sussex Clinical Commissioning Group planning standards, the Northern Arc generates the need for the equivalent of 4.6 GPs which equates to a spatial requirement of 838 sq.m.
- The masterplan and IDP recommend an onsite facility to meet the needs of the new community. Based upon the combined space requirements for a GP provision and dental provision (see below) the IDP has recommended a 1,070 sq.m primary care facility based within the District Centre and delivered in close proximity to the primary school and other community services.
- A preferred approach will require agreement with the CCG and local GP practices to ensure an operator can be secured to locate into the primary care facility.

- **Dental healthcare provision**

- Based upon benchmark planning standards, the Northern Arc generates the need for the equivalent of 4 dentists which equates to a spatial requirement of 229 sq.m. Dental healthcare provision is delivered by market operators. A small element of the proposed commercial space in the district and neighbourhood centres provides the opportunity for market operator to open a practice serving the Northern Arc alongside potential space within the proposed primary care facility.

- **Acute Healthcare Requirements**

- Based upon benchmark planning standards, the Northern Arc generates the need for the equivalent of 19 acute healthcare beds. There are no proposals to provide hospital facilities within the Northern Arc development and the growth in patient requirements will be met through existing off site provision at hospitals across Brighton and Sussex University Hospitals Trust at the Princess Royal Hospital in Haywards Heath and the Royal Sussex County Hospital in Brighton.

- **Extra Care Housing**

- Based upon local authority analysis, the Northern Arc is expected to generate the need for between 50 and 60 units of extra care provision.
- The masterplan is looking to meet a range of needs such as those of an extra care typology within the affordable housing mix of the Northern Arc development. There is the potential for this to be delivered in the form of a specific Extra Care Housing Facility.
- The number of ECH schemes on the site will be determined as part of the outline planning application

### *Community and Civic Projects*

Based upon benchmark planning standards, the Northern Arc generates the need for a range of community services delivered through multi-purpose facilities. This need equates to 1,285 sq.m of flexible community space and 241 sq.m of library space.

- **District Centre incorporating a standalone Multi-Use Community Facility 1**
  - Located in the east of the Northern Arc this district centre will provide the community focal point with a range of local services and facilities including the larger of two on site standalone multiuse community facilities scaled to approximately 1,000 sq.m to meet the combined social infrastructure needs of the central and eastern new communities. Located adjacent to the first primary school and on the primary access route across the Northern Arc this location offers the potential for a range of co-located social infrastructure facilities.
- **Neighbourhood Centre incorporating a standalone Multi-Use Community Facility 2**
  - Located in the western end of the Northern Arc this neighbourhood centre will provide the community focal point with a range of local services and facilities including a multiuse community facility scaled to approximately 500 sq.m to meet the combined social infrastructure needs of the western new communities.
- **Local Centre**
  - Located in the centre of the Northern Arc this local centre will be adjacent to the second primary school and provide smaller scale local services.
- **Emergency Services**
  - The Northern Arc new community will generate an increase in the demand for police, fire and ambulance services. No new emergency service facilities are proposed within the new development and the onsite demand will be covered by existing police, ambulance and fire stations in Burgess Hill and Haywards Heath. Developer contributions towards the emergency services will be negotiated through the S106 agreements.
- **Gypsy, Traveller's and Travelling Showpeople Provision**
  - The Northern Arc Development will contribute a commuted sum towards the local authority to support gypsy, traveller's and travelling showpeople site provision off-site to the scale of 16 pitches.
- **Replacement / Enhancement of children's play area adjacent to Maple Drive**

### *Sports and Leisure Projects*

- **Centre for Community Sports**
  - The outline for a Centre for Community Sport (CFCS) scheme was developed by Burgess Hill Town Council in 2011 as part of its Town Wide Strategy for 20 Years. A number of amendments to this original proposal have taken place since 2011 but this concept has remained an important aspect of the Northern Arc for the District and Town Council.
  - The original location for the CFCS has been tested through the masterplanning process and found to be unsuitable on a number of grounds. As a result the CFCS location has been moved to the western end of the Northern Arc which maintains its broad location and benefits from remaining in close proximity to the Triangle indoor sports site.
  - The Northern Arc development CFCS will include approximately 9 hectares of outdoor sports. The mix of sports pitches and facilities to be provided at the CFCS will be informed by the on-going assessment of need across the district but could include junior football pitches, mini football pitches and rugby pitches, and changing facilities.

- The CFCS will be complemented by existing and enhanced provision at the Triangle Leisure Centre adjacent to the site. By contributing to the enhancement of facilities at the Triangle, the capacity to support increased demand will be facilitated.
- **Wider Sports Provision across the Northern Arc**
  - Based upon Sport England planning standards, the Northern Arc generates the need for additional indoor sports requirements. This is equivalent to 2.2 sports halls and 1.6 swimming pool lanes. The scale of demand does not equate to a full indoor sports facility and due to the adjacent Triangle Leisure Centre it is not deemed necessary to provide additional indoor sports facilities within the Northern Arc.
  - At the east of the Northern Arc development site, the secondary school and its on-site sports provision provides the opportunity to mitigate a proportion of this demand. Access agreements to these secondary school facilities would need to be in place however for community access to be allowed. Demand from the western end of the site is assumed to utilise the existing Triangle Leisure Centre.

## Green Infrastructure

For the purposes of delivering appropriate and sufficient Green Infrastructure (GI) within the Northern Arc Development GI assets have been grouped in the Infrastructure Delivery Plan as follows;

- Parkland
- Woodland and Natural Open Space

Within this IDP it is acknowledged that there are areas of overlap between GI and other services/ facilities that will be provided. For example, GI can be designed to play a role in water management, as well as there being a strong relationship between outdoor space and sport and recreation facilities. For the purposes of this IDP these overlaps will be assessed within other sections of the report, for example the above topics will be recognised within the Utilities and Social Infrastructure sections respectively.

The following documents and meetings have been used to establish the baseline analysis for the site and provide further detail about the infrastructure proposed:

- Meetings:
  - MSDC and WSCC attendance at Masterplan development workshops
  - MSDC and WSCC attendance at IDP Meeting
- Documents and Analysis
  - Adopted West Sussex Structure Plan
  - West Sussex Walking and Cycling Strategy 2016-2026
  - Mid Sussex Green Infrastructure Topic Paper 2016
  - Future West Sussex Plan 2015-2019
  - West Sussex Sustainability Strategy
  - Mid Sussex District Council Playing Pitch Strategy 2015-2031
  - Green Circle: <https://www.burgesshill.gov.uk/greencircle>
  - A strategy for the West Sussex Landscape
  - Mid Sussex Landscape Character Assessment

The IDP forms a partner document to the Masterplan Report and should be read in conjunction with this document. For this reason the baseline context for green infrastructure can be reviewed within the masterplan report and is not repeated in this IDP.

### Parkland

- **Open Space Park 1** – Located in the eastern part of the site adjacent to the neighbourhood centre and primary school, this park provides approximately 2.1 ha of public open space running parallel to the River Adur. The park also provides pedestrianised connections, with part of the walking and cycling network going through it.
- **Open Space Park 2** – Located in the central part of the site lies adjacent to the Primary Link Road on the southern side of the road. This park provides approximately 1.8 ha of public open space, forming part of the neighbourhood centre, situated opposite the second primary school. To the south of this park is a block of ancient woodland, and consequently the park forms an appropriate buffer between the woodland and the neighbourhood centre.

- **Open Space Park 3** – Located on the western part of the site, on the northeast side of the A2300, this park provides approximately 7.7ha of public open space. This part of the site has 132kv overhead cables running directly through it and therefore is not suitable for several types of development. Furthermore, the western part of this parcel of the site falls within the odour contour lines associated with the Goddards Green Waste Water Treatment Works, rendering residential development unsuitable. In addition, this is a relatively exposed and visually sensitive part of the site, subsequently open space and recreation use is considered most appropriate. Furthermore, it is suggested this space is also utilised for allotments to provide onsite horticultural space.
- **Freeks Farm Open space** – This open space will be provided within the Freeks Farm site with approximately 7.6ha of public open space cumulatively. This will service the earliest phases of development, providing the first residents with public amenities within close proximity of the phase 1 dwellings.

### *Woodland and Natural Open Space*

- **Woodlands and Natural Open Space** – This category of green infrastructure encompasses ancient woodland, buffer areas, streams and natural open space, as well as spatial allowance for interventions such as new footpaths, cycleways and planting. The network of woodland and natural open space is intended to create strong green corridors throughout the site, providing ecological assets as well as valuable additions to the proposed Green Circle and pedestrian/cycle network.

## 7. Infrastructure Delivery Approach

This chapter sets out the approach towards the delivery of infrastructure identified as necessary to support the Northern Arc development.

Homes England are committed to ensure delivery of the infrastructure requirements set out within the Infrastructure Delivery Plan. Where infrastructure delivery proposals deviate from the approach set out in this IDP this will be justified through financial appraisal and other supporting information, such as design related or wider market factors. The intention is to submit the allocation-wide Financial Appraisal alongside the Northern Arc planning application.

Homes England recognise that it is necessary to establish the infrastructure required to mitigate the impacts of the development proposed and the correct timing of provision and contributions to specified infrastructure will enable the successful delivery of the new community.

This chapter introduces the IDP approach towards infrastructure delivery planning and the use of a project schedule to record, prioritise and monitor the delivery of infrastructure projects. The following chapters set out the sequencing approach towards delivery and the consideration of cost and funding and delivery partners.

### Partnership Delivery

Homes England intends to lead in the delivery of key infrastructure and work in partnership with a master developer(s) to accelerate the build out of the scheme.

Consultation and discussion with potential development and funding partners, consultees and interested parties are still ongoing regarding the phasing of any development and associated infrastructure provision and commitments.

Developer contributions are the contributions made by a developer to remedy the impact of development, either by paying money for work to be carried out or by directly providing facilities or works either on or off-site. Developer contributions are envisaged to comprise of a mixture of land, payments in kind and direct funding established through Section 106 agreements and Section 278 agreements associated with any planning permission.

Under this approach it is important to confirm which infrastructure could be assumed delivered as standard development costs expected of plot developers (as opposed to the master developer). Plot level infrastructure development costs typically include items such as:

- On site roads and public realm
- Non designated, door step children's play space
- On site CCTV
- On site amenities such as electric charging points
- Broadband and Wi-Fi installation / connections

## IDP Project Schedule

The previous chapter has set out the infrastructure projects identified as necessary to support the development. The IDP is supported by a project schedule which encapsulates this detail into a single document, allowing the full package of infrastructure requirements to be effectively communicated for the purposes of the planning application process, the cost planning work, parallel viability assessments and to inform Section 106 negotiations between Homes England and other signatories. The project schedule is appended to this document and sets out for each infrastructure project the following information:

- Project Name
- Description of Project
- On or Off Site Project
- Delivery Lead Partners
- Delivery Type (Onsite Provision, Developer Contribution, Contribution in kind, other)
- Trigger for Delivery if appropriate
- Delivery phasing

## Project Schedule Monitoring

Following the production of this Infrastructure Delivery Plan, and as the masterplan is taken forward with detailed reserved matter planning applications, it may be appropriate for some items contained within the project list to be reviewed and re-profiled in terms of timing or scale. This may be appropriate for a variety of reasons such as:

- Amount of development confirmed at a different level to that tested at this stage;
- Demand could be accommodated within existing facilities through utilisation of previously unavailable/unidentified capacity;
- Review of co-location potential for compatible infrastructure projects may reduce the physical number of projects as well as potential costs;
- Project is capable of being delivered in an alternative manner that is considered more appropriate;
- Projects are not deemed commercially viable at a later stage;
- Projects could be delivered by the private sector / alternative source.

Where infrastructure delivery proposals deviate from the approach set out in this IDP this will be justified through financial appraisal and other supporting information. The intention is to submit the allocation-wide Financial Appraisal alongside the Northern Arc planning application.



## 8. Phasing Strategy

### Proposed Phasing Strategy

Infrastructure delivery is intrinsically aligned to growth and the necessity to mitigate the impacts arising from development. It is imperative that the sequencing of infrastructure represents current development agreements and anticipated trajectories. This Infrastructure Delivery Plan has been informed by a draft development trajectory developed to inform the masterplanning exercise. The phasing and sequencing presented in this document has been guided by both the phasing principles and the masterplanning exercise.

The sequencing and construction of the development will take place over a programme, which may commence in 2020/21 - subject to the outcome of the Outline Planning Application and subsequent Reserved Matters Applications. This IDP presents the sequencing of the development in four phases as follows:

- Phase 1: 2020 - 2025
- Phase 2: 2025 - 2028
- Phase 3: 2028 - 2032
- Phase 4: 2032 - 2035

The phasing of development will ultimately be determined through agreement between Homes England, Mid Sussex District Council, and other parties including West Sussex County Council, Highways England, Natural England and others following consideration of the outline planning application and this Infrastructure Delivery Plan.

This IDP provides the evidence base and foundation for a detailed phasing strategy to accompany the 15 year build out of the Northern Arc. The following sections of this Chapter set out the infrastructure that it is expected will be appropriate to support each phase of development. They are not intended to distinguish between infrastructure to be provided by the master developer or by third parties or which may be funded in whole or part by contributions. Further information is included in the IDP Project Schedule in the Appendix.

## Guiding Principles towards Phased Delivery

Guiding principles towards phasing have helped to guide the masterplanning and development of the phasing plan. Market conditions and other external factors may also influence the speed and phasing of the development in the future.

Homes England's approach to the phasing of the development seeks to carefully balance a number of broad principles:

- As a general principle, the phasing reflects the need to begin developing areas close to the existing highways to reduce the extent of major new road infrastructure provision at that stage.
- Early delivery of employment floorspace should sufficient market demand exist and suitable infrastructure is in place.
- The first phase represents initial site preparation and infrastructure required to unlock the early stages of development. Increased capacity in utilities infrastructure and the road network will be required before the next phase can be commenced.
- Each main phase will be largely completed prior to the following phase commencing. The precise point at which a main phase could be considered to be substantially complete will need to be determined through the phasing plan and implementation strategy to be prepared by the site promoters.
- In order to provide for flexibility, some degree of overlap between main phases is acceptable, providing that the earlier phase is substantially complete. In particular, to ensure that any key infrastructure items, upon which the subsequent phase depends, are sufficiently progressed to avoid the risk of development in the next phase proceeding unsupported by necessary infrastructure.
- Given the relatively long build-out of the development, it is essential that the approach is flexible and can adapt to changes over the lifetime of the plan. Therefore, the phasing plan should be seen as an informed guide and not rigid prescription.

More specifically, the Burgess Hill North Arc Phasing is dependent upon:

- Market factors influencing the housing trajectory and take-up of commercial floorspace;
- The threshold of development possible based on the existing capacity of the local and strategic road network to accommodate additional traffic from Burgess Hill Northern Arc before the new East West Link Road is provided;
- The availability of utilities and timescales for connections to be made,
- The need to provide social infrastructure to meet the needs of residents of Burgess Hill and to mitigate against potential impacts on existing provision; and
- The timely provision of green infrastructure across the phases to reduce visual impact on sensitive landscapes and settlements.

The general approach to development and infrastructure phasing is set out below and in the accompanying figures on pages 41-52.

## Phase 1 (2020 – 2025)

### *Land use & centres:*

- Development of approximately 1,091 new homes, including development taking place in the east of the site within the Freeks Farm planning application area delivering 460 new homes.
- Parallel development commencing at Northern Arc West, delivering 631 new homes
- Employment land at Northern Arc West delivered providing 4 hectares
- Neighbourhood Centre Commences at Northern Arc West

### *Transport Infrastructure:*

- On-site Road Network and Bridges:
  - Primary Road between Gatehouse Lane and A2300
  - Primary Road between A2300 and the bridge
  - Primary Road between the bridge and B2036
  - Primary Road between the B2036 and the A273
  - Secondary Road from A273 and through Freeks Farm site
  - Secondary Road network
  - Roadbridge at the western part over River Adur
  - Roadbridge at the eastern part over River Adur
- On-site Highway Accesses:
  - Maple Drive
  - Jane Murray Way Roundabout
  - A2300 Roundabout
  - A273 South Junction
  - B2036 Main Access Street North Junction
  - B2036 Main Access Street South Junction
- Off-site Highways:
  - A2300 Dualling Contribution
  - Fairbridge Way Double Roundabout
  - Leylands Road/Leylands Park Mini-roundabout
  - London Road/Dunstall Avenue/Maple Drive signalised junction
  - A273 Jane Murray Way/ York Road Roundabout
  - A23/A2300 Western Roundabout
- Public Transport:
  - Phase 1 Northern Arc to Town Centre New Bus Service
  - Phase 1 Bus Stop Infrastructure
  - Bus Gate Northern Arc West to The Hub
- Walking and Cycling Improvements:
  - Freeks Farm to Wivelsfield Station,

- Freeks Farm to Sheddingdean Primary School and Freeks Lane walking and cycling improvements to the town centre and existing community facilities
- A2300 walking and cycling improvements
- Gatehouse Lane and Sussex Way walking and cycling improvements
- West site to town centre and transport interchanges
- A273 Jane Murray Way walking and cycling improvements
- Green Super Highway
- Sustainable Travel
  - Freeks Farm and Northern Arc West Site Residential and Workplace Travel Plans

#### *Utility infrastructure:*

- Off-site network reinforcements including water infrastructure. Connections to existing primary sub stations, and New Primary Sub Stations.
- Provision of energy, water, drainage, tele communication and broadband solutions in line with build out of development plots
- Delivery of foul water drainage elements through the Phase 1 secondary roads routes
- Delivery of surface water drainage elements through the Phase 1 secondary roads routes

#### *Social Infrastructure:*

- First 2 FE Primary School including early year's provision is delivered towards the end of the first phase to support Freeks Farm residents and the impact of development in the west of the site. This also provides capacity for the residential unit commencing in phase 2.
- 6FE Secondary School (with capacity to expand to 8FE) completed to provide school places generated across the site in addition to off-site demand for school places. This also provides secondary school capacity for all remaining residential units commencing in phase 2, 3 and 4.
- Multi-use community facility (500sq.m) opens as part of the neighbourhood centre in west of site.
- Centre for Community Sports – Delivered towards the end of phase 1 as the cumulative demand for open space and outdoor sports provision is established. Provision includes junior football, mini football, rugby pitch, club house, changing rooms and parking spaces.

#### *Green Infrastructure:*

- Freeks Farm Open Space
- Open Space Park 3
- Phase wide Woodlands and Natural Open Space

#### *Detailed Phase 1 Annual Phasing Plan*

Due to the importance of Phase 1 and the number of key infrastructure items that will be delivered during this phase we have set out a year by year phasing plans to illustrate the delivery approach and particularly to highlight the works required to unlock the Freeks Farm site at the east of the North Arc, the main east-west link road and the initial primary and secondary school.

## 2020 - PHASE 1

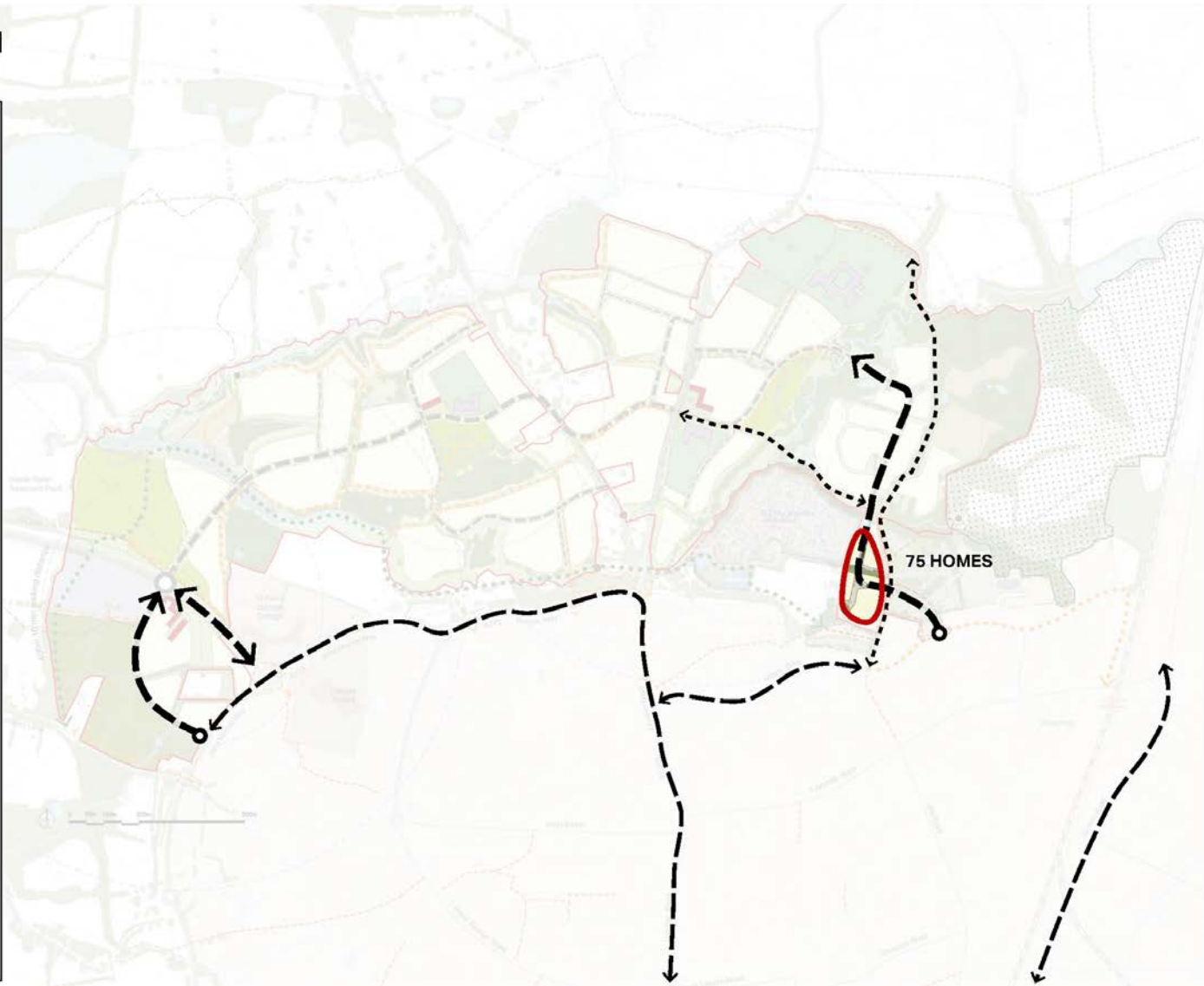
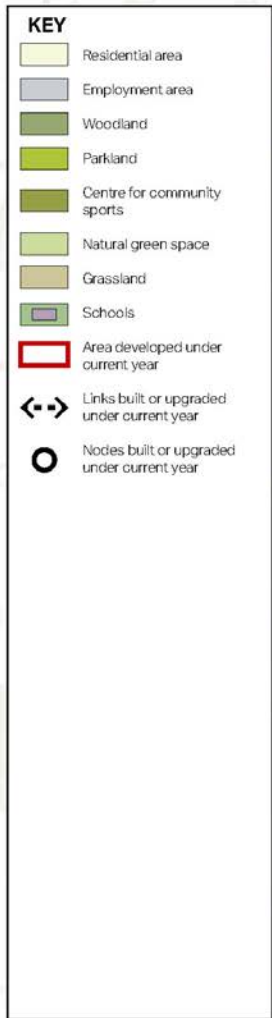


Figure 8.1: Phase 1 Delivery (2020)

### 2021 - PHASE 1

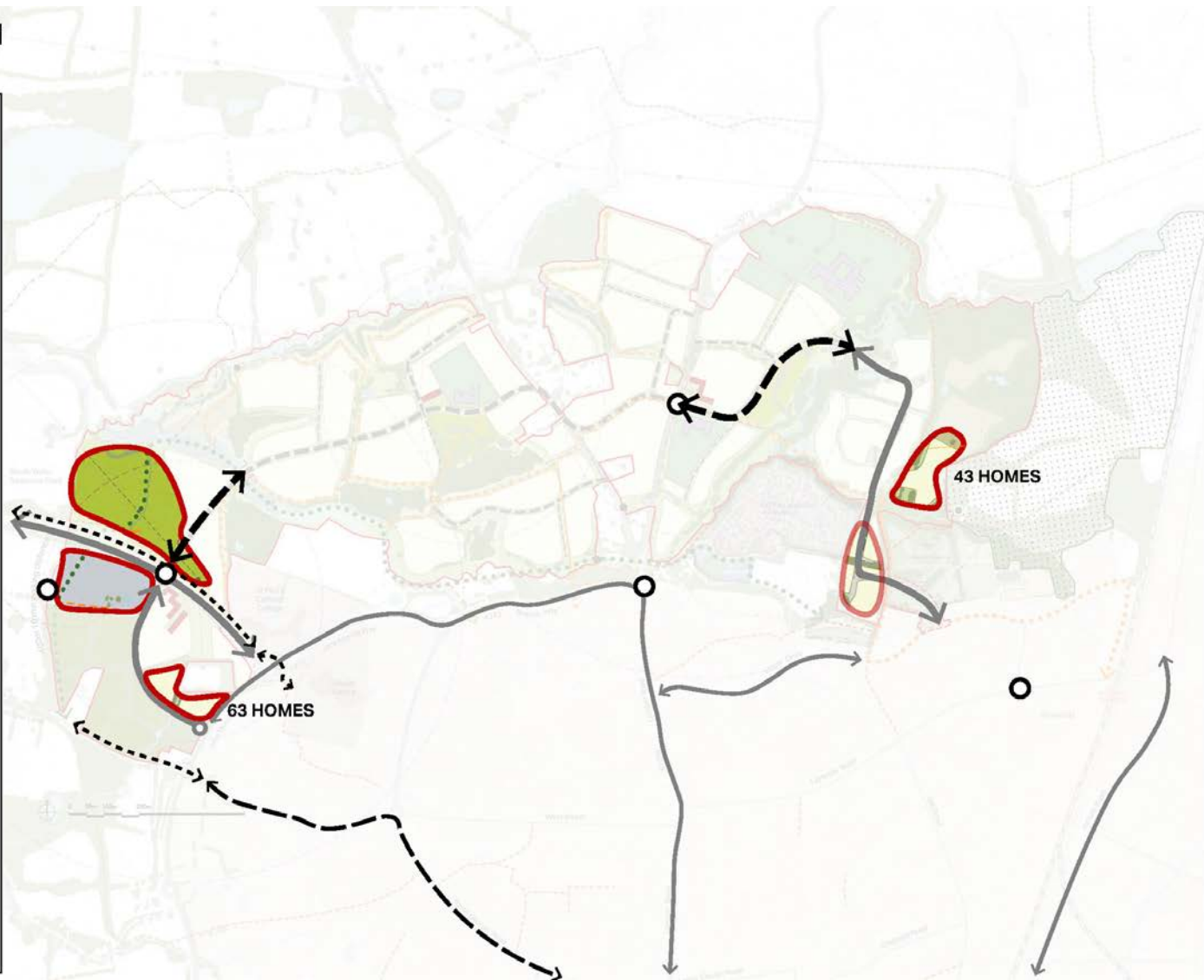
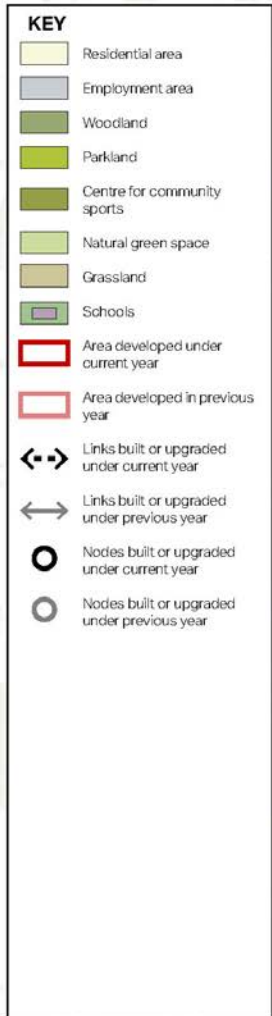


Figure 8.2: Phase 1 Delivery (2021)



### 2022 - PHASE 1

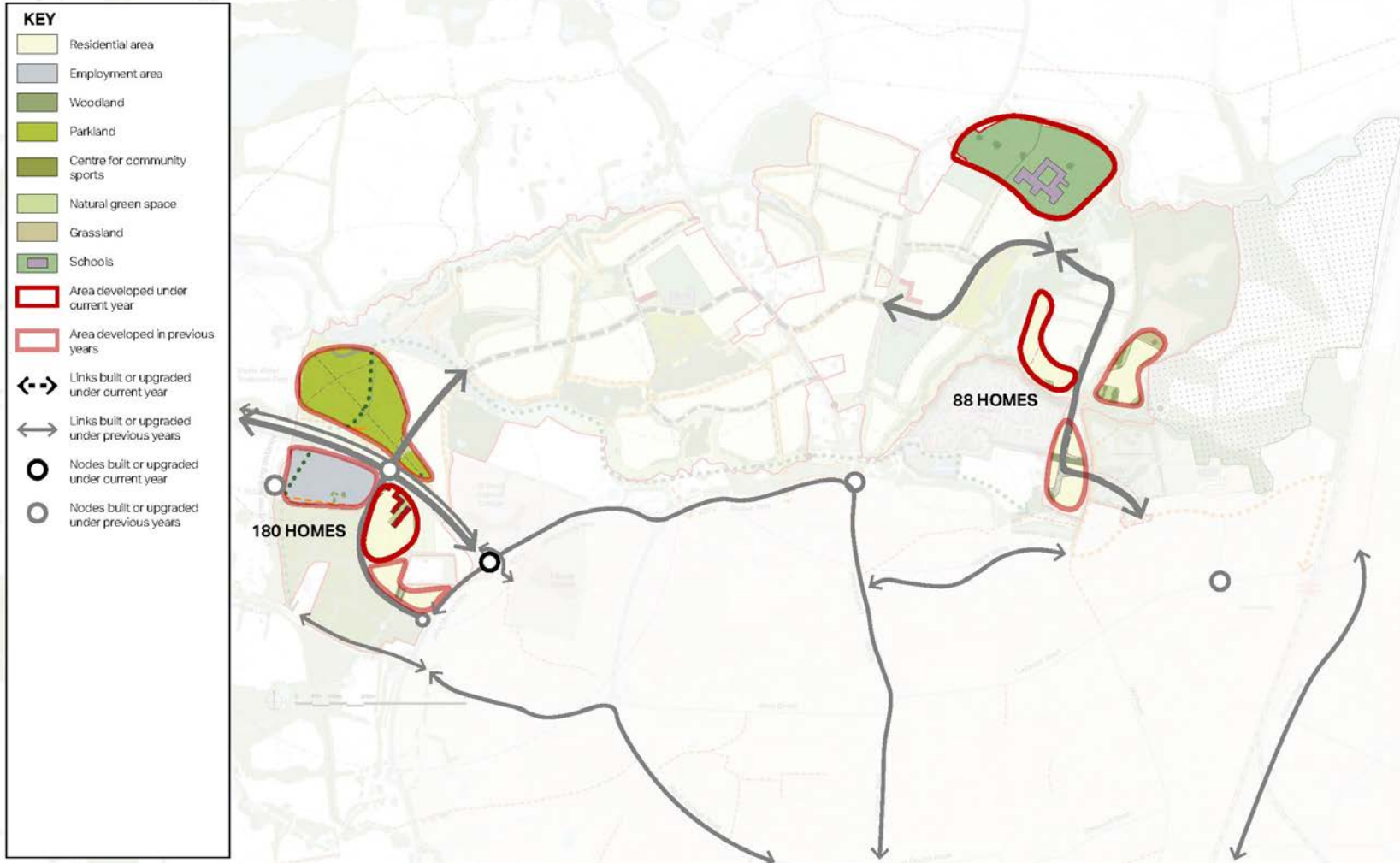


Figure 8.3: Phase 1 Delivery (2022)

### 2023 - PHASE 1

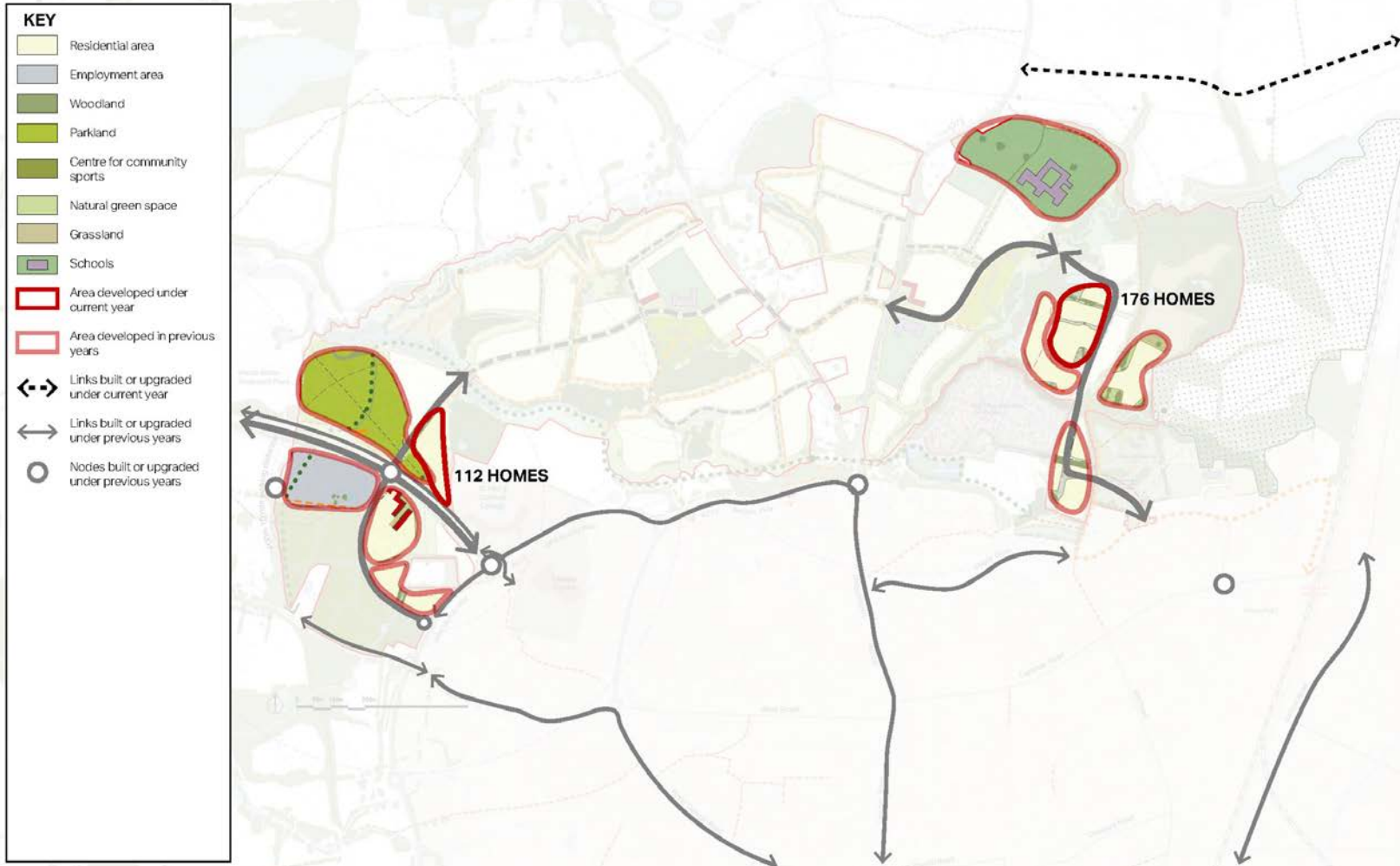


Figure 8.4: Phase 1 Delivery (2023)



## 2024 - PHASE 1

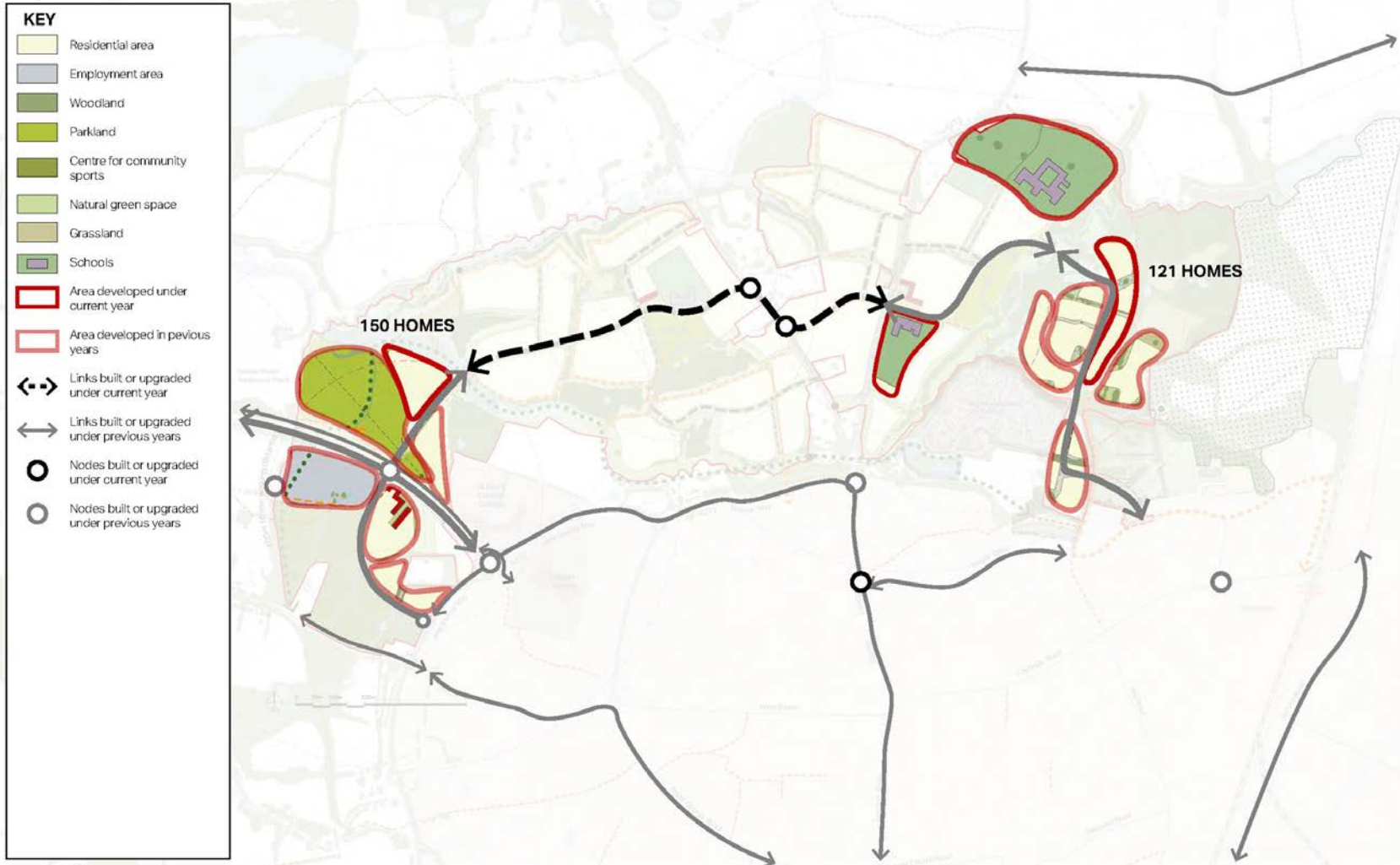


Figure 8.5: Phase 1 Delivery (2024)

### 2025 - PHASE 1

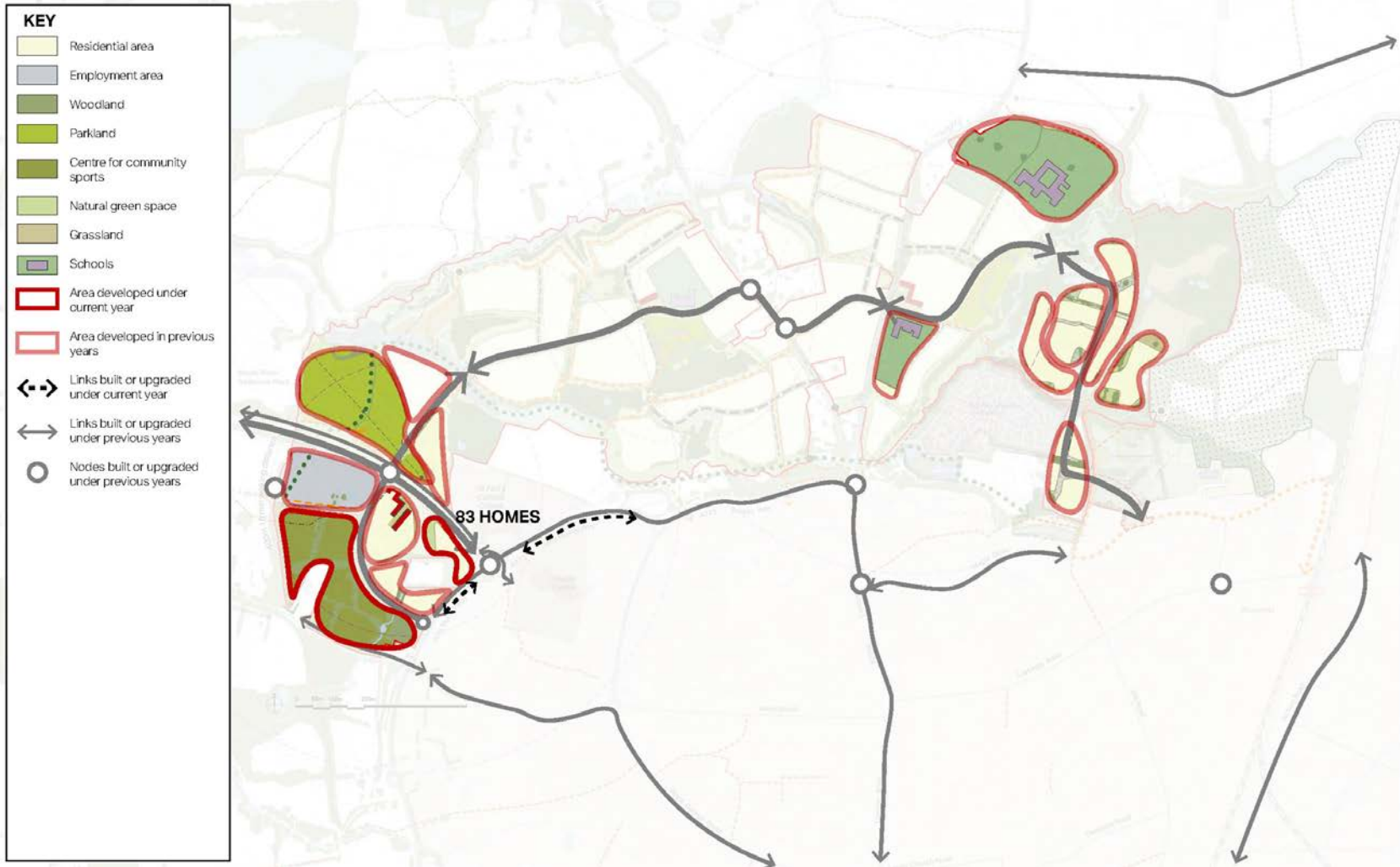


Figure 8.6: Phase 1 Delivery Complete (2025)

## Phase 2 (2025 – 2028)

### *Land use & centres:*

- Development of approximately 802 homes, taking site-wide total to 1,893 homes.
- District Centre commences at Northern Arc East adjacent to Primary School
- Neighbourhood Centre expands at Northern Arc West

### *Transport Infrastructure:*

- On-site Road Network and Bridges:
  - Footbridge to allow pedestrian and cyclist access to Sussex Way
  - Footbridge to allow pedestrian and cyclist access between central site and Freeks Farm
- On-site Highway Accesses:
  - B2036 Southern Development Parcel Access
  - A273 North Junction
- Off-site Highways:
  - B2036 Burgess Hill to Ansty Traffic Management
  - London Road / Leylands Road / West Street junction improvements
- Public Transport:
  - Funding to increase frequency of Route 33 (Crawley to Brighton via Burgess Hill)
  - Continuation of Funding for Northern Arc to Town Centre New Bus Service
  - Bus Stop Infrastructure
- Walking and Cycling Improvements:
  - B2036 walking and cycling improvements
  - A273 Isaac's Lane walking and cycling improvements
  - Sussex Way Pedestrian/Cycle Access
  - Green Super Highway
- Residential Travel Plan

### *Utility infrastructure:*

- Provision of energy, water, drainage, tele communication and broadband solutions in line with build out of development plots
- Diversion of utilities at the junction of spine road with existing roads
- Site Waste collection and recycling infrastructure established

### *Social Infrastructure:*

- Multi-use community facility (1000sq.m) opens as part of the District centre in east of site.
- Healthcare provision – On site provision recommended - assuming a 1,070 sq.m primary care facility based in the District Centre and delivered alongside the primary school.
- Healthcare provision – The masterplan and IDP recommend an onsite facility to meet the needs of the new community with a 1,070 sq.m primary care facility based within the District Centre and delivered in close proximity to the primary school and other community services. A preferred approach will require agreement with the CCG and local GP practices to ensure an operator can be secured to locate into the primary care facility.

### *Green Infrastructure:*

- Phase wide Woodlands and Natural Open Space

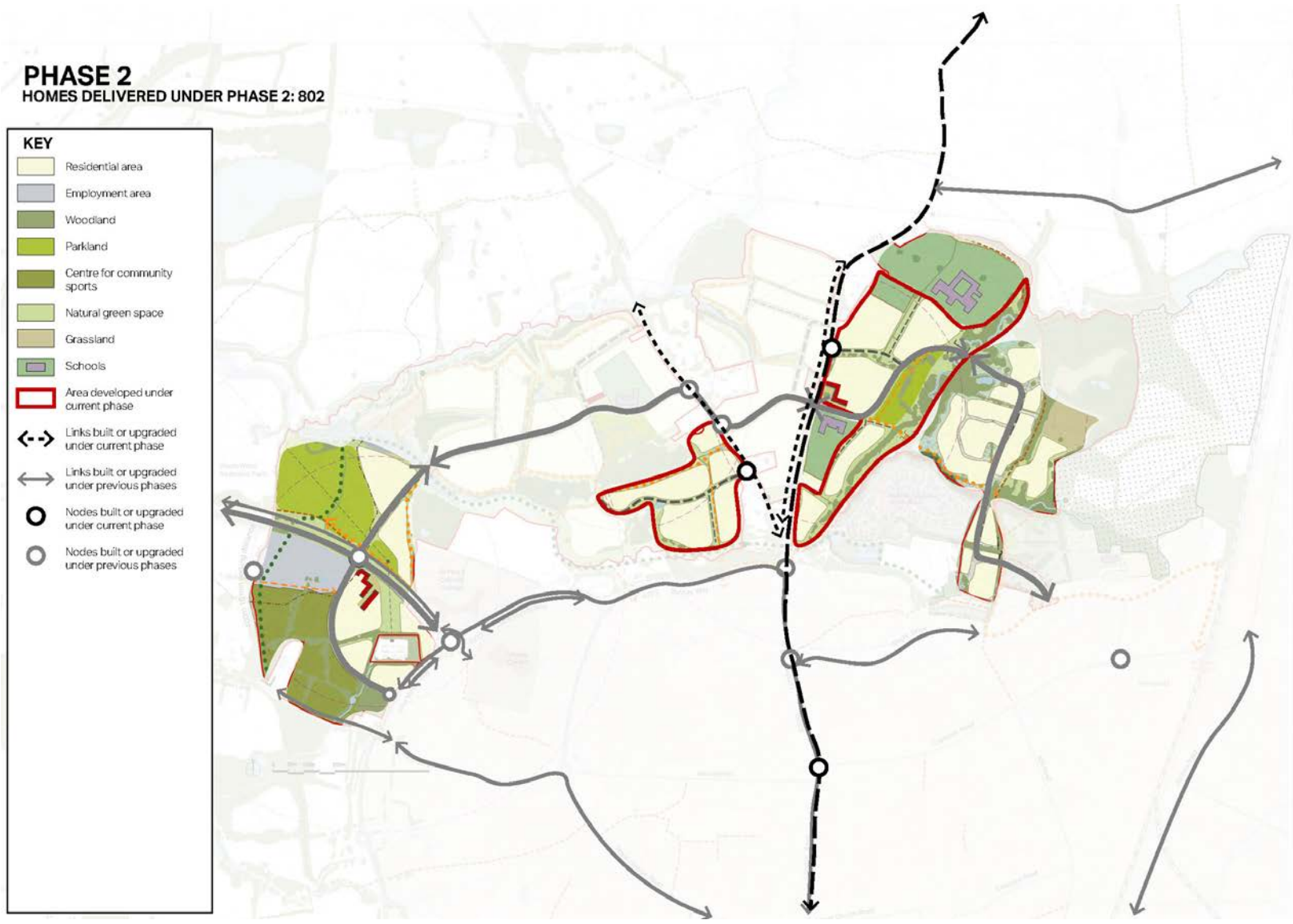


Figure 8.7: Phase 2 Delivery

## Phase 3 (2028 – 2032)

### *Land use & centres:*

- Development of approx. 890 homes , taking site wide total to 2,783 homes
- District Centre continues to develop at Northern Arc East
- Local Centre commences in centre of site adjacent to second primary school

### *Transport Infrastructure:*

- On-site Road Network and Bridges :
  - Footbridge to allow pedestrian and cyclist access between western site and WSCC land
- Off-site - A273 Jane Murray Way Roundabouts
- Public Transport:
  - Continuation of Funding for Northern Arc to Town Centre New Bus Service
  - Bus Stop Infrastructure
- Sussex Way Aspirational Pedestrian/Cycle Access (through WSCC land)
- Residential Travel Plan

### *Utility infrastructure:*

- Provision of energy, water, drainage, tele communication and broadband solutions in line with build out of development plots

### *Social Infrastructure:*

- Second 2 FE Primary School including early years is delivered towards the beginning of the third phase to support the continued requirements from development across the site. This also provides primary school capacity for all remaining residential units commencing in phase 4.

### *Green Infrastructure:*

- Open Space Park 1
- Phase wide Woodlands and Natural Open Space



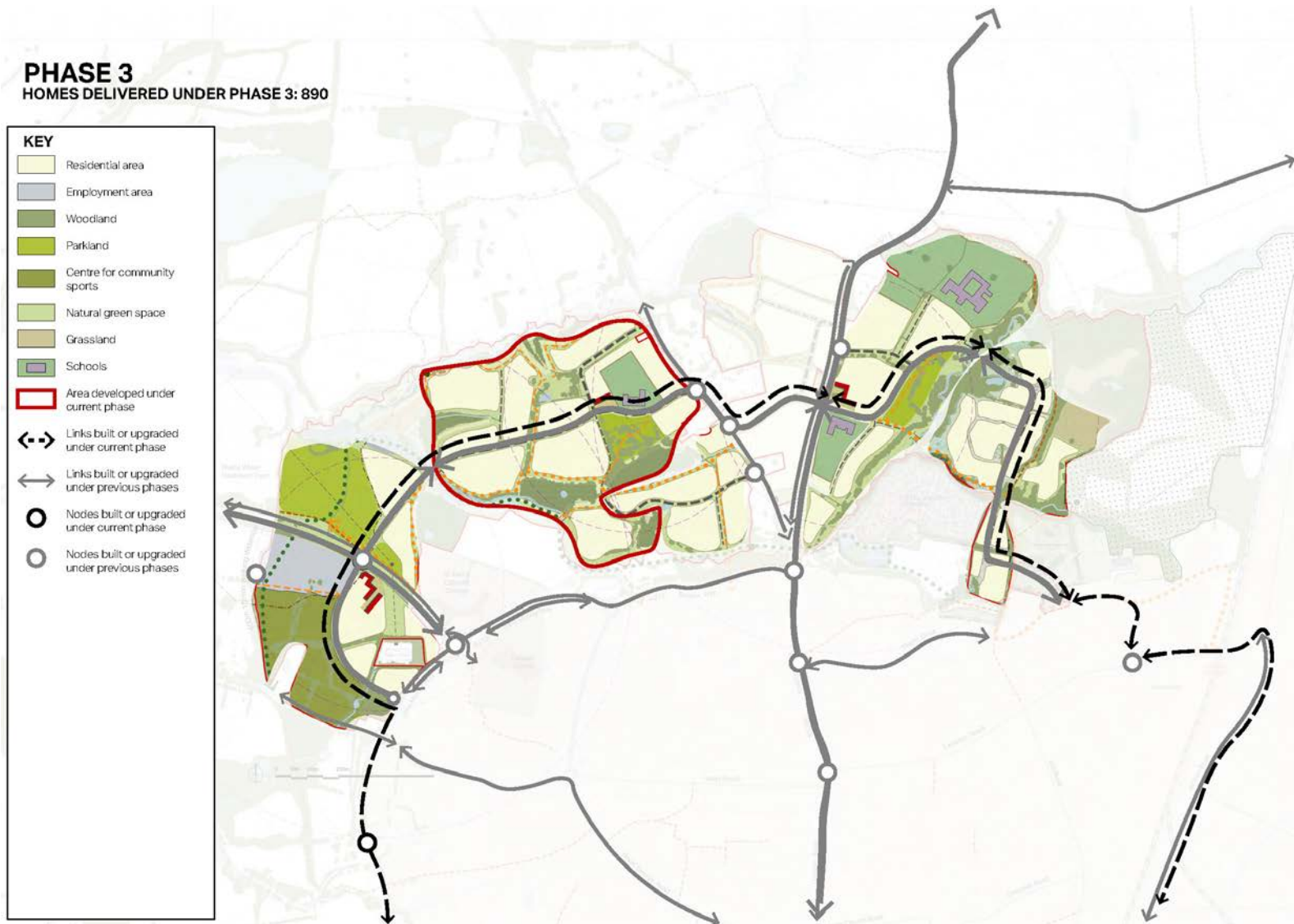


Figure 8.8: Phase 3 Delivery

## Phase 4 (2032 – 2035)

### *Land use & centres:*

- Development of approx. 716 homes , taking site wide total to 3,500 homes

### *Transport Infrastructure:*

- On-site Road Network and Bridges:
  - Secondary Road network
- Bus Stop Infrastructure
- Residential Travel Plan

### *Utility infrastructure:*

- Provision of energy, water, drainage, tele communication and broadband solutions in line with build out of development plots

### *Social Infrastructure:*

- None

### *Green Infrastructure:*

- Open Space Park 2
- Phase wide Woodlands and Natural Open Space

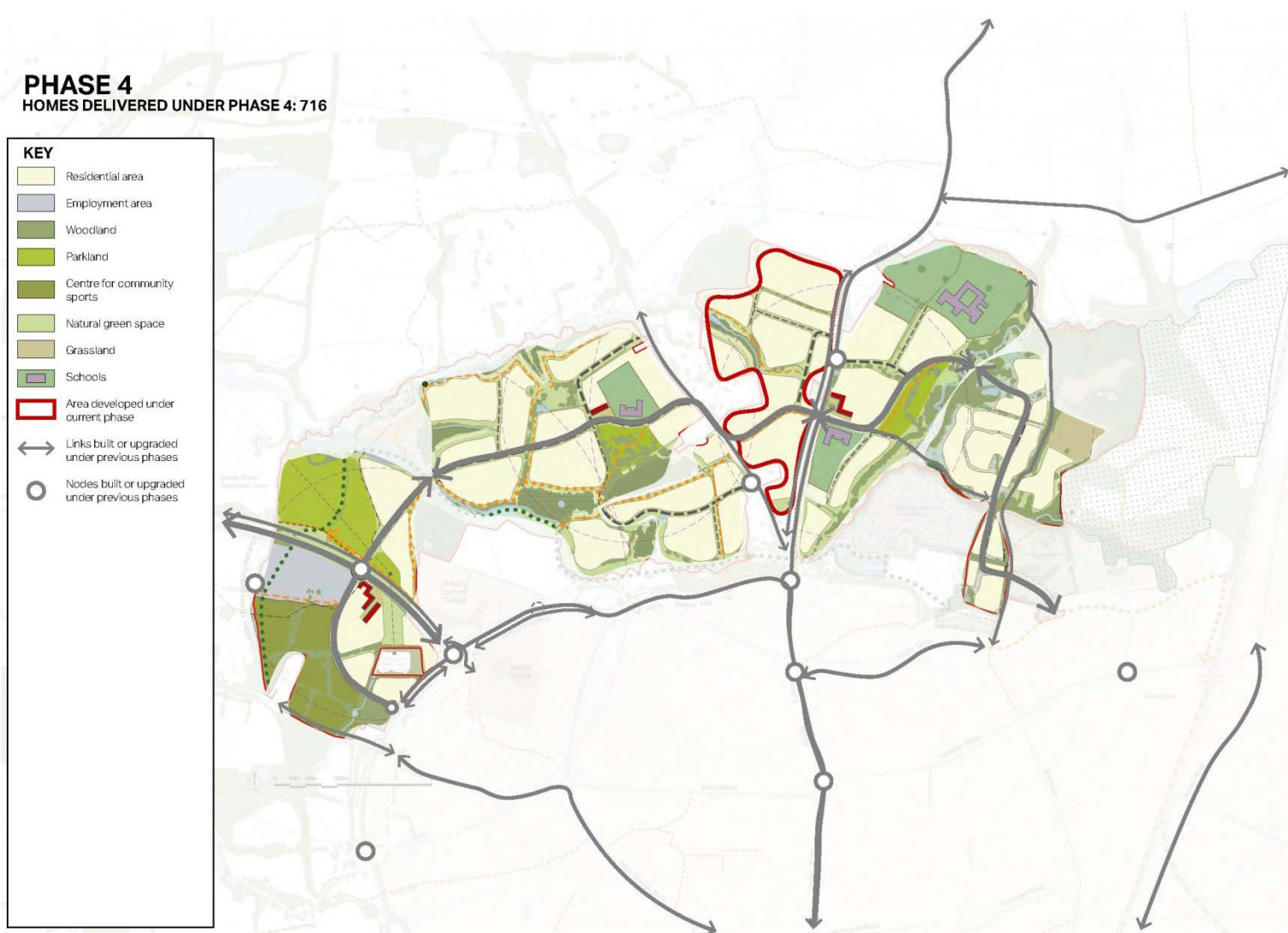


Figure 8.9: Phase 4 Delivery



## 9. Infrastructure Costs

This IDP is accompanied by a detailed infrastructure project schedule which is included as Appendix 1 to this report. The project schedule presents a comprehensive list of all infrastructure that has been identified within this IDP. The total costs associated with that project schedule are presented in this chapter.

### Costing Assumptions

The following parameters should be noted with regards to the approach taken in the costing exercise undertaken by AECOM:

- The costing exercise covers all site preparation works and community infrastructure, landscaping, transport and utilities both on and off site.
- The costing exercise relates to Master Developer works to create serviced plots for disposal, and excludes costs which would fall to individual parcel developers.

The following assumptions have been applied to the total infrastructure cost exercise:

- Phasing and Temporary Works This is included at 1.5% of all the costs to reflect the phased nature of the scheme and therefore the likelihood that there will be temporary works in respect of utilities connections, landscaping etc.
- Adoption Fees Section 38 and Section 278 Costs (adoption of on-site roads from plot edge to plot edge and all off site roads) – This is allowed as 20% of the total costs for all primary, secondary and tertiary roads to cover adoption fees and commuted sums and 50% of the total costs for the roadbridges and footbridges.
- Professional Fees based on:
  - Enabling works 5%
  - Transport, Movement & Access 9%
  - Utilities (including drainage) 10%
  - Landscaping 11%
  - Social Infrastructure (excluding contributions) 12%
  - Survey Cost other than covered above, £500,000
- Design Development and Construction Contingency at 5%

The following factors have been highlighted through the costing exercise as having a direct impact on the scale of infrastructure investment required to deliver the masterplan:

- The extent of primary and secondary road network to provide serviced plots, as a number of utility services are assumed to run along these routes.
- The approach towards servicing the site with utilities, with either the traditional model of connecting to the major service providers or alternatively to utilise a multi utility service company (MUSCO) to deliver in combination some or all of the on-site electricity, gas, water and communications solution.
- The extent of adoption of works, including highways and landscaping
- Unidentified risks such as encountering unsuitable ground conditions.
- Unidentified risks through extent of utilities diversions in relation to off-site highways works.

## Cost Exclusions

It is important to note that the total cost estimates presented in table 9.1 and in the corresponding Appendix 1 exclude the following items:

- VAT
- Land Acquisition
- Finance Changes
- Inflation from August 2018
- All on plot works for the residential
- All works in connection with the employment land
- All works for retail & other commercial uses
- Non potable water network
- District heating network
- Hospital and Mental Health contributions
- Further indoor sports contributions

## Infrastructure Cost Summary

As stated earlier the detailed project specific IDP schedule is included as an Appendix but summarised at a topic level below in Table 9.1. The costing exercise has demonstrated a total infrastructure investment requirement of **£131 million**. With the inclusion of professional fees, design, development and construction contingencies and development management costs this increases to **£162 million**.

**Table 9.1 Summary Cost Estimate of Identified Infrastructure to support Proposed Development**

	Total Cost
Site Preparation	£5,970,000
On Site Transport and Highways	£24,120,000
Off Site Highways	£14,700,000
On Site Utilities and Drainage	£20,900,000
Off Site Utilities and Drainage	£6,100,000
Landscaping (Green Infrastructure)	£8,090,000
Social Infrastructure	£51,360,000
<b>Total Infrastructure and Enabling Costs</b>	<b>£131,230,000</b>
Phasing and Temporary Works	£1,970,000
Adoption Fees	£9,410,000
Professional Fees & Survey Costs	£11,930,000
Design Development and Construction Contingency	£7,730,000
<b>Total Scheme Cost</b>	<b>£162,300,000*</b>

\* Sum will not total due to rounding of individual costs

As part of the IDP project schedule a trigger point and recommended phasing of all infrastructure projects has been included. With regards to transport and utility requirements, the phasing of these important enabling projects has been guided by transport modelling and dialogue with the utility providers. With regards to social infrastructure projects the timing of these requirements has been informed by the housing trajectory and associated on-site population profile. Consideration has also been given to ensuring the necessary place-making elements of the masterplan are delivered at an appropriate stage to enable the new community to thrive.

Figure 9.1 illustrates the sequencing of costs between 2020 and 2035 broken into the different infrastructure project types. This is a useful exercise in demonstrating the concentration of investment in different types of infrastructure such as upfront utility connection costs and the introduction of social infrastructure over the development programme. Figure 9.2 shows a breakdown of the costs by the four broad phases of development.

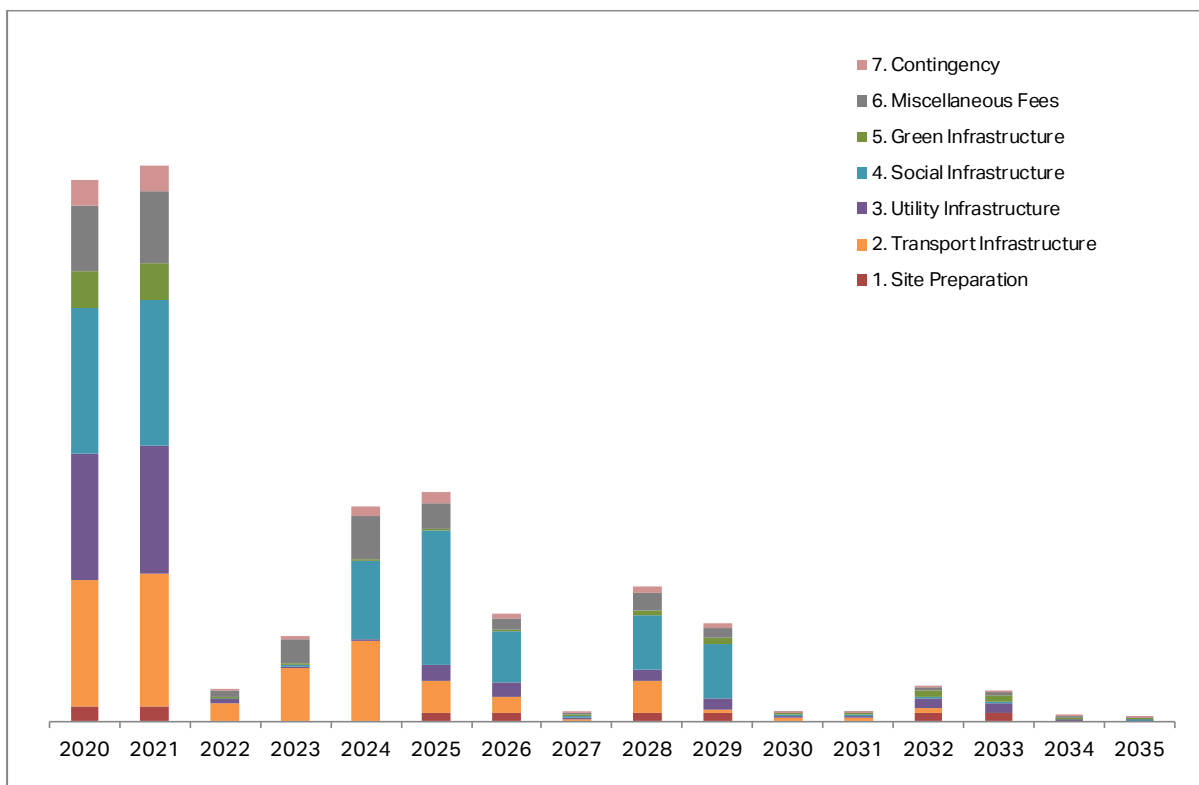


Figure 9.1: Cost Profile by Infrastructure type between 2020 and 2035

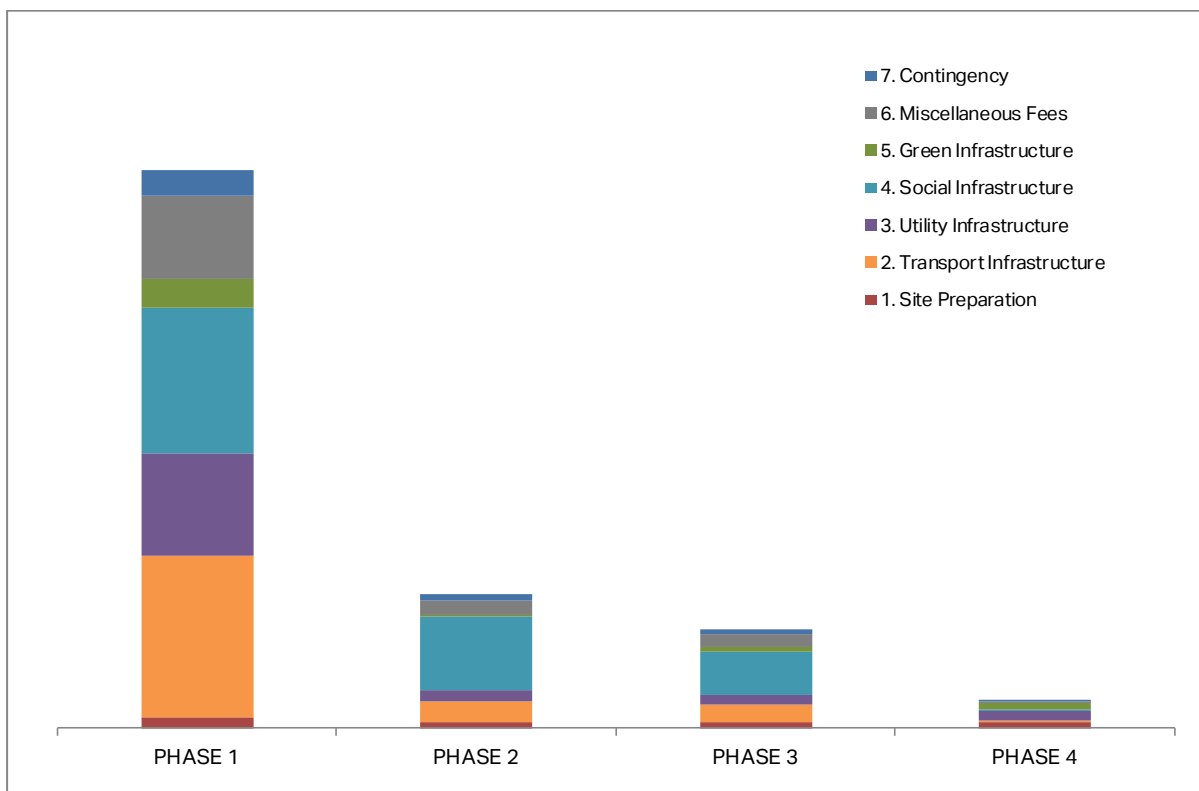


Figure 9.2: Cost Profile by Infrastructure type by Phase

## 10. Funding Sources and Delivery Partners

The IDP has set out the type, scale and sequencing of infrastructure required to support the Northern Arc development. The IDP has also presented the anticipated costs associated with that infrastructure requirement. This chapter explores the potential sources and delivery partners that will ultimately combine to form a viable funding package to bring forward the development.

### Developer Contributions

Section 106 of the Town and Country Planning Act 1990 allows a local planning authority to approve a development proposal that would not otherwise be acceptable on planning grounds, on various conditions set out in agreements negotiated between the local authorities and developers. These commonly include an obligation for developers to provide affordable housing (of various types and at various times) and to secure financial contributions and land from developers for supporting infrastructure.

The Community Infrastructure Levy (CIL) Regulations specify that a planning obligation may only be a reason for granting planning permission provided it meets the following stated criteria:

- necessary to make the development acceptable in planning terms
- directly related to the development; and
- fairly and reasonably related in scale and kind to the development.

Section 106 agreements should be focused on specific measures to mitigate the planning issues which would otherwise lead to refusal of the planning application. Accordingly, funding received by an local planning authority under a Section 106 agreement must be spent on the infrastructure agreed to be delivered, pursuant to a developer contribution agreement.

Developer contributions will be required as part of the overall funding package to deliver the infrastructure required to support the Northern Arc development. In addition, developer contributions will also be required to mitigate off site works such as highway improvements. The nature and scale of the contributions required will be agreed through the Section 106 agreement as part of the planning application, informed by the infrastructure project schedule included within this Infrastructure Delivery Plan.

Mid Sussex District Council has not yet adopted a Community Infrastructure Levy.

In addition to S106, where improvements to the existing highway are necessary, the developer can enter into Section 278 agreements that require them to pay for or undertake such works. These works may include minor highway realignments, roundabouts, traffic signals, right turning lanes, passing bays, etc.

## Delivery Partners and potential Gap Funding

### *West Sussex County Council*

The IDP has identified the need for two new primary schools and a secondary school within the development.

West Sussex County Council (WSCC), as the local education authority, has a statutory duty to plan the provision of school places and to secure the balance in supply of school places and demand for places. Typically the County Council will request a Section 106 contribution in order to contribute towards the expansion of school places or provision of a new school. The County Council can reduce the assessed payment in lieu of on-site provision of facilities that will effectively provide that same level of provision.

It is assumed within this IDP that the developer will provide serviced sites and construct the two primary schools. The phasing plan sets out the intended release of sites for these schools.

With regard to the secondary school, the delivery of this key infrastructure item can be secured through a number of means. For the purpose of this IDP however, and in order to facilitate the County Council's required delivery of the secondary school within the initial phase of development, the secondary school is assumed to be delivered and forward funded through the free school presumption approach. This route would allow the early delivery of the secondary school with the appropriate Northern Arc developer contributions collected through the Section 106 in line with the delivery of new homes on the site, which would then be transferred back to the Department for Education by WSCC. This approach is subject to further discussions with WSCC and the Department for Education.

It is assumed therefore, that the developer will provide a serviced site and appropriate contributions to the local education authority towards the secondary education places generated from the development. These are estimated to equate to approximately 4 Form of Entry (FE) of secondary school demand.

With regards to operations, the schools would be expected to be operated by an Academy Trust (or Multi Academy Trust). It may be the case that a single adequately qualified Multi Academy Trust operates all of the schools proposed within the Burgess Hill development with the associated benefits of shared use of facilities and a single community access agreement. This community access is however an aspiration and will need to be agreed at a later date with the appropriate stakeholders.

Alongside education, the County Council is responsible for funding and providing many key local services including social services, the fire service, roads, libraries, transport planning and waste management. WSCC is the transport authority responsible for delivering the majority of the transport-related infrastructure to support development proposals across the county.

### *Mid Sussex District Council*

The main services provided by Mid Sussex District Council include planning and development control, environmental health, housing, leisure and recreation, and waste collection.

### *Horsham and Mid Sussex Clinical Commissioning Group (CCG)*

The Masterplan and IDP identify the need for a minimum of one primary care centre as part of the proposed District Centre. The Development would be limited to providing the appropriate scale and location of facility in which a health care provider could then operate. Primary Healthcare provision would be delivered by the Clinical Commissioning Group (CCG) and operated by a local practice which

would be responsible for identifying viable tenants. The development is estimated to generate approximately 8,000 additional residents and will subsequently provide that number of new patients to any healthcare facility choosing to operate from the development. Each of these new patients will generate a revenue funding allocation from the NHS.

### *Utility Companies*

The IDP has identified a number of utility projects required to enable the proposed development. With regards to a traditional approach to utility infrastructure solutions the following utility companies will be partners in the delivery of the Northern Arc development:

- Energy - Southern Gas Networks (SGN) and UK Power Networks (UKPN)
- Potable Water – South East Water
- Foul Water – Southern Water
- Telecommunication / Broadband – WSCC and BT Open Reach

A majority of costs associated with off-site utilities reinforcement provision will be met by the utility companies as part of their 5 year investment plans. Homes England is working with the utility companies to ensure the required infrastructure investment is included within their short, medium and long term planning frameworks. A contribution will be made by Homes England towards the cost of specific short term or temporary solutions.

### *Multi Utility Companies*

There are a number of providers that can offer utility supplies ranging from two utilities such as gas and electricity supplies through to providers such as SSE who can provide all onsite utilities including adopted sewerage. There are obvious opportunities for economies of scale and hence cost savings as well as for overall coordination both for construction and for maintenance, so that there is no conflict between numerous separate utility companies. A company providing energy and water services is referred to as a MUSCo, whilst a company providing energy only is referred to as an ESCo. Homes England will progress discussions with a number of MUSCo's to fully understand the capacities of these organisations to deliver a joined up utility service for the Northern Arc Development and to understand the advantages and disadvantages of such an approach.

### *Public Sector Grants*

Government regularly makes capital funding available for specific types of infrastructure projects in the form of one-off pots accessed via a competitive bid process. Recent examples include the Housing Infrastructure Fund (Homes England), the Local Infrastructure Fund (Homes England) and the Pinch Point Fund (Department for Transport). While these grant funding pots have now closed, there may be other one-off funding opportunities arising in the period to 2035 and these may be suitable for some of the infrastructure projects identified within this IDP. The scale of funds made available via one off government competitions can be substantial. However, they are finite in size, have specific eligibility criteria and applicants must meet defined timescales for application and project delivery. They are therefore an unpredictable and largely short term funding source.

## Appendix - IDP Project Schedule

The following project schedules should be read as a 2-page spread. The first page sets out project descriptions, delivery partners and delivery types, with the second page setting out the delivery triggers and anticipated phasing of those projects.



Infrastructure Type	Project Name	On site / Off site	Location	Description of Project	Delivery Lead Partners	Delivery Type (Direct /Provide/Contribution)
<b>On site Transport</b>						
Onsite Highways	Primary Road	On site	West	Primary Road section between Gatehouse lane and A2300, including carriageway, car parking, tree verge and footway	Developer/West Sussex County Council	Direct Provision
Onsite Highways	Primary Road	On site	West	Primary Road section between A2300 and the bridge, including carriageway, car parking, tree verge and footway	Developer/West Sussex County Council	Direct Provision
Onsite Highways	Primary Road	On site	East	Primary Road Section between the bridge and B2036, including carriageway, car parking, tree verge and footway	Developer/West Sussex County Council	Direct Provision
Onsite Highways	Primary Road	On site	Central	Primary Road Section between the B2036 and the A273, including carriageway, car parking, tree verge and footway	Developer/West Sussex County Council	Direct Provision
Onsite Highways	Primary Road	On site	West	Primary Road Section to connect existing roundabout on Jane Murray Way and new roundabout - allowance included in A2300 pedestrian and cycle improvements	Developer/West Sussex County Council	Direct Provision
Onsite Highways	Primary Road	On site		Traffic management costs for on site work of Primary Road	Developer/West Sussex County Council	Direct Provision
Onsite Highways	Secondary Road	On site	East	Secondary Road for Freeks Lane, including carriageway, car parking, tree verge and footway	Developer/West Sussex County Council	Direct Provision
Onsite Highways	Secondary Road	On site		Secondary Plus Cycle, including carriageway, car parking, tree verge, cycle path and footway	Developer/West Sussex County Council	Direct Provision
Onsite Highways	Secondary Road	On site		Secondary Road, including carriageway, car parking, tree verge and footway	Developer/West Sussex County Council	Direct Provision
Onsite Highways	Secondary Road	On site	Central	Secondary Road in the central of the site, including carriageway, car parking, tree verge and footway	Developer/West Sussex County Council	Direct Provision
Onsite Highways	Secondary Road	On site	South	Secondary Road in the south of the site, including carriageway, car parking, tree verge and footway	Developer/West Sussex County Council	Direct Provision
Onsite Highways	Secondary Road	On site		Secondary Road, including carriageway, car parking, tree verge and footway	Developer/West Sussex County Council	Direct Provision
Pedestrian and Cycle	Pedestrian and Cycle	On site		Green Super Highway Phase 1(cycle lane+footway)	Developer/West Sussex County Council	Direct Provision
Pedestrian and Cycle	Pedestrian and Cycle	On site		Green Super Highway Phase 2(cycle lane+footway)	Developer/West Sussex County Council	Direct Provision
Pedestrian and Cycle	Pedestrian and Cycle	On site	South	Sussex Way Pedestrian / Cycle Access	Developer/West Sussex County Council	Direct Provision
Pedestrian and Cycle	Pedestrian and Cycle	On site	South	Sussex Way Aspirational Pedestrian / Cycle Access	Developer/West Sussex County Council	Contribution
Onsite Highways	Access (Roundabouts and other)	On site	East	Maple Drive Access	Developer/West Sussex County Council	Direct Provision



Infrastructure Type	Project Name	On site / Off site	Location	Description of Project	Delivery Lead Partners	Delivery Type (Direct /Provide/Contribution)
<b>Onsite Highways</b>						
Onsite Highways	Access (Roundabouts and other)	On site	West	Jane Murray Way Roundabout Access	Developer/West Sussex County Council	Direct Provision
Onsite Highways	Access (Roundabouts and other)	On site	West	Roundabout on A2300	Developer/West Sussex County Council	Direct
Onsite Highways	Access (Roundabouts and other)	On site	East	A273 South Junction	Developer/West Sussex County Council	Direct Provision
Onsite Highways	Access (Roundabouts and other)	On site	West	B2036 Main Access Street North Junction	Developer/West Sussex County Council	Direct Provision
Onsite Highways	Access (Roundabouts and other)	On site	Central	B2036 Main Access Street South Junction	Developer/West Sussex County Council	Direct Provision
Onsite Highways	Roadbridge	On site	West	Roadbridge at the western part over the River Adur, including carriageway with a shared cycle footway on one side and footway on the other sides	Developer/West Sussex County Council	Direct Provision
Onsite Highways	Roadbridge	On site	East	Roadbridge to connect Freeks Farm, 3 span structure with, including carriageway with a shared cycle footway on one side and footway on the other sides	Developer/West Sussex County Council	Direct Provision
Onsite Highways	Footbridge	On site	South	Footbridge to allow pedestrian and cycle access adjacent to Sussex Way	Developer/West Sussex County Council	Direct Provision
Onsite Highways	Footbridge	On site	Central	Footbridge to allow pedestrian and cycle access between Central site and Freeks Lane site	Developer/West Sussex County Council	Direct Provision
Onsite Highways	Footbridge	On site	West	Footbridge to allow pedestrian and cycle access between western site and WSCC land	Developer/West Sussex County Council	Direct Provision
<b>Off site Transport</b>						
Offsite Highways	Off site highways	Off site	West, Central and East	A2300 Dualling - Contribution towards the funding for dualing of the A2300 between the Northern Arc site access roundabout and A23 Hickstead Interchange	Developer/West Sussex County Council	Contribution
Offsite Highways	Access (Roundabouts and other)	Off site	East	Fairplace Bridge Double Roundabout	Developer/West Sussex County Council	Direct Provision
Offsite Highways	Access (Roundabouts and other)	Off site	East	Leylands Road/Leylands Park Mini-roundabout	Developer/West Sussex County Council	Direct Provision
Offsite Highways	Off site highways	Off site	Central	London Road/Dunstall Avenue/Maple Drive signalised junction	Developer/West Sussex County Council	Direct Provision



Infrastructure Type	Project Name	On site / Off site	Location	Description of Project	Delivery Lead Partners	Delivery Type (Direct /Provide/Contribution)
Offsite Highways	Off site highways	Off site	West	A2300 Jane Murray Way/York Road Junction	Developer/West Sussex County Council	Direct Provision
Offsite Highways	Access (Roundabouts and other)	Off site	West	A23/A2300 Western Roundabout Improvements	Developer/West Sussex County Council	Direct Provision
Offsite Highways	Off site highways	Off site	West	B2036 Burgess Hill to Ansty Traffic Management) potential closure	Developer/West Sussex County Council	Contribution
Offsite Highways	Off site highways	Off site	Central	London Road / Leylands Road / West Street junction improvements	Developer/West Sussex County Council	Direct Provision
Offsite Highways	Off site highways	Off site	West	274m of A2300 Jane Murray Way	Developer/West Sussex County Council	Direct Provision
Offsite Highways	Off site highways	Off site	West	255m of A2300 Jane Murray Way	Developer/West Sussex County Council	Direct Provision
Offsite Highways	Off site highways	Off site	West	124m of A2300 Jane Murray Way	Developer/West Sussex County Council	Direct Provision
Pedestrian and Cycle	Walking and cycling	Off site	East	Freeks Farm to Wivelsfield Station walking and cycling improvements	Developer/West Sussex County Council	Contribution
Pedestrian and Cycle	Walking and cycling	Off site	East	Freeks Farm to Sheddingdean Primary School walking and cycling improvements	Developer/West Sussex County Council	
Pedestrian and Cycle	Walking and cycling	Off site	East	Freeks Lane walking and cycling improvements	Developer/West Sussex County Council	Contribution
Pedestrian and Cycle	Walking and cycling	Off site	West	A2300 walking and cycling improvements Provision of pedestrian / cycle route along both sides of the carriageway between the A273 Jane Murray Way and western site access roundabout	Developer/West Sussex County Council	Direct Provision
Pedestrian and Cycle	Walking and cycling	Off site	Central	Gatehouse Lane and Jane Murray Way walking and cycling improvements Provision of pedestrian / cycle route along both sides of the carriageway of the A273 Jane Murray Way/Sussex Way and provision of bus stops	Developer/West Sussex County Council	Direct Provision
Pedestrian and Cycle	Walking and cycling	Off site	West	West site to town centre and transport interchanges walking and cycling improvements Provision of pedestrian / cycle facilities to connect the Northern Arc to the town centre and transport interchanges including new / improved crossings	Developer/West Sussex County Council	Direct Provision
Pedestrian and Cycle	Walking and cycling	Off site	Central	A273 Sussex Way walking and cycling improvements Provision of pedestrian / cycle route along both sides of the carriageway of the A273 Jane Murray Way/Sussex Way and provision of bus stops	Developer/West Sussex County Council	Direct Provision
Pedestrian and Cycle	Walking and cycling	Off site	Central	B2036 Cuckfield Road and Fairplace Bridge footway improvements	Developer/West Sussex County Council	Direct Provision
Pedestrian and Cycle	Walking and cycling	Off site	Central	A273 Isaac's Lane walking and cycling improvements	Developer/West Sussex County Council	Direct Provision



Infrastructure Type	Project Name	On site / Off site	Location	Description of Project	Delivery Lead Partners	Delivery Type (Direct /Provide/Contribution)
Pedestrian and Cycle	Walking and cycling	Off site	Central	Other Pedestrian and cycle route improvements	Developer/West Sussex County Council	Direct Provision
Offsite Highways	Public Transport	Off site		Phase 1 Northern Arc to Town Centre New Bus Service - Route a combination of Routes A and B from the Burgess Hill Public Transport Strategy	Developer/West Sussex County Council	Contribution
Offsite Highways	Public Transport	Off site		Phase 1 Bus Stop Infrastructure - Delivery of two public transport hubs	Developer/West Sussex County Council	Direct Provision
Offsite Highways	Public Transport	Off site		Bus Gate Northern Arc West to The Hub	Developer/West Sussex County Council	Direct Provision
Offsite Highways	Public Transport	Off site		Phase 2 Funding to increase frequency of Route 33 (Crawley to Brighton via Burgess Hill)	Developer/West Sussex County Council	Contribution
Offsite Highways	Public Transport	Off site		Phase 2 Continuation of Funding for Northern Arc to Town Centre New Bus Service - Route a combination of Routes A and B from the Burgess Hill Public Transport Strategy	Developer/West Sussex County Council	Contribution
Offsite Highways	Public Transport	Off site		Phase 2 Bus Stop Infrastructure - Delivery of public transport hub	Developer/West Sussex County Council	Direct Provision
Offsite Highways	Public Transport	Off site		Phase 3 Continuation of Funding for Northern Arc to Town Centre New Bus Service - Route a combination of Routes A and B from the Burgess Hill Public Transport Strategy	Developer/West Sussex County Council	Contribution
Offsite Highways	Public Transport	Off site		Phase 3 Bus Stop Infrastructure - Delivery of public transport hub	Developer/West Sussex County Council	Direct Provision
Offsite Highways	Public Transport	Off site		Phase 4 Bus Stop Infrastructure - Delivery of remaining public transport infrastructure	Developer/West Sussex County Council	Direct Provision
Sustainable Travel	Travel Plan	Off site	East	Freeks Farm Travel Plan - £15,000 per year operating cost for five years assumed	Developer/West Sussex County Council	Direct
Sustainable Travel	Travel Plan	Off site	West	Phase 1 West Site Travel Plan Residential - £15,000 per year operating cost for five years assumed	Developer/West Sussex County Council	Direct
Sustainable Travel	Travel Plan	Off site	West	Phase 1 West Site Travel Plan Employment - £15,000 per year operating cost for five years assumed	Developer/West Sussex County Council	Direct
Sustainable Travel	Travel Plan	Off site	Central	Phase 2 Central Site Travel Plan - £15,000 per year operating cost for five years assumed	Developer/West Sussex County Council	Direct
Sustainable Travel	Travel Plan	Off site	West	Phase 3 West Site Travel Plan - £15,000 per year operating cost for five years assumed	Developer/West Sussex County Council	Direct
Sustainable Travel	Travel Plan	Off site	West	Phase 4 West Site Travel Plan - £15,000 per year operating cost for five years assumed	Developer/West Sussex County Council	Direct
On site Utilities						





Infrastructure Type	Project Name	On site / Off site	Location	Description of Project	Delivery Lead Partners	Delivery Type (Direct /Provide/Contribution)
MUSCO	MUSCO Investment	On site	Site Wide	For the on-site elements, it is assumed that these will be carried out by a Multi Utility Company. Based on comparable quotations from other schemes, we have included this albeit we have separately included for the common services trench, builders work for sub stations and tele-communications ductwork	MUSCO	Direct Provision
Drainage	Surface Water Drainage	On site	Site wide	Main distribution to primary roads Main distribution to secondary roads Main distribution to tertiary roads Other distribution	Developer / MUSCO / Southern Water	Direct Provision
Drainage	SUDS	On site	Site wide	Attenuation ponds / reed bed areas to all Phases - Allowance only for 79,380 sq.m	Developer	Direct Provision
Waste Water	Foul Water Drainage	On site	Site Wide	Main distribution to primary roads Main distribution to secondary roads Main distribution to tertiary roads	Developer / MUSCO	Direct Provision
Waste Water	Rising Main and Pumping Stations	On site	Site Wide	Rising Main Main pumping station Local pumping Stations across Site (x9) Foul water storage tanks	Developer / MUSCO / Southern Water	Direct Provision
Potable Water	Water Distribution	On site	Site Wide	Main distribution - see Multi Utility Cost Above	Developer / MUSCO	Direct Provision
Energy	Electrical Installations	On site	Site Wide	Builders work only for Local Substations Main distribution; - See Multi Utility above Electrical vehicle charging points	Developer / MUSCO / UK Power Networks (UKPN)	Direct Provision
Energy	Gas	On site	Site Wide	Main distribution - see Multi Utility Cost Above Diversion of Medium Pressure Main due to potential roundabouts on A273	Developer / MUSCO / Southern Gas Networks (SGN)	Direct Provision
Communications	Communications	On site	Site Wide	Main distribution - see Multi Utility Cost Above Ducts - Insert lengths for primary, secondary and tertiary as above and apply rate of £100/m Protect/divert BT cables during all works to existing highways	Developer / MUSCO / BT Open Reach	Direct Provision
Civil Engineering	Common Services Trench	On site	Site Wide	Site Wide Common Services Trench - 3945m	Developer / MUSCO	Direct Provision



Infrastructure Type	Project Name	On site / Off site	Location	Description of Project	Delivery Lead Partners	Delivery Type (Direct /Provide/Contribution)
<b>Waste</b>						
Waste	Waste management	On site	Central	Recycling centre Waste collection infrastructure	Developer / Mid Sussex District Council	Direct Provision
<b>Off site Utilities</b>						
Waste Water	Connection to Foul Water Treatment Works	Off site		Foul Water connection to existing Goodards Green Foul Treatment Works - Assumed that all costs for the upgrade will be covered by Southern Water through HIF and LEP funding	Southern Water	Contribution
Multi	Utilities Network Reinforcement	Off site		Electrical - New 30MVA primary sub-station at Western end of site and approximately 2km 11kv connection alongside Jane Murray Way to serve the Eastern end of the site Gas - Assumed no works required on the basis that the development would not use any gas supplies	Southern Water / South East Water / Southern Gas Networks (SGN) / UK Power Networks (UKPN)	Contribution
<b>Green Infrastructure</b>						
Parks	Open Space Park 1	On site	East	Park 1 - Scaled at approximately 21,100 sq.m (2.1 ha)	Developer / Mid Sussex District Council	Direct Provision
Parks	Open Space Park 2	On site	Central	Park 2 - Scaled at approximately 18,900 sq.m (1.8 ha)	Developer / Mid Sussex District Council	Direct Provision



Infrastructure Type	Project Name	On site / Off site	Location	Description of Project	Delivery Lead Partners	Delivery Type (Direct /Provide/Contribution)
Parks	Open Space Park 3	On site	West	Park 3 - Scaled at approximately 77,700 sq.m (7.7 ha)	Developer / Mid Sussex District Council	Direct Provision
Parks	Freeks Farm Open Space	On site	Freeks Farm	Freeks Farm Open Space scaled at approximately 75,900sq.m (7.5 ha)	Developer / Mid Sussex District Council	Direct Provision
Wider Green Infrastructure	Woodlands and Natural Open Space	On site	Site Wide	Ancient Woodland, Buffer Area, Streams and Natural Open Space; allowance for limited interventions including new footpaths & cycle ways and provision of planting	Developer / Mid Sussex District Council / West Sussex County Council / Local Nature Partnership	Direct Provision
Social Infrastructure						
Primary Provision	Primary school 1 with early years facilities & SEN	On site	East	Primary School 1, Based upon WSCC pupil multipliers, the Northern Arc generates the need for between 686 and 875 pupils which equates to between 3.3FE and 4.2FE of school demand. The first 2 FE Primary School is proposed to include early year's provision, with a site area of 2.14 ha,	Developer West Sussex County Council Multi Academy Trusts	Direct Provision
Primary Provision	Primary school 2 with early years facilities	On site	Central	Primary School 2 Based upon WSCC pupil multipliers, the Northern Arc generates the need for between 686 and 875 pupils which equates to between 3.3FE and 4.2FE of school demand. A second 2 FE Primary School is proposed including early year provision, with a site area of 2.14 ha	Developer West Sussex County Council Multi Academy Trusts	Direct Provision
Secondary Provision	Secondary school Inc. Sixth Form and SEN	On site	North east	Secondary School, Based upon WSCC pupil multipliers, the Northern Arc generates the need for between 490 and 630 pupils which equates to between 3.3FE and 4.2FE of school demand. A 6FE Secondary School is proposed within the Northern Arc Site, expandable to 8FE at a future date. A site of 9.7 ha has been incorporated within the masterplan which is sufficient to provide the secondary school and sixth form, its potential expansion and the necessary outdoor pitches and playspace.	West Sussex County Council DfE Multi Academy Trusts	Land and Contribution





Infrastructure Type	Project Name	On site / Off site	Location	Description of Project	Delivery Lead Partners	Delivery Type (Direct /Provide/Contribution)
Healthcare	Primary care centre	On site	Eastern Area District Centre	Based upon Horsham and Mid Sussex Clinical Commissioning Group planning standards, the Northern Arc generates the need for the equivalent of 4.6 GPs which equates to a spatial requirement of 838 sq.m. The IDP recommends an onsite facility to meet the needs of the new community. Based upon the combined space requirements for a GP provision and dental provision (see below) the IDP has recommended a 1,070 sq.m primary care facility based within the District Centre and delivered in close proximity to the primary school and other community services.	Horsham and Mid Sussex Clinical Commissioning Group (CCG) Medical Practices Private Operators	Provision of Land and Building
Social Care	Extra care	On site	Site Wide / TBC	The masterplan is looking to meet a range of needs such as those of an extra care typology within the affordable housing mix of the Northern Arc development. There is the potential for this to be delivered in the form of a specific Extra Care Housing Facility.	Mid Sussex District Council West Sussex County Council Private Operators	Direct Provision through Housing Mix
Community Facilities	Community centre 1	On site	Eastern District Centre	Located in the east of the Northern Arc this district centre will provide the community focal point with a range of local services and facilities including the larger of two on site multiuse community facilities scaled to approximately 1,000 sq.m to meet the combined social infrastructure needs of the central and eastern new communities. Located adjacent to the first primary school and on the primary access route across the Northern Arc this location offers the potential for a range of co-located social infrastructure facilities.	Mid Sussex District Council West Sussex County Council Private Operators	Provision of Land and Building
Community Facilities	Community centre 2	On site	Western Area Neighbourhood Centre	Located in the western end of the Northern Arc this neighbourhood centre will provide the community focal point with a range of local services and facilities including a multiuse community facility scaled to approximately 500 sq.m to meet the combined social infrastructure needs of the western new communities.	Mid Sussex District Council West Sussex County Council Private Operators	Provision of Land and Building
Outdoor Sport Facilities	Centre for community sports	On site	Western Area adjacent to Neighbourhood Centre	This Northern Arc development CFCS concept includes provision 9 hectares with the capacity to deliver a range of Junior football pitches, Mini football pitches ,Rugby pitches etc, Club housing and changing room , combination of soft and hard landscaping to remaining area.	Mid Sussex District Council Burgess Hill Town Council Private Operators	Provision of Land and Playing Pitches
Emergency Services	Police / Fire and Rescue Provision	Off site	Off Site	The Northern Arc Development will contribute a sum towards the local police service and fire and rescue service to provide services that cover the Northern Arc Development area.	West Sussex Fire & Rescue Service West Sussex County Council Sussex Police	Contribution
Gypsy, Traveller's and Travelling Show People Provision	Pitches	Off site	Off Site	– The Northern Arc Development will contribute a commuted sum towards the local authority to support traveller's site provision off-site to the scale of 16 pitches	Mid Sussex District Council	Contribution

