

Exemplar Transport Assessment

This exemplar Transport Assessment is adapted from one received by National Highways. Identifying material to the application itself has been removed or redacted.

Executive Summary

- i. The proposed development comprises up to 300 homes on land to the west of Riverside Way, Anytown.
- ii. The application site is a natural expansion of the previously consented c. 900 homes at Meadow Park, located to the east of Oak Lane and south of Willow Way, and the wider Anytown Proposals.
- iii. This Transport Assessment will provide an assessment of the proposed development, including the development's estimated trip generation and distribution. This is in line with the agreed methodology between Anytown Borough Council, Anytown Highways and National Highways. The impact of the development on the highway network will be undertaken by the Anytown Transport Planning Consultants on behalf of the Applicant, Riverside Developer.
- iv. It is anticipated that the development would require the usual servicing requirements such as refuse collection, internet deliveries and post; the development's design and layout allow for all turning manoeuvres to be undertaken within the site – all vehicles will enter and egress the development site in a forward gear.
- v. Car and cycle parking are provided with regard to the revised NPPF of December 2024 and the Anytown Local Plan.
- vi. A Travel Plan is introduced to promote and enhance the sustainability and accessibility of the site.
- vii. The cumulative analysis of this Transport Assessment, supported by the capacity assessment undertaken by Anytown Transport Planning Consultants, will provide measures to support development so that:
 - All person trips can be accommodated within the existing infrastructure;
 - Mitigation proposals and measures to support development are identified; and
 - The development proposals do not result in an unacceptable impact on highway safety or a residual cumulative impact on the road network that is severe.

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<p>Exemplar TA content</p>	<p>National Highways</p> <p>What we require from a Transport Assessment and Why</p>
<p>1. Introduction</p>	
<p>Overview</p>	
<p>1.1.1. This Transport Assessment (TA) has been prepared by Anytown Transport Consultants on behalf of the Applicant to support an outline planning application for up to 300 homes on the land to the west of Riverside Way, Anytown</p>	<p>What: we are looking for a clear, succinct introduction which provides an indication of development scale, location and importantly proximity to the SRN. Further details can be provided later in the TA.</p> <p>Why: this will help us ascertain the most essential details that we will use for our records, informing how much resource is required to complete our review of the TA.</p>
<p>1.1.2. The application site is a natural expansion of the previously consented c. 900 homes at Meadow Park, located to the east of Oak Lane and south of Willow Way, and the wider Anytown Proposals.</p>	
<p>Site Location</p>	
<p>1.1.3. The proposed development is located on existing agricultural land which does not have any current vehicle access apart from a narrow, gated access off Riverside Way used by agricultural vehicles.</p>	<p>What: we would find it useful if the TA can clearly indicate the proximity to the SRN, using a map(s) and/or estimate journey distance to the nearest SRN junction. More details can be provided later in the TA.</p> <p>This section should also highlight any relevant background / context such as extant planning permission and the site's Local Plan status.</p> <p>Why: we can gain an immediate impression of the proximity of the SRN, and the development's reliance upon it.</p> <p>Proposals for unallocated sites may be subject to greater scrutiny than allocated sites and may require more significant measures to encourage mode shift or developer contributions. The preferred approach is for sites to be allocated within the Local Plan, ensuring that both cumulative and development impacts are appropriately identified and robustly assessed.</p>

1.1.4. The site is located approximately 10km west of Anytown city centre, 5km north of Anytown Village and 2km east of Heathville. The location and context of the site is shown in Figure 1-1 below

1.1.5. The site is included as an allocated site within the adopted Anytown Local Plan 2026 for the same quantum of development

Figure 0-1: Site Location



2. Policy Context

2.1.1. It is important to recognise the local, regional and national policy context, and to demonstrate how the proposed development aligns with policy. Where relevant, the analysis presented in this TA is in line with key policy documents, and reference is made to specific policies and guidance throughout the TA. Below is a summary of the key documents which have been used.

What: this should provide a clear indication of how the development has been considered in the context of local, regional and national policy, primarily from a transport perspective. This should go beyond merely listing relevant documents but highlighting notable policies and objectives which will have an influence on the content of the TA including assessment assumptions and proposed mitigation measures.

Why: we are given confidence that the proposed development, and the way it has been assessed in the TA, is compliant with policy across geographical scales.

Planning Policy	
<ul style="list-style-type: none"> • National Planning Policy Framework (NPPF), December 2024 • DfT Circular 01/22 • DfT Road Investment Strategy 2: 2020-2025 (where relevant) • DfT Better Connected: a strategy for integrated transport • National Highways Planning for the Future, October 2023 • National Highways Route Strategies • Local Transport Plans including supporting strategies and action plans • Local Plans • Neighbourhood Plans 	
Design Guidance	
<p>2.1.2. The following design guidance has been referred to where relevant in producing this Transport Assessment:</p> <ul style="list-style-type: none"> • Anytown Borough Council / Anytown Highways Design Guide • Manual for Street (MfS) 1 & 2 (where relevant) • DMRB – Design Manual for Roads & Bridges • Local Transport Notes (LTN) including LTN 1/20 - Cycle Infrastructure Design and LTN 1/24 Bus user priority 	<p>What: this should be a brief overview of what guidance has been referred to. It may be helpful to indicate where in the remainder of the TA the guidance is most relevant. More detailed discussion on how development proposals align with guidance can be provided later in the TA. This section should also highlight in a situation where the SRN is to be physically affected by the proposal (i.e. creation of a new access or mitigations involving alterations to the SRN) that if proposals were to not accord with DMRB, a decision on a provisional Departure from Standard will need to be sought prior to NH making its final recommendation to the LPA.</p> <p>Why: we are given confidence that the most relevant and up to date guidance has been used, and therefore there are</p>

	unlikely to be critical issues around unconformities or departures from standards that may make our agreement to the TA more difficult and could require additional time to resolve.
<p>Pre Application Engagement</p>	
<p>2.1.3. In January 2026, virtual meetings were held with Anytown Council and National Highways representatives to discuss the scope of this TA.</p>	<p>What: National Highways strongly encourages early engagement prior to submission of a planning application. It will be useful for this section of the TA to outline what pre application engagement has taken place, including key areas of agreement, or potentially what has changed since pre-application engagement had taken place, such as the scale or composition of development.</p> <p>Why: pre-application engagement could enable key aspects of the TA to be agreed in advance, most notably which parts of the SRN need to be assessed, preferred methodologies, data sources and modelling requirements.</p>

3. Development Proposals

Overview

3.1.1. The proposed development is for 300 homes on land to the west of Riverside Way, Anytown. The land is currently used as arable farmland. An indicative masterplan is shown below.

Figure 0-1: Indicative Masterplan



Site Access Strategy (vehicular and sustainable access)

Vehicle Access Strategy

3.1.2. The main vehicle access points to Anytown development will be made from the following four locations:

- Northern access from the A1050 Sycamore Lane, at the A20(T) Willow Interchange.
- Central access from the B1040 Sycamore Lane, north of Willow Way.
- Eastern access made from an underpass beneath the A20(T) connecting to Maple North.
- Southern access from the B1030 Great Oak Road at the existing Maple signalised junction.

What: This section should set out the access strategy for the site, outlining whether access will be sought from an existing or proposed new access point.

Why: This allows NH to understand the likely routing of vehicles to and from the site and consider whether there are any direct implications relating to new or altered access arrangements on the strategic road network.

3.1.3. The whole of the development site will be served by the Spine Road, which connects the A1050/ A20 Willow Interchange, the B1040 Sycamore Lane and the B1030 Great Oak Road. The Spine Road will be c.7.6m in width and with suitable provision for pedestrians and cyclists along the length of the route. The provision for pedestrians and cyclists consists of a 0.6m separation strips 2.5m segregated cycle tracks with 2.0m wide pedestrian footway provided on both sides of the carriageway for the majority of the route. The provision is generally in accordance with LTN1/20 Cycling Infrastructure Design.

Pedestrian and Cycle Access Strategy:

3.1.4. The proposed Anytown Development internal pedestrian and cycle infrastructure and their links to the external network are attached in Figure XXXX. It is understood that the pedestrian/ cycling provision for strategic routes was agreed following discussion with Anytown Highways and Country Council in Autumn 2025. The internal layout has been designed to ensure multiple, direct and convenient access points to the external network to ensure the creation of a sustainable development site.

3.1.5. There is a footway proposed on both sides of the Spine Road for its full extent, which will connect to existing footway on Great Oak Road and to the proposed footway along the south side of Willow Way which connects to the National Cycle Network (NCN) route 12 and existing footway provision at the A1050/ Northgate roundabout. There are many pedestrian/ cycle connections from the Anytown Development site which connect to the existing foot/ cycle network to provide access to Oakridge town centre, shops in Willow and Maple Industrial Estate.

3.1.6. NCN 12 is to be re-routed through the Anytown Development site and will provide connections to Riverside Train Station, key employment destinations including Maple Business Park and Willow Park, and cycle links on Willow Way, Sycamore Lane and Cedar Road.

Transport Vision

3.1.7. A Transport Vision has been created for the development, which sets out a clear, ambitious and realistic future for travel within and beyond Anytown. With relation to this development, the Vision is set out below:

“To create a well-connected and attractive place that enables a healthy and sustainable lifestyle, minimises the need for travel and enhances sustainable travel options for residents and the wider community”

What: a vision needs to be more than a statement, and needs to link to local, regional and national policies and guidance (which can be established in the earlier policy review).


Why: the TA needs to demonstrate that the vision provides not only a backdrop but is intrinsically linked to the specific proposals being put forward, with measurable targets and outcomes that need to be achieved.

<h2>4. Baseline Transport Conditions and Transport Strategy Proposals</h2>	
<h3>Existing Transport Accessibility</h3>	
<h3>Local Road Network</h3>	
<p>4.1.1. The Riverside Way runs along the northern site boundary, has an east - west alignment from a priority T-junction with Oak Lane, under the A120 to form the eastern arm of the A200/ Meadow Interchange, to the west of Meadow Park. The A400 provides the main connection between the A1(T) and A14(T). Locally, Riverside Way runs between Anytown and Southgate with connections to the A101 and forms two roundabout junctions at the NW corner of the site.</p>	<p>What: This section should outline the existing baseline transport conditions for all modes of transport. It may be more helpful to focus on the local road network and sustainable modes of transport as a priority.</p> <p>Why: Assessment of existing accessibility allows NH to evaluate how the proposed development will change travel patterns, demand and anticipate the likely pressure on the SRN. This also provides a baseline understanding to underpin any mode shift assumptions.</p>
<p>4.1.2. Riverside Way is a street-lit, single-carriageway road with a carriageway width of 7.3m with a grass verge on both sides. There are no waiting restrictions along Riverside Way and it is subject to a posted 60mph speed limit from Oak Lane to the Northgate roundabout and a 40mph speed limit for the remaining section to the A1(T).</p>	
<p>4.1.3. The Maplewood Road runs in a general south-west to north-east direction; at its southernmost point, it forms a staggered traffic signal junction with B1020 Elm Avenue. The road continues in an easterly direction as West Lane east of Willow Village and continues northwards towards the A10(T) as Oak Lane to conclude at a priority junction with Sycamore Lane</p>	
<p>4.1.4. Approximately 320m south of the B1040, a roundabout junction has recently been constructed, providing access into the Riverside Park development currently being developed</p>	

<p>4.1.5. Maplewood Road provides a route between the A20(T) and Pinehill, and Old Mill Road serving Brookfield, Fernside and Meadowgate areas of Anytown. The B104 has a typical carriageway width of approximately 6.5m with 2.0m wide footway on at least one side of the road. The road has a posted speed limit of 30mph, has street lighting and no waiting restrictions. Bus stops are situated on both sides of the carriageway to the east of the A167 overpass, which comprise bus laybys, shelters, flags/ poles and timetable information</p>	
<p>4.1.6. The Old Farm Lane forms a priority T-junction with Greenfields Lane which runs in a northwest to south-east alignment from a roundabout junction with the A1050 Orchard Road and Main Street South in Sunnyside and continues southwards to conclude at a roundabout junction with Cedar Road and Birch Road within Oakridge</p>	
<p>4.1.7. Greenfields Lane is partially street-lit within the built-up areas and has a typical carriageway width of between 5.8m and 7.2m. The B1050 has 2.0m wide footway on both sides of the road through Riverside, which is present on the south side in places on the rural sections of carriageway between Riverside and Willowbrook. Some 85m west of the B1020/ B1030 priority junction, the speed limit changes to a posted 30mph speed limit, from here the speed limit continues as 30mph eastbound for 250m where it changes to 20mph through Riverside. The B1030 Riverside Lane provides a route to the A20/ A21 Willow Way Interchange, north of the site.</p>	
<p>4.1.8. The B1040 continues southwards as Cedar Road from the Greenfields Lane/ Birch Road roundabout to the east of Oakridge golf club to the A22 Oak Bypass/ Beech Road roundabout. Cedar Road is street-lit with a carriageway width of 6.0m and 2.0m wide footway on both sides. The road has speed hump traffic calming measures and has a posted 20mph speed limit in the vicinity of Oakridge Park Primary School, which changes to 30mph, some 380m north of the A22 Oak Bypass/ Beech Road roundabout</p>	
<p>4.1.9. There are double-yellow line waiting restrictions and school patrol crossings occur on the northern section of Cedar Road. Bus stops are situated along Cedar Road: two brick shelters outside the primary school and two kerbside stops outside Oakridge Business Park</p>	

<p>4.1.10. The south-western arm of the A21 Willow Drive Roundabout serves the Riverside Park development via the Maple North/South Roundabout. The southwestern arm of the Maple North/South Roundabout ties into the A20 underpass. It is understood that the underpass, which currently provides access for agricultural vehicles and pedestrians (Public Footpaths), is proposed to be properly upgraded as an all-vehicular route to relieve pressure on the A20/ Willow Interchange as part of the full River Moor development.</p>	
<p>4.1.11. The A21 Willow Way forms the south-western arm of the A20(T)/ 191/ A21 Willow Interchange and runs in a north to south alignment from the interchange to the A21 Willow Road/ Maple Way roundabout. Willow Way is a street-lit, single carriageway road that has recently been improved to provide a carriageway width of 14.6m with short sections of 2.0m wide footway and grass verge on the north/west side and a continuous 2.0m footway on the south/east side from the A20(T)/ 191/ A21 Willow Interchange to Oak Close. Willow Way is subject to a posted 40mph speed limit and does not feature any waiting restrictions. There is a filter lane on the A21 movement from Willow Way to Maple Road</p>	
<h3>Walking and Cycling Accessibility</h3>	
<p>4.1.12. Anytown Highways is responsible for managing and maintaining footways and cycle routes as part of the local road network in the area. There are local (along the B1020 and Willow Way through Riverside Park development) and national (along the B1040) cycle routes in the immediate vicinity of the development site cycle routes within the vicinity of the development site as demonstrated in Figures 3.3 and 3.4</p>	<p>What: This section should outline the existing baseline transport conditions for active modes.</p> <p>Why: An assessment of existing accessibility enables National Highways to evaluate the connectivity of the proposed site and the likelihood of active modes being prioritised over private vehicle use. It will also be helpful for us to know whether active mode users to/from the development could come into conflict with vehicles on or adjacent to the strategic road network, and the level of active mode network provision and priority at junctions (e.g. across slip roads) or alongside strategic road network routes.</p>
<p>4.1.13. The advisory routes also include on-carriageway cycle routes where there are low volumes of traffic and a traffic-free route along the which is a Public Right of Way (PRoW) and provides a route between the</p>	

<p>shared/foot cycleway on A1020 Willow Way and the B1040 Sycamore Lane.</p>	
<p>4.1.14. In the vicinity of the development site, there is shared foot/cycleways on the B1040, a footway on the B1020, and a shared foot/cycleway along the A1050 from the A20/ Riverside Interchange to the A1050 /A23 Cedar Road roundabout where there are local advisory cycle routes to Oak Lane towards Westfield.</p>	
<p>4.1.15. In addition, footways are provided throughout Riverside Park with a shared foot/cycleway along Maple Path which would provide a link and continuity between the development site and the railway interchange / local amenities.</p>	
<p>Rail Accessibility</p>	
<p>4.1.16. Riverside Park railway station is within 2.4km however, on a direct route by bus (service 19) and is accessible by cycle. The train is on a direct link to Anytown City Centre, Anytown Airport, Oakridge North, and Oakridge South, and all stations in between. These destinations are significant in terms of providing access to employment opportunities, as well as to retail, recreation and leisure amenities. The train frequency is every 12 minutes in the daytime and 15 minutes in the evening.</p>	<p>What: This section should outline the existing baseline transport conditions for rail. Why: The assessment of baseline rail accessibility enables NH to understand the availability and quality of realistic alternatives to private vehicle travel for longer distance journeys, informing modal split assumptions and the potential to reduce reliance on the SRN.</p>
<p>4.1.17. There is a drive within Northborough to encourage cycling and have provided a substantial number of ‘smart cycle lockers’ at numerous stations. This would provide integrated opportunities for cycle / train use particularly folding cycles which are allowed on train at any time. To support this initiative, Riverside Park railway station has five pods (each pod supports two cycles) providing a cycle parking facility for 10 cycles.</p>	
<p>Bus Accessibility</p>	
<p>4.1.18. There are bus stops within 400m from the middle of the site as demonstrated in Figure 3.1. The stops were recently constructed as part of the newly introduced B1020 / Willow Way roundabout and include laybys and shelters. A summary of sample services is included in Table 3.1 with full timetables found here: https://anytowntransit/timetables.</p>	<p>What: This section should outline the existing baseline transport conditions for bus.</p>

	<p>Why: The assessment of baseline bus accessibility, including services which use local and strategic road networks enables NH to understand the availability and quality of realistic alternatives to private vehicle travel, informing modal split assumptions and the potential to reduce reliance on the SRN.</p>
<p align="center">Figure 4-1: Bus Network Map</p> 	
<p align="center">Strategic Road Network</p>	
<p>4.1.19. The A200(T) is part of the Strategic Road Network (SRN) and nationally links to the A1(T) at Starry Burn, North of Anytown, to the A1(T) east of Bank (via the A173(T)); within the NE Region it connects Anytown Central, Riverview, Southbank, Hillgate, Sunport, Harbourpool, Stockfield and Middlewich. The A200(T) is a high-standard dual carriageway with mostly grade-separated junctions. Recently, the capacity of the Southbank Tunnel was improved with a second crossing</p>	<p>What: This section should describe the development's spatial relationship to the SRN, including identifying the nearest and most convenient junctions at which to access the SRN. We will require information on trips estimated to travel on the SRN, as well as through junctions on or adjacent to the SRN but using the local road network.</p>

	<p>Why: This will help National Highways understand the level of dependence between the proposed development and the SRN, including any direct implications, and whether there is likely to be route choice including for example more than one junction estimated to be the first point of access to the SRN. This will also help us understand the role the SRN could play in facilitating development-related trips, for example will the SRN facilitate purely longer distance inter-urban trips, or be used to reach local destinations.</p>
<p>4.1.20. Locally, the A200(T) provides access to several important routes into Anytown and G, such as the A1(T) via Starry Burn interchange, the A101 Salt Lane, the A201 Riverside Way, the A1058 Coast Road, the A203 Hillgate Road, and the A204 Leam Lane and A187 Victoria Road to Middlewich. The A200(T) also provides access to several local areas such as northern Anytown, Port of Southbank, Southbank Tunnel Trading Estate, Dodds Retail Park, and Oakridge Business Park.</p>	<p>What: This section should also provide a collision analysis for the road network surrounding the site. This should consider the most recent 5-year period and exclude periods affected by COVID-19.</p> <p>Why: This allows NH to evaluate whether the proposed development may worsen existing safety problems or identify if new risks could be introduced. This analysis may highlight areas that may require mitigation, should the analysis indicate that safety conditions may worsen due to the development</p>
<p>4.1.21. The A1(T) at Starry Burn provides access north to Oakridge, Fernhill and Mapleton, and south to Brookvale, Westford, Pinecrest and Lakeside and further south to Milltown, Eastleigh and Greenmoor. To the south of Lakeside, the A1(T) is a two-lane motorway until Silver Junction, where it is upgraded to three lanes</p>	

<h2>Transport Strategy proposals</h2>	
<h3>On-Site Proposals – Active Travel</h3>	
<p>4.1.22. High-quality walking and cycling routes are required in accordance with the emerging Cycling Design Guide and LDD12 Transport and Highways SPD to provide appropriate connectivity for Anytown Development. The following improvements to the site are identified to create or enhance internal links within the site:</p> <ul style="list-style-type: none"> • K1 – Principle pedestrian and cycle route – north/south main pedestrian and cycle route from Willow Way through to Great Oak Road. • K2 – Secondary pedestrian and cycle route linking the western development areas to Riverside via the A20(T) underpass and connecting into the potential Train Station. • K3 – Southern extension of the existing bridleway stretch Willow Way along the wagonway and southern link with existing bridleway to access bridge crossing. Diversion of National Cycle Network Route 12 along existing wagonway through the site to A20(T) underpass. • K4 – Upgrade and diversion of existing bridleway (re-routed via wagonway to avoid school and local centre) to retain link from Riverside Centre to the footbridge and Maple Roundabout. • K6 – Provision of segregated footpath cycleway to access schools, local centre and Train. • K7 – Upgrade footpath linking Sycamore Lane to the local centre • K11 – Perimeter footpaths • K3 – Riverside Wagonway 	<p>What: This section should set out any proposals that are required to support the site.</p> <p>Why: This allows NH to understand the relationship between proposals, the SRN and any likely impacts. This also helps NH understand whether the transport vision and targets are achievable. Where mitigation measures are proposed to address impacts on the SRN, a preliminary design of the scheme should be agreed between the applicant and National Highways at an early stage. This will ensure that the proposed mitigation is suitable and capable of operating effectively, as deferring agreement to the detailed design stage later in the application process can lead to delays and potential challenges in demonstrating the scheme’s acceptability.</p> <p>Furthermore, where mitigation is proposed on the SRN, geotechnical, drainage, and boundary considerations should be fully assessed and incorporated into the scheme design.</p>
<h3>Off-Site Proposals – Active Travel</h3>	

4.1.23. The following improvements to the external network are identified to link the internal routes to key strategic destinations within Anytown Development:

- EX10 – Part essential and part desirable – Existing footpath improvements with signage to provide a link between the proposed new Train Station at the Anytown development site with Industrial Estate and Willow Village. The proposals connect with existing infrastructure in Willow Village providing a link to the A21 corridor cycle route, new housing development at Sunnyside Hill and Anytown Development Country Park with a link to a potential new pedestrian and cycle crossing of the A20(T) to Maple Business Park.
- EX12 – Essential – Existing footpath improvements to provide signage for improved north – south link for pedestrians and cyclists between Riverside and Cedar Road to the west of the Anytown development site.
- EX14 – Essential – Existing bridleway improvements to the NCN Route 12 which runs along the north west boundary of the Anytown development site to improve access from the north of the site to the A1050 and the Riverside Centre.
- EX15 – Essential – Proposed traffic free path adjacent to A1050 Willow Way to provide link to the northern boundary of Anytown development between the principal pedestrian and cycle route access junction and NCN Route 12/ green corridor to Riverside Centre.
- EX16 – Part Essential – Proposed traffic free path adjacent to the B1040 Sycamore Lane to provide link for pedestrians and cyclists from Riverside over the A20(T) to Oakridge Village connecting with existing infrastructure to Fernhill and Sunnyside to the north”.

4.1.24. Off-Site Proposals – Bus Provision	
<p>4.1.25. It is understood that detailed discussions have taken place with Anytown Council and the County Council regarding the provision of a bus services in to the development site to improve public transport accessibility for the future residents, employees and pupils at Anytown Development. A comprehensive Public Transport Strategy has been agreed with Anytown Council and Northborough.</p>	<p>What: This section should set out any bus-related proposals that are required to support the site.</p> <p>Why: This allows NH to understand whether the mode shift targets proposed are achievable. National Highways are content with applicants engaging directly with transport providers (both bus and rail) to understand whether schemes can be committed.</p>
<p>4.1.26. The proposal is to extend the No.32 bus service from its current route to Maple Business Park onward to Oakridge town centre via Anytown development. The No.32 would offer a 12-minute frequency during Monday to Saturday daytimes, and a 30-minute frequency during evening and Sunday periods.</p>	
<p>4.1.27. The No.32 service currently runs between Riverside and Fernhill via (Willow, Oakridge and Maple Business Park). With the provision of the underpass, linking the site to Maple North, the No.32 service can divert from Maple Business Park, enter the site, pass the employment and schools then travel north to the Central Access where it will join the Phase 1 Maple North bus route to leave the site at Willow Interchange and continue to Oakridge centre. The No.32 service will provide a regular and frequent connection between the site and Riverside railway station, Maple Business Park, Willow Estate and Oakridge town centre.</p>	
<p>4.1.28. The No.55 service will, as part of the Willow South Phase 1 proposal, divert to serve the Phase 1 South site. The No.55 service currently runs between Fernhill and Sunnyside via (Willow, Oakridge and Riverside). The 55 will provide a 20-minute service frequency into Willow South Phase 1.</p>	
<p>4.1.29. As part of the site-wide public transport provision the No.55 will extend further into the centre of the site. The No 55 service would offer a 20-minute frequency during Monday to Saturday daytimes and provide a direct connection to Oakridge city centre from the site.</p>	
<p>4.1.30. In combination, the No.32 and No.55 services would allow most of the development site to be within a 400m walk of a bus stop providing up to 7 buses an hour across the site (regular and high frequency) to a range of</p>	

<p>useful destinations including Oakridge city centre, Anytown town centre, Maple Business Park and Riverside Park.</p>	
<p>4.1.31. The diversion of both services has been agreed in principle with Anytown Council and Northborough subject to the overall viability considerations.</p>	

5. Traffic Impact Assessment

5.1.1. The Applicant is a landowner as opposed to a developer hence, the proposals comprise up to 300 homes on the land to the west of the B1040/Willow Way, West Riverside. A developer(s) will then come forward and as part of the Reserved Matters Application determine the development ultimate masterplan and schedule taking into consideration the proposed parameters plan of this submission.

Accessibility Audit

Pedestrian, Cycle and Public Transport Connectivity:

5.1.2. Within the proposed development, 2m footways will be provided throughout the site with the spine road incorporating a 3m shared cycle / footway on one side to provide cyclists with continuity between the Application site and Riverside Park residential development.

5.1.3. To support the above, the splitter island on the B104 southern arm of the Willow Way / B1040 roundabout will be reconfigured to provide a crossing facility similar to that provided on the other two arms of the roundabout.

5.1.4. Further, 2m footway will be introduced along the site frontage / the northern flank of the B1040 between the Willow Way / B1040 Roundabout and the flyover to provide access to the additional facilities, schools, employment and amenities proposed as part of the Anytown development.

5.1.5. The application site is in a growth area, in close proximity to public transport with adjoining infrastructure capable of accommodating substantial multi-modal movements hence, the existing amenities at Maple Retail Park, Maple Train / interchange and Riverside Park Primary are accessible by walking and cycling to residents of the proposed development.

5.1.6. Further and improvements or changes to public transport, particularly bus services as a result of Anytown development proposals should incorporate the application site and this will be discussed with Anytown council as part of any planning conditions imposed.

<p>5.1.7. It is therefore considered that the development site could be integrated with existing pedestrian and cycle infrastructure in the area.</p>	
<p>Access to Employment, Local Amenities:</p>	
<p>5.1.8. The site accessibility audit confirmed that the site is within an acceptable walking and cycling distance of existing and future (i.e. Anytown development) local amenities including employment, schools, health centres and convenience stores.</p>	
<p>5.1.9. In conclusion, it is considered that there are opportunities to encourage walking, cycling and public transport users between the site and the adjoining local services.</p>	
<p>Access Arrangements:</p>	
<p>5.1.10. The B300/ Riverside Way roundabout was recently constructed to support the Meadow Park residential development. The roundabout is 3 arms and the application site is proposing to introduce a 4th arm to serve the development proposals.</p>	
<p>5.1.11. The detailed design of the reconfigured roundabout and improved crossing facility on the B1040 southern arm of the roundabout (please refer to paras 4.4, 4.5) will be provided by the applicant's design engineers as part of the Reserved Matters Application and in accordance with any planning conditions imposed.</p>	
<p>5.1.12. Similarly, an emergency access will be provided off the B1040 and this will also be detail designed as part of the applicant's design engineers RM application pack.</p>	
<p>Servicing:</p>	
<p>5.1.13. It is anticipated that the development would attract the usual servicing requirements such as refuse collection internet deliveries and post. The ultimate masterplan submitted as part of the RM Application will include swept path analysis showing the largest vehicle likely to enter the site; all vehicles will enter and egress in a forward gear.</p>	

Car and Cycle Parking:

5.1.14. The final masterplan submitted as part of the RM Application will include detailed car and cycle parking plan having regards to the July 2020 NPPF and in accordance with NTC LDD12 or the latest versions thereof.

5.1.15. The current LDD12 requires the following:

C3 Dwelling Houses	Dwelling Houses	1 space per dwelling for properties up to 2 bedrooms, 1 additional space per additional bedroom thereafter 1 space per 3 dwellings for visitors Provision for access to an electrical facility suitable for charging an Electric Vehicle (EV)
	Flats (New Build and Conversions)	1 space per dwelling for properties up to 2 bedrooms, 1 additional space per additional bedroom thereafter 1 space per 3 dwellings for visitors Electric Vehicle (EV) charging points by negotiation

5.1.16. The cycle parking will be provided in garaged (if they meet the minimum dimensions requirements) or in a garden shed located in a lit, secure and sheltered location.

Disabled Access:

5.1.17. Within the redline of the development, all newly constructed footpaths and kerbs would have level access approaches with drop kerbs at crossing points. It is intended that the development would be fully compliant with the Equality Act 2010.

Trip Generation

Vehicular Trip Generation:

5.1.18. To estimate the trips likely to be generated by the proposed development, it is standard practice to utilise the TRICS database. However, in this instance, it is considered more robust to adopt the trip rates previously agreed for the Anytown development (Planning Application Reference: 12/123/1234). These rates were applied to the smaller plots representing the various phases and formed part of the site-wide TA.

What: TRICS is industry standard and would be acceptable, so as long as the process for deriving trip rates is fully documented and it can be demonstrated that they are locally applicable. We would also accept local trip rates, which could be derived from nearby developments which National Highways has been engaged with, or those recommended by the local authority.

Why: a well-documented and evidenced approach will enable us to form a clearer view on potential impacts, and the significance and dependence upon measures to encourage sustainable travel.

Figure 5-1: Potential Trip Generation

	AM PEAK [08:00 – 09:00]				PM PEAK [17:00 – 18:00]			
	ARRIVAL		DEPARTURE		ARRIVAL		DEPARTURE	
Unit = dwelling	Factor/unit	Trips	Factor/unit	Trips	Factor/unit	Trips	Factor/unit	Trips
300	0.122	37	0.465	140	0.370	111	0.158	47
	177				158			

Modal Split

5.1.19. To estimate the likely modal split associated with travel to/from the proposed development, 2021 Census Data was provided by the Office of National Statistics relating to the existing travel characteristics of local residents (employed and not working from home) for Anytown Lower Layer Super Output Area 001A (database TS061).

What: This section should set out the modal split of trips generated by the site in both the AM and PM network peak periods.

Why: Multi-modal split helps to understand how individuals will likely travel to/from the proposed development. This assessment provides a baseline understanding and will help to support mode shift targets.

5.1.20. The Census Data indicates that 39.6% of residents travel to work by single-occupancy vehicle (SOV), 36% work from home, followed by public transport, car-sharing and walking.

5.1.21. This data would be useful for the Travel Plan Co-ordinator as a starting point to provide sustainable Actions and Measures to support development.

Traffic Distribution and Assignment

5.1.22. Similar to the trip generation, the proximity of the application development site to the Anytown development (particularly the northern phase) would deem an identical traffic assignment robust as attached in Appendix 3. The distribution indicates that the junctions that will experience more than 30 movements, hence require capacity assessment and detailed consideration are:

- Site access (B1040/ Willow Way) roundabout.
- B1040/ B1030 junction.
- The proposed dumbbell roundabouts and junctions along the A1066 corridor; and
- A1200 Oak Lane / A1050 Cedar lane roundabout

5.1.23. It is understood that the Anytown development agreed traffic assignment process used SYSTRA's AIMSUN distribution from the A20/ Willow Interchange and A20/ Cedar Interchange junctions and then a second manual assignment to distribute the development generated trips on to Anytown local highway network.

Future Year Background Demand

5.1.24. The future year assessment includes an Opening Year and an Opening Year + 5 years scenario; opening year is 2029. The background traffic growth has been derived from TEMPro V8.1, as shown in the table below.

Figure 5-2: Background Traffic Growth

TEMPro Growth Factors	AM Peak	PM Peak
Opening Year	1.05	1.05
Opening Year + 5 Years	1.11	1.11

What: This section should set out the factors used to growth the background traffic in future year assessments.

Why: Growth factors increase the baseline trip generation figures, taking into account local development and growth. These factors should be derived robustly, for example, by using the TEMPro software. Applying growth factors to the trip generation allows NH to estimate how the development will impact the SRN in future development scenarios.

Committed Developments: Anytown Development

5.1.25. It is understood that the full development of the Anytown allocation comprises:

- 1,700 residential dwellings (Use Class C3) provided by Riverside
- 250 residential dwellings (Use Class C3) provided by Willow Homes.
- 1,700 sqm of floorspace in the local centre (Use Classes A1, A2, A3, A4, A5 and D1).
- 18,200 sqm of floorspace for primary and secondary schools (Use Class D1).

<ul style="list-style-type: none"> • 19ha / 133,000 sqm (GIA) offices (Use Class E(g). B2 and B8). 	
<p>5.1.26. Anytown Transport Consultants have liaised with Anytown Council in identifying the above developments,</p>	
<p>Public Transport Schemes:</p>	
<p>5.1.27. There is one public transport improvement in proximity to Anytown planned by Anytown Council. The scheme will enhance the accessibility to sustainable travel, comprises a bus hub at Anytown development costing £3m led by Transport operators and funded by S106 contributions.</p>	
<p>5.1.28. It is understood that, an effective “bus only” passenger service which proposes extensions of the 19 and 55 services has been agreed in principle and has been concluded as a sufficient level of provision to deliver the required accessibility to residents for the Anytown development and meets to requirements of Anytown Highways. The development site has safeguarded land for the potential future delivery of a new train station at Anytown development.</p>	
<p>Walking and Cycling Schemes:</p>	
<p>5.1.29. There are a series of pedestrian and cycle improvement schemes in proximity to Anytown development planned by Anytown Highways. The schemes which would enhance the existing accessibility to sustainable travel, are as follows:</p> <ul style="list-style-type: none"> • IDS Ref. 82- On site (internal) pedestrian and cycle connections development costing £250 to be funded by the community infrastructure levy. - Critical • IDS Ref. 83 - Off site (external) pedestrian and cycle connections development costing £180 to be funded by the community infrastructure levy. - Important • IDS Ref. 84 – Off site (external) pedestrian and cycle connections development costing £120 to be funded by S106 - Desirable 	

5.1.30. There are a number of further potential cycling schemes in Anytown development also being developed in more detail with a view to exploring opportunities to secure funding for their construction as and when these arise. The majority of these routes focus on specific corridors which give access to employment destinations – e.g. A20(T) corridor, A1050 Coast Road corridor, Riverside to Oakridge – while one focuses specifically on links into town centres:

- A21 corridor cycling and walking improvements – B1040 to Oakridge
- A20(T) corridor cycling improvements
- A1200/ A209 Corridor cycling and walking improvements
- A1050 Cedar Road Corridor cycling and walking improvements
- Coast to A20(T) corridor cycling and walking improvements
- Cycle route Riverside to Fernhill
- Cycling improvements: cross-A20(T) link
- Cycle route links to town centres

A1200/ A1050 Cedar Roundabout:

5.1.31. The upgrade of the A1200/ A1050 Cedar Roundabout as a result of adjacent development including Riverside, involves the full signalisation of all approaches to the roundabout and increases the number of circulatory carriageway lanes to three. The scheme also involves the following:

- Widening the approaches on the A1050 Oak Lane and Sycamore Lane.
- Provision of pedestrian/ cyclist/ equestrian crossing facilities through the centre of the roundabout.
- Stopping Up of Great Oak Road (south-west) arm in conjunction with Riverside development access proposals. Alternative access provided via Riverside access roundabout. The changes to Great Oak Road will also provide a (north/ south) route for pedestrians/cyclists.

5.1.32. This scheme is under construction and is expected to be completed in Spring 2027.

Traffic Impact	
<p>5.1.33. This section considers the impacts that trips will have on the highway network and includes modelling of the proposed site access to demonstrate the appropriateness of the access from a capacity perspective.</p>	
<p>5.1.34. The assessment considers the impacts of the potential future traffic growth and the impacts of the proposed development, and considers the following scenarios</p> <ul style="list-style-type: none"> - 2025 Baseline - 2030 Baseline (+5 years) - 2030 Baseline (+5 years) with full development (opening year) - 2035 baseline (+10 years) - 2035 baseline (+10 years) with full development 	<p>What: This section should set out any modelling undertaken, whether that includes junction capacity assessments, micro simulation modelling or strategic modelling. The appendices should include relevant CAD drawings, including measurements and flows, to enable these to be verified.</p> <p>In accordance with Circular 01/2022, only an opening year assessment is required. However, National Highways welcomes the development of additional scenarios where appropriate, for example to consider proposed phasing or mitigation measures.</p>

5.1.35. [The remainder of this section should provide an overview of the junction modelling results for each junction assessed and each scenario. Any errors within the model should be noted alongside an overview of the operating capacity of the junction.]

For non-allocated sites, the assessment should be based on a scenario that includes all committed developments and Local Plan allocations.

The presentation of results solely in terms of percentage impacts is not accepted. Results should instead be presented in absolute (raw) values, alongside supporting photographic and/or video survey evidence demonstrating how the SRN junction is operating during peak periods.

While modelling may not always be necessary, it is recommended that assessments of the current junction operation are undertaken to ensure the accuracy of the overall assessment.

National Highways has prepared additional Spatial Planning Modelling Guidance which should be referred to when assessing the strategic road network using modelling software in transport assessments.

Why: This enables National Highways to review the modelling undertaken, to determine its suitability and accuracy in reflecting network conditions. This also enables an understanding of the future traffic conditions on the SRN.

<h2>6. Measures To Support Development</h2>	
<h3>Extent of Impact</h3>	
<p>Vehicular Impact:</p>	
<p>6.1.1. Chapter 4 demonstrated that based on the agreed Anytown development trip rates, the development may generate 177 and 158 movements in the AM and PM peak hours respectively.</p>	
<p>6.1.2. Appendix 3 of this Analysis includes flow diagrams and peak hours trip distribution which will be provided to the Anytown Transport Planning team for confirmation of the distribution based on their extensive discussions with the LPA and NH and junctions' capacity assessment as part of their Anytown modelling work. This relates to both the local and strategic roads network.</p>	
<p>Travel Plan:</p>	
<p>6.1.3. A Framework Travel Plan has been produced which in high-level terms sets out the overall outcomes, targets and indicators for the entire development. The Travel Plan is provided in full in Appendix A and summarised below for ease:</p>	<p>What: This section should summarise the aims, objectives and ambitions within the Travel Plan. It is noted that further details on the TP are usually provided in a separate standalone report.</p> <p>National Highways would welcome initiatives designed to actively encourage modal shift, such as the provision of free bus or rail season tickets (subject to available services and the destinations they serve), in order to reduce reliance on the SRN where it would otherwise be used.</p> <p>Why: This allows National Highways to understand the likely mode shift vision for the site and estimate and the likely potential impact on the local highway network.</p>

Figure 6-1: Framework Travel Plan

Key Element	Content
Background	Explaining site, location, and numbers of people, measures already in place, current share of travel methods, if known and reason for producing the plan.
Scope of the plan	Identifying the travel elements of the destination's activity that the plan is addressing (commuter journeys, business travel, visitor travel, pupil and staff journeys) identifying main travel and transport issues.
Objectives	Stating what the plan is trying to achieve (e.g. reduction in single car users, increase in walking, cycling and public transport use).
Measures / Action Plan	Detailing the proposed actions and measures proposed to encourage sustainable travel, reduce single occupancy car use and achieve the stated objectives. The action plan will outline the implementation programme for the proposed measures, including roles and responsibilities, focusing on the implementation and delivery of the travel plan and including timeframes.
Surveys	Survey data outlining mode split travel for users.
Targets / Indicators	Identifying outcomes and targets against which the effectiveness of each measure will be reviewed (including short medium and long-term milestones).
Monitoring	Setting out arrangements for the review and monitoring of the plan on an ongoing basis to determine whether objectives are being met
Marketing & Promotion	A strategy for communicating the travel plan to all site users, including: <ul style="list-style-type: none"> • Raising awareness of sustainable travel options • Promoting individual measures and initiatives • Disseminating travel information from the outset and on an ongoing basis.

Construction Traffic Management Plan:

6.1.4. A CTMP will be produced in satisfaction of any planning conditions imposed and pre-commencement. Local site conditions will dictate the range of considerations for inclusion in a CTMP, but a non-exhaustive list includes:

- Duration of build.
- Hours of operation.
- Number and size of delivery vehicles (average day).
- Location of the site compound for storage and parking.
- A condition survey of surrounding roads.
- Wheel washing facilities.

What: This section should set out the key elements outlined in the CTMP.

Why: This allows National Highways to understand the impact of the proposed development on the SRN during the construction stage, including construction traffic generation, vehicle routing and anticipated shift times.

- A strategy to inform the local community of activities, including the provision of complaints procedures.
- Any temporary access arrangements.
- Likely temporary traffic management arrangements; and HGV routing.

6.1.5. A CTMP will be produced in satisfaction of any planning conditions imposed and pre-commencement (Ref: 13).

7. Summary and Conclusions

7.1.1. This Analysis assessed the impact of the proposed development on the highway network and concluded that:

- Appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;
- Safe and suitable access to the site can be achieved for all users;
- The highway network in the area can accommodate the anticipated trip generation; and
- The highway remains unobstructed for the safe passage of all users of the highway and that any development does not have an adverse impact on the safety of all users of the highway.

7.1.2. The Analysis described the development proposals and surrounding existing facilities such as local services, pedestrian routes, public transport services and cycleways. These sections demonstrate that the development proposal complies with the local and national guidelines and policies.

7.1.3. The cumulative Analysis of this Report supported by the Capacity Assessment undertaken by the Riverside Team will provide measures to support development so that:

- All person trips can be accommodated within the existing infrastructure;
- Mitigation proposals and measures to support development are identified; and
- The development proposals do not result in an unacceptable impact on highway safety or a residual cumulative impact on the road network that is severe.

8. Glossary

Term	Definition
AADT	Annual Average Daily Traffic. Average of 24 hours flows, seven days a week, for all days within the year
AAWT	Annual Average Weekday Traffic. As AADT but for five days, (Monday to Friday) only.
Accessibility	Accessibility can be defined as 'ease of reaching'. The accessibility objective is concerned with increasing the ability with which people in different locations, and with differing availability of transport, can reach different types of facility.
AM / PM / IP Peak	Denoting the morning, afternoon or inter peak period
Analysis	This report – a Transport Assessment or Statement as applicable
ATC	Automatic Traffic Count, a machine which measures traffic flow at a point in the road.
GFA	Gross Floor Area
CIHT	Chartered Institution of Highways and Transportation
CERS / PERS	Cycling Environment Review System / Pedestrian Environment Review System
DfT	Department for Transport
DMRB	Design Manual for Roads and Bridges
FTP	Framework Travel Plan
LGV / HGV	Light Goods Vehicle / Heavy Goods Vehicle
LHA / LPA	Local Highway Authority / Local Planning Authority
MfS	Manual for Streets
Movements / Trips	= the sum of Arrivals + Departures
NPPF	National Planning Policy Framework
NRTF	National Road Traffic Forecast.
OGV1,OGV2	Other Goods Vehicle. OGV1=Goods Vehicles with 2 or 3 axles, OGV2=Goods vehicle.
PCU	Passenger Car Unit
PIC / PII	Personal Injury Collisions / Incidents
Severance	Community severance is the separation of adjacent areas by road or heavy traffic, causing negative impact on nonmotorised users, particularly pedestrians.

SRN	Strategic Road Network
TA / TIA / TS	Transport Assessment / Traffic Impact Assessment / Transport Statement
Total People	All modes of travel including car, pedestrians, cycle, car-share, public transport,
TP	Travel Plan
TAG	Transport Analysis Guidance, as defined in Web TAG
TEMPRO	Trip End Model Presentation Program, DFT software which provides forecast data on trips for transport planning purposes.
VPD	Vehicles Per Day
Web TAG	Government guidance on transport analysis at https://www.gov.uk/guidance/transport-analysis-guidance-tag

9. Appendices

- 1 TRICS Outputs
- 2 Anytown Junction Drawings
- 3 Development Site
- 4 Traffic Flow Diagrams
- 5 Modelling Outputs