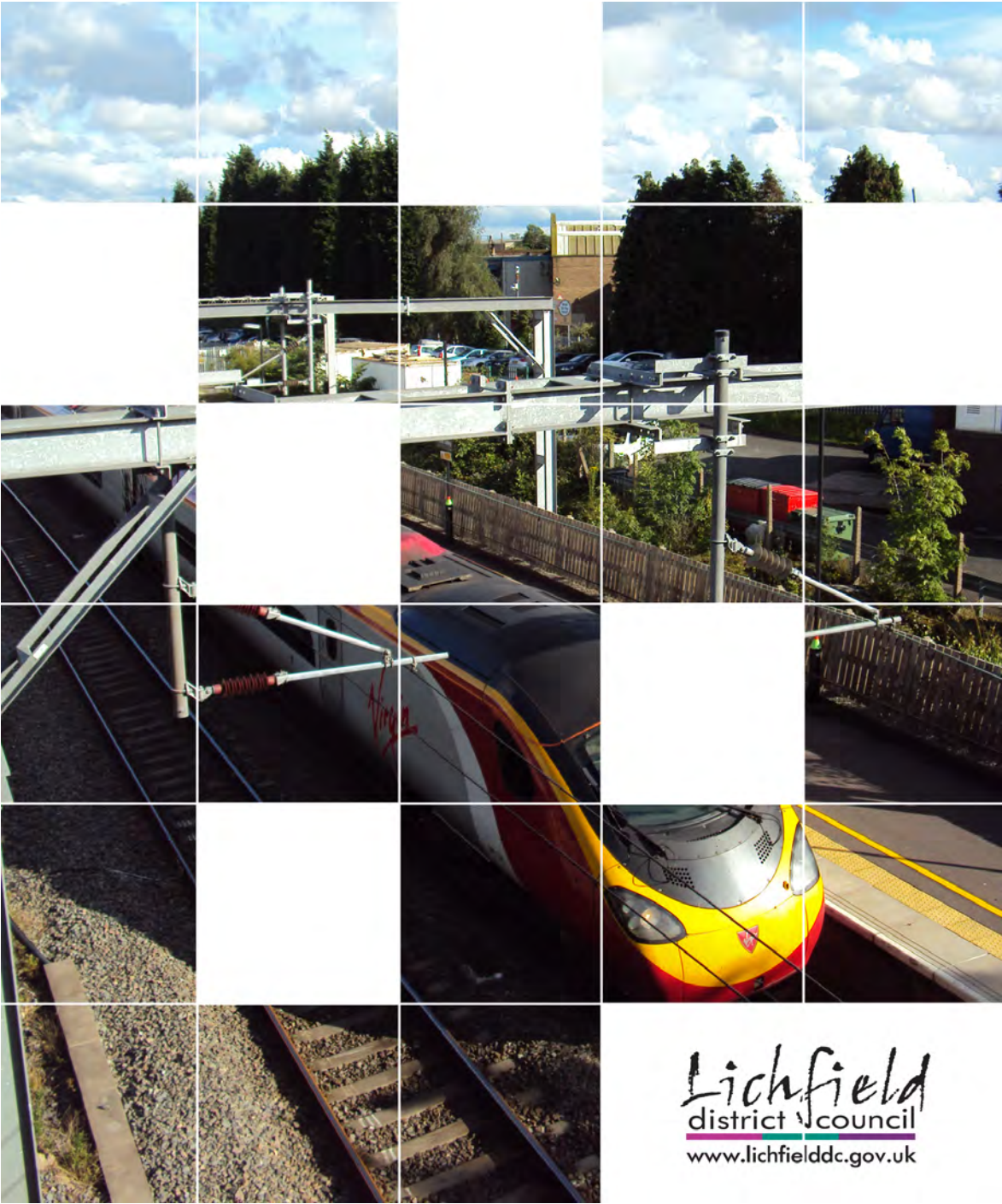


Infrastructure Delivery Plan



Lichfield
district council
www.lichfielddc.gov.uk

1	Introduction	3
2	Policy Context	5
3	Funding & Delivery	8
4	Strategic Infrastructure	12
5	Local Infrastructure Needs	50
■	Appendices	
A	Lichfield District Integrated Transport Strategy	75
B	River Mease SAC Water Catchment Area	76
C	Dynamic Viability Model	78
D	Cannock Chase SAC Zone of Influence	80

1 Introduction

1.1 Infrastructure Planning is an essential element in ensuring that the Local Plan is robust and deliverable.

1.2 The term infrastructure is broadly used for planning purposes to define all of the requirements that are needed to make places function efficiently and effectively and in a way that creates sustainable communities. Infrastructure is commonly split into three main categories, defined as:

- **Physical:** the broad collection of systems and facilities that house and transport people and goods, and provide services e.g. transportation networks, housing, energy supplies, water, drainage and waste provision, ICT networks, public realm and historic legacy.
- **Green:** the physical environment within and between our cities, towns and villages. A network of multi-functional open spaces, including formal parks, gardens, woodland, green corridors, waterways, street trees and open countryside.
- **Social & Community:** the range of activities, organisations and facilities supporting the formation, development and maintenance of social relationships in a community. It can include the provision of community facilities (education, healthcare, community centres, places of worship, sports & leisure facilities), local networks, community groups, small scale funding to assist local projects, skills development and volunteering.

1.3 In general, infrastructure requirements can also be divided into strategic and local:

- **Strategic infrastructure** refers to facilities or services serving a wide area that may relate to part of the District, the whole District or beyond - for example improvements to trunk roads or investment in water, sewerage, gas and electricity networks. It may be needed where broader strategies are required to accommodate the cumulative impacts of growth, for example in a sub-region, rather than simply to accommodate the needs of the development proposals of a particular town or village.
- **Local infrastructure** is about facilities or services that are essential in meeting day-to-day needs of the population - for example schools, affordable housing, community facilities and local green spaces or measures to mitigate the impact of development at the site or neighbourhood level.

1.4 Improvements to infrastructure will be fundamental to achieving our ambitions for shaping the District to 2028. In addition they are considered necessary to deal with existing deficiencies and to cater for a growing and changing population. It is recognised that any proposed growth within Lichfield District must be supported by improvements to physical, social and green infrastructure, and where necessary, be delivered in advance of development. This infrastructure will include facilities needed for development to function and to ensure the integration and creation of sustainable communities.

1.5 It should be recognised that the delivery of the full range of infrastructure needs of existing and new communities is dependent on partnership working between a variety of public, private and voluntary sector agencies. Where new development creates a need for new or improved infrastructure, contributions from developers will be sought to make the development acceptable in planning terms. This is covered in Chapter 3: Funding and Delivery.

1.6 The Local Plan: Strategy sets out in broad strategic terms where development will be located until 2028. It is a 'spatial' plan, meaning that it will help to deliver a vision for the area which takes account of the District's needs, ambitions and challenges. The Local Plan: Strategy will be supported by a number of documents which are more locally specific such as the Local Plan: Allocations Document and Neighbourhood and Parish Plans where these have been produced by local communities.

1.7 The Local Plan must be capable of being delivered to agreed timescales, in a way which addresses the vision, so that it properly meets the needs and aspirations of the local community as well as providing for more strategic needs. In order to do this, developments must be supported by the appropriate infrastructure, which can range from improvements to road networks to the provision of a new school or community centre. A sound infrastructure delivery plan (IDP) can therefore only be effectively developed through extensive consultation linked to the Local Plan.

1.8 The engagement process for infrastructure needs within Lichfield District commenced in March and July 2009 with a wide range of stakeholders (over 300 invited in total) discussing topics that covered environmental, social, community and physical issues. Sessions were held over three full days. A series of follow-up meetings have been held with individual stakeholders where there has been a need to gather further information.

1.9 A draft Infrastructure Delivery Plan was consulted on as part of the 'Shaping our District' informal consultation stage from November 2010 - February 2011 and comments received were taken into account in formulating the IDP which accompanied the Local Plan: strategy proposed submission document which was published in July 2012 and subsequently submitted to the Secretary of State in March 2013. Hearing sessions were held in June / July 2013 and the Inspectors interim report was received in September 2013. The latest information can be found at www.lichfielddc.gov.uk/localplanexamination.

1.10 As the IDP is a 'living' document (ie one which is subject to ongoing change and revision as matters progress), further updates have now been added to reflect the progress made in terms of infrastructure planning and delivery.

1.11 The Infrastructure Delivery Plan will be regularly reviewed and monitored for its effectiveness, through the Annual Monitoring Report (AMR) and updated accordingly.

2 Policy Context

National Policy

2.1 The production of an Infrastructure Delivery Plan (IDP) is an essential part of the evidence base in developing and delivering a sound Local Plan.

2.2 The National Planning Policy Framework states that *local planning authorities should work with other authorities and providers to:*

- *Assess the quality and capacity of infrastructure for transport, water supply, waste water and its treatment, energy (including heat), telecommunications, utilities, waste, health, social care, education, flood risk and coastal change management, and its ability to meet forecast demands; and*
- *Take account of the need for strategic infrastructure including nationally significant infrastructure within their areas.*

2.3 The NPPF also places considerable emphasis upon viability and ensuring that the cumulative impact of proposals and policies 'should not put implementation of the plan at serious risk, and should facilitate development through the economic cycle'. Viability assessment is a key element of evidence relating to the delivery of the Local Plan, including the delivery of infrastructure.

Local Policy

2.4 The Local Plan will align with, and deliver, relevant elements of the Sustainable Community Strategy for Staffordshire (SCS). The County-wide document 'Our County, Our Vision: A Sustainable Community Strategy for Staffordshire 2008 - 2023' has the following priorities:

- A vibrant, prosperous and sustainable economy.
- Strong, safe and cohesive communities.
- Improved health and sense of well being.
- A protected, enhanced and respected environment.

2.5 At the District level, the Plan for Lichfield District 2012-2016 has been prepared in discussion with the Lichfield District Strategic Partnership and identifies the following strategic themes:

- **Supporting people:** We want our district to be a place where everyone shares in an improved quality of life and community well being.
- **Shaping Place:** We want our district to be a place people love to live, work and visit, with a high quality residential, community and commercial environment.
- **Supporting Business:** We want our district to be a place where businesses and enterprise can flourish, and there is a vibrant local economy.

2.6 Partners involved in developing and delivering the Sustainable Community Strategy and Plan for Lichfield District have been involved in the formulation of the IDP to date to ensure that capital infrastructure needs are included to address specific key priorities where a clear need can be evidenced.

Local Plan: Strategic Priorities

2.7 The Local Plan has 15 strategic priorities. Strategic Priority 3: Infrastructure reads as follows: *'To provide the necessary infrastructure to support new and existing communities, including regeneration initiatives in those existing communities where the need for improvements to social, community and environmental infrastructure have been identified, in particular within north Lichfield, Burntwood, Fazeley and Armitage with Handsacre.'*

2.8 The IDP is relevant to delivering all 15 strategic priorities. They can be found in full in the Lichfield District Local Plan: Strategy, but in summary they are as follows:

1. Sustainable Communities	6. Economic Prosperity	11. Countryside Character
2. Climate Change	7. Employment Opportunities	12. Rural Communities
3. Infrastructure	8. Centres	13. Natural Resources
4. Sustainable Transport	9. Tourism	14. Built Environment
5. Meeting Housing Needs	10. Healthy & Safe Lifestyles	15. High Quality Development

Local Plan: The Spatial Strategy

2.9 The Spatial Strategy sets out the overall approach for the distribution of development in the District up until 2028 and the issues that need to be addressed when development takes place. The Spatial Strategy is set out in Core Policy 1 (CP1) of the Local Plan: Strategy, and one of the key principles of this is to maximise the use of existing infrastructure and facilities to make the best use of what is already there, upgrading where this is required by the impacts of development, and investing in new facilities where necessary.

2.10 Core Policy 4 (CP4): Delivering our Infrastructure sets out the need to ensure that new development is supported by the required infrastructure at an appropriate stage linked to the phasing of development, and also relates to the protection and enhancement of key services and facilities as well as coordinating and funding delivery in partnership with a range of key stakeholders and partners.

2.11 Policy IP1: Supporting and Providing our Infrastructure is a Development Management policy which will ensure infrastructure needs are considered and delivered through the planning application process.

2.12 The following elements of strategic infrastructure are deemed essential to delivering the Local Plan Strategy:

- Completion of the Lichfield Southern Bypass
- Delivery of improvements to the strategic highway network as identified by the Highways Agency;
- Lichfield City centre improvements including Friarsgate and associated transport improvements;
- Delivery of a town centre for Burntwood;
- Upgrades to water supply and waste water facilities as agreed directly between the water companies and developers;
- Delivery of a new parking facility to serve Lichfield Trent Valley station;
- Delivery of secondary education to serve projected need (primary education is covered under the 'local' section);
- Delivery of improved indoor sports provision to serve Lichfield City and its hinterland.
- Mitigation for the impacts of development upon the Cannock Chase Special area of Conservation (SAC)
- Mitigation for the impacts of development upon the River Mease SAC.

2.13 These are detailed further in the Strategic Infrastructure section. The Local Infrastructure section also sets out essential site-specific needs.

3 Funding & Delivery

Funding

3.1 Infrastructure requirements will be funded by a variety of different mechanisms which will vary over the plan period. The following chapters set out infrastructure needs and indicate potential sources of funding for each where this is possible, based upon appropriate available evidence, together with timescales for the phasing of delivery.

3.2 The key sources of funding over which the planning system can have a direct influence are as follows.

Community Infrastructure Levy

The Community Infrastructure Levy (CIL) provides a fair and consistent mechanism for pooling contributions from all eligible developments. It provides certainty so that developers can calculate, prior to land deals taking place, the level of contributions necessary.

Section 106 Agreements

Section 106 contributions can only be obtained when they meet three statutory tests. They must be:

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

In addition, from after April 2015 'pooled contributions' for S106 funding will not be allowed, i.e. no piece of infrastructure will be able to be funded by more than five separate S106 obligations.

However, for employment-related and other non-residential developments Section 106 agreements could continue to be the main mechanism for ensuring that contributions are made where necessary. All qualifying residential developments would have section 106 agreements to deliver affordable housing requirements. Site specific infrastructure could also be dealt with through a S106 agreement.

Planning Conditions

These are the main mechanisms for provision of essential on-site design requirements and critical infrastructure. These could include highway infrastructure agreements, mainly those covered by Section 38 and Section 278 of the Highways Act 1980 which provide discretionary powers for the highway authority to enter into an agreement with a development to adopt a new highway or improve the existing highway.

Explanation

3.3 Developer contributions for the delivery of infrastructure to support new development are currently secured primarily through the use of Section 106 obligations⁽ⁱ⁾. While raising significant funds locally for many projects, there have been a number of ongoing criticisms of Section 106 funding nationally including lack of transparency, the time taken to negotiate Section 106 Planning Obligations and the deliverability of obligations post their signing.

3.4 To address these concerns, Part 11 of the Planning Act 2008 provided for the introduction of the Community Infrastructure Levy (CIL), a simplified, transparent and less bureaucratic tariff-based system intended to apply to defined types of development. The ability to take forward CIL came into force on 6 April 2010 through the Community Infrastructure Levy Regulations 2010 (subsequently amended by the Community Infrastructure Levy (Amendment) Regulations 2011). Further guidance was issued in December 2012, further amendments were made in April 2013 and additional changes to the Regulations are anticipated in early 2014⁽ⁱⁱ⁾.

3.5 The CIL is discretionary but allows Local Authorities who resolve to use the legislation to raise funds from developers undertaking new building projects in their area to deliver the necessary infrastructure arising as a consequence of new development. CIL receipts can be used to fund a wide range of infrastructure including roads, schools, hospitals and other health and social care facilities, park improvements, green spaces and leisure centres.

3.6 To avoid overlap and unjustified costs being imposed on developers, at the same time as bringing in CIL, the Government has introduced changes to Section 106 obligations. Section 106 obligations will now be limited to addressing matters directly related to a development i.e. they will not be able to be used to address the wider and cumulative implications of a development in an area.

3.7 In addition, after April 2015, 'pooled contributions' for Section 106 funding will not be allowed i.e. no piece of infrastructure will be able to be funded by more than five separate Section 106 obligations. This will have an impact upon the ability to deliver strategic infrastructure such as roads, open spaces, or educational facilities for example. Affordable housing will continue to be delivered through Section 106 obligations.

i Section 106 of the Town and Country Planning Act 1990

ii as set out in the Government Response to the CIL consultation on further Regulatory Reforms, October 2013

How CIL operates

3.8 Future infrastructure needs are defined in this Infrastructure Delivery Plan. This is a 'long list' which has been formulated as a result of extensive consultation and through the evidence base. It is recognised that infrastructure requirements would need to be funded by a variety of different sources. CIL is intended as 'gap funding' to help deliver infrastructure where there is a funding shortfall. It cannot be used to remedy deficiencies in existing infrastructure, only needs arising from new development.

3.9 CIL is charged as a tariff upon new development. Rates are charged per square metre. A viability assessment needs to be undertaken to ensure that rates are reasonable and will not undermine the delivery of sites within an area (in line with the development plan). Different rates could potentially be charged over different geographical areas or for different types of development (e.g. residential, commercial): viability work would help to inform this.

3.10 Once this work is completed then a charging schedule will be prepared. This needs to be independently examined by a body appropriately qualified to undertake this work. A charging schedule has to contain: the name of the charging authority, the CIL rates (set at pounds per sqm); an explanation of how the chargeable amount will be calculated; the adoption date and when it will take effect. Charging schedules have to be kept under review to ensure that CIL charges remain appropriate over time (for example as market conditions change). The Levy calculation formula is index-linked, but alterations to the rates would need to be re-examined.

3.11 Most new development involving a net increase of 100 sqm and above of floor space would be eligible to pay CIL. Some developments would be exempt. A charity landowner would get full relief from their portion of the liability where the chargeable development would be used wholly, or mainly, for charitable purposes. Social housing would get 100% relief. Relief could also potentially be given in other 'exceptional circumstances,' for example where there are serious viability issues but this would be subject to independent scrutiny and the District Council would have to first give public notice of its intention to offer 'exceptional circumstances' relief.

3.12 The charging schedule itself would not specify what infrastructure would be funded by CIL. The list of infrastructure to be funded would have to be published in a 'Regulation 123 List'. This list could be changed and updated in line with priorities, but must be made publicly available at all times on the District Council's website. Section 106 could not be charged for infrastructure listed on the Regulation 123 list. This is to avoid double-charging.

3.13 Therefore the District Council would need to consider which items of infrastructure it would wish to see included in the Regulation 123 List and which it would want to still deliver via Section 106 (on a more site specific basis).

3.14 Up to 5% of CIL levies raised can be used to administer the programme.

3.15 The National Planning Policy Framework states that '*the Community Infrastructure Levy should support and incentivise new development, particularly by placing control over a meaningful proportion of the funds raised with the neighbourhoods where development takes place*'. A 'meaningful proportion' of CIL will therefore go directly to Parish / Town Councils which have development in their area: the Government has set out (in guidance

dated December 2012) that this will be 25% of receipts, uncapped, for those areas with a Neighbourhood Plan in place, and 15% to those areas with no Neighbourhood Plan, capped at £100 per dwelling.

Other funding

3.16 Not all infrastructure will be able to be funded via the aforementioned mechanisms. CIL is intended to plug a gap where it can be demonstrated that there is a funding shortfall. There will be other sources of funding over the plan period including New Homes Bonus, Tax Incremental Financing, Regional Growth Fund, Lottery funding, public and private sector investment, grant aid and a range of other options which will be applicable depending upon the nature of the infrastructure involved.

3.17 The process by which CIL is administered will require the District Council to prioritise which elements of infrastructure should be funded by CIL, and how much funding should be allocated. It is therefore one of the key roles of the IDP to set out clear requirements as to delivery timescales in relation to development trajectories, and details regarding funding based on the best available evidence. This is covered in the following chapters.

3.18 Throughout the plan period other sources, and amounts, of funding will vary and could relate to a variety of different themes. So it is important that the process of administering CIL also takes account of these other opportunities, to ensure that locally raised revenues are used to best effect.

4 Strategic Infrastructure

4.1 In order to deliver the Local Plan, infrastructure will need to be provided which serves more than one community or development site, and which can address the cumulative impacts of development across the District or beyond.

4.2 This chapter sets out the strategic infrastructure needs as identified through the Local Plan evidence base and through extensive consultation with stakeholders, infrastructure providers and the public. It deals with strategic infrastructure in two ways. It includes specific pieces of infrastructure which can be costed in line with appropriate available evidence such as a leisure centre or improvements to a road junction. This chapter also deals with more generic strategic needs such as the principle of investing in Green Infrastructure to improve connections and linkages across the District. This will comprise a number of small and varied projects which it is not possible to cost individually at this stage, although a few costed schemes are covered where this is appropriate and evidence has been provided.

4.3 Strategic physical, green, social and community infrastructure details are set out in the following paragraphs and summarised in tables at the end of each section.

Strategic Physical Infrastructure

Transport

4.4 Improvements to transport infrastructure are classed as physical infrastructure, although there will be elements which link with Green Infrastructure such as walkways, canals and cycle routes.

4.5 The Sustainable Transport chapter of the Local Plan sets out details for determining the strategic priorities in relation to achieving increasing levels of sustainable travel over the plan period. Lichfield District Integrated Transport Strategy 2013 - 2028 sets out the specific local detail. In addition, specific transport appraisals have been undertaken for Lichfield City and Burntwood, and specific analysis in relation to Fradley.

4.6 This Infrastructure Delivery Plan should be read in conjunction with the Lichfield District Integrated Transport Strategy (**Appendix A**). The key elements of the strategy are highlighted below.

Lichfield City Centre Local Transport Package

The Lichfield City Local Transport Package focuses on supporting the Friarsgate redevelopment scheme which is a retail-led mixed use scheme, including new leisure and tourism facilities, and adequate parking. The traffic impact of office development, which is also expected to be focussed on Lichfield City, will also need to be accommodated with sustainable transport links as appropriate. There are aspirations to expand the pedestrianised areas in the City and proposals to change St John Street to one-way towards A5127 (with buses remaining two-way) to improve safety and the environment. Variable Message Signs are also proposed to improve the flow of traffic around the City and to car parks.

Developers of Friarsgate will be required to contribute towards transport mitigation along the A5127. This includes urban traffic control and modifications to Birmingham Road/Rotten Row, Birmingham Road/St John Street, and Gresley Row/Tamworth Street junctions to improve safety and capacity where appropriate. Evidence from traffic modelling work also suggests that capacity improvements may be required at the Friary / A51 / A5127 / Sainte Foy Ave junction.

Bus / rail integration will be provided as part of the Friarsgate development through the provision of a new bus station closer to Lichfield City rail station together with upgraded crossing facilities. It is expected that the new bus station will include enhanced bus information and will operate more efficiently than the existing one allowing more services to operate from it. For some services, dependent upon direction of travel, a new layby will be provided for pick-ups and drop-offs on the northern side of Birmingham Road opposite the new bus station.

Burntwood Local Transport Package

The Burntwood Local Transport Package has been drawn up to help rejuvenate Burntwood by supporting an enhanced town centre, employment growth at Burntwood Business Park and housing growth east of the bypass. These measures include bus access improvements and increased service frequency, improved sustainable transport links across the urban area and into Chasewater, a new bus interchange facility and public realm improvements in the main retail area, specifically Sankey's Corner. The retail/leisure offer is dependent upon private sector investment and developer contributions are required to fund the Local Transport Package. There is also a long term aspiration for a new rail station at Burntwood if the Walsall to Lichfield line is opened to passenger trains.

South Lichfield Local Transport Package

The South Lichfield Local Transport Package includes key strategic road infrastructure that is expected to be completed to support the delivery of the emerging Lichfield District Local Plan, together with complementary sustainable transport measures to improve connectivity between the Strategic Development Allocation and the City centre. There are proposals to improve pedestrian safety, provide new cycle links connecting new development to the existing cycle network and improved bus connectivity. Highways Agency proposals will also be delivered as appropriate.

The Lichfield Southern Bypass provides a link between the A5206 London Road and the A461 Walsall Road. Phases 1 and 2 of the bypass have already been completed by developers with Phase 2 opening to traffic in 2010. Phase 3 between London Road and Birmingham Road is not required to deliver the Strategic Development Allocation but is expected to be funded by a combination of existing developer funds, public funds and contributions from future development. The County Council is commissioning design work and a construction cost estimate for the section of Phase 3 that crosses the railway line and links to Birmingham Road. This work is expected to be completed in 2013 and once agreed with Network Rail, the earliest possible construction start date is 2014.

It is expected that the bypass will reduce traffic in the City centre on A5127 Birmingham Road and A51 Upper St John Street, protecting the historic core and facilitating regeneration proposals. It will also improve access to the Darwin Park and Sandfields residential areas and the South Lichfield Strategic Development Allocation. There will be reduced traffic levels on Shortbutts Lane as a result of the bypass although evidence from traffic modelling work identifies that a junction improvement will be required at Tamworth Road/Upper St John Street/ Shortbutts Lane/London Road as part of the construction of the bypass, to cater for the current forecast 2028 traffic flows. However the exact form of junction is yet to be determined. Once the bypass is completed, a review of local traffic routing and directional signing will be undertaken.

East Lichfield Local Transport Package (including Fradley)

The East Lichfield Local Transport Package helps support the delivery of Strategic Development Allocations East of Lichfield (north of Streethay) and Fradley.

A5127 corridor improvements will be provided to help mitigate development in the East of Lichfield including urban traffic control, bus enhancements, cycle links and safe crossing points in Streethay to local amenities. There will be the requirement for an improvement at A5127/Eastern Avenue/Cappers Lane junction.

The package includes proposals for a Lichfield Trent Valley rail station gateway refurbishment. The station is receiving a new ticket office and waiting facilities in 2014. Further improvements expected include disabled access to the Cross City and London bound platforms, increased car parking capacity, passenger access upgrades and enhanced information. The County Council will work in partnership with London Midland, the station manager, and Network Rail to explore all funding opportunities.

The traffic impact of the Strategic Development Allocation at Fradley will be reduced by providing adequate local neighbourhood facilities, new or extended bus services to Lichfield City centre with increased frequency, integration of the development with existing communities and local walking and cycling links. Safer access to the A38(T) is desired by the local community where there are currently sub-standard junction layouts and active traffic management may also be required along the A38(T). Managing the routing of Heavy Commercial Vehicles is essential and the provision of a lorry park is desirable.

Road improvements to address strategic / cumulative impacts

4.7 Lichfield Southern Bypass: it should be noted that the objective of the Lichfield Southern Bypass is to improve access to new housing (although the Strategic Housing Allocation to the south of Lichfield is not dependent upon this in terms of ensuring access to the site) and to improve the success of City Centre regeneration schemes by removing through-traffic especially from Birmingham Road. The cost of the bypass will be £13.2m which includes works needed to provide an underbridge in relation to the Cross-City rail line.

4.8 The following bullet points are extracted paragraphs from Staffordshire County Council's hearing statement submitted to the Local Plan Examination in Public in summer 2013 following an addendum to the Transport Appraisal of the Spatial strategy for Lichfield City (2012) which sets out the latest position in relation to the delivery of the Lichfield Southern Bypass:

- *The County Council's objective is to deliver the final (third) phase of Lichfield Southern Bypass within this Plan period. This will complete the route from A461 Walsall Road - A5127 Birmingham Road - A5206 London Road - A51 Tamworth Road, making best use of the significant investment already made. The global cost of providing Phase 3 is estimated to be £13.2m (including inflation, optimism bias and risk) and it will be financed using a combination of private and public sector monies. The new route*

between the A51 and the A461 will allow some traffic to avoid the City centre and Shortbutts Lane. It will also function as a local distributor road, providing improved access to the newer residential areas in Southern Lichfield.

- *The County Council will seek to negotiate the purchase of any land necessary to construct the western connection with Birmingham Road. If this is not possible the County Council will rely on the use of its Compulsory Purchase Powers.*
- *The County Council has commissioned consultants (URS) to design a structure to carry both the road and the Lichfield and Hatherton Canal (following its future restoration) beneath the Cross City Line. An outline design has been produced and we are working towards an Approval in Principle Agreement with Network Rail.*
- *Only a limited number of weekend track possessions will be required to install the structure and it is intended to secure these during national holiday periods. The cost is currently estimated to be £4.7m.*
- *The remainder of the route, between the railway formation and London Road / Tamworth Road is included within the housing development scheme being promoted South of Lichfield. This will include accommodation works required by the Canal Trust if planning permission is secured by the developer, this part of the new route, including the junction with London Road / Tamworth Road will be delivered by the County Council under a S278 agreement.*

4.9 Junction improvements. The County Council identify four highway schemes to address cumulative growth relating to development in and around Lichfield City: the following junctions are projected to exhibit over-capacity results of 100%+ and, with the exception of the first scheme on the list, will be delivered as part of development schemes directly in relation to planning applications:

- Sainte Foy Avenue / A5127 / The Friary;
- A5127 / Eastern Avenue / Cappers Lane / Valley lane;
- St. John Street / A5127 / Upper St John Street;
- A5206 London Road / Shortbutts Lane / Upper St John Street / Tamworth Road (improvement scheme has been developed).

4.10 The County Council also the potential for upgrading the Tesco Traffic Light junction as part of wider mitigation measures associated with the Friarsgate Redevelopment Scheme however further details are not available at present.

4.11 Improvements to the Strategic Highway Network: the Highways Agency has identified the following issues relating to the A38:

- **Streethay:** no predicted capacity issues, but the proximity of proposed development to the A38 slip road necessitates some form of control and balancing of traffic flows.

In principle the Highways Agency supports the concept of a signalised access to the proposed site from the A5127 Burton Road;

- **Fradley:** there are capacity concerns along the A38(T) and also attention needs to be given to safety issues given the sub-standard layout of the Fradley South and Hilliards Cross junctions.
- **Muckley Corner, Wall Island and Swinfen:** there are capacity issues relating to existing levels of queueing during peak periods, and the Highways Agency has produced plans for improvements to these roundabout junctions including funding (£0.9m) from the Pinchpoint programme to address issues at Wall Island, including signalisation. These works are due to commence in spring 2014.

4.12 A comprehensive study of the Strategic Road Network (Route -Based strategies) is currently being undertaken by the Highways Agency, looking at modular improvements. The District Council is working with partners to look at this issue in more detail.

4.13 A Strategy for the A5(2011- 2026) has been produced in partnership with Local Authorities, agencies and stakeholders along that part of the A5 which runs through Staffordshire, Warwickshire, Leicestershire and Northamptonshire.

4.14 The aims of the strategy are as follows:

- To ensure that the A5 is fit for purpose in terms of its capacity and safety, both now and in the future;
- To allow the A5 to play its full and proper role in supporting and facilitating economic activity and growth at a national and local level;
- To promote and encourage improvements to sustainable transport (walking, cycling, public transport and behavioural change measures) in order to help reduce congestion on the A5, improve air quality and deliver a lower carbon transport system; and
- To reduce, where possible, the impact of the A5 on communities along the route.

4.15 In terms of Lichfield District the strategy refers to the required improvements to the A38 in relation to the Wall Island and Muckley Corner junctions which also impact upon the A5. It also references improvements relating to the Mile Oak junction of the A5 which is located within Lichfield District but the need for which arise as a result of the impact of development within Tamworth Borough and hence are covered in the Tamworth Local Plan.

Parking, walking and cycling to address strategic / cumulative impacts

4.16 Coach Park and City Centre Parking: there is a particular aspiration to deliver a coach park serving the City Centre, it should also be noted that the local community has expressed a wish for this to be considered in the wider context of a parking strategy for Lichfield City Centre. A parking strategy is currently being produced by the District Council.

4.17 Walking and Cycling: in terms of walking and cycling, Local Transport Note 1/12 was produced by the Government in 2012 ⁽ⁱⁱⁱ⁾. This advocates the use of shared routes designed to accommodate the movement of pedestrians and cyclists.

iii <http://www.dft.gov.uk/publications/ltn-01-12>).

Rail

4.18 In terms of **investment in rail services** the Department for Transport (DfT) announced on 16th July 2012 that a national £9bn package of investment would be forthcoming to implement the 'High level Output Specification Programme 2014 - 2019' ^(iv). This includes electrification of the Chase Line from Walsall to Rugeley Trent Valley Station: the Chase Line Partnership aims for this to be completed by 2017. However, on-train capacity during peak periods continues to be an issue across the West Midlands, and this is a matter which is being considered at national and regional level. Network Rail, who own and manage the country's rail infrastructure, is currently involving stakeholders in its Long Term Planning Process (LTPP) which seeks to address potential demand and high level conditional outputs for passenger and freight services over a 30 year timeline to 2043. Network Rail has to produce five-year plans in line with the DfT - this longer term planning to address capacity issues falls within Control Period 6 (CP6) (2019 - 24).

4.19 In the West Midlands, rail services are provided by a range of franchised train operators, the two key operators being Virgin and London Midland. Services are all currently specified by the DfT which also sets regulated fare levels and quality and performance standards for the franchised operators. Centro, in discussion with local stakeholders, is currently developing a proposition for a devolved West Midlands rail franchise in 2017, which would enable the local rail services to be specified and managed at the regional level rather than by the DfT.

4.20 The West Midlands Regional Rail Forum has produced a document 'A World Class Rail Network for the West Midlands' (January 2013) which "sets out the long term vision and strategy framework required to create a world class integrated rail network for the West Midlands". This includes the following objectives:

- Improved local, national and international rail services;
- Enhancing connectivity between current and emerging centres of economic activity, housing, leisure & retail facilities, as well as to the major transport hubs which connect the region to other national and international centres;
- Providing the capacity enhancements needed by the region to cater for growth across all rail sectors, including maximising the capacity released by the new high speed rail line - HS2;
- Creating a locally managed, locally accountable rail franchise, which is specifically designed to support the regional economy and provide the core of an affordable, accessible and low carbon public transport network which offers a viable alternative to less sustainable modes of transport.

4.21 The report sets out issues relating to capacity over the short, medium and long term (Control periods CP4,5 and 6 respectively). In terms of CP5 (2014 - 19) and CP6 (post 2019) the following proposals for increasing passenger and freight capacity are of particular relevance to Lichfield District:

iv <http://www.dft.gov.uk/news/press-releases/dft-press-20120716a>

- Lichfield - Birmingham: more 6-car electric trains (CP5 and 6), 4 trains per hour to Lichfield Trent Valley, and extension of rail services to Alrewas and Burton.
- Rugeley - Walsall - Birmingham (which affects Rugeley Trent Valley station): more peak and off-peak services from the Chase Line 3 - 4 car electric trains (CP5) and 5 - 8 car electric trains (CP6).

4.22 The report also highlights strategic parking issues, i.e. those which have particular regional implications (Lichfield Trent Valley), the need for consistency in terms of passenger facilities, and the need for improved accessibility at Lichfield Trent Valley and Rugeley Trent Valley stations.

4.23 Staffordshire County Council recognises the need for a joined-up approach to rail and is currently consulting on the development of a rail strategy to be published in spring 2014.

4.24 The following paragraphs set out details of specific rail projects and updates on issues which have been locally highlighted as needing to be addressed.

4.25 In terms of **national rail projects** which impact upon the District, Phase 1 of the **High Speed Rail Link (HS2)**: was approved by Government on 10th January 2012 and will run from London to just north of Lichfield. Phase two extends the network to Manchester, and separately to Leeds.

4.26 A preferred route has been identified by Government showing the link to Manchester coming off the current Phase 1 route near Streethay / Fradley and then progressing via the Ridwares to the District boundary with Stafford Borough. There are no plans for a station in Staffordshire.

4.27 Given that this is a national project this is not an issue over which the IDP can have any direct influence, although updates on progress will be incorporated into this document to provide context. It is important to note that the need to manage the impact of HS2 proposals on affected communities is a need highlighted in the Integrated Transport Strategy for Lichfield District.

In terms of the **West Coast Main Line**, the report 'Future priorities for the West Coast Main Line: Released capacity from a potential high speed line' (January 2012) has been prepared by Network rail in conjunction with Passenger Focus. This considers the impacts of the high speed rail link in terms of the capacity it would release on the West Coast Main Line, with potential improvements to the service including more direct services and less crowding on trains. As this study is an early consultation, there are no costings available, and given that this is a national scheme there are no known local funding implications at present.

4.28 Trent Valley Station (Lichfield): A range of improvements are required to Trent Valley station. This facility is significant to the whole of the District because of its connection with the West Coast Main Line, and more locally because of its connections with the Cross City Line, of particular relevance to Streethay and the Strategic Development Allocation.

4.29 A study was originally commissioned in 2001 by WS Atkins. This is still of some relevance as the area has not changed significantly since the study was published, with the exception of some piecemeal improvements including the platforms being lengthened at the

station to service longer trains, a small area of additional parking gaining planning permission, and an access ramp being installed at the ticket office. The following required improvements to the station were identified:

- Disabled access;
- Improvements to on site car parking;
- Improvements to enable bus links to the site;
- New station building;
- Improved passenger information;
- Improved passenger waiting facilities; and
- Increased frequency of cross city line services to four trains per hour which is consistent with Lichfield City Station - requiring the construction of an additional high level platform.

4.30 Improvements to parking are also a key requirement in the area - increased parking is needed which reflects the station's importance on a strategic level, but which also reflects local growth at Streethay.

4.31 Lack of funding has meant that the project has not progressed beyond some piecemeal improvements such as planning permission being secured to provide some additional parking on the opposite side of the West Coast Mainline to the main parking area, although the road access to this new car park is rather convoluted. The total cost of improvements to the station and car parking facilities was estimated at almost £2.7m in 2001 although lack of overall progress has meant this cost has not been formally revised since. Using a basic prices and inflation calculator ^(v) this provisional figure now equates to approximately £3.78m (October 2013).

4.32 However, further incremental improvements are scheduled to take place in 2014 in terms of replacing the ticket office and providing better passenger waiting facilities. These improvements are to be funded via Tranche Three of the National Stations Improvement Plan (NSIP).

4.33 Centro summarises the key issues in its response to the Department for Transport (DfT) consultation on the InterCity West Coast refranchising (March 2011), stating: *'Although managed by London Midland, Lichfield Trent Valley is an important station for InterCity West Coast passengers to London. The current station facilities are of poor quality and not fit for purpose, bidders should be invited to work jointly with London Midland to deliver an improved station. In particular, there is a need for the station to be made fully accessible by the addition of lifts or ramps to enable passengers to access the high level platforms and the Up (to London) platform, which can currently only be accessed via steep staircases. Car parking is also both a problem and an opportunity, as the existing car park is full to capacity very early in the morning. This is potentially leading to suppressed demand both for passengers on the West Coast Main Line (particularly off-peak) and also passengers travelling into the West Midlands. We believe therefore that there is a need for an expanded or new car park at the station. The location of Lichfield Trent Valley, in close proximity to the A38, makes it particularly suitable for a strategic park and ride development'* ^(vi).

v <http://www.thisismoney.co.uk/money/bills/article-1633409/Historic-inflation-calculator-value-money-changed-1900.html>
vi Centro report to its Transport Strategy Committee, 28 March 2011)

4.34 Rugeley Trent Valley Station: There are significant parking problems and issues relating to vehicular access at Rugeley Trent Valley station. There are only 24 parking spaces, and rail users are reported to be parking on local roads, blocking access routes for residents and businesses. Lack of facilities (toilets, primarily) are also identified as an issue. A planning application was approved in 2011 for additional parking at the Yorkshireman pub which the applicant indicated would be available to assist with the parking issue locally (at a cost to the user), however additional solutions should continue to be sought in the area given the increasing usage of this station. This is increasingly significant as the Walsall to Rugeley Trent Valley line is to be electrified with the project completing late 2017. The impacts of this will be to accommodate increased commuter demand into Birmingham as the electric trains are faster, and have more capacity than their diesel equivalents. The project does not include addressing parking capacity along the route so this is an issue for consideration and further work. No costings for parking improvements are currently available.

4.35 Shenstone Station: Via local consultation an aspiration has been expressed to secure the increased frequency of services at Shenstone railway station. At present trains on the cross city line stop (in general) every half hour, compared to every fifteen minutes at Lichfield City and Blake Street (the stations either side). Investment in car parking infrastructure is also sought as, from comments received, the facilities are considered to be inadequate and not able to cater sufficiently for those wishing to lessen the length of journey travelled by car by using local rail facilities. The car park is owned by Network Rail.

4.36 Alrewas and the National Memorial Arboretum: There is a long term aspiration to deliver a station at Alrewas^(vii) to serve the village and the National Memorial Arboretum, as well as serving the National Forest and Central Rivers Initiative area.

4.37 Rail Freight: There is a long term aspiration / opportunity to reopen the line from Walsall via Brownhills and Burntwood to Lichfield initially for freight and then potentially for passenger services: this aspiration includes delivery of a station at Burntwood.^(viii)

Energy

Gas and electricity

4.38 In terms of infrastructure improvements needed for gas and electricity, the utility companies have a statutory ability to directly charge developers and customers to fund improvements required and this will take place during development. No strategic issues have been identified.

Renewable energy

4.39 In terms of renewable or low carbon energy / wind power and other technologies, developers will need to work with Lichfield District Council, Ofgem and individual suppliers to meet the sustainable energy targets set out in the Local Plan.

vii Lichfield District Rural Planning Project 2011

viii The Lichfield Rail Promotion Group advises that Burntwood is one of the largest towns in England without a rail connection & residents have to travel by road to access rail services at Cannock or Lichfield. Provision of a station would have the potential to result in a significant modal shift for Burntwood residents and should include good access links for pedestrians, the disabled, cyclists and vehicles and should include adequate parking facilities

4.40 The District Council is keen to support low carbon initiatives and will consider establishing a Carbon Investment Fund via CIL, to ensure that developments can deliver the required carbon reductions (in-line with local and national carbon targets) at the lowest possible cost. Carbon targets can be delivered entirely through on site measures by providing investment into energy efficiency and low / zero carbon energy generation technologies.

Water and Drainage

Water resources and supply

4.41 [The Southern Staffordshire Outline Water Cycle Study \(WCS\)](#) (July 2010) was undertaken in light of the proposed growth requirements relating to the West Midlands Spatial Strategy Phase 2 revision i.e. 8,000 homes, 99 hectares of general employment land and 30,000m² of office space for Lichfield District. Whilst the WMRSS has since been abolished, the message from the WCS is that, in principle, and subject to careful phasing of development, there are no 'show stoppers' for the levels of growth identified in the Local Plan but there would be problems with higher growth scenarios across the study area which would require significant infrastructure investment.

4.42 In response to previous consultation stages of the Local Plan, South Staffordshire Water (SSW) has advised that there are no problems with supply. However, the WCS indicates a need for infrastructure investment and the action which South Staffordshire Water needs to take, working directly with developers, is as follows:

Water Resource Infrastructure Needs (defined by the Water Cycle Study)

Water supply

South Staffordshire Water can supply water to all developments, but some may require additional investment, which is achieved by the developer working directly with the supplier.

- Major upgrades will be required for all sites in Burntwood, and sites which link to the Brownhills network, including supply mains.
- Minor infrastructure upgrades will be needed for:
 - Fradley Airfield;
 - North Streethay;
 - Fazeley; and
 - South Lichfield.

Water abstraction

Any developments requiring the abstraction of water should consider the information contained within the Catchment Abstraction Management Strategy (CAMS) and should apply to the Environment Agency for the relevant licence (although there is no guarantee it would be granted).

Limited water availability from the surface and groundwater management units, especially within the currently Over Abstracted Bourne / Black Brook and the Lichfield and Shenstone Ground Water Management Unit (GWMU) may impact current and future agricultural practices and small commercial developments.

4.43 A Water Abstraction Licence is required for watering of Lock 26 of the Lichfield Canal. Watering of the whole section needs further assessment to be undertaken by the Canals and Rivers Trust and the IDP will be updated accordingly as this matter is progressed.

Waste Water Collection & Treatment

4.44 New development will need to take account of the need to plan for the disposal of waste water and sewage as this will have a cumulative impact across the District.

4.45 The WCS advises that the following actions will be needed in terms of waste water collection and treatment. Severn Trent Water Limited will work directly with developers to address these issues:

Waste Water Collection and Treatment Infrastructure Needs (defined by the Water Cycle Study)

Wastewater Collection

- Additional hydraulic analysis to be carried out by Severn Trent Water Limited (STWL)
- Some sites need improvements to increase capacity, primarily around Streethay and Fazeley.
- Some areas around Little Aston and Shenstone require improvements to the network to accommodate additional flow

Wastewater Treatment

- All Waste Water Treatment works (WwTWs) need expansion or additional analysis to accommodate the additional flow with the exceptions of Rugeley, Armitage with Handsacre, Colton, Hamstall Ridware and Shenstone.
- There is no hydraulic capacity at Alrewas, Bassets Pole and Lichfield so significant investment would be required.
- The WwTW at Alrewas has very limited water quality headroom.
- There are physical (i.e. space required) and quality (i.e. capacity to process effluent properly) constraints to the WwTWs at Alrewas, Burntwood and Lichfield so significant infrastructure investment will be necessary where development is proposed. (these issues also relate to Clifton Campville and Edingale if these communities wish to take on any small localised development in line with the spatial strategy proposals for small rural settlements).
- New Consent to Discharge may be refused for either Clifton Campville WwTW and/or Edingale WwTW, affecting the villages of Edingale, Clifton Campville and Harlaston which again has implications if these communities wish to take on any small scale localised development in line with the spatial strategy proposals for small rural settlements, because of the implications for the impact on the River Mease SAC.

Mease Special Area of Conservation (SAC)

4.46 Impacts of development upon the River Mease SAC will need to be mitigated for (eg through the construction of silt traps and associated management and monitoring) in line with the River Mease Water Quality Management Plan and as set out in policies NR8 and NR9 of the Local Plan. This is a short term measure across a number of local authority areas to remove phosphorous arising from development which will have a harmful impact upon water quality in the SAC. Longer term solutions are being sought and the process is managed by the River Mease Programme Board. The River Mease SAC Catchment Area is shown in **Appendix B**.

Water Management and Flooding

4.47 Issues need to be addressed on a district/sub-district basis as well at the local level where the Environment Agency has advised that there is flood risk or a potential impact upon areas of flood risk. The infrastructure required to address issues raised will need to be in place prior to development taking place and will be agreed between the developer and the Environment Agency.

4.48 Sustainable Drainage Systems (SuDS) also need to be provided by the developer, in line with national legislation and in accordance with Environment Agency requirements which should include an agreed management plan. It is not possible to provide an indicative overall costing for SUDS as this will depend upon the individual circumstances relating to each site, however national guidance, research and emerging [codes of practice](#) are available and this will assist with assessing with viability assessments in relation to individual developments.

4.49 Settlements which are at high risk of surface water flooding, and which will therefore require particular attention on a site by site basis are:

- Lichfield;
- Armitage with Handsacre and the Longdons;
- Burntwood;
- Elford;
- Little Aston;
- Mile Oak and Fazeley; and
- Whittington.

Waste

4.50 In terms of the collection and disposal of refuse within the District, there will be a need for at least an additional two crewed collection wagons at a cost of £280,000 plus a one off cost of £60 per household for the provision of bins. This cost needs to be apportioned across all new development. Waste Services are delivered through a shared service with Tamworth Borough Council. Costs will be met through Council Tax.

4.51 In terms of waste management and disposal, Staffordshire County Council has identified via the Staffordshire and Stoke on Trent Joint Waste Local Plan the need for several new facilities within a number of broad locations ^(ix)

4.52 Across the Staffordshire and Stoke broad area of search there is a need for the following to 2026:

- Municipal solid waster: 6-8 facilities or around 0.9ha each
- Organic waste treatment: 2-3 facilities of between 0.9ha to 1.3ha
- Recycling / material recovery: 2-4 facilities each between 2 to 4 ha in size and requiring locations close to construction works.

ix <http://www.staffordshire.gov.uk/environment/planning/policy/wastecorestrategy/home.aspx>

4.53 The Joint Waste Local Plan sets out a hierarchy (Policy 2.3: Broad Locations) in terms of siting facilities of a local or sub-regional scale, this focuses upon large settlements across the Staffordshire and Stoke area and locally this includes Lichfield, Tamworth and Rugeley, with Burntwood being included for facilities of a local scale.

4.54 Staffordshire County Council have provided indicative costings of approximately £1.5 million for building a Waste Transfer station, excluding land purchase, and similar costs for the provision of a new Household Waste Recycling Centre.

Communications

4.55 The need to reduce travel and to enable people to access services both in economic and social terms increasingly depends upon electronic communications. Work with rural communities, through the Rural Planning Project, has identified concerns over patchy mobile phone coverage and slow broadband. This problem has been recognised, and ongoing work with Staffordshire County Council and Broadband Delivery UK (BDUK) are actively seeking solutions to the issue: £7.44m has been allocated to Staffordshire and Stoke to deliver improvements matched by £7.44m co-investment from Staffordshire County Council.

4.56 By the end of 2016, the target is for 90% of Staffordshire and Stoke premises to be covered by superfast broadband (minimum 24MB per second) with all premises having access to a minimum of 2MBs broadband).

Town Centre improvements

Lichfield City

4.57 Investment in the City Centre is proposed in three phases, all private sector led but with land contributions from Lichfield District Council.

4.58 The first element, nearing completion, is the redevelopment of the Friary Outer car park to deliver a hotel, expanded public car parking provision, sheltered housing and commercial space.

4.59 The second is the Friarsgate town centre improvement programme comprising retail and leisure facilities. This is also expected to be delivered prior to 2016. The economic downturn has delayed commencement of this project, however work is in hand to ensure that the project is in a state of readiness to take advantage of the expected economic recovery when this takes place.

4.60 The third element, programmed to commence only once the Friarsgate scheme is complete, is a proposed mixed use development of the site of the Bird Street car park. This will potentially conclude new specialist retail, increased public car parking, residential, leisure, office and community facilities through redevelopment of the car park and adjacent areas.

4.61 Lichfield City Council has also highlighted a number of environmental improvements which it would like to see in relation to the City centre including improvements and enhancements to the pedestrianised areas, vehicular restrictions, a car and coach parking strategy and a public urban space.

4.62 It should be noted that Lichfield District Council is preparing a City Centre Strategy and alongside this the City Council has applied for its administrative area to be designated as a Neighbourhood Area to enable the preparation of a Neighbourhood Plan, which will have an economic focus as its central theme. The IDP will be updated accordingly to reflect any issues which may emerge.

Burntwood

4.63 Physical infrastructure requirements focus upon the need to provide a new town centre for Burntwood, which is one of the key elements of the Spatial Strategy. This includes the need to provide an increased retail and leisure offer, and appropriate transport infrastructure to support this growth. The retail/leisure offer is dependent upon private sector investment: the transportation provision required would require investment in the form of developer contributions.

4.64 In order to deliver a safer environment in line with the Healthy & Safe Lifestyles policy theme, there is a need to undertake public realm improvements to Sankeys Corner, which would include measures to reduce crime and the opportunity for crime.

Tourism

4.65 Tourism infrastructure needs are covered primarily through the Town Centre improvements and, in relation to the natural environment, within Green Infrastructure.

4.66 Cultural facilities are an important part of local infrastructure and contribute not only to the local economy and tourism, but also to the network of social and community infrastructure. The Burntwood Town Strategy (2011) indicates that a long standing desire to provide arts space within the town is now being progressed. It is important that, over the plan period, the importance and role of cultural infrastructure is recognised.

4.67 A desire has been expressed to link the National Memorial Arboretum at Alrewas to Alrewas village to ensure continuity of walking and cycling routes and to help stimulate more local tourism and recreation associated with the site. This would require a safe way of crossing the A38 and a footbridge has been identified as the most appropriate way to do this.

Employment

4.68 Whilst employment sites are to be delivered by the private sector, it is important that employers are encouraged to recruit local people in order to boost the local economy and reduce the need to commute long distances by car. However, there is no 'one size fits all' method to ensure that this happens, given that the employers' needs will change over time. In the first instance, employers will be encouraged to work with business and education partnerships to recruit and develop a local workforce. Much of the support needed is likely to be revenue funded e.g. skills development. No capital infrastructure needs have been identified at present but, if these arise during the plan period, they will be looked at on an 'as and when' basis.

4.69 Employment sites should also be supported by other infrastructure where there is a local need and the plan should be flexible to allow for this e.g. uses ancillary to employment sites might include a cafe or childcare facility with the view to these being used primarily by

local employees. These would need to be market-driven enterprises which would be assessed on their own merits as part of the planning applications process rather than being rigidly specified at the outset of a development proposal, as this would not be viable or sustainable.

Table 4.1 Strategic Physical Infrastructure: summary of improvements needed which will arise either directly, indirectly or cumulatively as a result of development impacts.

Infrastructure Requirement	Cost	Funding	Phasing	Delivery Lead
Transport: generic (including road, public and private transport, walking and cycling)				
Short term package of improvements listed in the Lichfield District Integrated Transport Strategy 2013-26 (see Priority 1)	Will vary.	Developer Contributions (mainly CIL) and other funding streams	Short term prior to 2018	Staffordshire County Council
Long term local transport packages listed in the Lichfield District Integrated Transport Strategy 2013-28: <ul style="list-style-type: none"> • South Lichfield (x) • East Lichfield • Lichfield City Centre • Burntwood 	Will vary: bypass costs shown below.	Developer Contributions and other funding streams.	Phased approach aligned to development trajectory, covers short, medium and long term up until 2028.	Staffordshire County Council
Completion of Lichfield Southern Bypass	£4.7m (underbridge construction costs) - current estimate. £0.35m development and design works. Overall cost of providing this section (phase 3) is £13.2m.	Developer to deliver section of the bypass which will mitigate for / provide acceptable access arrangements to the Lichfield South SDA. The cost of the underbridge is estimated at present to be £4.7m for the construction of the bridgeworks. This will need to be delivered through CIL unless other funding becomes available.	Phased approach aligned to development trajectory for South Lichfield SDA element of the scheme. The construction of the underbridge will need to follow at a later stage in the plan period.	Staffordshire County Council

x Includes completion of Lichfield Southern Bypass, and priority junction improvements in Lichfield City

Infrastructure Requirement	Cost	Funding	Phasing	Delivery Lead
		Some LTADS (xi) monies remain: £0.7m, however at least £0.35m is already earmarked to support the development and design works required.		
Junction improvements at: 1. Sainte Foy Avenue / A5127 / The Friary 2. A5127 / Eastern Avenue / Capper Lane / Valley Lane 3. St John Street / A5127 / Upper St John Street 4. A5206 London Road / Shortbutts Lane / Upper St John Street / Tamworth Rd	No costings currently available	Scheme 1: possible sources include Integrated Transport Block, Local Growth Funds, Developer Contributions (CIL) For schemes 2,3 and 4, S278 agreements with developers.	Scheme 4: short term. Other schemes medium to long term	Staffordshire County Council
Burntwood Local Transport package (xii)	£0.6m Smarter Travel Choices £0.6m walking and cycling £1.2m public transport £0.6m making best use of existing transport network	Developer Contributions and other funding streams.	To tie in with town centre improvements	Staffordshire County Council
Transport: improvements to the Strategic Road Network				
Muckley Corner	£5m	Potential sources: Central Government (Highways Agency)	Medium term 2018 - 2023	Highways Agency

xi Lichfield Transport and Development Strategy, this scheme has now ended

xii Most recent costings set out in the Staffordshire County Council Transport Appraisal of the Preferred Options for Burntwood 2009

Infrastructure Requirement	Cost	Funding	Phasing	Delivery Lead
		LEP growth fund Developer Funding (CIL)		
Wall Island	£0.9m	Highways Agency Pinchpoint Programme Tranche 2 confirmed.	Short Term: works due to commence spring 2014	Highways Agency
Swinfen	£6.2m	Potential Sources: Central Government (Highways Agency) LEP growth fund Developer Funding (CIL)	Medium term 2018 - 2023	Highways Agency
Further junction improvements on A38	Information not yet available.	Sources will vary	Medium to long term 2018 - 2028	Highways Agency. (Lichfield District Council working with partners to secure long term improvements).
Transport: Rail				
Station improvements: Lichfield Trent Valley to include new parking facility, improved bus links, new station building & improved passenger waiting facilities and information, increased frequency of cross city connections.	£3.78m (NB provisional cost, and some elements already have funding and projects due to start: see explanatory text in 'strategic infrastructure' chapter)	National Stations Improvement Plan (for ticket office and shelters), Network Rail, franchisee, developer contributions.	Short to medium term	Staffordshire County Council and Lichfield District Council and other organisations to work with Network Rail and Franchisee (London Midland) to secure improvements.
Addressing capacity on West Coast Main Line	No costings available	Network Rail with service providers	Medium to long term	Network Rail
Rugeley Trent Valley station: improvements to parking and passenger waiting facilities.	No costings available at present	Network Rail, franchisee, developer contributions	Medium to long term	Staffordshire County Council and Lichfield District Council and other

Infrastructure Requirement	Cost	Funding	Phasing	Delivery Lead
				organisations to work with Network Rail to secure improvements.
Shenstone station: increased car parking, and increased frequency of train service serving the village.	No costings available at present	Network Rail, franchisee, developer contributions	Medium to long term	Staffordshire County Council and Lichfield District Council and other organisations to work with Network Rail to look at proposals further.
Reinstate passenger service (extension of the electrified Cross City Line - to Burton) and deliver a station at Alrewas to serve the village and the National Memorial Arboretum	No costings available at present	Network Rail, franchisee, developer contributions	Long term	Staffordshire County Council and Lichfield District Council and other organisations to work with Network Rail to look at proposals further.
Reopen line from Walsall to Lichfield via Brownhills and Burntwood: initially for Freight and then for passenger services, to include delivering a station at Burntwood.	No costings available at present	Network Rail, developer contributions	Long term	Staffordshire County Council and Lichfield District Council and other organisations to work with Network Rail to look at proposals further.
Energy				
Delivery of renewable energy to meet the sustainable energy targets set out in the Local Plan (Policy SC2).	Costs will vary depending on schemes	Developer and developer contributions with a range of other sources as applicable to the scheme.	Throughout the plan period	Developer, working with Lichfield District Council and Ofgem.
Water resources, supply and flood risk				
Water supply: major upgrades required for Burntwood.	Details between South Staffordshire Water and developers.	South Staffordshire Water with developers.	In line with development trajectories. Short to	Developer working with South Staffordshire Water.

Infrastructure Requirement	Cost	Funding	Phasing	Delivery Lead
Minor upgrades to: Fradley Airfield, Streethay, Fazeley, South Lichfield. See Priority 3.			medium term Burntwood, Fradley, Fazeley and South Lichfield (prior to 2018); medium term for Streethay (prior to 2023).	
Water abstraction: to take account of the Catchment Abstraction Management Strategy (CAMS). See Priority 3.	Will vary	Developers	Ongoing throughout plan period.	Developers to work with the Environment Agency (licence required).
Mitigation for matters relating to flood risk as identified by the Environment Agency	Will vary depending on locations and sites	Will vary depending upon the scheme, normally developer with the environment agency and sources of funding will vary. In some instances may require developer contributions.	Ongoing throughout plan period.	Developers and Environment Agency.
Waste water collection and treatment				
Investment in wastewater collection sites as set out under Priority 4.	Details between Severn Trent Water and developers.	Severn Trent Water, Developers	Short to medium term to align with development trajectory.	Severn Trent Water with developers
Investment in wastewater treatment works as detailed under Priority 4.	Details between Severn Trent Water and developers.	Severn Trent Water, Developers	Short to medium term to align with development trajectory	STW with developers
4 silt traps and associated management and maintenance programme across the Mease SAC area (which covers a number of Local Authorities) to mitigate for the impacts of development on the river Mease SAC, in line with the River Mease	4 x silt traps @£20k each, overall programme across the whole SAC area £640,000. See River Mease Developer Contributions scheme.	Developer Contributions (S106 / CIL in the longer term)	Short term solution: longer term options being investigated	River Mease Programme Board

Infrastructure Requirement	Cost	Funding	Phasing	Delivery Lead
Water Quality Management Plan.				
Waste				
Provision of two crewed wagons	£280,000	Lichfield District Council.	Medium	Lichfield District Council
Waste facilities to be delivered in line with the Staffs and Stoke on Trent Joint Waste Local Plan 2010 - 2026	Costs will vary but indicative capital cost for a Waste Transfer Station is £1.5m excluding land purchase, and similar for a Household Waste Recycling Centre	Staffordshire County Council.	Ongoing throughout plan period	Staffordshire County Council
Communications				
Broadband improvements across the District, including rural areas.	Costs will vary across the District depending on projects.	Broadband Delivery UK (£7.44m allocated across Staffordshire, matched with £7.44m Staffordshire County Council).	Short term prior to 2016 (BDUK projects) and ongoing throughout plan period.	Staffordshire County Council with BDUK and other providers.
Town Centre Improvements				
Lichfield City Improvements: <ul style="list-style-type: none"> Friary Outer (hotel, commercial space, sheltered housing, parking); Friarsgate (retail and leisure); Bird Street car park redevelopment. 	Friary Outer £14m (project nearing completion). £100m investment value (Friarsgate) Bird Street - no information currently available.	Mainly private sector funding Potential LEP growth funding	Friary Outer and Friarsgate short term (prior to 2018), Bird Street after completion of Friarsgate.	Private sector led in partnership with Lichfield District Council
Burntwood Town Centre improvements: improved retail, community facilities and leisure to deliver a town centre.	Not available.	Mainly private sector funding Potential LEP growth funding	Short term	Private sector led in partnership with Lichfield District Council

Infrastructure Requirement	Cost	Funding	Phasing	Delivery Lead
A range of public realm improvements to Burntwood, including works at Sankeys Corner, and improving and increasing parking in Burntwood Town Centre.	Around £370,000 (Sankeys Corner) and around £130,000 (parking).	Sources will vary, including CIL / S106 Potential LEP growth funding	Short term	Staffordshire County Council, Lichfield District Council, Burntwood Town Council, developers and other partners as applicable.
Other public realm improvements across the District as applicable.	Will vary	Will vary	Throughout the plan period.	Staffordshire County Council, Lichfield District Council, and other partners as applicable.
Employment				
A range of infrastructure to support employment sites e.g. creche, cafe, open space for employees etc	Schemes will vary	Private sector	Throughout plan period	Private sector
Infrastructure to support skills and training.	Schemes will vary	Public, private and voluntary sector.	Throughout plan period.	Partnership approach depending upon scheme.

Strategic Social and Community Infrastructure

Housing mix

4.70 The Local Plan seeks to achieve a balanced housing market which serves the needs of the District's communities. Given the ageing population of the District, older residents will need to be specifically catered for, to ensure that housing addresses their changing needs, whether this relates to them having the support they need to remain in their own homes for longer, or a choice of alternative accommodation such as sheltered housing or a higher level of care. For this reason the following will need to be provided as part of the District's housing portfolio:

- Provision of supported housing and care homes;
- Smaller dwellings of all tenures; and
- Residential layouts that ensure that communities are designed with the wellbeing of the ageing (and less mobile) populations in mind.

4.71 Development Management Policy H2 is designed to ensure sufficient and relevant provision of affordable homes. A target is set by the policy that up to 40% of new dwellings (including conversions) must be provided as affordable housing, subject to viability testing. In order to assist with delivery, developers will be expected to seek Homes and Communities Agency investment where available, or other delivery mechanisms such as Public Land Initiatives and Local Asset Backed Vehicle arrangements. For Lichfield and Burntwood, affordable housing will be required on housing developments of 15 or more dwellings or on sites over 0.5ha in size. However to address rural needs and sustainability within the larger rural communities (as set out in the rural settlement hierarchy), affordable housing will be required on housing developments for 5 or more dwellings or sites over 0.2 ha in size, and 100% on small rural exception sites. The detailed criteria are set out in Policy H2. This lower threshold reflects the smaller nature of sites that are likely to be delivered in the rural area. The dynamic viability model for affordable housing delivery is set out in **Appendix D**.

4.72 Policy H3 of the Local Plan sets out the requirements for providing for Gypsy, Traveller and Travelling Showpeople needs, taking into account National Planning Policy for Traveller sites (CLG March 2012) and the local evidence base. Site specific infrastructure requirements are set out in the national Good Practice Guide: 'Designing Gypsy and Traveller Sites', in determining specific on-site infrastructure needs.

Education and skills

4.73 Staffordshire County Council is responsible for the overall provision of state education within the District (although some schools now operate independently as Academies). New residential developments are likely to bring more children into a school catchment area which may have an effect on local school roles. In some cases the existing primary and secondary school roles do not have spare capacity. In addition, increasing school rolls puts increased pressure upon existing school facilities. Consequently, contributions will be required towards the cost of school infrastructure, where a development would lead to an increase in school places as a result of new housing development, or where it would place pressure on restricted infrastructure.

4.74 Schools also play a significant role in the community beyond their statutory remit. 'Extended schools' operate in various ways, branching out to serve local communities for example through allowing use of their premises for before and after school and holiday clubs, community use, activities, support and access to services. There is a real opportunity for innovation, particularly where new schools are required as part of the Strategic Development Allocations, linking schools with the requirement for local community centres, community hubs, sport and recreation provision. Such an approach can maximise use of space by providing flexible and multi - functional areas which can be used both by schools and the wider community. This also has the potential to minimise costs by linking buildings and spaces together.

Primary education

4.75 New or enlarged primary schools (incorporating nursery provision) will be required at the following Strategic Development Allocations: Fradley, Streethay and South Lichfield. However, where the need for a new school is not specifically identified, developer contributions will still be required to ensure that existing schools in the area have the capacity to take on

the increasing numbers of children likely to result from the development. Cross boundary provision will need to be addressed in the longer term to address the cumulative impacts of development in and adjacent to Rugeley which includes parts of Lichfield and Cannock Chase District Councils. This issue is under discussion: over the plan period the equivalent of a one form entry (1FE) school is required although there are a number of options for achieving this. The IDP will be updated accordingly, although £4m is an indicative cost for a 1FE new primary school. Primary schools are covered in more detail in the Local Infrastructure chapter.

Secondary and higher education

4.76 Secondary and post sixteen places need to be addressed at the District - wide level due to the size of catchment areas: all developments will need to make a contribution to this provision.

4.77 The raising of the education participation age has implications for infrastructure over the plan period. This does not just relate to schools, although there is an anticipated slight increase in sixth form attendance, but more work place opportunities will be required alongside apprenticeships and Further Education college placements. The role of the County Council (Local Education Authority) is to commission places for students and provide the necessary funding, which will primarily be in the form of revenue, rather than capital infrastructure needs.

4.78 A £2.5m vocational centre was opened in 2010 through a partnership between the area's five secondary schools, Saxon Hill and Queens Croft schools, Stowe teaching unit, South Staffordshire College and local training providers. The focus is on 14 to 19 year olds, but the centre is available at evenings and weekends for adult learning.

4.79 Staffordshire Local Education Authority have identified costings of £22m over the plan period for investment in secondary and post 16 education, which mainly impacts upon Lichfield City and its associated catchments. Options are currently being investigated in conjunction with local schools to consider where this requirement can be met, including whether a new school will be required or whether there is scope to extend existing facilities.

Community Provision

4.80 Community provision is covered primarily in the 'local infrastructure' section as this deals with a range of local needs, rather than wider strategic issues, and these issues vary from community to community.

4.81 No broad strategic infrastructure needs have been identified in terms of community provision although Burntwood Town Council has indicated a shortfall in the town: this is covered in the 'local infrastructure' section.

4.82 Strategically it is important that the IDP recognises the need to be flexible over the plan period, as the needs of the community will change over time. Therefore the IDP will need to pick these issues up as they arise (as it is a 'living' document which will be regularly updated). For example the Fire Service has been redeveloping (via PFI funding) a number of fire stations which incorporate community facilities. It is particularly important that the needs of the voluntary sector and organisations supporting and developing communities are recognised and addressed.

4.83 Access to a community facility is a vital part of any residential development. Community facilities need to be provided as part of the Strategic Development Locations and as such are also detailed local infrastructure chapter. Space should be flexible and able to accommodate a range of uses. There are no national or local standards for the provision of community facilities and there is scope for innovation (see 'Education' above), and details will need to be worked up which address the particular needs and issues of each development. As a broad principle each facility should comprise the following as a minimum:

- Main hall large enough to accommodate sport activity which should be capable of being sub divided for smaller meetings / events;
- Smaller rooms (minimum of two) for smaller meetings and to enable outreach facilities to be run from the facility. These rooms should be private as they are likely to be used, for example, by outreach health services or by the voluntary sector. In addition the police have stated that they will require a presence in new communities and will need a facility from which to operate - this shared community space could offer such a facility; and
- Access to a secure outdoor area suitable for playing outdoor games etc.

Health and wellbeing

Health centres/doctors surgeries

4.84 As part of the changes to the NHS brought about by the Health and Social Care Act 2012, Primary Care Trusts (PCTs) and Strategic Health Authorities (SHAs) ceased to exist on 31 March 2013. Their responsibilities were taken over by Clinical Commissioning Groups (CCGs) and the NHS Trust Development Authority.

4.85 As the Local Plan and the IDP were being formulated, the main input in relation to infrastructure provision was provided by representatives of the relevant PCTs. This is the most up to date available information at present, which will be updated accordingly:

- The Primary Care Trust identified the need for new / additional provision in Burntwood and the IDP will be updated when further information is available;
- In terms of Fradley, the PCT advised that there is currently no provision within Fradley itself, with residents using facilities at Alrewas and Lichfield. There is some limited additional capacity at Lichfield. In the longer term however the District Council would wish to see some services delivered in the village itself, either in a bespoke unit (in 2010 the PCT indicated that a 2 GP surgery would cost in the region of £350,000) or as outreach provision;
- In terms of the key rural settlements, there may be future capacity issues at Fazeley, but this will need to be clarified at the Land Allocations stage of the Local Plan.

Accessibility

4.86 Infrastructure planning needs to take account of the needs of people with restricted mobility. The Disability Discrimination Act addresses many of these needs but there is much more that can be done through the early consideration of issues, and it is recommended that, as projects come forward through the infrastructure planning process the input of the Disability Partnership Panel is sought at the earliest opportunity.

Residential care provision

4.87 With projected population increases, Staffordshire County Council has identified the need to increase levels of residential care for children and adults with high levels of physical and mental dependency. Schemes will vary throughout the plan period with Staffordshire County Council continuing to assess ongoing need and lead on provision. Any relevant strategic schemes will be included in the IDP as the plan period progresses.

Arts and Cultural Facilities

4.88 Arts and cultural facilities have been included under the 'health and wellbeing' subtitle due to their role in bringing communities together as described in chapter 10 of the Local Plan. However they could just as easily be included under tourism and the local economy. Notwithstanding this, a need has been identified for exhibition space to serve the District as no dedicated space is currently available. No costings are available presently as this depends upon whether the facility is to be a new building or reuse of premises. In addition there is a desire for public art to be incorporated into new developments.

4.89 As mentioned under 'community facilities' Burntwood Town Council has identified a shortfall in provision for arts and culture locally.

4.90 Support should also be given to a range of other facilities and amenities as the plan period progresses which help to support the delivery of arts and culture, and other recreational activity across the District. Such assets and facilities could range from school and village halls and places of worship, parks and gardens, to more purpose built community centres, arts studios and workshops and more informal meeting places.

Indoor Sports Provision

4.91 Facilities Planning Modelling (2010) identified the need for improved or new indoor sports provision to serve Lichfield City and the surrounding areas, hence its strategic significance as an infrastructure project. The need was highlighted for a six lane 25m swimming pool plus learner pool and either a four or six court sports hall, depending on whether or not existing facilities can be more intensively used in the Lichfield City area.

4.92 Further work has since been undertaken^(xiii) to determine how this could be achieved in terms of using facilities more efficiently and considering what additional investment would be required. The report concluded that the following priorities should be taken forward:

- Refurbishment of Friary Grange leisure Centre (works ongoing, funding secured: project costs £400,000)
- Redevelopment and extension of Friary Grange Leisure Centre to provide new training / teaching pool, health and fitness suite extension and potential sports hall extension. Business case to be developed to define the final scope of redevelopment (pool costs: £735,000, general redevelopment £765,000)
- Development of a new 4-court sports hall at Netherstowe School (£2.8m).

xiii Swimming Pool and Sports Hall Feasibility Study October 2013

Playing Pitches

4.93 The Playing Pitch Strategy has analysed local need, demand and potential participation rates relating to the main sports played in Lichfield District (football, rugby, cricket, hockey, tennis and bowls) and identifies areas of shortfall, of under-use and areas where provision could be improved. Some improvements are specifically to serve local communities and this is covered in the Local Infrastructure chapter.

4.94 Investment in other playing pitch facilities, however, serves a much more strategic need as many facilities serve a number of clubs and organisations. The strategy aims to ensure that there are sufficient pitches and courts to cater for demand for both matches and training, that facilities are of the required quality and to facilitate club development and participation at all levels.

4.95 At the strategic level, the Playing Pitch Strategy concludes that:

- In terms of the quality of football provision, this could include the provision of new or improved changing facilities, better investment and maintenance regimes, developing small stadia facilities when the standard of play reaches such a level that these are needed, and potential flood lighting at clubs to facilitate training;
- Cricket facilities need improved training provision (Burntwood and Kings Bromley) and changing facilities;
- Rugby clubs need support for the provision of new facilities, or the improvement of existing facilities and to expand or relocate when appropriate: there are particular pressures upon existing facilities at Burntwood RUFC;
- Hockey facilities should be supported in terms of additional provision subject to a clear business case, and in terms of improving existing pitches and facilities;
- Bowling provision should focus upon improving the quality of existing provision, with any additional facilities being provided in the Lichfield South and East and Tamworth Housing Market Area to match the areas of higher participation and to meet gaps in accessibility;
- In terms of tennis, work with the Lawn Tennis Association (LTA) is required to ensure that the merger of Lichfield Lawn Tennis Club and the Friary is not detrimental to the development of tennis, and in conjunction with this the Beacon Park tennis courts should be developed as a key tennis facility. Work with the LTA is also needed to develop the tennis club infrastructure in Burntwood. Parish Councils should also be supported in developing local facilities where there is identified latent demand.

4.96 Standards for playing pitch provision are set out in the Local Plan (Development Management Policy HSC2).

4.97 It costs around £60,000 - £100,000 to deliver a playing pitch depending upon the site in question, land conditions, topography and other local circumstances. Changing blocks cost around £250,000 for a 2-team block, and £350,000 for a 4-team block. Overall it is preferable to concentrate facilities on multi-pitch sites where possible.

4.98 Although the Playing Pitch Strategy focuses upon the main sports which are played within the District, other sporting and recreational facilities should also be supported where appropriate to ensure that all of the District's residents, employees and visitors have a wide range of opportunities to participate in sport and physical activity which suits their needs, interests and ability. This could include provision for croquet, American Football, cycling, walking, skateboarding, outdoor gyms to name a few examples which are also played / utilised within the District.

Skate Park

4.99 In terms of skateboarding, the lack of activities locally for young people has led to the need for a skate park being identified, located in Beacon Park. Works are due to commence shortly to deliver this.

Community Safety

4.100 In strategic terms, the need for CCTV has been highlighted through the consultation process, particularly relating to town centres and also hotspots for crime and antisocial behaviour. However, it is considered that CCTV should be installed only as a last resort in terms of infrastructure planning, with clear evidence being produced that this is the only feasible option, or a short term solution whilst other longer term solutions are sought, e.g. by designing out crime, which could include natural surveillance. In public places, particular regard must be had to the Governments Crowded Places agenda^(xiv) and infrastructure planning should be developed accordingly.

4.101 Specific community safety infrastructure projects will be included in the 'local infrastructure' section of the IDP where relevant as the document is updated and the plan progresses.

Table 4.2 Strategic Social & Community Infrastructure: summary of improvements needed which will arise either directly, indirectly or cumulatively as a result of development impacts

Infrastructure Requirement	Cost	Funding	Phasing	Delivery Lead
Housing				
A range of housing and accommodation to meet identified needs in line with Local Plan policies H1 and H2 including: <ul style="list-style-type: none"> Affordable housing 	Will vary	Sources will vary: combination of private, and public sector, grant aid, developer contributions (S106). Levels of	Throughout plan period in line with trajectory	Mainly developers but schemes will vary.

xiv Crowded Places: the Planning System and Counter Terrorism, Home Office January 2012

Infrastructure Requirement	Cost	Funding	Phasing	Delivery Lead
<ul style="list-style-type: none"> Housing to meet the varied needs of the ageing population Provision for gypsies, travellers and travelling showpeople Care facilities including elderly care, and residential care facilities for children and young people 		affordable housing to be determined by Local Plan Policy H2.		
Education and skills				
Primary Education	New schools required for East of Lichfield (Streethay) and South Lichfield SDAs, either a new school or extended facility to serve Fradley. Details set out under Local Infrastructure to prevent double-counting and duplication.	S106 where this directly relates to on-site provision, CIL to address other, cumulative need (eg East of Rugeley and expansion to schools in villages should growth require this: to be determined at Local Plan Allocations stage or through Neighbourhood Plans).	See Local Infrastructure in relation to SDA schools	Staffordshire County Council
Secondary education and post - 16 education (NB Primary school needs covered under 'local infrastructure').	£22m for schools serving Lichfield and its hinterland	Combination of public sector funding and developer contributions (CIL) for secondary education.	Throughout plan period in line with trajectory	Staffordshire County Council
Community provision and community safety				
Community provision - detailed area and site specific proposals covered under 'local infrastructure' but also included here to allow new community proposals to emerge over the plan period. Likely to include provision for the voluntary sector, increased police presence in communities, arts and cultural facilities, childcare	Will vary. Some details included in Local infrastructure section eg community facilities in line with SDAs	Sources will vary: may include developer contributions, mainly CIL	Throughout plan period	Parish and Town councils in partnership with community / voluntary sector

Infrastructure Requirement	Cost	Funding	Phasing	Delivery Lead
provision, care schemes, community safety schemes including those which address designing out crime and crowded places, etc.				
Health, sport and recreation				
Health centres / improvements to address capacity and access - covered under Local Infrastructure (Burntwood and Fradley). Fazeley may need investment - to be determined at land allocations stage.	See local infrastructure	See local infrastructure	See local infrastructure	See local infrastructure
Improvements to indoor sports facilities to serve Lichfield City and the surrounding rural communities.	£4,745,000 of which: £400,000 is refurbishment of Friary Grange changing rooms / reception (funds in place, project underway); Friary Grange additional pool £735,000 and general redevelopment £765,000; New 4 court hall at Netherstowe school £2,845,000.	Public funding and developer contributions (CIL) for funding shortfall.	Medium term.	Lichfield District Council
Improvements to playing pitch provision in line with the Playing Pitch, Tennis and Bowls Strategy (also includes cricket, football, hockey, rugby) and other playing pitch proposals as evidenced by local communities. Specific areas of deficiency or need are highlighted under 'Local Infrastructure'.	Schemes will vary, but the cost of a playing pitch is between £60 - £100k depending on local circumstances. Changing blocks cost around £250k.	Depending on the scheme, funding from clubs, public bodies, grant aid, developer contributions (S106 or CIL).	Ongoing throughout plan period	Lichfield District Council in partnership with parish and Town Councils, and local clubs and organisations.

Infrastructure Requirement	Cost	Funding	Phasing	Delivery Lead
Improvements to open space provision in line with the Open Space Assessment (see also 'Green Infrastructure') to include equipped play, informal play and amenity green space. Specific areas of deficiency or need are highlighted under 'Local Infrastructure'.	Schemes will vary	Depending on the scheme, funding from grant aid, public bodies, developer contributions. (S106 / CIL).	Ongoing throughout plan period	Lichfield District Council in partnership with Parish and Town Councils.

Strategic Green Infrastructure

4.102 Natural England defines Green Infrastructure as '*a strategically planned and delivered network of high quality green spaces and other environmental features. It should be designed and managed as a multi-functional resource, capable of delivering a wide range of environmental and quality of life benefits for local communities. Green Infrastructure includes parks, open spaces, playing fields, woodlands, allotments and private gardens*'.

4.103 The District Council is developing a detailed study of the Green Infrastructure needs, to include canals, rivers, wetland and floodplain ('blue infrastructure'). This study will utilise a range of evidence such as the Open Space, Sport and Recreation Assessment, Historical Environment Character Assessment and Biodiversity Action Plan and will also look at linkages and connections with other areas across the District boundary. This study will complement the IDP and will help to shape priorities for investment in the future.

4.104 There is an overall need to improve the District's Green Infrastructure in terms of particular locations, and improving linkages between sites. In some areas there are specific deficiencies, and, where evidence is available and specific solutions have been suggested these are detailed under the 'local infrastructure' section.

4.105 The following paragraphs detail specific strategic need based on current available evidence.

Open Space

4.106 The Open Space Assessment covers the following categories:

- Provision for children and young people (equipped play, and less formal play)
- Amenity green space (for informal activity close to home or work)
- Natural / semi natural green space
- Parks and gardens
- Green corridors (such as walkways and cycleways)
- Water spaces (such as lakes)
- Allotments (for growing own produce)
- Cemeteries and churchyards

- Civic spaces (providing the setting for public and community events, including theatres, religious and other cultural venues).
- Urban Fringe

4.107 The Open Space Assessment looks at issues in terms of quantity, quality and accessibility, identifies areas of shortfall (highlighted in the 'local infrastructure' chapter) and sets standards for provision which are set out in Policy HSC1 of the Local Plan.

Sport and Recreation

4.108 Playing pitches and other recreational facilities form part of the Green Infrastructure network, and requirements are considered under 'Social and Community' infrastructure.

Cannock Chase Area of Outstanding Natural Beauty and the Cannock Chase SAC

4.109 The Cannock Chase AONB contains a Special Area of Conservation (SAC): a strictly controlled site protected by the European Habitats Directive. All development in the District which results in a net increase in the number of dwellings and which falls within the 15km Zone of Influence (a zone which impacts on a number of Local Authorities: see **Appendix D** for the area which affects Lichfield District), will need to provide measures for mitigating the impact upon the SAC in line with the Visitor Mitigation Strategy and Policy NR7 of the Local Plan.

Central Rivers Initiative

4.110 The Central Rivers Initiative is a partnership project to develop a network of thriving water parks and nature reserves along the Trent and Tame river corridors, along with complementary infrastructure projects for example walks and cycleways, marina and hotel facilities and improved rail access. The partnership is between Staffordshire County Council, Lichfield District Council, Tamworth and East Staffordshire Borough Councils, private landowners, the National Forest, the National Memorial Arboretum and Staffordshire Wildlife Trust. The project is in its early stages, likely to be ongoing throughout the plan period as opportunities arise. Funding will be via mineral companies, developer contributions, National Forest Company incentives, Environment Agency, Forestry Commission and Natural England Higher Level schemes. The IDP will be updated as the project progresses.

Chasewater Country Park

4.111 Significant infrastructure requirements are required to Chasewater Country Park in terms of maintenance, enhancement of landscape, protection of natural resources and the historic environment, promotion of public access and understanding of the countryside. Much of the site is a designated Site of Special Scientific Interest. In terms of heathland management, the site is a Higher Level Scheme (HLS) under the Defra administered Environmental Stewardship scheme which runs from 2007 to 2017. The five primary objectives of this scheme are:

- Wildlife conservation;
- Maintenance and enhancement of landscape quality and character;

- Natural resource protection;
- Protection of the historic environment;
- Promotion of public access and understanding of the countryside.

4.112 A wider programme of improvements to Chasewater Country Park, including recreational, tourism and economic links is proposed by Staffordshire County Council who own the site.

Restoring the Lichfield Link: heathland projects

4.113 The sustainable management of heathland across the District is a key priority. In addition to the works outlined at Chasewater Country Park (above), heathland management schemes are being developed at Muckley Corner (Wall Butts Common), Pipehill Crossroads (Pipe Hill Heathlands or Pipe Marsh Common), Ironstone Road heathland and Gentleshaw Common (the latter is a High Level Stewardship (HLS) scheme) and these, together with funding sources, are set out in the table later in this chapter. One of the key elements of the overarching project is to increase and improve green infrastructure links in relation to heathland across the District.

Canals

4.114 A review of canal conservation areas to ensure appropriate enhancement and protection to inland waterways is scheduled to take place prior to 2016. The review will cost Lichfield District Council approximately £20,000. Once complete, this will show any infrastructure works which will be required and the IDP will be updated accordingly.

4.115 The restoration of Lichfield and Hatherton Canal is being led by the Lichfield and Hatherton Canal Trust. The Lichfield Canal project is estimated to cost £50m in total and is likely to be implemented post 2016 in three phases. A package of funding will be required and possible sources of funding are likely to include developer contributions, the David Suchet Appeal, Member contributions, the Inland Waterways Association, the Manifold Trust and possible grant funding.

Woodlands and hedgerows

4.116 National Forest woodland and non woodland creation is proposed including supporting the Long Distance Trail. The delivery will be led by the National Forest Company and funding will be via the National Forest Company incentives and the England Woodland Grant. The scheme will be delivered prior to 2016 and the IDP will be updated as the project progresses.

4.117 Wider improvements to woodland and hedgerow areas and habitats for priority protected species, and the creation of new woodlands, hedgerows and habitats for priority protected species will be addressed throughout the plan period as opportunities arise.

Local Nature Reserves

4.118 110 hectares of open space has to be declared as a Local Nature Reserve (LNR). Christian Fields to the north of Lichfield has recently been declared an LNR and further work is needed, both with regard to this site and in designating other sites across the District.

Table 4.3 Strategic Green infrastructure: summary of improvements needed which will arise either directly, indirectly or cumulatively as a result of development impacts

Infrastructure Requirement	Cost	Funding	Phasing	Delivery Lead
Open Space - general				
Improvements to open space provision in line with the Open Space Assessment, and emerging Green Infrastructure study and evidence from local communities. Specific areas of deficiency or need are highlighted under 'Local Infrastructure'.	Costs will vary	Sources will vary: public, private, grant aid, developer contributions (S106 / CIL)	Throughout plan period.	Implementation will vary although the strategic framework is set by Lichfield District Council.
Cannock Chase Area of Outstanding Natural Beauty				
Measures for mitigating the impact of development upon the Cannock Chase Special Area of Conservation (SAC), including Gentleshaw Common in line with the Visitor Mitigation Strategy.	Costs will vary	Sources will vary but mainly developer contributions (S106 / CIL)	Throughout plan period to align with trajectory.	Cannock Chase SAC Partnership
Central Rivers Initiative				
Network of water parks and nature reserves along the Trent and Tame river corridors with associated projects such as walkways, cycleways etc	Costs will vary	Sources vary e.g. mineral companies, National Forest Company incentives, Environment Agency, Forestry Commission, Natural England Higher Level schemes, Developer Contributions (S106 / CIL)	Throughout plan period	Central Rivers Initiative
Chasewater Country Park				
Improvements to Chasewater Country Park, including maintenance and enhancement of landscape character, protection of natural resources & historic	No costings for wider projects but see below for	Higher level stewardship (HLS) Scheme, potential developer	Short term (prior to 2018) for the HLS scheme and longer term for	Staffordshire County Council and Lichfield District Council

Infrastructure Requirement	Cost	Funding	Phasing	Delivery Lead
environment and promotion of public access & understanding of the countryside.	Chasewater projects under 'Restoring the Lichfield Link'.	contributions, other sources of public / private / grant funding.	other improvements beyond this date.	
Heathland				
Restoring the Lichfield Link programme for sustainable heathland management across the District:	1. £111k 2. £59k 3. £93k 4. £280k	1. £84k S106 biodiversity offsetting, £20k other developer contributions secured, £7k community forest grant	Short to medium term.	Lichfield District Council in partnership with the voluntary sector and others.
1. Muckley Corner Common	-			
2. Pipehill Common	320k			
3. Ironstone Road	5. £225k			
4. Gentleshaw Common	-			
5. Chasewater	£275k			
6. 4.1ha other heathlands project	6. £182k			
	NB this does not include costings for additional (ie non-biodiversity / habitat related elements of schemes such as footpaths, information boards and safety measures such as restrictions on motor vehicle access etc).	2. £59k S106 biodiversity offsetting 3. £93k S106 biodiversity offsetting 4. £280k - £320k HLS grant likely to be claimed by time scheme completes (2020), £20k Staffs. Development Fund 5. Total HLS to be claimed will be £225 - £275k (to 2017) plus second later HLS scheme		

Infrastructure Requirement	Cost	Funding	Phasing	Delivery Lead
		<p>details to be confirmed.</p> <p>6. £182k S106 biodiversity offsetting</p> <p>Projects may require additional funding (CIL, grants etc) to add value: see 'cost' column)</p>		
Canals				
General improvements to the canal network to improve green infrastructure links e.g. towpaths, walking and cycling routes, biodiversity. Review of canal conservation areas will inform more specific future infrastructure needs in those areas.	Costs will vary.	<p>Sources will vary: grant aid, public and private funding, developer contributions (CIL)</p> <p>Lichfield District Council to fund conservation area review work.</p>	Throughout plan period	Will vary depending on the project but Lichfield District Council to provide the strategic context in partnership with others, implementation to be led by British Waterways.
Restoration of the Lichfield Canal	£50m	Trust member contributions, David Suchet Appeal, Inland waterways Association, Manifold Trust grant funding, possible developer contributions	Medium to long term	Lichfield and Hatherton Canal Trust.
Woodlands and hedgerows				
Improvements relating to the National Forest including support for the Long Distance Trail	Will vary	National Forest Company Incentives and the England Woodland Grant	Long Distance Trail - short term prior to 2018. Other	National Forest Company.

Infrastructure Requirement	Cost	Funding	Phasing	Delivery Lead
			initiatives ongoing.	
Increasing and improving woodlands, hedgerows and habitats for priority protected species across the District.	Costs of schemes will vary	Grants, private and public funding, possible developer contribution (S106 / CIL)	Ongoing throughout plan period	Lichfield District Council in partnership with others.
Local Nature reserves (LNR)				
Achieve 110 ha LNR open space across the District and develop infrastructure to support this. Christian Fields recently declared an LNR, Muckley Corner due to be declared an LNR 2014/15 Gentleshaw Common in 2015/16.	See Heathland projects re Muckley Corner and Gentleshaw Common	Funding secured to enable declaration of LNRs / habitat management (see under 'heathland projects') but further funding required (CIL / grants) to improve access, security (eg from illegal use by motor vehicles), onsite information etc.	Short term	Lichfield District Council in partnership with others

5 Local Infrastructure Needs

5.1 This chapter sets out the infrastructure needs which relate specifically to local communities. It is divided up into needs which relate generically to each settlement, and those needs which relate specifically to the Strategic Development Allocations (SDAs).

5.2 It should be noted that, in some instances, developer contributions refer to both CIL and Section 106 at this point. This is not due to double counting, but because it has not yet been determined which pieces of infrastructure will be funded by which particular mechanism. This will be set out when the CIL Charging Schedule and Regulation 123 List is produced and the IDP will then be updated accordingly.

Lichfield City

5.3 Lichfield City's non site-specific infrastructure needs are covered primarily in the Strategic Infrastructure chapter (for example leisure, transport and town centre development). In the future, more localised issues may be set out in a Neighbourhood Plan (the City Council has applied to have the area designated as a Neighbourhood Area) or through the emerging City Centre Strategy which is being prepared in partnership with a range of organisations relating to Lichfield City. In terms of open space requirements, reference can be made to the details contained within the Open Space Assessment 2012, and in terms of playing pitch, tennis and bowls provision, the Playing Pitch, Tennis and Bowls Strategy 2012 should be utilised.

South of Lichfield Strategic Development Allocation

5.4 450 homes will be delivered to the South of Lichfield between 2015 and 2019. These will be delivered as follows:

Table 5.1 South of Lichfield SDA Housing Trajectory

Year	2015/16	2016/17	2017/18	2018/19
Approx. completions	75	150	150	75

5.5 The following infrastructure is needed to serve the site and to ensure that it links to its surroundings effectively (in addition to contributions to the provision of strategic infrastructure).

Table 5.2 South of Lichfield SDA site specific infrastructure needs.

Infrastructure Requirement South of Lichfield SDA	Cost	Funding	Phasing	Delivery Lead
Physical Infrastructure				
Developer to deliver on-site section of the Bypass from London Road to the railway embankment, (also protecting the route of the Lichfield Canal), through S278 agreement and as part of wider scheme to complete the bypass(see Strategic Infrastructure).	See strategic infrastructure section	Developer / S106 or S278 (in relation to onsite works), bypass completion involving underbridge	Work to begin at outset of development (2015) to allow for construction traffic to access the site.	Developer with Staffordshire County Council

Infrastructure Requirement South of Lichfield SDA	Cost	Funding	Phasing	Delivery Lead
Design of the internal road network to accord with the Manual for Streets.		construction is a wider scheme not just related to this SDA)		
Enhance bus routes and increase frequency of services to provide a convenient and well designed service connecting all new neighbourhoods and provide links into Lichfield City Centre and local railway stations. All proposed development should be within 350m of a bus stop.	Will vary	Developer with Staffordshire County Council and service providers.	Alongside first occupation (2015 - 2019)	Developer with Staffordshire County Council and service providers.
Cycle and pedestrian movement to be direct, safe, convenient, attractive and overlooked and will be supported by an internal network of green corridors to link to those beyond the development and allow for access to the countryside and to Lichfield City Centre. Integration of safer cycle and pedestrian routes to existing and proposed schools, to encourage walking and cycling for young people will be a priority.	Will vary	Developer and S106	Prior to first occupation (2015)	Developer with Staffordshire County Council
Smarter Travel Choices will be promoted to ensure residents are aware of the options available to them to reduce car usage.	Will vary	See strategic infrastructure (transport)	Alongside occupation (2015-19)	Developer with Staffordshire County Council
Measures to address water supply and waste water treatment (see strategic infrastructure).	Will vary - see strategic infrastructure	See strategic infrastructure	To be agreed between developer and utilities companies.	Developer with South Staffs Water and Severn Trent Water.
Relocation / provision of existing utilities infrastructure	Will vary	Developer and utilities companies	To be agreed between developer and utilities companies.	Developer with utilities companies.
Provision of any necessary flood mitigation measures, the provision of sustainable drainage and a sustainable management strategy for the maintenance of these.	Costs will vary	Developer, possibly S106 depending on design of scheme.	Alongside construction to begin 2015	Developer with Environment Agency.
Measures for mitigating the impacts of the adjacent railway line will be incorporated.	Costs will vary	Developer	Alongside construction to begin 2015	Developer
Social and Community Infrastructure				

Infrastructure Requirement South of Lichfield SDA	Cost	Funding	Phasing	Delivery Lead
A mix of house types, sizes and tenures and an appropriate level of affordable housing in accordance with Development Management policies H1 and H2 of the Local Plan. The affordable housing shall include a mix of tenure to meet housing needs and will be pepper-potted within the development and shall be indistinguishable from open market housing.	Cost will vary	Will vary - developers, public funding, S106, grant funding, Registered providers, housing associations, charitable bodies etc.	2015 - 2019	Developer in partnership with other organisations as applicable.
New primary school, one Form Entry (FE) providing for 210 places plus nursery provision. This requires a site of 12,000m ² and must be in a location accessible by public transport and cycle / pedestrian routes. Additional land is being sought by SCC to provide future flexibility.	£4m	S106 and Staffordshire County Council	Phasing / trigger points to be agreed with Staffordshire County Council	Developer with Staffordshire County Council
Community centre to be delivered as part of a community 'hub' and potentially linking to the school in line with details set out under 'strategic infrastructure'.	£800,000	S106.	Alongside development of the site, to be completed by 2019.	Developer in partnership with Lichfield District Council and / or City Council.
New community 'hub' to be provided within the Central Neighbourhood Area to include classes A1 to A5 of the General Permitted Development (Amendment) order 2005. The hub must also incorporate , or be adjacent to, facilities which can be used for playing pitches, sport and recreation.	Cost will vary	Developer.	Alongside development of the site, to be completed by 2019.	Developer.
Playing pitches and changing / pavilion space to be provided at a minimum level of 1.23ha per 1000 population in line with Development Management policy HSC2. For this site this is 1.27ha min.	Indicative cost for a playing pitch between £60,000 and £100,000 depending on local circumstances. Changing block costs £250,000 (2 team) or £350,000 (4 team).	S106	Alongside development of the site, to be completed by 2019 with an ongoing programme for maintenance.	Developer in partnership with Lichfield District Council, City Council and local sports clubs and organisations as applicable.
Equipped play area to be provided in a safe and accessible location, to ensure that all parts of the development are within 480m / 10 minutes walk time of an equipped play facility in line with Development Management Policy HSC1.	Will vary	S106	Alongside development of the site, to be completed by 2019 with an ongoing programme for maintenance.	Developer in partnership with Lichfield District Council and Lichfield City Council.

Infrastructure Requirement South of Lichfield SDA	Cost	Funding	Phasing	Delivery Lead
Amenity Green Space to be provided at a minimum rate of 1.43ha per 1000 population and to ensure all residents are within 480m / 10 minutes walk time of an amenity green space in line with Development Management Policy HSC1. For this site this is 1.48ha min.	Will vary	Developers / S106	Alongside development of the site, to be completed by 2019 with an ongoing programme for maintenance.	Developer in partnership with Lichfield District Council and Lichfield City Council.
New allotment space to be provided at a minimum rate of 1 plot (150sq.m.) per 32 households in line with Development Management Policy HSC1. For this site this is 14 plots min.	Will vary	Developers / CIL or S106	Alongside development of the site, to be completed by 2019 with an ongoing programme for management.	Developer in partnership with Lichfield District Council and Lichfield City Council and Allotments Society.
Contributions to secondary / post 16 education, and improved leisure facilities for Lichfield City as detailed under 'strategic infrastructure'.	See strategic infrastructure	CIL (see strategic infrastructure)	See strategic infrastructure.	See strategic infrastructure
Public art to be a feature of the development	Will vary	S106 or CIL	By 2019	Developer in partnership with Lichfield District Council and Lichfield City Council and local arts organisations.
Green infrastructure				
All new landscaping must assist in assimilating this development into the wider landscape and topography.	Will vary	Developer	Alongside development of the site, to be completed by 2021 with an ongoing programme for maintenance.	Developer
A continuous open space network must be provided along the course of the Lichfield Canal route giving access to future waterside recreation uses. The linear form of this corridor will be opened up in places to provide public amenity space.	Will vary	Developer / S106	Alongside development of the site, to be completed by 2019 with an ongoing programme for maintenance.	Developer working with the Lichfield Canal Restoration Trust
A network of green spaces will be integrated into the development to reflect the standards set out in Development Management Policies HSC1 and HSC2 (see also 'social and community' infrastructure). These need to be carefully designed to take into account natural surveillance and the amenity of neighbouring residents.	Will vary	Developer / S106	Alongside development of the site, to be completed by 2019 with an ongoing programme for maintenance.	Lichfield District Council with developer and in partnership with others as applicable.
Areas of biological interest or grassland habitat will be protected and, where possible integrated as part of the open spaces network.	Will vary	Developer / S106	Alongside development of the site, to be completed	Lichfield District Council with developer and in

Infrastructure Requirement South of Lichfield SDA	Cost	Funding	Phasing	Delivery Lead
			by 2019 with an ongoing programme for maintenance.	partnership with others as applicable.
Existing natural features, including quality hedgerows and significant trees will be incorporated within the layout. New landscaping and planting will be sited and selected to include sufficient tree canopy cover across the site to deliver landscape - related climate-change adaptation, urban cooling, shade and shelter and visually enhance the development. Parks, open spaces, streets and public areas must incorporate sufficient space above and below ground to enable large canopy trees to develop to maturity.	Will vary	Developer CIL / S106	Alongside development of the site, to be completed by 2019 with an ongoing programme for maintenance.	Lichfield District Council with developer and in partnership with others as applicable.
The development will include the retention and enhancement of exiting quality hedgerows and significant trees and habitat within the site and to its edges.	Will vary	Developer / S106	Alongside development of the site, to be completed by 2019 with an ongoing programme for maintenance.	Lichfield District Council with developer and in partnership with others as applicable.

East of Lichfield (Streethay) Strategic Development Allocation

5.6 750 homes will be delivered to the East of Lichfield between 2015 and 2021. These will be delivered as follows:

Table 5.3 East of Lichfield (Streethay) SDA Housing Trajectory

Year	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
Approx. completions	75	150	150	150	150	75

5.7 The following infrastructure is needed to serve the site and to ensure that it links to its surroundings effectively (in addition to contributions to the provision of strategic infrastructure).

Table 5.4 East of Lichfield (Streethay) SDA site specific infrastructure needs.

Infrastructure Requirement East of Lichfield SDA	Cost	Funding	Phasing	Delivery Lead
Physical infrastructure				
Two new junctions, accessed at either end of the existing settlement will be provided to serve the proposed development. The northern junction will be appropriately and safely designed so as not to restrict, and, where possible, improve the flow of traffic on to the strategic highway network (A38). Any measures will need to be modelled to ensure they are an effective solution and will be capable of delivery.	To be confirmed between developer, Staffordshire County Council and Highways Agency.	Developer S278 or S106	To be agreed between the developer and Staffordshire County Council /	Developer with Staffordshire County Council and Highways Agency.

Infrastructure Requirement East of Lichfield SDA	Cost	Funding	Phasing	Delivery Lead
The design of the internal road network to accord with the Manual for Streets.			Highways agency.	
The development will provide safe crossing points to allow for the safe movement of pedestrians and cyclists from within the existing settlements of Streethay to the SDA and its amenities, particularly with regard to the primary school, social and community facilities and green spaces.	Will vary. Indicative cost of a pedestrian crossing is around £60,000 but other options also to be considered.	S106	Prior to first occupation (2015)	Developer with Staffordshire County Council
Traffic management measures and pedestrian improvements on the A5127. Existing footpaths on Burton Road will be improved and widened where necessary to enhance the pedestrian linkages from the site to Lichfield Trent Valley Station	To be confirmed between developer and Staffordshire County Council	S106 / S278	Prior to completion (2015)	Developer with Staffordshire County Council
Increased frequency and enhanced provision of bus services to provide a convenient and well designed service connecting all new neighbourhoods and providing links into Lichfield City Centre and local railway stations. All proposed development should be within 350m of a bus stop.	Will vary	Developer with service providers.	Alongside first occupation (2015)	Developer with Staffordshire County Council and service providers.
Cycle and pedestrian movement to be direct, safe, convenient, attractive and overlooked and will be supported by an internal network of green corridors to link to those beyond the development and allow for access to the countryside and to Lichfield City Centre. Integration of safer cycle and pedestrian routes to existing and proposed schools, to encourage walking and cycling for young people will be a priority. Linkages will be provided to the existing footbridge over the West Coast Main Line, and shall be integrated into the development to assist in the safe movement of pedestrians and cyclists into the City.	Will vary	S106	Alongside first occupation (2015)	Developer with Staffordshire County Council.
Smarter Travel Choices will be promoted to ensure residents are aware of the options available to them to reduce car usage.	Will vary	See strategic infrastructure (transport)	Alongside first occupation (2015)	Developer with Staffordshire County Council
Measures to address water supply and waste water treatment (see strategic infrastructure).	Will vary - see strategic infrastructure	See strategic infrastructure.	To be agreed between developer and utilities companies.	Developer with South Staffs Water and Severn Trent Water.
Relocation / provision of existing utilities infrastructure.	Will vary	Developer and utilities companies.	Prior to development taking place	Developer with utilities companies.

Infrastructure Requirement East of Lichfield SDA	Cost	Funding	Phasing	Delivery Lead
			(before 2015)	
Provision of any necessary flood mitigation measures, the provision of sustainable drainage and a sustainable management strategy for the maintenance of these.	Costs will vary	Developer, possibly with CIL / S106 depending on design of scheme.	Alongside construction to begin 2015.	Developer with Environment Agency.
Measures for mitigating the impacts of the adjacent railway line will be incorporated.	Costs will vary	Developer	Alongside construction to begin 2015.	Developer
Social and Community Infrastructure				
A mix of house types, sizes and tenures and an appropriate level of affordable housing in accordance with Development Management policies H1 and H2 of the Local Plan. The affordable housing shall include a mix of tenure to meet housing needs and will be pepper-potted within the development and shall be indistinguishable from open market housing.	Costs will vary	Will vary - developers, public funding, S106, grant funding, Registered providers, housing associations, charitable bodies etc.	2015 - 2021	Developer in partnership with other organisations as applicable.
New primary school, one or one and a half Form Entry (FE) providing for 210 to 315 places plus nursery provision. This requires a site of 12,000m ² to 16,700m ² and must be in a location accessible by public transport and cycle / pedestrian routes.	£4m-£5.5m	S106 and Staffordshire County Council.	Phasing / trigger points to be agreed with Staffordshire County Council	Developer with Staffordshire County Council.
Community Centre to be delivered as part of a community 'hub' and potentially linking to the school in line with the details set out under 'strategic infrastructure'.	£800,000	S106	Alongside development of the site to be completed by 2021.	Developer in partnership with Lichfield District Council or Parish Council.
New community 'hub' to be provided within the Central Neighbourhood Area to include classes A1 to A5 of the General Permitted Development (Amendment) order 2005. The hub must also incorporate, or be adjacent to, facilities which can be used for playing pitches, sport and recreation.	Cost will vary	Developer	Alongside construction to begin 2015.	Developer
Playing pitches and changing / pavilion space to be provided at a minimum level of 1.23ha per 1000 population in line with Development Management policy HSC2. For this site this is 2.13ha min.	Indicative cost for a playing pitch between £60,000 and £100,000 depending on	S106	Alongside development of the site, to be completed by 2021	Developer in partnership with Lichfield District Council, Parish Council and local sports clubs and

Infrastructure Requirement East of Lichfield SDA	Cost	Funding	Phasing	Delivery Lead
	local circumstances. Changing block costs £250,000 (2 team) or £350,000 (4 team).		with an ongoing programme for maintenance.	organisations as applicable.
Equipped play area to be provided in a safe and accessible location, to ensure that all parts of the development are within 480m / 10 minutes walk time of an equipped play facility in line with Development Management Policy HSC1.	Will vary	CIL or S106	Alongside development of the site, to be completed by 2021 with an ongoing programme for maintenance.	Developer in partnership with Lichfield District Council and Parish Council.
Amenity Green Space to be provided at a minimum rate of 1.43ha per 1000 population and to ensure all residents are within 480m / 10 minutes walk time of an amenity green space in line with Development Management Policy HSC1. For this site this is 2.46ha min.	Will vary	Developers / S106	Alongside development of the site, to be completed by 2021 with an ongoing programme for maintenance.	Developer in partnership with Lichfield District Council and Parish Council.
New allotment space to be provided at a minimum rate of 1 plot (150sq.m.) per 32 households in line with Development Management Policy HSC1. For this site this is 23 plots min.	Will vary	Developers / CIL or S106	Alongside development of the site, to be completed by 2021 with an ongoing programme for management	Developer in partnership with Lichfield District Council and Parish Council and Allotments Society.
Contributions to secondary / post 16 education, and improved leisure facilities for Lichfield City as detailed under 'strategic infrastructure'.	See strategic infrastructure	CIL (see strategic infrastructure)	See strategic infrastructure.	See strategic infrastructure.
Public art to be a feature of the development.	Will vary	S106 or CIL	By 2021	Developer in partnership with Lichfield District Council and Parish Council and local arts organisations.
Green infrastructure				
All new landscaping must assist in assimilating this development into the wider landscape and topography.	Will vary	Developer	Alongside development of the site,	Developer

Infrastructure Requirement East of Lichfield SDA	Cost	Funding	Phasing	Delivery Lead
			to be completed by 2021 with an ongoing programme for maintenance.	
A network of green spaces will be integrated into the development to reflect the standards set out in Development Management Policies HSC1 and HSC2 (see also 'social and community' infrastructure). These need to be carefully designed to take into account natural surveillance and the amenity of neighbouring residents.	Will vary	Developer / S106	Alongside development of the site, to be completed by 2021 with an ongoing programme for maintenance.	Lichfield District Council with developer and in partnership with others as applicable.
Areas of biological interest or grassland habitat will be protected and, where possible integrated as part of the open spaces network.	Will vary	Developer / S106	Alongside development of the site, to be completed by 2021 with an ongoing programme for maintenance.	Lichfield District Council with developer and in partnership with others as applicable.
Existing natural features, including quality hedgerows and significant trees will be incorporated within the layout. New landscaping and planting will be sited and selected to include sufficient tree canopy cover across the site to deliver landscape - related climate-change adaptation, urban cooling, shade and shelter and visually enhance the development. Parks, open spaces, streets and public areas must incorporate sufficient space above and below ground to enable large canopy trees to develop to maturity.	Will vary	Developer / S106	Alongside development of the site, to be completed by 2021 with an ongoing programme for maintenance.	Lichfield District Council with developer and in partnership with others as applicable.
The development will include the retention and enhancement of existing quality hedgerows and significant trees and habitat within the site and to its edges. The existing settlement is clearly defined by mature hedgerows along Burton Road and this characteristic will be incorporated into any proposal.	Will vary	Developer / S106	Alongside development of the site, to be completed by 2021 with an ongoing programme for maintenance.	Lichfield District Council with developer and in partnership with others as applicable.

Burntwood

5.8 Burntwood Town Council have produced the Burntwood Town Strategy (2011) which sets out a number of priorities for the area. In terms of infrastructure these can be summarised as follows:

- Delivery of a town centre (see also Strategic Infrastructure) and associated environmental improvements (e.g. to Sankeys Corner);
- Improvements which help to identify Burntwood more strongly and coherently as a place;
- Improvements to public transport access (see also strategic infrastructure) including improved bus networks and reopening of the Walsall-Lichfield rail link and delivery of a station at Burntwood;
- Delivery of a range of housing, especially of brownfield land, and especially for families and young people;
- Support for businesses;
- Measures to reduce / prevent crime and anti-social behaviour;
- Local environmental improvements;
- Improved pathways and trails, including links to Chasewater Country Park;
- Support for children's and young people's activities including play areas (and access to these - see also the Open Space Assessment);
- Social activities for the wider community, including maximising opportunities for the development of social facilities and making best / more effective use of existing ones;
- Improvement and delivery of learning and training opportunities in the area
- Supporting the delivery of two health centres in Burntwood (see strategic infrastructure; this issue is already being addressed) and encouraging the provision of high quality care facilities for older people.
- Developing volunteering / community participation;
- Developing partnerships including those addressing environmental sustainability and biodiversity support.

5.9 The Burntwood Business Crew (Burntwood's recently formed Town Team) is in the process of identifying local improvements to support local business needs: this includes improvements to Ryecroft shopping centre car park.

East of Burntwood Bypass Strategic Development Allocation

5.10 375 homes will be delivered to the East of Burntwood Bypass between 2015 and 2020. These will be delivered as follows:

Table 5.5 East of Burntwood Bypass SDA Housing Trajectory

Year	2015/16	2016/17	2017/18	2018/19	2019/20
Approx. Completions	50	100	100	100	25

Table 5.6 East of Burntwood Bypass SDA site specific infrastructure needs.

Infrastructure Requirement East of Burntwood SDA	Cost	Funding	Phasing	Delivery Lead
Physical infrastructure				
Vehicular access to the site will be from Milestone way. Design of the internal road network to accord with the Manual for Streets.	Will vary	Developer (access from Milestone way already constructed).	At outset (2015)	Developer with Staffordshire County Council.
Cycle and pedestrian movement to be direct, safe, convenient, attractive and overlooked and will be supported by an internal network of green corridors to link to those beyond the development and allow for access to the countryside, Burntwood Town Centre and to Chasewater. Integration of safer cycle and pedestrian routes to existing schools where this is possible, to encourage walking and cycling for young people will be a priority. Inclusion of safe crossing points outside the site, including links to Chasewater.	Will vary	Developer / S106	Prior to first occupation (2015)	Developer with Staffordshire County Council.
Increased frequency and enhanced provision of bus services to provide a convenient and well designed service connecting all new neighbourhoods and providing links into Burntwood Town Centre. All proposed development should be within 350m of a bus stop.	Will vary	Developer with Staffordshire County Council and service providers.	Alongside first occupation (2015 -20)	Developer with Staffordshire County Council.
Smarter Travel Choices will be promoted to ensure residents and employees are aware of the options available to them to reduce car usage.	Will vary	See strategic infrastructure (transport)	Alongside first occupation (2015)	Developer with Staffordshire County Council.
Measures to address water supply and waste water treatment capacity issues (see strategic infrastructure).	Will vary - see strategic infrastructure.	See strategic infrastructure.	See strategic infrastructure.	See strategic infrastructure.
Relocation / provision of existing utilities infrastructure.	Will vary	Developer and utilities companies.	To be agreed between developer and utilities companies.	Developer with utilities companies.
Provision of any necessary flood mitigation measures, the provision of sustainable drainage and a sustainable management strategy for the maintenance of these.	Costs will vary	Developer, possibly with CIL / S106 depending on design of scheme.	Alongside construction to begin 2015.	Developer with Environment Agency.
Social and Community Infrastructure				
A mix of house types, sizes and tenures and an appropriate level of affordable housing in accordance with Development Management policies H1	Costs will vary	Will vary - developers, public funding,	2015 - 2020	Developer in partnership with other organisations as applicable.

Infrastructure Requirement East of Burntwood SDA	Cost	Funding	Phasing	Delivery Lead
and H2 of the Local Plan. The affordable housing shall include a mix of tenure to meet housing needs and will be pepper-potted within the development and shall be indistinguishable from open market housing.		S106, grant funding, Registered providers, housing associations, charitable bodies etc		
Playing pitches and changing / pavilion space to be provided at a minimum level of 1.23ha per 1000 population in line with Development Management policy HSC2. For this site this is 1.06ha min.	Costs will vary depending on provision and whether on or off - site. Indicative cost for a playing pitch between £60,000 and £100,000 depending on local circumstances. Changing block costs £250,000 (2 team) or £350,000 (4 team).	S106	Alongside development of the site, to be completed by 2020 with an ongoing programme for maintenance.	Partnership between Lichfield District Council and Burntwood Town Council and local sports clubs and organisations as applicable.
Equipped play area to be provided in a safe and accessible location, to ensure that all parts of the development are within 480m / 10 minutes walk time of an equipped play facility in line with Development Management Policy HSC1.	Will vary	S106	Alongside development of the site, to be completed by 2020 with an ongoing programme for maintenance.	Developer in partnership with Lichfield District Council and Burntwood Town Council.
Amenity Green Space to be provided at a minimum rate of 1.43ha per 1000 population and to ensure all residents are within 480m / 10 minutes walk time of an amenity green space in line with Development Management Policy HSC1. For this site this is 1.23ha min.	Will vary	Developers / S106	Alongside development of the site, to be completed by 2020 with an ongoing programme for maintenance.	Developer in partnership with Lichfield District Council and Burntwood Town Council.
New allotment space to be provided at a minimum rate of 1 plot (150sq.m.) per 32 households in line with Development Management Policy HSC1. For this site this is 11 allotments.	Will vary	Developers / CIL or S106	Alongside development of the site, to be completed by 2020 with an ongoing programme for maintenance.	Developer in partnership with Lichfield District Council and Burntwood Town Council and allotments organisations.
Contributions to education as detailed under 'strategic infrastructure'.	See strategic infrastructure.	CIL	See strategic infrastructure.	See strategic infrastructure.
Public art to be a feature of the development.	Will vary	S106 or CIL	By 2020	Developer in partnership with Lichfield District Council, Burntwood

Infrastructure Requirement East of Burntwood SDA	Cost	Funding	Phasing	Delivery Lead
				Town Council and local arts organisations.
Green Infrastructure				
There will be appropriate mitigation for ecological and future management issues, including the delivery of suitable alternative habitat of greater quantity than that lost through development.	Will vary	Developer / S106	Prior to development taking place (before 2015)	Developer with Lichfield District Council.
All new landscaping must assist in assimilating this development into the wider landscape and topography, including the pond to the south of the site.	Will vary	Developer	Alongside development 2015-2020	Developer
A network of green spaces will be integrated into the development to reflect the standards set out in Development Management Policies HSC1 and HSC2 (see also 'social and community' infrastructure). Links to Chasewater Country Park are especially important. These links and green spaces need to be carefully designed to take into account natural surveillance and the amenity of neighbouring residents.	Will vary	Developer / S106	Alongside development of the site, to be completed by 2020 with an ongoing programme for maintenance.	Lichfield District Council with developer and in partnership with others as applicable.
Existing natural features, including quality hedgerows and significant trees will be incorporated within the layout. New landscaping and planting will be sited and selected to include sufficient tree canopy cover across the site to deliver landscape - related climate-change adaptation, urban cooling, shade and shelter and visually enhance the development. Parks, open spaces, streets and public areas must incorporate sufficient space above and below ground to enable large canopy trees to develop to maturity.	Will vary	Developer / S106	Alongside development of the site, to be completed by 2020 with an ongoing programme for maintenance.	Lichfield District Council with developer and in partnership with others as applicable.
The development will include the retention and enhancement of exiting quality hedgerows and significant trees and habitat within the site and to its edges.	Will vary	Developer / S106	Alongside development of the site, to be completed by 2020 with an ongoing programme for maintenance.	Lichfield District Council with developer and in partnership with others as applicable.

Rural Areas

5.11 The infrastructure needs of the District's rural communities are very varied. The following section is set out in order to reflect the apportionment of development to each community as set out in the Local Plan. Firstly, therefore it covers Fradley, then the Key

Rural Settlements of Alrewas, Armitage with Handsacre, Fazeley / Mile Oak and Bonehill, Shenstone and Whittington. Finally, this section covers 'other rural' i.e. the District's smaller rural communities.

Fradley Strategic Development Allocation

5.12 1,000 homes will be delivered in Fradley between 2015 and 2023. These will be delivered as follows:

Table 5.7 Fradley Housing Trajectory

Year	2015/16	2016/17	2017/18	2018/19	2019/20
Approx completions	75	150	150	150	150

Table 5.8 Fradley Housing Trajectory (cont.)

Year	2020/21	2021/22	2022/23
Approx completions	150	150	25

Table 5.9 Fradley SDA infrastructure needs

Infrastructure Requirement Fradley SDA	Cost	Funding	Phasing	Delivery Lead
Physical infrastructure				
The development will ensure the segregation of traffic associated with with the adjacent industrial park from the SDA	Will vary	Developer	Alongside development 2015 - 23	Developer with Staffordshire County Council.
Junction access on to the A38 and local highway improvements will be addressed where necessary, and also local connections to the surrounding villages and Lichfield. Measures will need to be modelled to ensure that they are an effective solution and should be capable of delivery at an appropriate time in the delivery of the development.	Will vary	S278	Alongside development 2015 - 23	Developer with Staffordshire County Council and Highways Agency.
Safe crossing points will be provided to allow for the safe movement of people on foot and cycle from within the existing communities of Fradley and Fradley South to the SDA and its amenities, especially the primary school, social and community facilities and green spaces. Safer pedestrian routes will be integrated, especially to the school to encourage walking for all.	Options to be considered.	S106	Alongside development 2015 - 23	Developer with Staffordshire County Council
The design of the internal road network shall accord fully to the principles of Manual for Streets.	Will vary	Developer	Alongside development 2015 - 23	Developer with Staffordshire County Council

Infrastructure Requirement Fradley SDA	Cost	Funding	Phasing	Delivery Lead
A convenient and well designed bus service will be provided, fully accessible from all parts of the SDA which should include an improved regularity of service. This must take account of the existing service in Fradley and Fradley South and make improvements where necessary. It must provide a convenient connection to Lichfield and Lichfield Trent Valley Station. All proposed development should aim to be within 350m of a bus stop.	Will vary	Developer with Staffordshire County Council and service providers.	Alongside development 2015 - 23	Developer with Staffordshire County Council and service providers.
The existing bridges over the canal will be integrated into the design of new development to assist the safer movement of pedestrians and cyclists into the countryside, surrounding villages and Fradley Junction.	Will vary	Developer	Alongside development 2015 - 23	Developer
Smarter Travel Choices will be promoted to ensure residents and employees are aware of the options available to them to reduce car usage.	Will vary	See strategic infrastructure (transport)	Alongside first occupation 2015 - 23	Developer with Staffordshire County Council.
Provision will be made for sufficient mitigation of the effects of the adjacent industrial park. Where this requires physical alterations to the land e.g. bunding, this shall be fully integrated in the design of the landscaping and disposition of uses in the layout.	Will vary	Developer	Alongside development 2015 - 23	Developer
Measures to address water supply and waste water treatment (see strategic infrastructure).	Will vary	See strategic infrastructure	See strategic infrastructure	Developer with water companies.
Relocation / provision of existing utilities infrastructure.	Developer with utilities companies.	Developer with utilities companies.	To be agreed between developer and utilities companies.	Developer with utilities companies.
Provision of any necessary flood mitigation measures, the provision of sustainable drainage and a sustainable management strategy for the maintenance of these.	Will vary	Developer, possibly with CIL / S106 depending on design of scheme.	Alongside construction to begin 2015.	Developer with Environment Agency.
Social and Community infrastructure				
A mix of house types, sizes and tenures and an appropriate level of affordable housing in accordance with Development Management policies H1 and H2 of the Local Plan. The affordable housing shall include a mix of tenure to meet housing needs and will be pepper-potted within the development and shall be indistinguishable from open market housing.	Will vary	Will vary - developers, public funding, S106, grant funding, Registered providers, housing associations,	2015 - 2023	Developer in partnership with other organisations as applicable.

Infrastructure Requirement Fradley SDA	Cost	Funding	Phasing	Delivery Lead
		charitable bodies etc		
The development should create neighbourhood facilities to extend the range of services available at the exiting neighbourhood centre. An extended community hub should be provided within the neighbourhood area and should explore uses potentially including primary health care facilities and a community library / rerouted mobile library facilities. There is scope to link the community facilities to the school. options for this will need to be considered in detail such as extending an existing facility or linking provision to expanded school facilities.	Will vary	S106	Alongside development of the site to be completed by 2023.	Developer with Lichfield District Council, Parish Council and local organisations as applicable.
There is a potential need to provide health care facilities to serve Fradley. Whilst these have not been specified for the short term there should be a longer term aim to deliver services directly to the community either in a bespoke unit or as outreach provision.	Will vary. The former Primary Care Trust originally provided an indicative cost of £350,000 for construction of new doctors surgery but have since indicated that other options need to be considered. No further updates from the new Clinical Commissioning Group (CCG).	Health organisations, CIL	By 2023	Health care providers with Lichfield District Council and developers.
Adequate primary school provision shall be made, which should consider the options of extending St. Stephen's primary school with alternative (new) provision if necessary. Total provision across Fradley as a whole would need to equate to 3 Form Entry (FE) with Early Years provision and potentially a children's centre.	Will vary depending upon agreed approach. Indicative costings: an extension to the existing school to provide 0.5 FE would be £2.8m approx, a 1.5 FE extension to the existing school would be £4m, a new 1 FE school costs around £4m, a 1.5 FE school costs around £5.5m.	S106	Phasing / trigger points to be agreed with Staffordshire County Council	Developers with Staffordshire County Council

Infrastructure Requirement Fradley SDA	Cost	Funding	Phasing	Delivery Lead
Playing pitches and changing / pavilion space to be provided at a minimum level of 1.23ha per 1000 population in line with Development Management policy HSC2. Provision will be made for a new community football facility with 2-3 pitches. Consideration will be given to the provision of a new cricket pitch, either at Alrewas or in Fradley as a satellite club of Alrewas. Minimum provision 2.83ha.	Indicative cost for a playing pitch between £60,000 and £100,000 depending on local circumstances. Changing block costs £250,000 (2 team) or £350,000 (4 team).	S106	Alongside development of the site, to be completed by 2023 with an ongoing programme for maintenance.	Partnership between Lichfield District Council, Parish Council and local sports clubs and organisations as applicable.
Equipped play area to be provided in a safe and accessible location, to ensure that all parts of the development are within 480m / 10 minutes walk time of an equipped play facility in line with Development Management Policy HSC1.	Will vary	S106	Alongside development of the site, to be completed by 2023 with an ongoing programme for maintenance.	Developer in partnership with Lichfield District Council and Parish Council.
Amenity Green Space to be provided at a minimum rate of 1.43ha per 1000 population and to ensure all residents are within 480m / 10 minutes walk time of an amenity green space in line with Development Management Policy HSC1. For this site this is 3.29ha min.	Will vary	S106	Alongside development of the site, to be completed by 2023 with an ongoing programme for maintenance.	Developer in partnership with Lichfield District Council and Parish Council.
New allotment space to be provided at a minimum rate of 1 plot (150sq.m.) per 32 households in line with Development Management Policy HSC1. For this site this is 31 plots min.	Will vary	CIL or S106	Alongside development of the site, to be completed by 2023 with an ongoing programme for maintenance.	Developer in partnership with Lichfield District Council, Parish Council and Allotments organisations.
Contributions to secondary / post 16 education, and improved leisure facilities for Lichfield City as detailed under 'strategic infrastructure'.	See strategic infrastructure	CIL	Throughout plan period	Staffordshire County Council
Public art to be a feature of the development.	Will vary	S106	By 2023	Developer in partnership with Lichfield District Council, Parish Council and local arts organisations.
Green Infrastructure				
The development should be responsive to the qualities of the land and existing landscaping, and new landscaping should help assimilate this SDA into the wider landscape. This includes the canal. The existing balancing ponds and water features should also be fully integrated,	Will vary	Developer	Alongside development to ensure that existing residents of adjacent development are not deprived of open space and	Developer working with Lichfield District Council.

Infrastructure Requirement Fradley SDA	Cost	Funding	Phasing	Delivery Lead
potentially becoming a central park to serve the whole of Fradley.			that new residents are provided with adequate facilities from the outset of site occupation. A clear phasing strategy will be required to achieve this.	
A network of green spaces will be integrated into the development to reflect the standards set out in Development Management Policies HSC1 and HSC2 (see also 'social and community' infrastructure). These need to be carefully designed to take into account natural surveillance and the amenity of neighbouring residents.	Will vary	Developer CIL or S106	Alongside development, to be completed by 2023 with an ongoing programme for maintenance.	Developer with Lichfield District Council, Parish Council and in partnership with others as applicable.
The development will consider and propose measures to mitigate, manage and protect, where appropriate, any local areas of biological interest. Where possible and appropriate this will be integrated as part of the open spaces network, or alternatively mitigated for off-site.	Will vary	Developer CIL / S106	Prior to development taking place (before 2015)	Developer with Lichfield District Council.
Existing natural features, including quality hedgerows and significant trees and habitats will be incorporated within the layout. New landscaping and planting will be sited and selected to include sufficient tree canopy cover across the site to deliver landscape - related climate-change adaptation, urban cooling, shade and shelter and visually enhance the development. Parks, open spaces, streets and public areas must incorporate sufficient space above and below ground to enable large canopy trees to develop to maturity.	Will vary	Developer CIL / S106	Alongside development, to be completed by 2023 with an ongoing programme for maintenance.	Lichfield District Council with developer and in partnership with others as applicable.
The development will include the retention and enhancement of existing quality hedgerows and significant trees and habitat within the site and to its edges.	Will vary	Developer CIL / S106	Alongside development of the site, to be completed by 2023 with an ongoing programme for maintenance.	Lichfield District Council with developer and in partnership with others as applicable.

Key rural settlements

5.13 The key rural settlements have defined some of their key local infrastructure needs through the Rural Masterplanning Project 2011 (also known as the rural villages project), which also pulled together other evidence from the Local Plan evidence base. These needs - which include specific local issues from other parts of the evidence base (such as the

Playing Pitch Strategy 2012) are as follows. Please note - no timescales have been addressed here, as specific sites will be allocated through the Local Plan: Allocations document. The IDP will be updated accordingly as work on this progresses, and this will also take account of work being undertaken to prepare more localised plans such as Neighbourhood or Parish Plans for example.

5.14 Alrewas local infrastructure needs

- Improved traffic management along Main Street and Fox Lane;
- Improving public access to the countryside;
- Improving links to the National Memorial Arboretum including a bridge over the A38 (an indicative cost of £13m for this has been provided by Staffordshire County Council);
- Initiatives to reduce the noise and visual impact of the A38 on the village;
- Delivery of a rail station to serve Alrewas and other public transport improvements;
- Well designed housing to serve local need as set out in Policy Alr4;
- Improving social and recreational facilities including the village hall, doctors surgery, play and open space provision (especially in the north), pedestrian and cycle routes;
- Delivering additional facilities for football and cricket to serve Alrewas and Fradley (see also Fradley SDA);
- Improvements to the canal including the towpath and additional moorings to encourage more tourism.

5.15 Armitage with Handsacre local infrastructure needs

- Improvements which address issues of traffic management and safety particularly for pedestrians and cyclists;
- Improvements which address issues of localised surface water flooding;
- Improvements to the canal conservation area, including links to the village to encourage tourism and support local businesses;
- Creation of a more distinct village 'centre' / focal point;
- Well designed housing to address local need as set out in Policy Arm4;
- A range of projects which contribute to improved health including play provision, green infrastructure, sustainable transport.
- New or improved equipped play, particularly relating to the areas around Upper Lodge Road and Millmoor avenue and including the relocation of the Upper Lodge Road play area;
- The provision of new amenity green space, especially to the west of the settlement and to the east around Tuppenhurst Lane;
- The provision of a new football pitch in an appropriate location, potentially either through the reinstatement of the former pitch at Millmoor Avenue or the formalisation of facilities at Shropshire Brook Road.

5.16 Fazeley, Mile Oak and Bonehill local infrastructure needs

- Environmental improvements, including enhancement to the physical environment, bringing derelict buildings back into re-use, improvements to traffic and pedestrian safety, improvements to green infrastructure;

- Provision of additional amenity green space, and equipped play particularly around Bonehill / Deer Park;
- Initiatives and projects aimed at: lessening the level of antisocial behaviour; improving the health of the local community; providing a range of facilities for older children, teenagers and older people; improving pedestrian and cycle linkages between communities;
- The provision of up to four football pitches to serve the Fazeley ward (possibly at Rawlett school) to address local shortfall;
- Improvements to canals, towpaths and links from these into the local community;
- Possible investment in health facilities depending on outcomes of the Local Plan Allocations document;
- Well designed housing to address local need as set out in Policy Faz4.

5.17 Some of this work is underway. Whilst Fazeley is actually one of the Key Rural Settlements, its historic industrial townscape gives the eastern end of this linear settlement a distinct urban feel. There is a need to protect and enhance this area, much of which is a Conservation Area, and a £1m project to undertake this work is being developed, with funds being sought from the Heritage Lottery Fund, Conservation Area Improvement Grant (£25,000 secured to date) and other potential sources of funding (eg LEP) are being explored.

5.18 Shenstone local infrastructure needs

- Measures to manage traffic more effectively and safely, including traffic calming and additional parking for the station, and improved cycling and walking routes;
- Improvements to the range and quality of local facilities and amenities including allotments;
- The provision of an additional playing pitch if unmet demand can be clearly shown in the longer term;
- Improvements to rail services and facilities including parking;
- Well designed housing to address local need as set out in Policy Shen4.

5.19 Whittington local infrastructure needs

- Initiatives to improve and enhance the local environment, including the area around the shops, measures for improving traffic safety, and measures to address localised surface water flooding issues;
- The provision of three additional football pitches to serve the ward (not necessarily within the village itself) in line with the Playing Pitch Strategy;
- The provision of additional cricket facilities to serve the ward (again, not necessarily within the village) provided that unmet demand can be clearly demonstrated, in accord with the Playing Pitch Strategy;
- Well designed housing to address local need as set out in Policy Whit4.

Other rural areas

5.20 Infrastructure needs across other rural communities will vary according to local circumstances. These are too extensive to list in detail in this document, but regard will be had to issues which are identified through locally produced plans such as Neighbourhood or Parish Plans which set out evidence of local requirements.

East of Rugeley Strategic Development Allocation

5.21 Up to 1,130 homes will be delivered to the East of Rugeley between 2010 and 2028. These will be delivered as follows (NB there is a gap between 2018 and 2023 to allow for reclamation works):

Table 5.10 East of Rugeley SDA Housing Trajectory

Year	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Approx. completions	42	76	100	100	100	100	100

Table 5.11 East of Rugeley SDA Housing Trajectory (cont.)

Year	2017/18	2023/24	2024/25	2025/26	2026/27	2027/28
Approx. completions	62	50	100	100	100	100

Table 5.12 East of Rugeley SDA site specific infrastructure needs

Infrastructure Requirement East of Rugeley	Cost	Funding	Phasing	Delivery Lead
Physical infrastructure				
Vehicular access into the site will be from Armitage Road (A513). Design of the internal road network to accord with the Manual for Streets.	Developer	Developer	Alongside development (2010 - 28)	Developer with Staffordshire County Council.
Increased frequency and enhanced provision of bus services to provide a convenient and well designed service connecting all new neighbourhoods and providing links into Rugeley, Armitage with Handsacre and Lichfield. All proposed development should be within 350m of a bus stop.	Will vary.	Developer with Staffordshire County Council and service providers.	Alongside increasing occupation of the site. (2010-28)	Developer with Staffordshire County Council and service providers.
Cycle and pedestrian movement to be direct, safe, convenient, attractive and overlooked and will be supported by an internal network of green corridors to link to those beyond the development, including the canal, and allow for access to the countryside, Armitage with Handsacre, and Rugeley Town Centre. Integration of safer cycle and pedestrian routes to existing schools where this is possible, to encourage walking and cycling for young people will be a priority. Inclusion of safe crossing points outside the site.	Will vary.	Developer / S106.	Alongside occupation. (2010-28)	Developer with Staffordshire County Council.
Smarter Travel Choices will be promoted to ensure residents and	Will vary	See strategic infrastructure (transport)	Alongside occupation (2010 -28)	Developer with Staffordshire County Council.

Infrastructure Requirement East of Rugeley	Cost	Funding	Phasing	Delivery Lead
employees are aware of the options available to them to reduce car usage.				
Measures to address water supply and waste water treatment (see strategic infrastructure).	Will vary - see strategic infrastructure.	See strategic infrastructure.	See strategic infrastructure.	Developer with South Staffs Water and Severn Trent Water.
Relocation / provision of existing utilities infrastructure.	Developer with utilities companies.	Developer with utilities companies.	To be agreed between developer and utilities companies.	Developer with utilities companies.
Provision of any necessary flood mitigation measures, the provision of sustainable drainage and a sustainable management strategy for the maintenance of these.	Will vary	Developer	Alongside construction	Developer
Social and Community Infrastructure				
A mix of house types, sizes and tenures and an appropriate level of affordable housing in accordance with Development Management policies H1 and H2 of the Local Plan. The affordable housing shall include a mix of tenure to meet housing needs and will be pepper-potted within the development and shall be indistinguishable from open market housing.	Will vary	Will vary - developers, public funding, S106, grant funding, Registered providers, housing associations, charitable bodies etc	2010 - 2028	Developer in partnership with other organisations as applicable.
Contributions to education are to be determined as a result of cross boundary discussions with Cannock Chase Council & Staffordshire County Council. 0.5 Form Entry (FE) primary provision needed in relation to this SDA, Rugeley also needs to provide 0.5FE (within boundaries of Cannock Chase DC area)	Details to be confirmed with Staffordshire Country Council	CIL / S106 to be determined (See strategic infrastructure).	0.5FE required post 2019 in relation to this SDA	See also strategic infrastructure.
New community 'hub' to be provided within the Central Neighbourhood Area to include classes A1 to A5 of the General Permitted Development (Amendment) order 2005.	Will vary	Developer	By completion (2028)	Developer
Community centre to be delivered as part of the community 'hub' .	£800,000 based on cost of Darwin Park community centre.	S106	By completion.	Developer working in partnership with Lichfield District Council and Parish Council.
Playing pitches and changing / pavilion space to be provided at a minimum level of 1.23ha per 1000 population in line with Development Management	Costs will vary depending on provision and whether on or off - site.	S106	Alongside development of the site, to be completed by 2028	Partnership between Lichfield District Council and Parish Council and

Infrastructure Requirement East of Rugeley	Cost	Funding	Phasing	Delivery Lead
policy HSC2. For this site this is 3.26ha min.	Indicative cost for a playing pitch between £60,000 and £100,000 depending on local circumstances. Changing block costs £250,000 (2 team) or £350,000 (4 team).		with an ongoing programme for maintenance.	local sports clubs and organisations as applicable.
Equipped play area to be provided in a safe and accessible location, to ensure that all parts of the development are within 480m / 10 minutes walk time of an equipped play facility in line with Development Management Policy HSC1.	Will vary	S106	Alongside development of the site, to be completed by 2028 with an ongoing programme for maintenance.	Developer in partnership with Lichfield District Council and Parish Council.
Amenity Green Space to be provided at a minimum rate of 1.43ha per 1000 population and to ensure all residents are within 480m / 10 minutes walk time of an amenity green space in line with Development Management Policy HSC1. For this site this is 3.84ha min.	Will vary	Developers S106	Alongside development of the site, to be completed by 2028 with an ongoing programme for maintenance.	Developer in partnership with Lichfield District Council and Parish Council.
New allotment space to be provided at a minimum rate of 1 plot (150sq.m.) per 32 households in line with Development Management Policy HSC1. For this site this is 35 plots min.	Will vary	Developers CIL or S106	Alongside development of the site, to be completed by 2028 with an ongoing programme for maintenance.	Developer in partnership with Lichfield District Council, Parish Council and Allotments organisations.
Public art to be a feature of the development.	Will vary	Developers S106	By 2028	Developer in partnership with Lichfield District Council, Parish Council and local arts organisations.
Green Infrastructure				
All new landscaping must assist in assimilating this development into the wider landscape and topography.	Will vary	Developer	Alongside development of the site, to be completed by 2028 with an ongoing programme for maintenance.	Developer
A network of green spaces will be integrated into the development to reflect the standards set out in Development Management Policies HSC1 and HSC2 (see also 'social and	Will vary	Developer S106	Alongside development of the site, to be	Lichfield District Council with developer and in partnership with

Infrastructure Requirement East of Rugeley	Cost	Funding	Phasing	Delivery Lead
community' infrastructure). These need to be carefully designed to take into account natural surveillance and the amenity of neighbouring residents.			completed by 2028 with an ongoing programme for maintenance.	others as applicable.
Areas of biological interest or heathland / grassland habitat will be protected and, where possible integrated as part of the open spaces network.	Will vary	Developer S106	Alongside development of the site, to be completed by 2028 with an ongoing programme for maintenance.	Lichfield District Council with developer and in partnership with others as applicable.
Existing natural features, including quality hedgerows and significant trees will be incorporated within the layout. New landscaping and planting will be sited and selected to include sufficient tree canopy cover across the site to deliver landscape - related climate-change adaptation, urban cooling, shade and shelter and visually enhance the development. Parks, open spaces, streets and public areas must incorporate sufficient space above and below ground to enable large canopy trees to develop to maturity.	Will vary	Developer S106	Alongside development of the site, to be completed by 2028 with an ongoing programme for maintenance.	Lichfield District Council with developer and in partnership with others as applicable.
The development will include the retention and enhancement of exiting quality hedgerows and significant trees and habitat within the site and to its edges.	Will vary	Developer S106	Alongside development of the site, to be completed by 2028 with an ongoing programme for maintenance.	Lichfield District Council with developer and in partnership with others as applicable.

North of Tamworth Broad Development Location

5.22 1,000 homes will be delivered by 2028 within a Broad Location to the north of Tamworth. This will be reliant upon a range of infrastructure delivered within Tamworth, especially the linkages proposed within Tamworth Borough Council's spatial strategy.

5.23 Details will be developed further through the Local Plan Allocations document and the IDP will be updated accordingly.

5.24 In summary the requirements are:

- A range of housing in accordance with Development Management Policies H1 and H2 and having regard to needs arising within Tamworth Borough;
- Provision for open space, sport and recreation facilities in line with Development Management policies HSC1 and HSC2 and incorporating playing pitches, amenity green space, equipped play and allotments;

5 Local Infrastructure Needs

- Landscaping and Green Infrastructure provision including the retention of quality hedgerows and significant trees, and their incorporation into the landscape, and the allowance of significant tree canopy cover in line with Core Policies NR3 and NR5;
- A clear strategy for delivering links to Tamworth, and showing how these will be incorporated into an integrated open space and green infrastructure network;
- Protection of local areas and habitats of biological interest;
- The provision of well-planned public transport to serve the site; all development to be within 350m of a bus stop;
- The provision of pedestrian and cycling routes throughout the site, linking to the green infrastructure network and to the settlements, services and facilities beyond the site boundaries including safe crossing points;
- Vehicular access that is integrated with the Anker Valley and Amington links proposed within Tamworth Borough;
- The provision and maintenance of sustainable drainage systems and flood mitigation measures.

Appendix A Lichfield District Integrated Transport Strategy

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Transport Strategy

Lichfield District Integrated Transport Strategy 2013 - 2028



Staffordshire
County Council

September 2013

LICHFIELD DISTRICT INTEGRATED TRANSPORT STRATEGY 2013-2028

1. Introduction

- 1.1 Integrated Transport Strategies have been developed for the eight District / Boroughs in Staffordshire to help prioritise the County Council's expenditure on transport improvements and secure potential resources including developer contributions. They are also informing the Local Plan process and take into account the new National Planning Policy Framework.
- 1.2 The Government has confirmed its commitment to devolving economic power to Local Enterprise Partnerships (LEPs) through the creation of a Single Local Growth Fund (SLGF) which will be formally allocated to the LEP through Growth Deals. European funds may also become available for transport, through Growth Deals.
- 1.3 A significant level of transport funding has been transferred to the SLGF as transport has been identified as central to local economic development. Staffordshire and Stoke-Trent's allocation of the Single Local Growth Fund and European funds will be determined through the LEP's Strategic Economic Plan for the period 2015/16 to 2020/21. Allocations will be based on the strength of the Strategic Economic Plan in terms of identifying effective and speedy delivery of transport schemes and robust value for money evidence. LEP Growth Deals are expected to be announced by July 2014. LEPs will be required to work with Local Transport Bodies to identify the priorities for transport spending for inclusion in the Economic Plan and this Integrated Transport Strategy will help to inform this work.
- 1.4 The delivery of this Transport Strategy will help to achieve the following County Council Priority Outcomes:

Staffordshire is a place where people can easily and safely access everyday facilities and activities through the highways and transport networks

Staffordshire's economy prospers and grows, together with the jobs, skills, qualifications and aspirations to support it

Staffordshire's communities proactively tackle climate change, gaining financial benefit and reducing carbon emissions

- 1.5 In 2011, we consulted communities and stakeholders on the Integrated Transport Strategies. Many useful comments and ideas were received which have helped to shape this Strategy for Lichfield District. Our response to these representations is provided in: Report on the Outcome of the Consultation Process 2011/12 at: <http://www.staffordshire.gov.uk/transport/transportplanning/localtransportplan/districtintegratedtransportstrategies.aspx>
- 1.6 Comments during the consultation process focused on the need for bus and rail enhancements and concerns about traffic congestion relating to proposed housing, retail and employment growth in Lichfield. There were particular concerns about safety and congestion on the A5127, levels of car parking in the City centre, proposals for Lichfield City bus station, the local impact of HS2 and the need for the Lichfield Southern Bypass and its impact on local neighbourhoods.

2. District Profile

- 2.1 Lichfield District borders the West Midlands conurbation and the two main settlements of Lichfield and Burntwood provide key services, facilities and employment opportunities. Tourism plays an important role in the local economy and visitor attractions within the District include the historic City of Lichfield, Drayton Manor Park, the National Memorial Arboretum and Chasewater Country Park. The District is generally considered to be a prosperous area although problems associated with an ageing population have been forecast to be a more significant issue than for many other parts of Staffordshire.
- 2.2 The District is well served by local routes such as the A51, A515 and A5127 and has excellent connections to the national transport network including the M6 Toll, A38(T), A5148(T) and A5(T). The completion of the M6 Toll road has increased accessibility and raised the profile of the District for commercial investment. In terms of travel to work, 3% of employed residents commute by rail which is the highest level in Staffordshire, but at the same time, Lichfield has one of the highest levels of car drivers, at 75%.
- 2.3 Lichfield District has four rail stations and residents are also served by Four Oaks and Blake Street stations, just within the conurbation. Lichfield City, Shenstone, Blake Street and Four Oaks stations are served by the Cross City North line which forms part of the busiest local rail corridor in the West Midlands. In recent years a regular service on the West Coast Main Line between Crewe and London calling at Lichfield and Rugeley Trent Valley has been introduced which has significantly improved connectivity between key locations on this line.
- 2.4 The District is well served by hourly or more frequent daytime bus services linking Lichfield City to Stafford, Cannock, Burntwood, Walsall, Tamworth, Burton and Birmingham, as well as surrounding rural villages such as Alrewas and Fradley. Lichfield itself has hourly or more frequent services running clockwise and anti-clockwise around the City terminating at the main bus station. There are also a number of community transport services operating within the District including Voluntary Transport for the Disabled and the Lichfield and District Voluntary Car Scheme.

3. Lichfield District Local Plan

- 3.1 Lichfield District Council's Local Plan published in July 2012 identifies a requirement for 8,700 new homes within the District between 2008 and 2028. The Local Plan also specifically identifies the following five Strategic Development Allocations (SDAs) adjacent to existing settlement boundaries:
 - South of Lichfield SDA, 450 homes 2015-2020
 - East of Lichfield (North of Streethay) SDA, 750 homes 2019-2027
 - Fradley SDA, 1,000 homes 2014-2025
 - Land East of Burntwood Bypass SDA, 375 homes 2015-2021
 - East of Rugeley SDA, 1,125 homes (including 500 to meet the needs of Rugeley) 2012-2028

- 3.2 A broad development location North of Tamworth is also identified for 1,000 homes 2021-2028, in part to meet the housing needs arising within Tamworth Borough. The release of this land to the north of the Anker Valley will be dependent on land being developed within Tamworth Borough first and key infrastructure being delivered within the Anker Valley.
- 3.3 The Local Plan indicates that around 79 hectares of employment land will be allocated. Fradley will remain a focus for employment, together with the implementation of existing commitments and redevelopment within existing settlements. This includes Burton Old Road / Streethay area, Lichfield, close to existing employment sites around Trent Valley station and within smaller estates in the south of the City. Significant new retail and office development and environmental improvements will be promoted within Burntwood Town centre and Lichfield City.
- 3.4 Transport Appraisals for the draft preferred land use option proposed in 2009 for Lichfield City and Burntwood were produced by Staffordshire County Council. These appraisals assessed the impact of 4,000 new dwellings within the City of Lichfield, with 2,500 on Strategic Development Allocations and around 1,000 at Burntwood with 750 on Strategic Development Allocations. The Lichfield Transport Appraisal concluded that this level of growth would result in a congested road network requiring the need for a high intensity transport strategy, including significant levels of area wide travel plans and behavioural change initiatives, to help achieve a significant reduction in traffic levels. The Burntwood Transport Appraisal concluded that this level of growth would not create significant traffic problems, but may cause capacity issues on Hospital Road and on the A5190. The distribution of development now being proposed for Burntwood is considered to be more sustainable in transport terms and will have less impact on Hospital Road.
- 3.5 The traffic modelling work contained within the Lichfield Transport Appraisal has been updated to reflect the change in distribution and lower levels of development now being proposed. This work concludes that the impact on traffic levels will be lower compared to the 2009 proposed land use option resulting in the need for less intensive behavioural change initiatives. It is considered that there is a reasonable expectation that the operational performance of the network can be maintained to acceptable levels with the delivery of the Transport Strategy proposed in Section 5. It is expected that a 5% reduction in the number of peak hour car journeys can be achieved and any remaining capacity issues at key junctions can be mitigated through local highway improvements.
- 3.6 Following the Examination that took place in June/July on the July 2012 publication of the Local Plan the Inspector has issued a report on his initial findings which is available on the Lichfield District Council website. The District Council will now undertake further work and will consult on Main Modifications to the plan in early 2014.

4. Recent Transport Achievements

- 4.1 In 2012/13 there was a considerable reduction in funding available for transport schemes throughout the County. Improvements were therefore focused on making the best use of the existing highway network, concentrating on maintaining its condition and ensuring that we continue to reduce road casualties. In 2012/13,

around £1.5 million was spent on delivering the bridge and highway maintenance programme throughout the District.

- 4.2 Targets to reduce road casualties continue to be achieved through education, enforcement and anti-skid surfacing, motorcycle route safety measures on the A513, junction improvements, 20mph speed limits outside schools and safer routes to school schemes. Road injury accident data will continue to be monitored and analysed across the highway network, for example, safety issues at the A51 / Eastern Avenue junction in Lichfield are scheduled to be investigated in more detail in the near future.
- 4.3 Public transport services have been maintained throughout 2011 and 2012. In Lichfield 78% of households are within 350 metres of a half-hourly or better weekday bus service, achieved through the core commercial network and County Council subsidised services. Many bus stops now comply with the Disability Discrimination Act. Staffordshire County Council is also the national leader in discretionary travel allowance. Free bus travel is available to people of pensionable age or with a disability, plus their carer, and under 20s can travel anywhere within Staffordshire for just £1 per journey.

5. Transport Strategy

- 5.1 The Integrated Transport Strategy Summary Table illustrates how we intend to deliver the following Economic Prosperity and Community priorities for Lichfield District that will also help to achieve the Priority Outcomes of the County Council's Strategic Plan as detailed in paragraph 1.4. The Strategy will also guide the LEP Strategic Economic Plan.

ECONOMIC PROSPERITY

- Accommodate, on the A38(T), A5(T) and local road network, Strategic Development Allocations in Lichfield, Fradley and Burntwood, including potential new highway capacity in the south of Lichfield
- Manage peak hour congestion in Lichfield and at junctions with the trunk road network
- Support the growth of Burntwood and Lichfield as retail and service centres
- Support the enhancement of public transport interchanges and connectivity to the West Midlands and Derby

COMMUNITIES

- Maintain the current condition and safety of the highway network
- Improve public transport connectivity and quality of life for local communities
- Manage the impact of HS2 proposals on affected communities
- Raise awareness of environmental issues and encourage people to lead more sustainable and healthy lifestyles, helping to reduce carbon emissions

- 5.2 Priorities will be delivered through a combination of countywide initiatives, connectivity proposals, schemes identified in the Divisional Highway Programme and Local Transport Packages for the City Centre, South of Lichfield, East of Lichfield (inc. Fradley) and Burntwood. Delivery of the Local Transport Packages will be linked to the phased delivery of Strategic Development Allocations, in line with the Local

Plan. The Strategy is summarised in Appendix 1 and illustrated in the Figures provided in Appendix 2.

5.3 The key strategic infrastructure proposed in the Lichfield District Local Plan includes:

- Completion of the Lichfield Southern Bypass
- Delivery of improvements to the trunk road network as identified by the Highways Agency
- Transport improvements associated with Lichfield City centre development, including Friarsgate
- Enhanced connectivity and additional parking at Lichfield Trent Valley rail station
- Burntwood town centre improvements

5.4 All new developments that are predicted to generate significant levels of traffic will be required to produce and deliver a Travel Plan. In order to further reduce forecast traffic levels, existing businesses in Lichfield City will be encouraged to develop Workplace Travel Plans that promote initiatives such as car sharing, sustainable travel, personalised journey planning, teleworking and flexible working hours. Targeted marketing initiatives in Lichfield City will include a combination of travel advice, discounted public transport tickets, better public transport information and local community events promoting walking and cycling. Schools in the City will also be encouraged to have Travel Plans in place during the plan period. All behavioural change initiatives will be funded by developers (through S106 and Community Infrastructure Fund) supported by public funds and grants as resources permit.

Divisional Highway Programme

5.5 The Divisional Highway Programme for Lichfield District gives County Councillors the opportunity to directly input into delivery programmes. Councillors work closely with Community Highway Managers, Parish Councils and other stakeholders to ensure local concerns and challenges are identified and priorities are established, taking into account financial constraints. The Divisional Highway Programme is reviewed twice a year and gives an overview of highway and transport concerns within the local area, such as pedestrian safety, speeding through residential areas, on-street parking and safety at junctions.

Connectivity in the District

5.6 Enhanced connectivity in the District will be achieved through continued partnership working with key stakeholders. This is typified by our close working with public transport operators, involvement with the A5(T) Transport Liaison Group and cross boundary working with West Midlands authorities, for example through the Regional Rail Forum. The A5(T) Transport Liaison Group has been established to ensure that the A5(T) plays its role in facilitating economic growth through maximising capacity and improving safety. Air quality issues along the A5(T), identified by Lichfield District Council, also require addressing through partnership working.

5.7 Staffordshire County Council and the Highways Agency will continue to work in partnership to manage traffic levels on the A38(T), A5(T), A5148(T) and adjacent local roads. The Highways Agency has identified that a range of measures, including junction improvements, will be required for the A38(T), A5(T) and A5148(T) to be funded by developer contributions for development sites coming forward. There is

also the potential for Highways Agency Pinch Point Programme funding for junction capacity improvements, with funding already secured for the A5(T) Wall Island to be delivered in 2014/15.

- 5.8 The County Council will be producing a Rail Strategy in 2013 to complement the District Integrated Transport Strategies. A Rail Summit will also be held in early 2013 to help confirm policy support and priorities for rail investment in Staffordshire. Possible rail enhancements benefiting Lichfield District include Lichfield Trent Valley rail station gateway refurbishment, reopening of the Walsall to Lichfield rail line and provision of passenger services between Lichfield, Burton and Derby with a new station at Alrewas to serve the village and the National Memorial Arboretum.
- 5.9 The County Council has indicated its opposition to the Government's proposals for a High Speed Rail link through the County, the route of which would transect Lichfield District. Notwithstanding this, the County and District Councils recognise the importance of engagement with HS2 Ltd to ensure that Staffordshire's communities obtain the maximum mitigation against adverse impacts. Both authorities are providing support to elected representatives and communities in the affected areas and will continue to make significant investment in improving and maintaining Staffordshire's infrastructure as a vital component to prosperity. The County Council will explore wider community benefits and provide the best opportunities for improving existing rail services, especially on the West Coast Main Line. Although resources are constrained the importance of getting the project right for existing and future generations of Staffordshire's residents and businesses is recognised.

Lichfield City Centre Local Transport Package

- 5.10 The Lichfield City Local Transport Package is shown on Plan 1 in Appendix 2. It focuses on supporting the Friarsgate redevelopment scheme which is a retail-led mixed use scheme, including new leisure and tourism facilities, and adequate parking. The traffic impact of office development, which is also expected to be focussed on Lichfield City, will also need to be accommodated with sustainable transport links as appropriate. There are aspirations to expand the pedestrianised areas in the City and proposals to change St John Street to one-way towards A5127 (with buses remaining two-way) to improve safety and the environment. Variable Message Signs are also proposed to improve the flow of traffic around the City and to car parks.
- 5.11 Developers of Friarsgate will be required to contribute towards transport mitigation along the A5127. This includes urban traffic control and modifications to Birmingham Road/Rotten Row, Birmingham Road/St John Street, and Gresley Row/Tamworth Street junctions to improve safety and capacity where appropriate. Evidence from traffic modelling work also suggests that capacity improvements may be required at the Friary / A51 / A5127 / Sainte Foy Ave junction.
- 5.12 Bus / rail integration will be provided as part of the Friarsgate development through the provision of a new bus station closer to Lichfield City rail station together with upgraded crossing facilities. It is expected that the new bus station will include enhanced bus information and will operate more efficiently than the existing one allowing more services to operate from it. For some services, dependent upon direction of travel, a new layby will be provided for pick-ups and drop-offs on the northern side of Birmingham Road opposite the new bus station.

Burntwood Local Transport Package

5.13 The Burntwood Local Transport Package is shown on Plan 2 in Appendix 2. It has been drawn up to help rejuvenate Burntwood by supporting an enhanced town centre, employment growth at Burntwood Business Park and housing growth east of the bypass. These measures include bus access improvements and increased service frequency, improved sustainable transport links across the urban area and into Chasewater, a new bus interchange facility and public realm improvements in the main retail area, specifically Sankey's Corner. The retail/leisure offer is dependent upon private sector investment and developer contributions are required to fund the Local Transport Package. There is also a long term aspiration for a new rail station at Burntwood if the Walsall to Lichfield line is opened to passenger trains.

South Lichfield Local Transport Package

5.14 The South Lichfield Local Transport Package is shown on Plan 1 in Appendix 2. It includes key strategic road infrastructure that is expected to be completed to support the delivery of the emerging Lichfield District Local Plan, together with complementary sustainable transport measures to improve connectivity between the Strategic Development Allocation and the City centre. There are proposals to improve pedestrian safety, provide new cycle links connecting new development to the existing cycle network and improved bus connectivity. Highways Agency proposals will also be delivered as appropriate.

5.15 The Lichfield Southern Bypass provides a link between the A5206 London Road and the A461 Walsall Road. Phases 1 and 2 of the bypass have already been completed by developers with Phase 2 opening to traffic in 2010. Phase 3 between London Road and Birmingham Road is not required to deliver the Strategic Development Allocation but is expected to be funded by a combination of existing developer funds, public funds and contributions from future development. The County Council is commissioning design work and a construction cost estimate for the section of Phase 3 that crosses the railway line and links to Birmingham Road. This work is expected to be completed in 2013 and once agreed with Network Rail, the earliest possible construction start date is 2014.

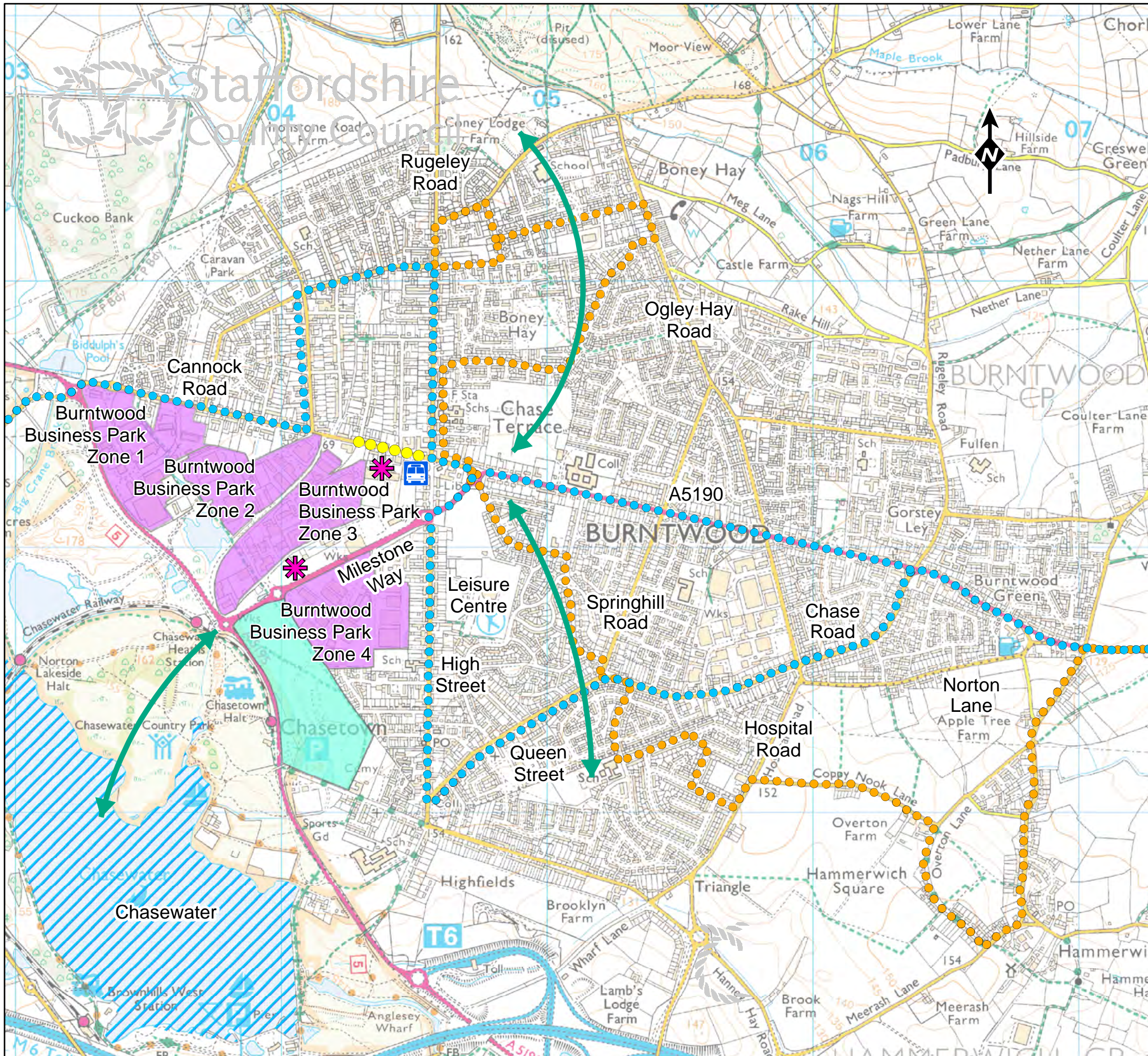
5.16 It is expected that the bypass will reduce traffic in the City centre on A5127 Birmingham Road and A51 Upper St John Street, protecting the historic core and facilitating regeneration proposals. It will also improve access to the Darwin Park and Sandfields residential areas and the South Lichfield Strategic Development Allocation. There will be reduced traffic levels on Shortbutts Lane as a result of the bypass although evidence from traffic modelling work identifies that a junction improvement will be required at the Tamworth Road/Upper St John Street/ Shortbutts Lane/London Road as part of the construction of the bypass, to cater for the current forecast 2028 traffic flows. However the exact form of junction is yet to be determined. Once the bypass is completed, a review of local traffic routing and directional signing will be undertaken.

East Lichfield Local Transport Package (including Fradley)

- 5.17 The East Lichfield Local Transport Package is shown on Plan 3 in Appendix 2. It helps support the delivery of Strategic Development Allocations East of Lichfield (north of Streethay) and Fradley.
- 5.18 A5127 corridor improvements will be provided to help mitigate development in the East of Lichfield including urban traffic control, bus enhancements, cycle links and safe crossing points in Streethay to local amenities. There will be the requirement for an improvement at A5127/Eastern Avenue/Cappers Lane junction.
- 5.19 The package includes proposals for a Lichfield Trent Valley rail station gateway refurbishment. The station is receiving a new ticket office and waiting facilities in 2014. Further improvements expected include disabled access to the Cross City and London bound platforms, increased car parking capacity, passenger access upgrades and enhanced information. The County Council will work in partnership with London Midland, the station manager, and Network Rail to explore all funding opportunities.
- 5.20 The traffic impact of the Strategic Development Allocation at Fradley will be reduced by providing adequate local neighbourhood facilities, new or extended bus services to Lichfield City centre with increased frequency, integration of the development with existing communities and local walking and cycling links. Safer access to the A38(T) is desired by the local community where there are currently sub-standard junction layouts and active traffic management may also be required along the A38(T). Managing the routing of Heavy Commercial Vehicles is essential and the provision of a lorry park is desirable.

APPENDIX 1: LICHFIELD DISTRICT INTEGRATED TRANSPORT STRATEGY SUMMARY TABLE

PRIORITIES	PROPOSED STRATEGY	JUSTIFICATION / DELIVERY
<ul style="list-style-type: none"> Accommodate, on the A38(T), A5(T) and local road network, strategic development sites in Lichfield, Fradley and Burntwood, including potential new highway capacity in the south of Lichfield Manage peak hour congestion in Lichfield and at junctions with the trunk road network Support the growth of Burntwood and Lichfield as retail and service centres Support the enhancement of public transport interchanges and connectivity to the West Midlands and Derby Maintain the current condition and safety of the highway network Improve public transport connectivity and quality of life for local communities Manage the impact of HS2 proposals on affected communities Raise awareness of environmental issues and encourage people to lead more sustainable and healthy lifestyles, helping to reduce carbon emissions 	<p>ECONOMIC PROSPERITY</p> <p>SHORT TERM – 3 YEARS</p> <ul style="list-style-type: none"> Lichfield City Centre Local Transport Package: new bus station closer to Lichfield City rail station, pedestrian facilities, car park management, traffic management on St John Street and further pedestrianisation of the City centre, urban traffic control and junction improvements on A5127 Bus access improvements on route 765 Lichfield to Tamworth Lichfield Southern Bypass Phase 3 detailed design work for section across the railway line Route signage from Lichfield to Tamworth Electric charging points A5(T) Wall Island junction improvement Potential designated area for coach parking Engagement with local communities on HS2 and exploring opportunities to improve existing rail services <p>LONG TERM UP TO 2028</p> <ul style="list-style-type: none"> South Lichfield Local Transport Package: Complete Lichfield Southern Bypass and necessary junction improvements, review of local traffic routing, improved bus connectivity, pedestrian facilities, enhanced cycle links to the City centre, A5(T) and A38(T) active traffic management and junction modifications East Lichfield Local Transport Package (inc. Fradley): Lichfield Trent Valley rail station gateway refurbishment, A5127 junction improvement, urban traffic control, sustainable transport link enhancements to City centre and rail stations, pedestrian improvements in Streethay. Fradley:, Safer access to A38(T), active traffic management on A38(T), new or extended bus services to the City, local walking and cycling links, routing and parking of Heavy Commercial Vehicles Burntwood Local Transport Package: New bus interchange, public realm enhancements on Cannock Road, bus access and service improvements within Burntwood and to Cannock and Lichfield, walking and cycling links to Chasewater Consideration of Real Time Passenger Information in Lichfield Access requirements to the East of Rugeley to accommodate new residential development Potential reopening of Walsall to Lichfield rail line, passenger services between Lichfield, Burton and Derby Improved transport links to the National Memorial Arboretum <p>COUNTYWIDE INITIATIVES (2013/14)</p> <ul style="list-style-type: none"> Maintenance programme 20mph zones, speed limit review and parking and loading restrictions through Clear Streets Driver training and road safety education and training in schools Subsidised bus services, community transport, concessionary fares scheme and bus service information Workplace travel planning, school travel planning and targeted sustainable transport marketing initiatives Careful consideration of any requests to restrict lorry movements in line with actions and priorities in the Local Transport Plan Freight Strategy (2011) Promotion of 'superfast' broadband <p>DIVISIONAL HIGHWAY PROGRAMME AND LOCAL SAFETY ISSUES (2013/14)</p> <ul style="list-style-type: none"> Pedestrian safety priorities in Hill Ridware, Armitage A51 Tamworth Road/Quarry Hills Lane, Lichfield – junction improvement scheme Heavy Commercial Vehicle issues, Ryknild St Lichfield, Little Aston, Walsall Road, Wood End Lane near Fradley Public transport connectivity to service centres from rural areas Vehicle speed reduction measures and parking issues in local villages and residential areas Requests for 20mph speed limits Rugeley Trent Valley rail station car parking and access investigation Traffic management issues Christchurch Lane, Lichfield and Princess Street, Chase Terrace 	<ul style="list-style-type: none"> Value for money will be achieved through delivering Local Transport Packages by pooling public and private sector resources. Future public funding will be secured through LEP Growth Deals Transport Assessments will determine the measures required to be delivered by developers and refusal is only likely on transport grounds where the impact of development is severe. Priorities will take into account the emerging Local Plan. The Infrastructure Delivery Plan (IDP) will demonstrate deliverability of the Local Plan and will be continually reviewed. This Integrated Transport Strategy will complement the IDP. The District Council is expected to produce a Regulation 123 list of infrastructure accompanying the Community Infrastructure Levy (CIL) Charging Schedule. The S123 list cannot be funded by S106. Lichfield Southern Bypass Phase 3 is required to improve access to development and reduce traffic pressure in the City centre. Delivery is dependent on developer funds and public funds. Scheme delivery will acknowledge Manual for Streets and available guidance on the historic environment, habitats and the Urban Forest. Public realm enhancements such as those proposed for Burntwood Town centre will attract inward investment particularly in terms of additional retail whilst also improving the pedestrian environment. Priorities for rail enhancements will be confirmed in a Rail Strategy for Staffordshire. Congestion will be monitored with GPS Trafficmaster data The Health and Wellbeing Agenda will be supported through capital investment in the walking and cycling network <ul style="list-style-type: none"> Initiatives are generally expected to be funded by County Council capital and revenue funds as resources permit. The County Council and LEP will act as leaders in the development and the raising of funds to deliver super fast broadband. Maintenance will be the main area of County Council expenditure within the strategy period and works will be guided by the Transport Asset Management Plan (TAMP). Areas targeted for delivery will be influenced by community consultation and data that identifies need. Criteria will be set to determine which bus services could be supported. Travel planning and targeted sustainable transport marketing initiatives are particularly important in Lichfield to help reduce forecast growth in traffic. <ul style="list-style-type: none"> Each Councillor has a budget of £10,000 for delivery of local minor improvements promoted through the DHP. Feasibility studies will be completed on potential schemes that emerge through the DHP process to determine if they should be delivered and whether they should be funded through the Councillor's budget or require additional funding. Scheme costs will be closely monitored to ensure value for money. Value for money will be maximised when initiatives complement other proposals in the Strategy.



Burntwood Local Transport Package

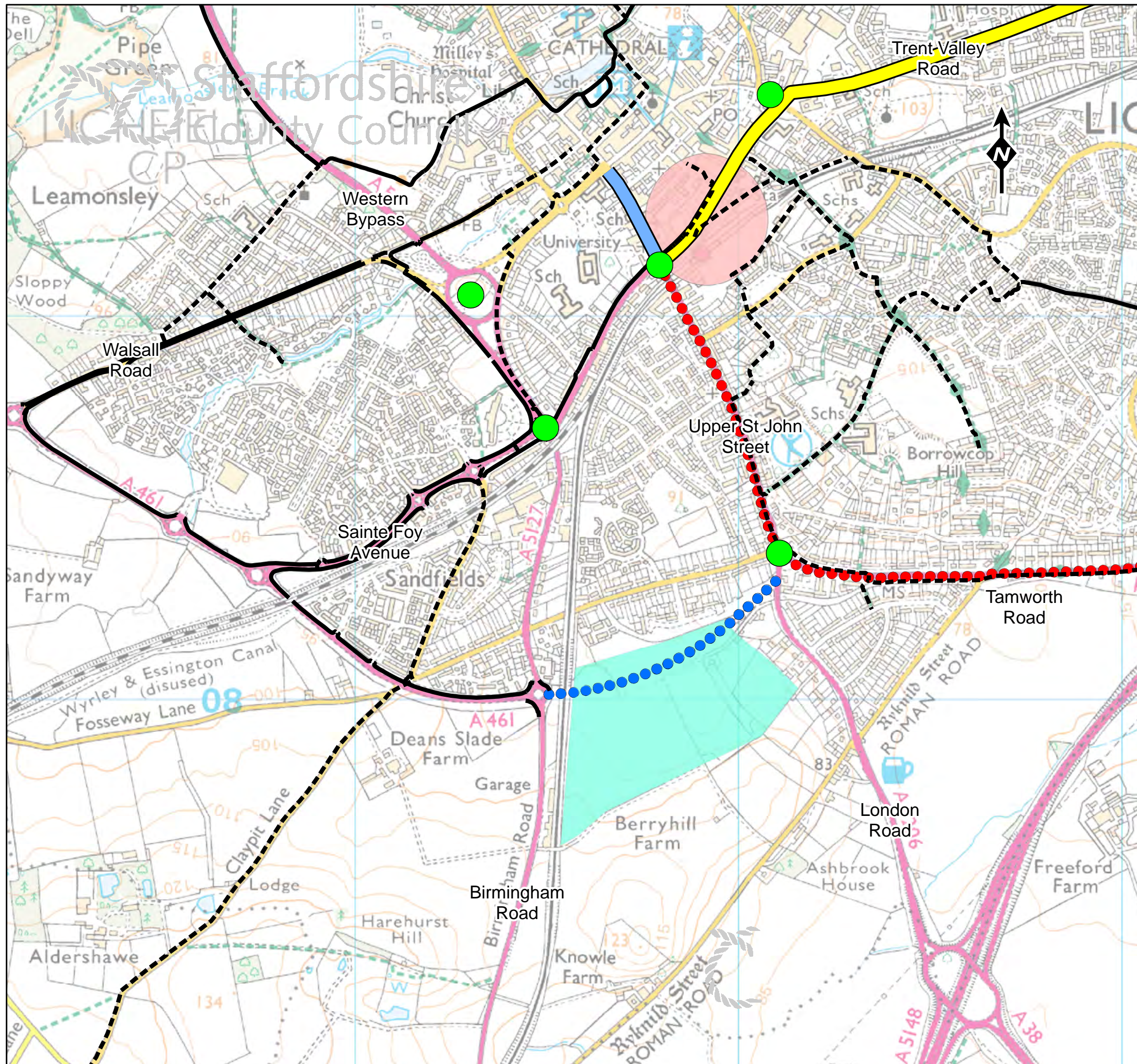
- Proposed Residential Development (Land East of Burntwood Bypass)
- Proposed Employment Development
- Bus Service (Increase Frequency)
- Bus Access Improvements
- Public Realm Improvements and Access Modifications
- Improved Sustainable Access Links
- Proposed Bus Interchange including Cycle Parking
- New Retail Development

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South Lichfield and Lichfield City Centre Local Transport Package

- Proposed Strategic Development Allocation (Residential)
- Bus / Rail Interchange Improvements
 - New Bus Station
 - Pedestrian Facilities
 - Enhanced Travel Information
 - Rail Station Improvements
- A5127 Traffic Management
- St. John Street Traffic Management and Bus Priority
- Lichfield Southern Bypass (Phase 3)
- Bus Access Infrastructure Improvements
- Existing Cycle Network
- Suggested Cycle Network
- Potential Junction Improvements

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For more information please contact:

Connectivity Strategy
Transport and the Connected County
Staffordshire County Council
No. 1 Staffordshire Place
Stafford
ST16 2LP

Tel: 0300 111 8000

Email: transport.planning@staffordshire.gov.uk

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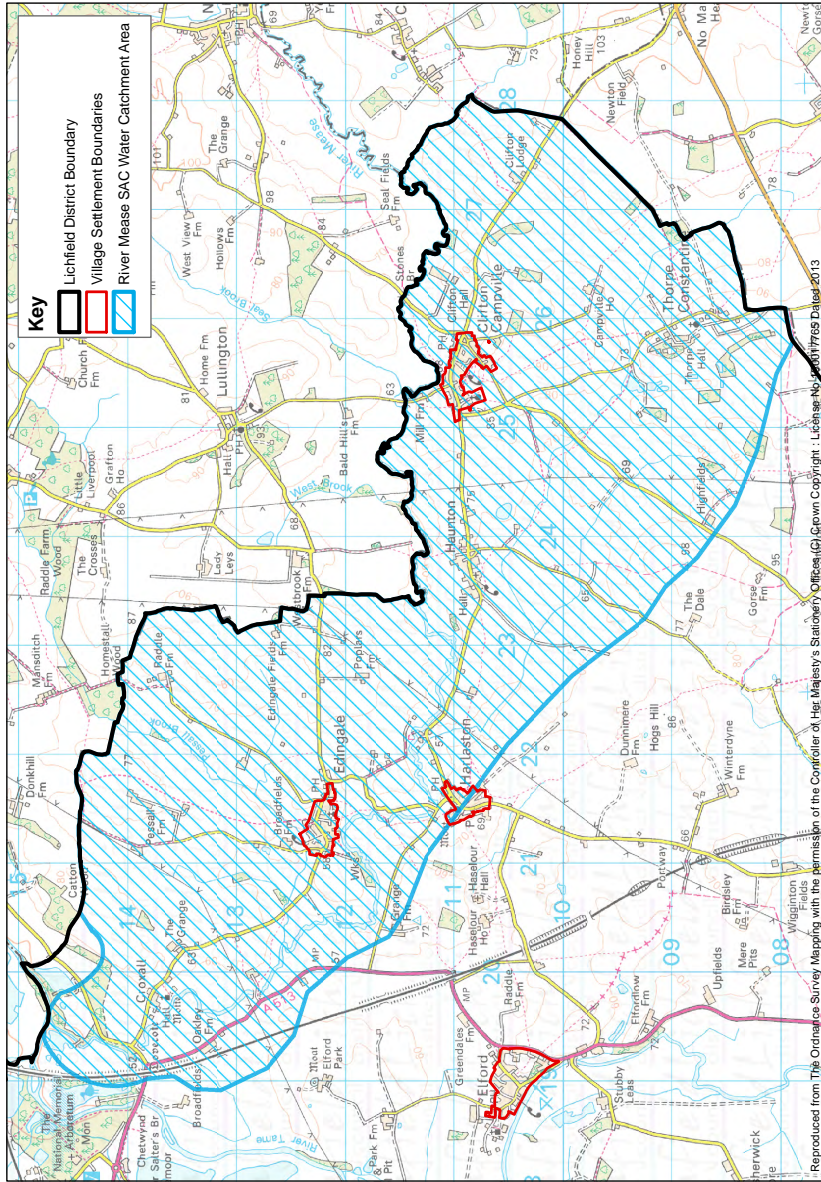
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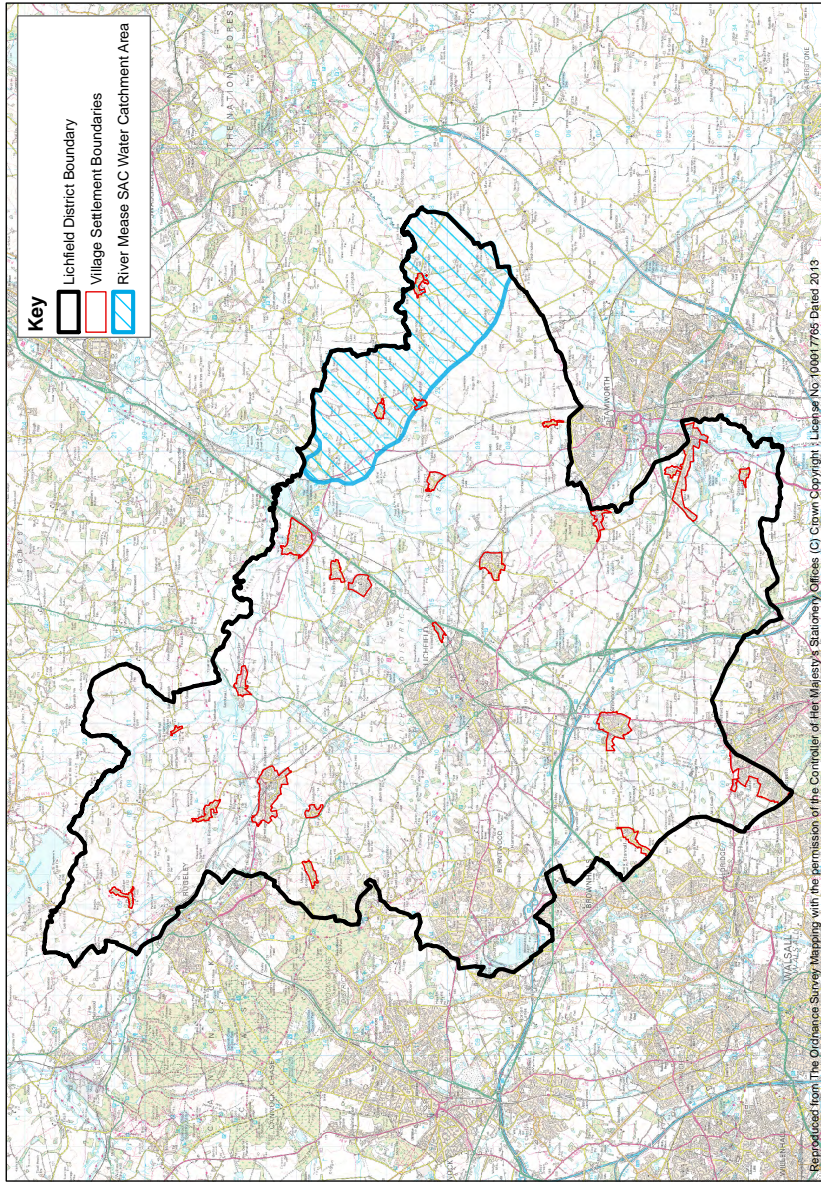
Appendix B River Mease SAC Water Catchment Area

Appendix B River Mease SAC Water Catchment Area

Map B.1 River Mease SAC Water Catchment Area



Map B.2 River Mease SAC Water Catchment Area - District Wide



Appendix B River Mease SAC Water Catchment Area

Appendix C Dynamic Viability Model

C.1 The District Council adopted the results of the 2009 Affordable Housing Viability Study (AHVS) and with it the updating approach built into the Dynamic Viability method.

C.2 The 2009 AHVS concludes that, at current market conditions, the highest target that could reasonably be applied was 20%. It went on to suggest that over time, as prices and costs changed, viability would alter, and it might become possible to set a higher target. A Dynamic Viability (DV) approach was proposed.

C.3 Under this approach, levels of viable target under different combinations of price, cost and land value movements were set out in a Matrix table. Movements in these three variables would then be monitored using nationally available indices. At periodic intervals, linked to the production of the District Councils Annual Monitoring Report, the latest index values would be used to establish an updated target from the Matrix, in a completely transparent procedure.

C.4 A single 'benchmark site' was selected as a guide for updating the Dynamic Viability model which was seen as typical of likely future housing development in the District.

C.5 The updating process involves three well established and published index series:

Table C.1 Indices for automatic updating of Dynamic Viability

Variable	Proposed Index	Starting Value
House Price	Halifax House Price Index	Feb 2009 = 519.1
Source	Halifax House Price Index (free, monthly series seasonally adjusted) http://www.lloydsbankinggroup.com/media1/research/halifax_hpi.asp	
Build Cost	BCIS General Building Cost Index	March 2009 = 286.3
Source	BCIS Review Online (subscription only, monthly) Produced by the Royal Institute of Chartered Surveyors (RICS) http://bcis.co.uk/online	
Alternative use value	Property Market Report (VOA) Value of Agricultural Land (Equipped Arable) for Shropshire	July 2009 = figure is £7,393 per acre/ £18,261 per ha for the old West Midlands. In January 2010 (published July 2010) the equivalent figure for Shropshire was £7,500 per acre
Source	Valuation Office Agency: Property Market Reports (free, six monthly) Http://www.voa.gov.uk/publications/property_market_report/pmr-jan-2010/index.htm	

C.6 This table provides the links to the published indexes. The resultant range of targets was set in tables such as the following. As can be seen, the 20% target is outlined in its cell, which corresponds to zero for both cost and price indices. There is, behind this, an alternative use value matrix and this table represents the base position for that alternative use value matrix as well.

Picture C.1 Superfine Matrix: base alternative use value

		Price Change HPI									
		%	-4%	-2%	0%	2%	4%	6%	8%	10%	12%
Cost Change BCIS Index	%	498.3	508.7	519.1	529.5	539.9	550.2	560.6	571.0	581.4	
	-4%	274.8	20%	20%	25%	25%	30%	30%	30%	35%	35%
	-2%	280.6	15%	20%	20%	25%	25%	25%	30%	30%	35%
	0%	286.3	10%	15%	20%	20%	25%	25%	25%	30%	30%
	2%	292.0	10%	10%	15%	15%	20%	20%	25%	25%	30%
	4%	297.8	5%	10%	10%	15%	15%	20%	20%	25%	25%
	6%	303.5	5%	5%	10%	10%	15%	15%	20%	20%	25%
	8%	309.2	0%	5%	5%	10%	10%	15%	15%	20%	20%
	10%	314.9	0%	0%	5%	5%	10%	10%	15%	15%	20%

C.7 A table of this kind can be seen to permit the target to vary as the indexes change over time. The approach has now been improved to the point where a single matrix has been developed to include all three indexes. This is done by having the variations of each alternative use value within one cell. Thus the 20% in the above table would be represented by a larger cell including all 8 of the bands of the third dimension: the alternative use value.

Appendix D Cannock Chase SAC Zone of Influence

Appendix D Cannock Chase SAC Zone of Influence

Map D.1 Cannock Chase SAC Zone of Influence

