



Legend

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- Between +25 and +50 Vehicles
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PROJECT:

VM165048 NBBC
Strategic Transport Assessment

TITLE:

2031 Do Something vs 2031 Reference
AM 07:00 - 10:00
Average Maximum Queue (Average)

SCALE:

NTS

DRAWN:

DL

CHECKED:

SA

DATE:

15/02/2017

REVISION:

1



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DRAWING REFERENCE:

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PROJECT:

VM165048 NBBC
Strategic Transport Assessment

TITLE:

2031 Do Something vs 2031 Reference
PM 16:00 - 19:00
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DRAWN:

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APPENDIX C

Sustainable Transport Technical Note

Nuneaton and Bedworth Borough Council
Borough Plan 2011-2031

Sustainable Transport Strategy

Strategic Transport Assessment Addendum
Warwickshire County Council

August 2015



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1. Background

As part of the previous Strategic Transport Assessment (STA) work undertaken by the County Council to inform the development of the Nuneaton and Bedworth Borough Plan, a technical note was prepared in relation to the role of sustainable transport in supporting the delivery of housing and employment growth. A more detailed Sustainable Transport Strategy was subsequently requested by the Borough Council to demonstrate how the 15% mode shift target referred to within the STA work could be delivered. This addendum to the STA aims to provide that further detail regarding how improvements to walking, cycling and public transport will complement the wider transport strategy set out within the STA. As part of this piece of work, an Infrastructure Delivery Plan (IDP) specifically covering sustainable transport measures has been prepared. It is envisaged that this will be incorporated into the wider Borough Plan IDP.

This piece of evidence in support of the Borough Plan should be treated as a working document, designed to both inform the preparation and delivery of the plan. The current review of the cycle network within the Borough along with the emerging Sustainable Transport Strategy for the A5 corridor will be used to inform the ongoing development of this strategy.

Sustainable transport improvements are an essential part of the overall mitigation package to support the housing and employment growth proposals within the Borough Plan. This approach is consistent with the County Council's Local Transport Plan (2011-2026) Land Use and Transportation Strategy, which aims to encourage new development to come forward in a sustainable way by reducing the need to travel and better integrating land use and transport. The vision of the Land Use and Transportation Strategy is 'to encourage new development which is accessible, safe, sustainable and integrated with the transport network, including modes other than the car'.

Improvements to walking, cycling and public transport are an important element of the development process because they:

- Contribute towards the delivery of sustainable development;
- Reduce the impact of car based travel on the local and strategic highway network, by maximising the number of journeys made by such modes from trips generated as a result of new development; and
- Help deliver an integrated approach to transport provision.

Sustainable transport is an umbrella term which includes the provision of bus services, bus infrastructure, park and ride, access to rail services, walking, cycling and behavioural measures (also referred to as 'Smarter Choices'). This strategy sets out what sustainable transport improvements will be sought through the planning process to support development generally within the Borough. Details of other planned improvements to sustainable transport within the Borough which will be complementary to those measures secured through the planning process are also provided, given that these will also contribute towards the modal shift targets within the plan.

2. Public Transport

Introduction

Public transport has an important role to play in supporting housing and employment growth by providing genuine travel choice to residents and employees. This in turn can help mitigate the overall impact of development on the highway network by reducing the number of car trips generated as a result of development.

Improvements to public transport can include service enhancements and investment in infrastructure. Further details of the following are set out below:

- Bus Services;
- Bus Infrastructure;
- Park and Ride; and
- Access to Rail.

Bus Services

Background

Nuneaton and Bedworth Borough has a comprehensive, well-developed and generally well-used bus network which provides a solid foundation on which to build. A significant number of bus services across the Borough are provided on a commercial basis by Stagecoach Midlands, Arriva Midlands and Travel Coventry. A number of other services are provided by these and other operators on either a partially or fully subsidised basis.

The overall bus strategy to support the Borough Plan will be to secure new and/or improved service proposals which:

- Strengthen strategic bus connectivity in the North-South corridor between Leicester, Hinckley, Atherstone, Nuneaton, Bedworth and Coventry;
- Support or enhance existing town service networks, including cross-town connections;
- Provide good access to key destinations such as railway stations, medical care facilities, education/training facilities and significant existing and proposed employment sites both within the Borough and near to it (e.g. MIRA, Birch Coppice); and
- Improve links to adjacent towns and villages.

Developers will be encouraged to work with the County Council and local bus operators to prepare proposals which will meet these aspirations, and contribute towards the mode share targets for sustainable travel as part of an overall mitigation strategy for their development.

General Requirements

Developers will be required to provide financial contributions towards the provision of bus services or arrange to contract services directly with an operator as part of all significant new development within the Borough. This will generally take the form of either enhancement to existing bus services which fall within 400m walking distance of the site, or for larger sites the provision of new standalone bus services which deliver direct access to the development in question. Contributions will be sought for a minimum of five year period, net of fare box revenue. Alternatively, developers may wish to contract new or enhanced bus services directly with an operator rather than pay a contribution. Such requirements will be agreed as part of the planning process and conditioned accordingly.

New or enhanced bus services should provide a minimum of a 15 minute frequency serving the development between 0630–1900 from Monday to Saturday, with a 30 minute frequency in evenings and on Sundays. Developers will be required to either contribute towards a marketing budget or work with service providers to ensure new bus services are well publicised. The County Council will also encourage developers to consider ticketing offers/low fares when new bus services are introduced.

The concentration of large scale development proposed in certain areas of the Borough should facilitate the conditions required to support the introduction of new and/or enhanced services that stand a reasonable chance of becoming commercially viable over time. In certain circumstances, new infrastructure may be needed to help facilitate the conditions necessary to allow buses to move into and through new development sites so they are not forced to make complicated and unattractive diversions.

Build Rate

Bus services should be in place from the time of first occupation to ensure new residents perceive the service as a viable alternative to the private car, and so it becomes ingrained as part of the culture of the new development. If bus services are only introduced at a later point post-construction, it is highly likely that residents would have already developed travel patterns using alternative means of transport (typically the private car).

Type of Occupancy

In order to enable the potential for future commercial viability of any new bus service it is essential to ensure there is a mix of housing types across the development. Routes serving developments purely focused on high-end executive housing are unlikely to ever achieve commerciality.

Internal Road Network

Not only must this be suitable for the long term operation of bus services, it must enable penetration of the development from the outset. Where there is phased construction of the road network or there are temporary roads in place, consideration needs to be made to allow buses to traverse the development and turn around

safely. It is not advisable for a local authority to tender a bus service that requires smaller vehicles for initial phases of the development, as the need of two different vehicle types would dramatically increase the costs. The positioning of any traffic calming measures must take into consideration the risk they pose to buses, and the additional road space buses require negotiating them. Therefore, it is essential that Developers factor in the dimensions of the vehicles to be used over the life of the service within their plans.

Connectivity between Individual Developments

In some areas, piecemeal construction by multiple different developers has resulted in a warren of side-streets and cul-de-sacs that are impenetrable to public transport. In order to avoid this it is advisable that the Local Planning Authority encourages a lead Developer to submit an outline planning application for a significant area, including details of the main highway infrastructure; this Developer would then work with others to submit individual applications detailing the reserved matters for different phases of the site.

Highway considerations in new developments to support bus services

In order to ensure that buses effectively penetrate all key development sites, it is strongly advised that the following highway infrastructure be considered for inclusion in any future highway development control related discussions between NBBC officers, WCC officers and respective developers:

1. The width of the main distributor road within the development site is sufficient to cater for two-way bus movement in order to allow effective penetration of the site.
2. The distributor road is provided within each separate development for the purpose of the following:
 - Ensuring that all households within the individual development are within 400 metres of a bus stop; and
 - Enable a highway link connecting all the separate developments to each other and also the adjoining local highway network.
3. The distributor road in each individual development has a minimum width of 6.75 metres and can effectively cater for bus turning movements in order to complement flexible bus routing options.
4. Highway links are in place providing connectivity between each individual development and nearby junctions on the A5 for the purpose of enhancing access to the MIRA site, and also potentially enhance bus connectivity with nearby Sustainable Urban Extensions and major developments in Leicestershire, e.g. Hinckley town centre, Barwell SUE, Earl Shilton SUE, Magna Park and Lubbethorpe SUE.
5. The design and construction of a proposed new 1 km highway link should be considered providing connectivity between the eastern section of the overall major new development site to the North of Nuneaton and the A5 in order to

further enhance links to MIRA. It is estimated that this new highway link could cost up to £1.6m and Developers would be asked to meet costs.

6. Consideration to be given towards the design and construction of a spine road to penetrate the north eastern section of the area of major development to the North of Nuneaton, in order to complement future flexibility in respect of bus routing.
7. '*Flexibility is key*', not least in that it is difficult to predict how the overall development in this area will come forward given the numerous separate developments.
8. Consideration to be given towards the design and construction of a large roundabout in the north eastern section of area of the major development to the North of Nuneaton in order to enhance the flexibility of bus routing and also turning movements.

The County Council is aware that the Borough Council is working towards developing a Masterplan for all the Strategic Sites contained within the Borough Plan. With this in mind it is recommended that:

- Any Masterplans developed by the Borough Council associated with Strategic Sites consider the sustainable transport principles and proposals contained within this strategy; and
- The development of any Masterplans includes representatives from the County Council to help inform the key transport and access issues, including matters relating to sustainable travel.

Bus service provision considerations for new developments

Diversion of Existing Bus Services

Opportunities to divert existing bus services are dependent on the size and location of any new development, with the length (in terms of time as well as physical mileage) of any detour being a limiting factor. Bus operators will be reluctant to re-route profitable commercial services away from main corridors in order to serve new housing if there is a possibility of loss of patronage (thus revenue) from existing customers. Developers should be encouraged to seek feedback from bus operators prior to submitting planning applications, and this input should be reflected in their plans. Likewise, the Local Planning Authority should also seek the views of bus operators and Local Transport Authorities prior to granting of consent.

Creation of New Bus Services

While there are three clear radial corridors to the area of major growth to the North of Nuneaton, only one (The Long Shoot) offers existing frequent bus services. These run between Nuneaton and Leicester, via Hinckley. They are inter-urban in nature, and therefore it may not be appropriate to divert commercial bus services into the proposed new developments unless the deviation and/or additional time taken are minimal.

The lack of permeability on the existing urban edge, between the existing development and that proposed, adds a further significant impediment to developing the existing bus network to serve the proposed development areas. It will not be possible to extend existing town services directly into adjoining land. In the absence of potential pedestrian links, it will also be impossible for existing residents to walk through to new bus services provided within the new development, or for new residents to take advantage of currently provided services.

It therefore needs to be considered that the new development must sustain its own dedicated bus services to a great extent. These will need to be specified to maximise their efficiency, and the potential population draw along the route as a whole, to support the highest possible level of service with a critical mass of patronage. This sets up the positive conditions where a relatively attractive service supports high levels of use, and vice versa. Excellent master planning of the North of Nuneaton Urban Extension will be crucial to achieving these objectives.

Cost Profile

Staggered funding of new or existing bus services to serve a new development makes allowance for the initial cost of introducing or diverting bus services (e.g. capital expenditure on vehicles, increasing the number of vehicles operating on route and additional staff costs) as well as the initial low on-bus revenue. It is anticipated that the cost reduces over the life of construction (as occupancy, and potentially on-bus revenue increase), with the aim of achieving commerciality at a point in the future.

Vehicle Specification

It is important to ensure high quality of operation. On board Wi-Fi is fast becoming a feature across bus fleets, as is leather seats and audio-visual announcements. The County Council understands that bus operators would be pleased to offer this as an option for the new developments, where appropriate. The mention of low-floor buses as part of vehicle specification is superfluous, as all buses will be legally required to be of DDA compliant design prior to the suggested first phase of construction in 2018. If an initial contract specified new or nearly-new vehicles, then any subsequent extension or re-tender should also make provision for the retention of existing vehicles.

Proposed Bus Service Improvements: Area-wide

The table below summarises the potential new or improved bus services which could support/mitigate the principal areas of growth across the Borough as promoted in the Borough Plan (excluding the sites to the north of Nuneaton which are detailed later). It is envisaged that these improvements will be secured on a site by site basis through the development control process.

Growth Area	Existing Bus Service Provision	Proposed Bus Service Provision	Other Improvements
Sites to the west of Nuneaton (housing)	<p>Service 10: Nuneaton – Grove Farm – Hinckley (2 buses per hour)</p> <p>Service 17: Arley/Ansley – Nuneaton via Stockingford (Hourly)</p> <p>Service 18: Arley/Ansley – Nuneaton via Galley Common (Hourly)</p>	<p>Frequency/route amendments to Service 10/10A (Hinckley to Nuneaton and Grove Farm) and Service 18 (Nuneaton to Arley and Ansley).</p> <p>Diversion of existing Service 17 to serve the major development.</p>	
Land at Arbury Estate (housing)	<p>Service 9: Stockingford – Nuneaton Town Centre (4 buses per hour)</p> <p>Service 17: Arley/Ansley – Nuneaton via Stockingford (Hourly)</p>	<p>Provision of new bespoke services linking to Nuneaton, Bermuda Park rail station, Bedworth and Coventry, unless existing Services 55, 78A and 79 can be extended/retimed to serve this area.</p> <p>Diversion of existing Service 9 to serve the major development.</p>	
Land off Gipsy Lane (housing)	<p>Service 7: Whitestone – Nuneaton Town Centre (2 buses per hour)</p> <p>Service 56: Coventry – Ash Green – Bedworth – Bulkington – Nuneaton (2 buses per hour)</p> <p>Service 74: Coventry - Wolvey – Nuneaton (5 buses per day)</p>	<p>Extension of Service 7 (Nuneaton to Whitestone) to serve this area.</p>	<p>Provision of good pedestrian/cycle connectivity to Bermuda Park rail station should be secured as part of development in this area.</p>

<p>Land in the vicinity of Bermuda/Griff (employment)</p>	<p>Service 48: Coventry – Bedworth – Nuneaton – Atherstone – Leicester (6 buses per hour)</p> <p>Service 55: Coventry – Keresley – Ash Green – Bedworth -Nuneaton (2 buses per hour)</p> <p>Service 78: University Hospital – Bedworth – Nuneaton (Hourly)</p> <p>Service 79: Ash Green – Bedworth – Nuneaton (5 buses per day)</p>	<p>Frequency/route amendments to Services 55, 78A and 79.</p>	<p>Good pedestrian access from these development sites should be provided to maximise access to key strategic bus services such as the 48 to encourage the use of bus for longer distance trips in the North-South Corridor. Provision of good pedestrian/cycle connectivity to Bermuda Park rail station.</p>
<p>Land at Goodyers End and Hawkesbury (housing)</p>	<p>Service 55: Coventry – Keresley – Ash Green – Bedworth -Nuneaton (2 buses per hour)</p> <p>Service 56: Coventry – Ash Green – Bedworth – Bulkington – Nuneaton (2 buses per hour)</p> <p>Service 57: Coventry – Ash Green – Nuneaton (2 buses per hour)</p> <p>Service 79: Ash Green – Bedworth – Nuneaton (5 buses per day)</p>	<p>Frequency/route amendments to Services 55/79 and 78/78A respectively.</p>	

Proposed Bus Service Improvements: North Nuneaton

The table below provides details of the suggested bus service specification to serve the proposed major residential growth in North Nuneaton, including details of costs (net of estimated fare box revenue). These proposals have been informed by discussions with the two principal bus operators within the Borough.

Proposed bus service specification to serve major residential development in North Nuneaton	
<i>1) Potential Diversion of Existing Bus Services:</i>	
Route No	Proposal
Service 3	Potential diversion of route on Weddington Road to serve the Lower Farm and Top Farm individual developments.
Service 55	Extending the existing bus route from Horeston Grange to serve the south eastern area of the overall development site.
Service 10	If effective highway links are put in place the bus route could be considered for diversion off Long Shoot to serve the south eastern section of overall development site.
<i>2) Potential Creation of a Standalone Bus Service(s):</i>	
<ul style="list-style-type: none"> • Potential standalone bus service to serve Davidson’s site (situated south of Lower Farm and already received planning permission), Lower Farm, Top Farm and also possibly the Prologis development; and • Potential standalone bus service to serve Calendar Farm development and possibly also Meadowcroft Farm to the east 	
<i>3) Potential Vehicle Specification: Low floor single deck vehicles < 5 years old.</i>	
<i>4) Potential Funding Arrangements:</i>	
<ul style="list-style-type: none"> • WCC to tender any new or diverted sections of bus services that require financial support in consideration of the competition in the commercial bus market on the A47 corridor; • Tender cost options could include a potential staggered approach over 5 years for the purpose of aiming to ensure sustainability at the end of the term; and • Potential Pooling approaching where each development site application associated with the area of major development allocates funding into a single pot to cover the provision of bus services serving the overall site. 	
<i>5) Projected cost of providing the potential combined new/enhanced bus service(s) net of fare box ticket revenue:</i>	
<i>Cost Projections (Minus Fare Revenue)</i>	
Projected Cost for Diverting Services over 5 Years	
<u>Lower Farm, Top Farm and also possibly the Prologis Development</u> Route to Lower Farm is Extended into Top Farm, through to Higham Lane, and dependent on the efficiency of a bus route through this area allowing for a round-trip to the town	

centre to be achieved within 50 minutes, then additional pump-priming funding should be sought with a view to providing 2 additional buses, at £150K per annum each, over 5-6 years, with a view to providing a 15-minute frequency service.	
Year 1	£250,000
Year 2	£220,000
Year 3	£190,000
Year 4	£160,000
Year 5	£130,000
Sub Total	£950,000
Projected Cost for Providing new Bus Service(s) over 5 Years:-	
<u>Calendar Farm development and possibly also Meadowcroft Farm to the east</u>	
Developer contributions should be sought to pump-prime such a service, based on a full cost of £150K/annum index-linked, on a straight line degression to account for revenue generation. This is likely to warrant a requirement for about £850,000 in pump-priming funding over the period of support, with two years at close to full cost.	
Year 1 (80% of total contribution)	£140,000
Year 2 (assuming 10% reduction due to increased revenue)	£130,000
Year 3 (assuming a further 10% increase in revenue)	£120,000
Year 4 (assuming a further 10% increase in revenue)	£110,000
Year 5 (assuming a further 10% increase in revenue)	£100,000
Sub Total	£600,000
Total Contribution	£1,550,000
Cost per Dwelling (3,000 in total)	£516.66

Bus Infrastructure

The principal areas of infrastructure associated with bus service improvements are bus stops, flags, shelters, laybys, information and priority measures.

Bus Stops, Flags, Shelters, Laybys and Information

In relation to bus stops, the County Council would expect these to be well located in relation to the surrounding development (for example in terms of local service

centres and schools), with a maximum walk distance of no more than 400m from any point within the development. In most cases bus stop poles with flags and timetable cases should be sufficient. The location of the bus stops should be agreed prior to the construction of each development site in order to ensure that potential occupiers are aware of their location. The bus stops should be provided with raised kerbs in order to complement the fleet of low floor buses operating in Nuneaton, bus stop poles (with bus flag and timetable case attached) and also a bus stop clearway marking box.

At key bus stops, consideration should be given to providing a bus shelter. A commuted sum will be required for a period of five years to cover the maintenance costs of each shelter provided. Bus stop laybys are generally not required unless it is necessary for a vehicle to wait for some time at a particular point in its journey (for example at the beginning or end of a route).

The County Council will not generally require Real Time Information (RTI) to be provided at bus stops and within bus shelters. However, liaison with site promoters will be undertaken to discuss the possible provision of supporting underground infrastructure, should RTI be pursued at some point in the future.

The advent of smartphone means that residents of these developments can enjoy the benefits of real time information through use of specific apps.

Consideration should be given towards promoting a town-wide approach to bus flags in Nuneaton by allocating developer funding towards replacing certain bus flags around the town to ensure a consistent and uniformed appearance.

Bus Priority/Connectivity Improvements

Existing bus priority provision within the Borough is currently limited to a bus lane within Bedworth town centre on Mill Street and a bus gate on Abbey Street in Nuneaton. The following bus priority/connectivity improvements are proposed to help support and mitigate the impact of growth on the Borough:

Nuneaton Town Centre

The County Council is currently considering a number of potential enhancements to the Ring Road in Nuneaton town centre. As part of these improvements, opportunities will be sought to make better provision for buses in terms of bus priority and access to the bus and rail stations. As part of these proposals (and possibly in conjunction with the proposed redevelopment of the bus station), further consideration will be given to the provision of a dedicated bus bridge onto Bond Gate.

Bermuda Connectivity Project

An existing bridge over the A444 near Bermuda which is currently only available for use by pedestrians and cyclists is proposed to be opened up for use by all modes. This has potential to improve bus access to Bermuda Village, the forthcoming Bermuda Park rail station on St Georges Way and West Nuneaton generally. The

scheme is currently under development and will be subject to public consultation in June 2015.

Development in West and South West Nuneaton

As part of the proposals for housing and employment development in the Heath End/Arbury/Bermuda area in west and south west Nuneaton, the County Council would support proposals for dedicated bus provision/priority to improve connectivity for public transport between the B4102 Arbury Road/B4112 Heath End Road and the A444 near Griff/Bermuda.

Other Areas

Further opportunities for bus priority provision elsewhere within the Borough will be sought as a result of new development, particularly at key junctions on important bus routes. Bus priority measures will be essential to support park and ride should such proposals come forward (see below)

Park and Ride

The County Council has previously highlighted the opportunity for some form of either formal or informal Park and Ride in the vicinity of Griff/Bermuda to be delivered as a result of development in the area. Stagecoach Midlands have indicated a strong interest in serving such a facility in terms of linking with their high frequency services in the North-South corridor. As indicated above, such a facility would benefit from targeted bus priority measures.

It is anticipated that any Park and Ride facility provided within the Borough would be owned and operated in perpetuity by the Borough Council as an off-street car park, given that as an Authority it controls a number of the off-street car parks locally and sets the parking charges therein. Any costs associated with the subsidy and operation above and beyond the funding provided by developers towards the bus services associated with the Park and Ride facility would also need to be met by the Borough Council.

It is suggested that further work is carried out by the Borough Council to understand some of the more detailed aspects of the proposals for Park and Ride, such as demand forecasting (including town centre parking charge sensitivity testing), likely construction and site operating costs, bus subsidy costs and consideration of operational issues.

Access to Rail

The principal access points to the rail network for those living or working in the Borough are Nuneaton and Coventry. These stations benefit from long distance express and semi-fast services on the West Coast Main Line between London, the West Midlands, the North West and Scotland. Nuneaton is also served by Cross Country services between Birmingham, Leicester and Stansted Airport.

Bedworth station is located on the Nuneaton to Coventry line, which is currently served by an hourly shuttle service. The forthcoming new stations at Bermuda Park and the Ricoh Arena, which are in the process of being constructed as part of the NUCKLE 1.1 project, will improve access to areas located near this line which have a high concentration of existing and proposed employment facilities. Platform extensions at Bedworth are also due to be built shortly as part of NUCKLE 1.1.

Funding for NUCKLE 1.2 has recently been secured as part of the Coventry and Warwickshire Local Growth Deal. This will deliver a new bay platform at Coventry along with the track and signalling work to allow train frequencies between Nuneaton and Coventry to be increased from hourly to half-hourly. Phase 3 of the NUCKLE project, which aims to reinstate through rail services between the East Midlands, Nuneaton, Coventry and Leamington Spa, is in the early stages of development.

The County Council is considering opportunities to provide improved access to Nuneaton rail station as part of the town centre schemes which are currently in the process of being developed (see earlier). The intention is to provide better facilities for pedestrians and cyclists along with improved integration for buses and taxis. Network Rail has recently agreed to carry out a study to consider the feasibility of providing a pedestrian/cycle access to the rail station from Weddington Terrace.

3. Walking and Cycling

Introduction

It is important that high quality pedestrian and cycle routes are provided to and within all significant development sites which come forward across the Borough.

The cycle network within the Nuneaton and Bedworth area is reasonably well developed (see **Appendix B**) in some areas, although there are a number of missing links which the County Council would like to see come forward to add to/reinforce the overall network. The County Council and Sustrans carried out a review of the Nuneaton and Bedworth cycle network in 2015 in order to produce a new cycle network development plan. The proposed Borough Plan housing and employment allocations formed a key input to this review. Views have also been sought from the Nuneaton Cycle Forum (which the County Council attends) regarding the cycle network review.

Internal provision for pedestrians and cyclists within development sites should deliver good access to local service centres, schools and open spaces/play areas. The County Council's preference is that cyclists should generally be accommodated on suitably designed streets within new residential developments, rather than shared use footway/cycleways adjacent to the carriageway, although cycle facilities which are segregated from traffic may be required on main spine roads. This should be complemented by traffic-free shared pedestrian/cycle routes where they provide attractive or more direct alternatives to the road network. Routes should also be provided as part of new 'green' corridors, with suitable links to them from within the development. Good connections to the external pedestrian and cycle network are also important.

In terms of other pedestrian and cycle infrastructure, crossing facilities should be considered where flows justify such provision. Toucan crossings may be required on key cycle routes. Pedestrian/cycle signage should also be considered, particularly in terms of links to important local facilities such as public transport interchanges and the National Cycle Network. The County Council would expect to see good quality cycle parking provided at local service centres, schools and open spaces/play areas within development sites.

Proposed Improvements to Walking and Cycling Facilities

The following schemes would deliver a number of strategic and local missing links within the cycle network, and therefore allow more seamless journeys to be made by bike:

- Nuneaton – Bedworth – Coventry;
- Nuneaton – Hartshill via Whittleford Park;
- Nuneaton – Camp Hill;
- Nuneaton – Hinckley via The Longshoot;
- West Nuneaton – Bermuda / Town Centre;
- The Long Shoot – Bermuda;

- A5 Corridor (Nuneaton/Hinckley – MIRA – Mancetter – Atherstone – Birch Coppice – Tamworth).

The above schemes are initial ideas and should not be considered as an exhaustive list. This will be further refined once the cycle network review within the Nuneaton and Bedworth area has been completed.

The County Council will seek contributions towards these improvements as a result of development across the Borough.

4. Smarter Choices

In order to reinforce the investment in public transport, walking and cycling proposed in this strategy, the County Council would expect to see the parallel deployment of the following behavioural and other 'Smarter Choices' measures secured through the planning process to help deliver sustainable growth across the Borough:

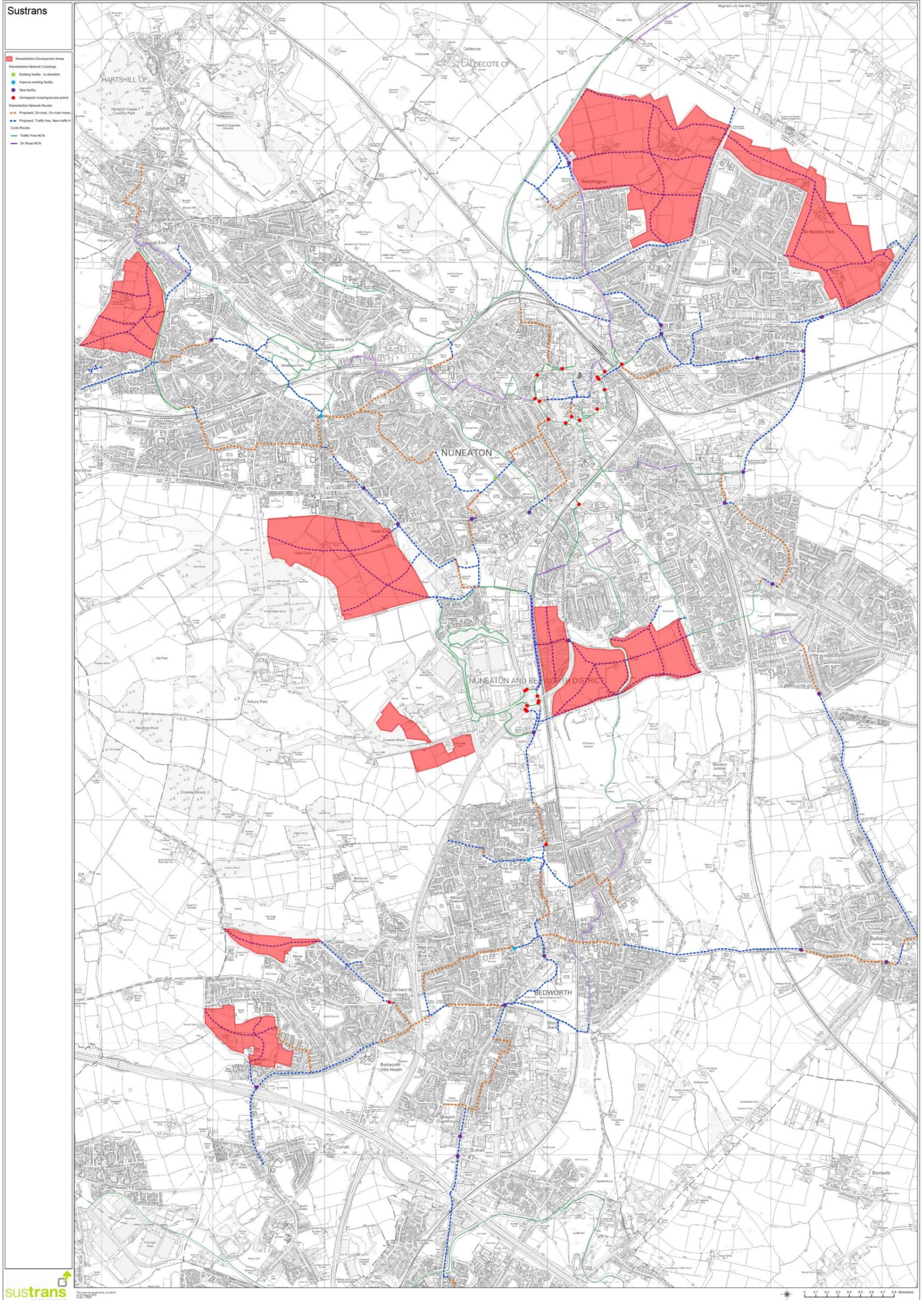
- Workplace Travel Plans (in respect of sites generating in excess of 100 jobs);
- Sustainable Travel Packs for new residents;
- Personalised travel planning (i.e. specifically tailored to the needs of the individual);
- Travel awareness campaigns;
- Public transport information and marketing;
- Car clubs;
- Car sharing schemes;
- Provision of Electric Vehicle charging points at key locations within development sites; and
- Use of teleworking, teleconferencing and home shopping.

The County Council will continue to work with existing employers, transport providers, the Borough Council and organisations such as Job Centre Plus and local Further Education institutions to encourage and facilitate bespoke solutions to addressing transport issues and needs, in order to improve access to training and employment opportunities across the Nuneaton and Bedworth area.

5. Sustainable Transport Infrastructure Delivery Plan

An Infrastructure Delivery Plan which captures the Sustainable Transport requirements detailed in this strategy is provided in **Appendix C**. This should be treated as an addendum to the advice contained in the County Council's previous Strategic Transport Assessment and the Borough Council's emerging IDP. It should also be treated as a 'live' document, which will evolve as further opportunities arise across the sub region through the Local Growth Deal or due to changes on the trunk road network within the Borough. The expectation is that this will feed directly into NBBC's IDP associated with the Borough Plan.

Appendix A - Nuneaton and Bedworth Cycle Network Plan



Appendix B - Sustainable Transport Infrastructure Delivery Plan

IDP Project Reference	IDP Project Name	Area/Site Association	Scheme Details	Delivery Period	Capital Cost	Funding Source	Responsible Agency
Cycling							
	Highway Improvement Schemes and Development Site Masterplans – Cycle Facilities	Borough-wide	Cycle infrastructure improvements to be incorporated into all IDP and other highway improvements, along with individual development site Masterplans.	Whole plan	N/A	S38/S278	Developers WCC Highways England
	Cycle Coventry and Warwickshire: Nuneaton – Bedworth – Coventry Strategic Cycle Route	North Nuneaton Arbury Gipsy Lane Bermuda Extensions 1 and 2 Goodyers End Hawkesbury	Provision of dedicated cycle infrastructure on B4113 Coventry Road between Bermuda Park, Bedworth and Coventry, with connections to existing cycle network, key employment sites and residential areas.	Tbc	£2m	S106/CIL WCC LEP Local Growth Deal	Developers WCC
	Nuneaton – Hartshill via Whittleford Park Cycle Route	West Nuneaton	Provision of dedicated cycle infrastructure linking West Nuneaton to the town centre via Whittleford Park.	Tbc	Tbc	S106/CIL WCC	Developers WCC
	Nuneaton – Camp Hill Cycle Route	West Nuneaton	Completion of missing links in existing cycling provision between Camp Hill and the town centre.	Tbc	Tbc	S106/CIL WCC	Developers WCC
	North Nuneaton Cycle Connectivity	North Nuneaton West Nuneaton	Provision of a dedicated cycle link from B4114 Tuttle Hill to Weddington via Stoney Road and a crossing of the River Anker.	Tbc	Tbc	S106/CIL WCC	Developers WCC
	Nuneaton – Hinckley (via The Longshoot) Cycle Route	North Nuneaton	Provision of dedicated cycle infrastructure between A5 and town centre, via The Long Shoot and Horeston Grange open space.	Tbc	£1.4m	S106/CIL WCC	Developers WCC
	West Nuneaton – Bermuda / Town Centre Cycle Route	West Nuneaton Arbury Bermuda Extensions 1 and 2 Gipsy Lane	Provision of dedicated cycle links from West Nuneaton to Bermuda Park and Nuneaton town centre.	Tbc	Tbc	S106/CIL WCC	Developers WCC
	The Long Shoot to Bermuda	North Nuneaton Gipsy Lane Bermuda Extensions 1 and 2	Provision of dedicated cycle infrastructure between The Long Shoot and Bermuda via Eastboro Way.	Tbc	Tbc	S106/CIL WCC	
	A5 Corridor Cycle Improvements	North Nuneaton	Extension of the Nuneaton/Hinckley to MIRA cycle route in order to link to Mancetter, Atherstone, Birch Coppice and Tamworth.	Tbc	Tbc	S106/CIL WCC Highways England	Developers Highways England WCC
Walking							
	Highway Improvement Schemes and Development Site Masterplans – Pedestrian Facilities	Borough-wide	Pedestrian infrastructure improvements to be incorporated into all IDP and other highway improvements, along with individual development site Masterplans.	Whole plan	N/A	S38/S278	Developers WCC Highways England

	Cycling Improvement Schemes – Pedestrian Facilities	Borough-wide	Improvements for pedestrians will be incorporated in all shared use and segregated foot/cycleway facilities.	Whole plan		S38/S278	Developers WCC Highways England
	Bermuda Connectivity Project – Pedestrian Facilities	West Nuneaton Arbury Bermuda Extensions 1 and 2 Gipsy Lane	The Bermuda Connectivity Project will deliver benefits for pedestrians in terms of improved access to parts of West Nuneaton, the George Eliot Hospital, Bermuda Rail Station and the employment areas around Bermuda.	2017/18	£3.7m	WCC Capital Growth Fund LEP Growing Places Fund	WCC
	A444/Walsingham Drive Pedestrian Improvements	Arbury Bermuda Extensions 1 and 2 Gipsy Lane	Provision of a new footway alongside the A444 in the vicinity of Walsingham Drive.	Tbc	£0.5m + land acquisition costs	S106/CIL	WCC
Public Transport - Rail							
	NUCKLE 1.1: Nuneaton – Bedworth – Coventry Heavy Rail Improvements	Borough-wide	Provision of new stations at Ricoh Arena and Bermuda Park and platform extensions at Bedworth Station	2015/16	£15m	DfT Major Scheme Funding	WCC CCC Centro DfT Network Rail Train Operators
	NUCKLE 1.2: Nuneaton – Bedworth – Coventry Heavy Rail Improvements	Borough-wide	Provision of bay platform at Coventry along with track and signalling works to enable the introduction of a half-hourly train service between Coventry, Bedworth and Nuneaton.	2017/18	£15m	DfT LEP Local Growth Deal	WCC CCC Centro DfT Network Rail Train Operators
	NUCKLE 3: Coventry – East Midlands Heavy Rail Improvements	Borough-wide	Provision of a dive-under at Nuneaton along with associated track and signalling works to allow through passenger services to be reinstated between Coventry and the East Midlands.	2020/21	£19.5	LEP Local Growth Deal	WCC DfT Network Rail Train Operators
	Nuneaton Rail Station Access and Interchange Improvements	Borough-wide	Provision of improved access to Nuneaton rail station, along with better interchange facilities for pedestrians, cyclists, buses and taxis. This may (subject to the outcome of a feasibility study by Network Rail) include the provision of a new pedestrian/cycle access to the rail station from Weddington Terrace.				WCC Network Rail Train and Bus Operators
	Bermuda Connectivity Project – Access to Bermuda Rail Station	West Nuneaton Arbury Bermuda Extensions 1 and 2 Gipsy Lane	The Bermuda Connectivity Project will deliver benefits for pedestrians and cyclists in terms of improved access from parts of West Nuneaton to Bermuda Rail Station.	2017/18	£3.7m	WCC Capital Growth Fund LEP Growing Places Fund	WCC
Public Transport - Bus							
	Highway Improvement Schemes and Development Site	Borough-wide	Bus infrastructure improvements to be incorporated into all IDP and other highway improvements, along	Whole plan	N/A	S38/S278	Developers WCC

	Masterplans – Bus Facilities		with individual development site Masterplans.				Highways England
	Nuneaton Rail and Bus Station Connectivity Improvements	Borough-wide	Improved signage, information, surfacing, lighting and pedestrian crossing facilities between Nuneaton rail and bus stations.			WCC	Developers WCC NBBC Rail industry
	Nuneaton Bus Station Reconfiguration	Borough-wide	Reconfiguration of the bus station will be necessary as part of the proposed redevelopment of this area of the town centre. The cost of the reconfiguration works will be met as part of the overall site redevelopment.		N/A	Developers WCC NBBC	Developers WCC NBBC Bus Operators
	Nuneaton Bus Bridge	Borough-wide	Provision of a new bus-only bridge between the bus station and Bond Gate (possibly in conjunction with the reconfiguration of the bus station – see above)			Developers WCC NBBC	Developers WCC NBBC Bus Operators
	Nuneaton Town Centre Bus Priority	Borough-wide	Opportunities to deliver bus priority measures will be considered as part of the improvements to the Ring Road and other roads within the town centre.	Whole plan		Developers WCC	
	Bermuda Connectivity Project – Improved Access for Bus Services to/from West Nuneaton	West Nuneaton Arbury Bermuda Extensions 1 and 2 Gypsy Lane	The Bermuda Connectivity Project will deliver benefits for bus users in terms of improved access to/from parts of West Nuneaton.	2017/18	£3.7m	WCC Capital Growth Fund LEP Growing Places Fund	WCC

APPENDIX D

M6 Junction 3 Review

M6 Junction 3 – 2022 Demands

Table 1: 2022 M6 Junction 3 Demands (AM Period: 07:00-10:00)

2022 NBWA Reference Case					
	A444 North	M6 East	B4113	A444 South	M6 West
A444 North	2	2,410	1,122	2,624	1,122
M6 East	726	0	556	1,172	208
B4113	592	854	0	490	392
A444 South	1,878	2,032	360	52	782
M6 West	862	1,304	416	1,108	0
2022 NBBC Local Plan 'Do Something' Scenario					
	A444 North	M6 East	B4113	A444 South	M6 West
A444 North	2	2,461	1,271	3,009	1,118
M6 East	674	0	718	1,310	256
B4113	746	862	12	527	389
A444 South	1,941	2,077	363	232	786
M6 West	828	1,348	456	1,183	0
2022 NBBC Local Plan 'Do Something' Scenario – Local Plan Only					
	A444 North	M6 East	B4113	A444 South	M6 West
A444 North	0	221	215	622	26
M6 East	60	0	177	174	0
B4113	151	89	12	96	21
A444 South	167	50	44	191	17
M6 West	46	0	78	106	0

Table 2: 2022 M6 Junction 3 Demands (PM Period: 16:00-19:00)

2022 NBWA Reference Case					
	A444 North	M6 East	B4113	A444 South	M6 West
A444 North	2	936	800	1,996	778
M6 East	2,134	0	1,140	2,410	238
B4113	802	546	0	626	356
A444 South	2,954	1,286	400	64	996
M6 West	1,106	1,262	342	858	0
2022 NBBC Local Plan 'Do Something' Scenario					
	A444 North	M6 East	B4113	A444 South	M6 West
A444 North	3	1,055	967	2,135	780
M6 East	2,278	0	1,298	2,465	248
B4113	1,209	617	39	739	408
A444 South	3,315	1,394	473	95	1,010
M6 West	1,137	1,202	354	917	0
2022 NBBC Local Plan 'Do Something' Scenario – Local Plan Only					
	A444 North	M6 East	B4113	A444 South	M6 West
A444 North	1	175	163	181	32
M6 East	132	0	159	53	0
B4113	344	103	39	196	89
A444 South	460	92	58	38	74
M6 West	39	0	21	9	0

M6 Junction 3 – 2027 Demands

Table 3: 2027 M6 Junction 3 Demands (AM Period: 07:00-10:00)

2027 NBWA Reference Case					
	A444 North	M6 East	B4113	A444 South	M6 West
A444 North	0	2,398	1,086	2,576	1,160
M6 East	776	0	566	1,192	300
B4113	620	850	0	496	398
A444 South	1,938	2,084	314	46	796
M6 West	868	1,444	410	1,170	0
2027 NBBC Local Plan 'Do Something' Scenario					
	A444 North	M6 East	B4113	A444 South	M6 West
A444 North	0	2,538	1,460	3,244	1,058
M6 East	756	0	792	1,334	228
B4113	904	858	8	580	410
A444 South	1,996	2,086	362	262	746
M6 West	822	1,346	474	1,142	0
2027 NBBC Local Plan 'Do Something' Scenario – Local Plan Only					
	A444 North	M6 East	B4113	A444 South	M6 West
A444 North	0	668	472	1,046	92
M6 East	190	0	298	208	0
B4113	294	152	8	168	56
A444 South	354	52	60	230	14
M6 West	104	0	124	122	0

Table 4: 2027 M6 Junction 3 Demands (PM Period: 16:00-19:00)

2027 NBWA Reference Case					
	A444 North	M6 East	B4113	A444 South	M6 West
A444 North	0	938	818	2,046	790
M6 East	2,124	0	1,218	2,424	226
B4113	830	526	0	604	372
A444 South	3,046	1,306	402	66	1,006
M6 West	1,130	1,262	346	910	0
2027 NBBC Local Plan 'Do Something' Scenario					
	A444 North	M6 East	B4113	A444 South	M6 West
A444 North	0	1,132	1,062	2,268	798
M6 East	2,266	0	1,402	2,352	230
B4113	1,378	612	40	756	430
A444 South	3,474	1,416	544	86	940
M6 West	1,164	1,230	352	876	0
2027 NBBC Local Plan 'Do Something' Scenario – Local Plan Only					
	A444 North	M6 East	B4113	A444 South	M6 West
A444 North	0	384	342	352	82
M6 East	472	0	326	56	0
B4113	566	128	40	246	134
A444 South	820	118	126	48	100
M6 West	140	0	32	8	0

M6 Junction 3 – 2027 Demands

Table 5: 2031 M6 Junction 3 Demands (AM Period: 07:00-10:00)

2031 NBWA Reference Case					
	A444 North	M6 East	B4113	A444 South	M6 West
A444 North	2	2,440	1,216	2,640	1,182
M6 East	696	0	554	1,240	252
B4113	698	830	0	538	414
A444 South	1,884	2,084	338	50	800
M6 West	890	1,394	448	1,184	0
2031 NBBC Local Plan 'Do Something' Scenario					
	A444 North	M6 East	B4113	A444 South	M6 West
A444 North	0	2,752	1,410	3,300	1,088
M6 East	796	0	778	1,356	248
B4113	906	826	12	558	392
A444 South	2,068	2,050	378	268	758
M6 West	822	1,486	470	1,174	0
2031 NBBC Local Plan 'Do Something' Scenario – Local Plan Only					
	A444 North	M6 East	B4113	A444 South	M6 West
A444 North	0	844	442	1,184	124
M6 East	218	0	284	208	0
B4113	342	164	12	150	56
A444 South	450	52	52	232	24
M6 West	120	0	114	122	0

Table 6: 2031 M6 Junction 3 Demands (PM Period: 16:00-19:00)

2031 NBWA Reference Case					
	A444 North	M6 East	B4113	A444 South	M6 West
A444 North	0	920	866	2,050	796
M6 East	2,178	0	1,184	2,474	240
B4113	858	544	0	634	356
A444 South	3,016	1,360	394	68	1,014
M6 West	1,180	1,322	350	920	0
2031 NBBC Local Plan 'Do Something' Scenario					
	A444 North	M6 East	B4113	A444 South	M6 West
A444 North	0	1,172	1,140	2,196	782
M6 East	2,406	0	1,328	2,372	272
B4113	1,432	624	44	790	446
A444 South	3,692	1,410	520	86	952
M6 West	1,204	1,286	336	898	0
2031 NBBC Local Plan 'Do Something' Scenario – Local Plan Only					
	A444 North	M6 East	B4113	A444 South	M6 West
A444 North	0	418	346	356	72
M6 East	636	0	326	58	0
B4113	608	146	44	282	146
A444 South	974	114	128	36	110
M6 West	178	0	24	10	0

M6 Junction 3 – 2022 Queue Lengths

Figure 1: Average Hourly Maximum Queue Length (2022 AM Period: 07:00-10:00)

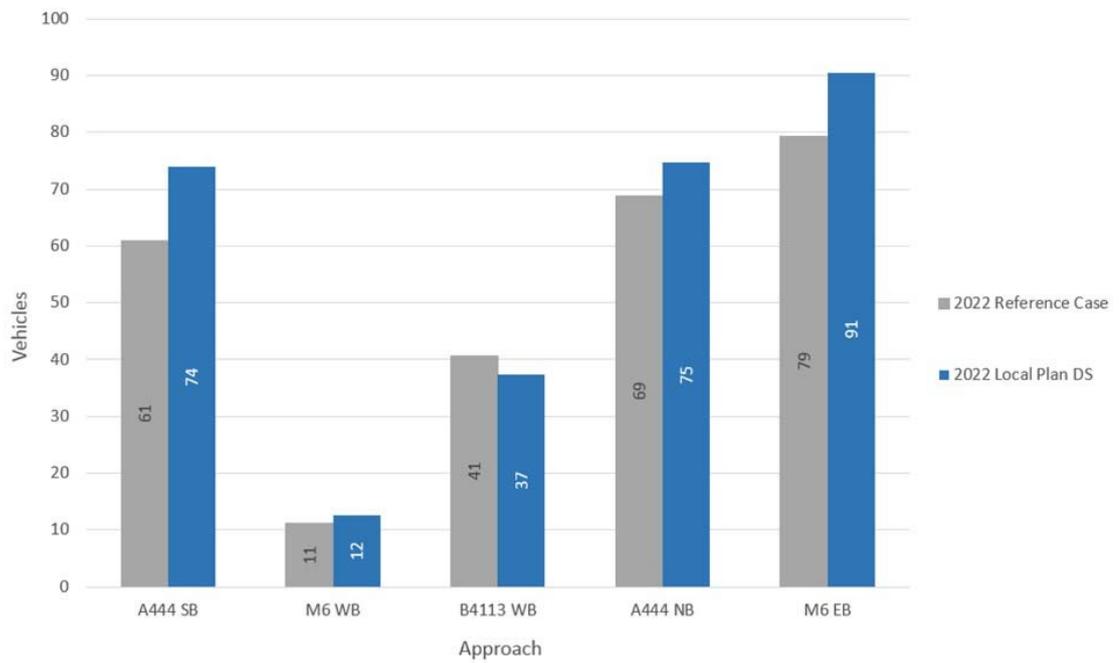
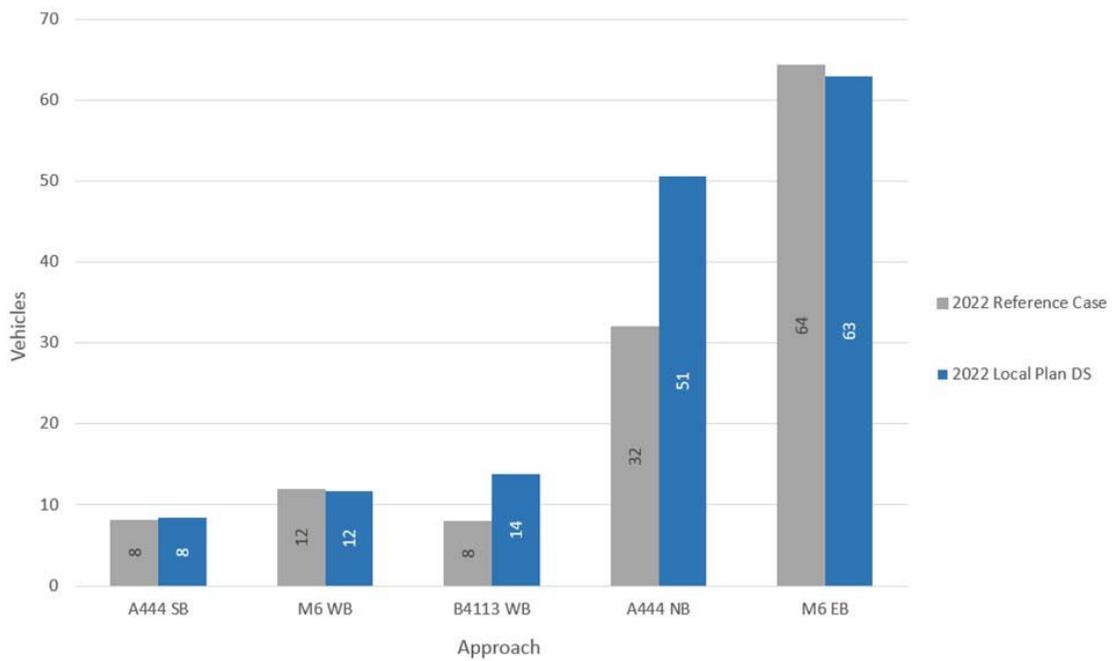


Figure 2: Average Hourly Maximum Queue Length (2022 PM Period: 16:00-19:00)



M6 Junction 3 – 2027 Queue Lengths

Figure 3: Average Hourly Maximum Queue Length (2027 AM Period: 07:00-10:00)

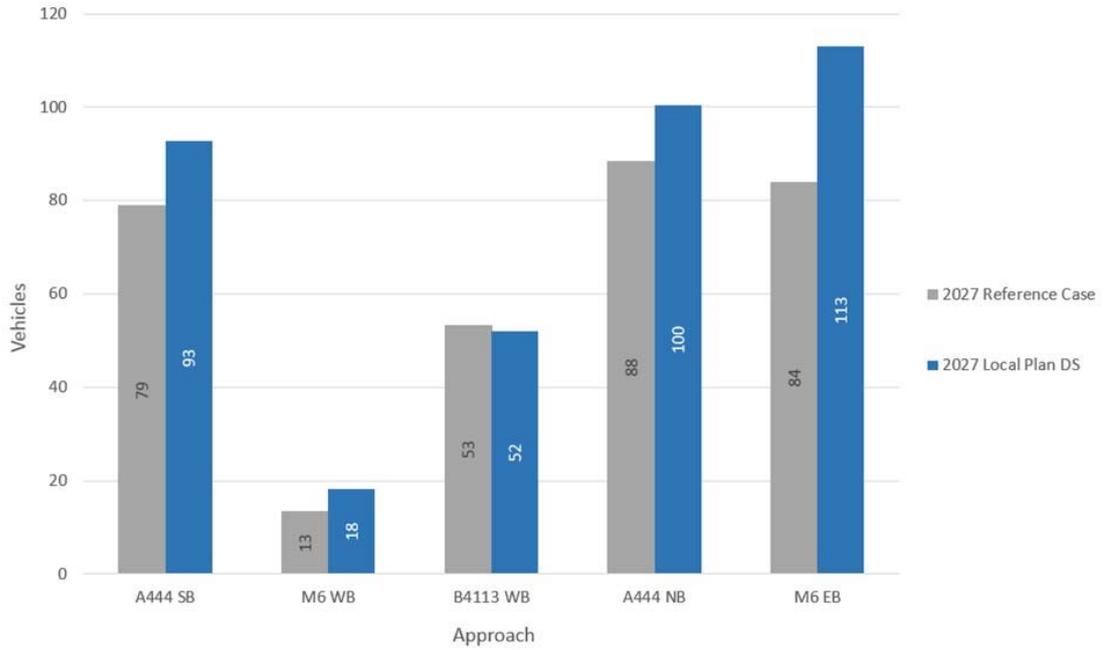
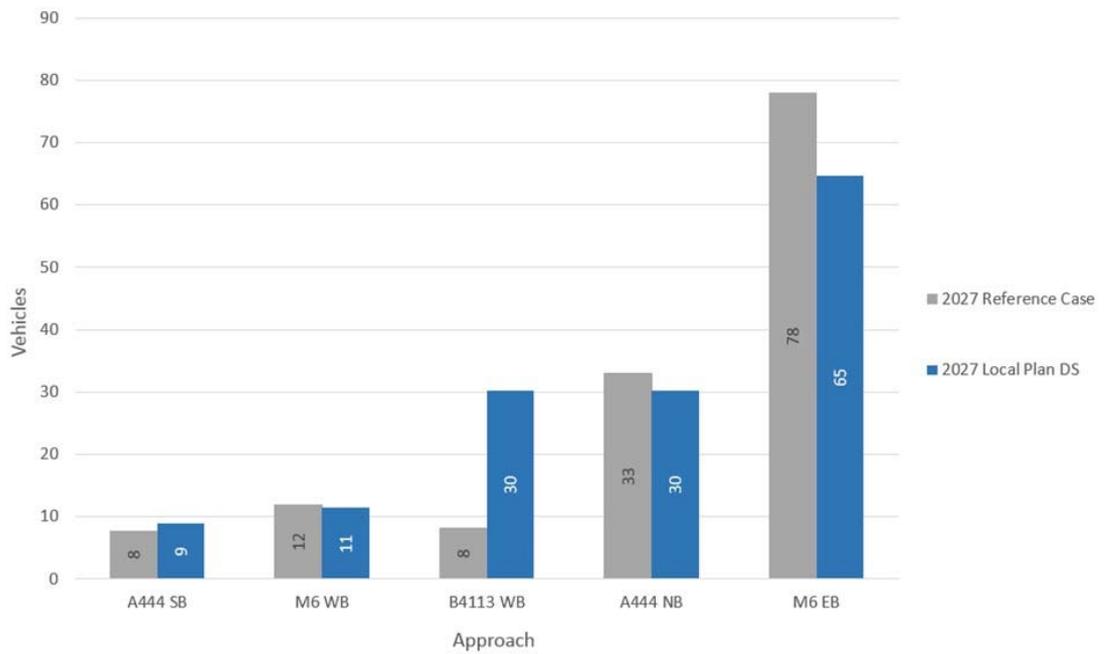


Figure 4: Average Hourly Maximum Queue Length (2027 PM Period: 16:00-19:00)



M6 Junction 3 – 2031 Queue Lengths

Figure 5: Average Hourly Maximum Queue Length (2031 AM Period: 07:00-10:00)

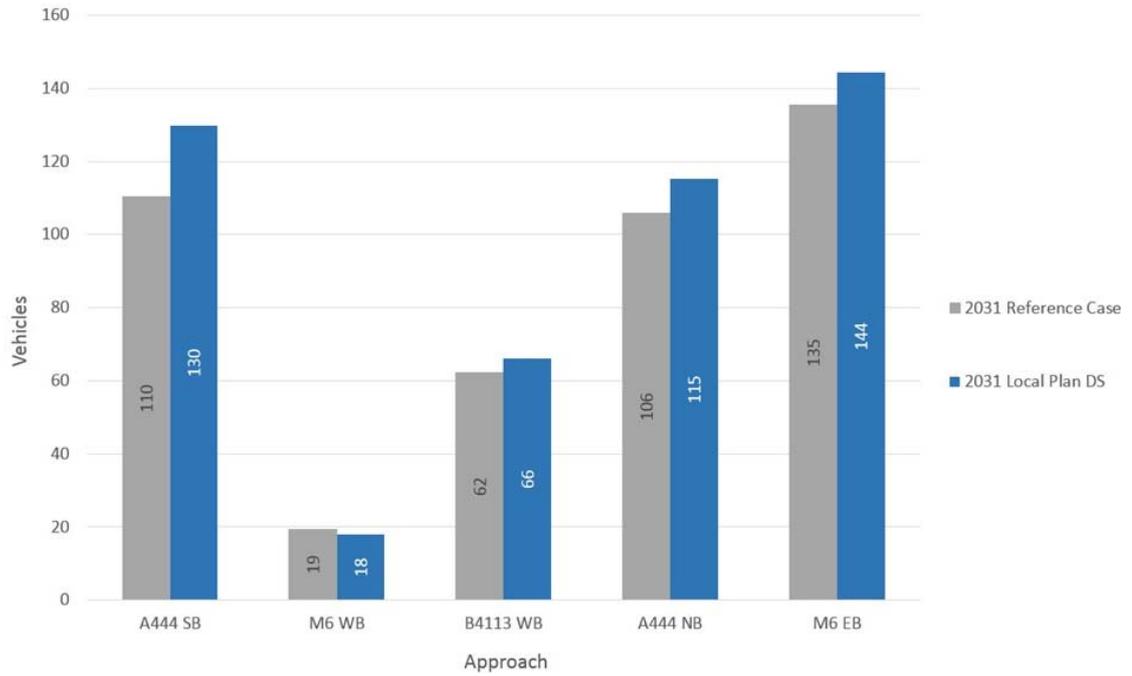


Figure 6: Average Hourly Maximum Queue Length (2031 PM Period: 16:00-19:00)

