

Mark Youngman
Development Management Group Manager
Hertfordshire County Council
Postal Point CHN115
Farnham House
Six Hills Way
Stevenage
SG1 2ST

# Response to Planning application from Hertfordshire County Council (T and CP GDP Order 2015)

## **Director of Planning**

North Hertfordshire Council Council Offices Gernon Road Letchworth Garden City Hertfordshire SG6 3JF District ref: 23/02935/OP HCC ref: NH/19579/2024 HCC received: 5 February 2025 Area manager: Roger Flowerday

Case officer: Adrian McHale

#### Location

Land To The East Of High Street & North Road, Graveley, Hertfordshire

## **Application type**

Outline

## **Proposal**

## AMENDED PROPOSAL

Outline planning application with all matters reserved other than means of access, for the erection of up to 900 dwellings (including affordable housing and self/custom build units), provision of a primary school, provision of a neighbourhood centre including community building, and provision of open space areas across the site, together with associated drainage, land works and utilities works. This application is accompanied by an Environmental Statement

## Recommendation

Notice is given under article 22 of the Town and Country Planning (Development Management Procedure) (England) Order 2015 that Hertfordshire County Council as Highway Authority does not wish to restrict the grant of permission subject to a Strand 1 Bus Contributions of £262,950.86 pa for 5 years (£1,314,754.30), a Strand 2 contribution of £6,143,400 and the following conditions:

#### CONDITIONS

- 1) No development shall commence until full details (in the form of scaled plans and / or written specifications) have been submitted to and approved in writing by the Local Planning Authority to illustrate the following:
- i) Roads, footways.
- ii) Cycleways.
- iii) Foul and surface water drainage.
- iv) Visibility splays

- v) Access arrangements
- vi) Parking provision in accordance with adopted standard.
- vii) Loading areas.
- viii) Turning areas.

Reason: To ensure suitable, safe and satisfactory planning and development of the site in accordance with Policy 5 of Hertfordshire's Local Transport Plan (adopted 2018).

2) Prior to the first occupation / use of the development hereby permitted the vehicular access shall be completed and thereafter retained as shown on drawing number(1803-60 PL101 Rev -) in accordance with details/specifications to be submitted to and approved in writing by the Local Planning Authority in consultation with the highway authority. Prior to use appropriate arrangements shall be made for surface water to be intercepted and disposed of separately so that it does not discharge from or onto the highway carriageway.

Reason: To ensure satisfactory access into the site and avoid carriage of extraneous material or surface water from or onto the highway in accordance with Policy 5 of Hertfordshire's Local Transport Plan (adopted 2018).

3) Surface Water: Prior to the first use of the development hereby permitted, arrangement shall be made for surface water from the proposed development to be intercepted and disposed of separately so that it does not discharge onto the highway carriageway.

Reason: To avoid the carriage of extraneous material or surface water from or onto the highway in accordance with Policy 5 of Hertfordshire's Local Transport Plan (adopted 2018).

## 4) Electric Vehicle (EV) Charging Point

Prior to the first occupation of the development hereby permitted, each residential dwelling shall be provided with an active (ready to use) EV charging point which shall thereafter be provided and permanently retained.

Reason: To ensure construction of a satisfactory development and to promote sustainable development in accordance with Policies 5, 19 and 20 of Hertfordshire's Local Transport Plan (adopted 2018).

## 5) Cycle Parking – Not shown on plan but achievable

Prior to the first commencement of the development hereby permitted, a scheme for the parking of cycles including details of the design, level and siting shall be submitted to and approved in writing by the Local Planning Authority. The approved scheme shall be fully implemented before the development is first occupied (or brought into use) and thereafter retained for this purpose.

Reason: To ensure the provision of cycle parking that meets the needs of occupiers of the proposed development and in the interests of encouraging the use of sustainable modes of transport in accordance with Policies 1, 5 and 8 of Hertfordshire's Local Transport Plan (adopted 2018)

#### 6) Construction Management Plan

No development shall commence until a Construction Management Plan has been submitted to and approved in writing by the Local Planning Authority. Thereafter the construction of the development shall only be carried out in accordance with the approved Plan: The Construction Management Plan shall include details of:

- a. Construction vehicle numbers, type, routing;
- b. Access arrangements to the site;
- c. Traffic management requirements
- d. Construction and storage compounds (including areas designated for car parking, loading / unloading and turning areas);
- e. Siting and details of wheel washing facilities;
- f. Cleaning of site entrances, site tracks and the adjacent public highway;
- g. Timing of construction activities (including delivery times and removal of waste) and to avoid school pick up/drop off times;
- h. Provision of sufficient on-site parking prior to commencement of construction activities;
- i. Post construction restoration/reinstatement of the working areas and temporary access to the public highway:
- j. where works cannot be contained wholly within the site a plan should be submitted showing the site layout on the highway including extent of hoarding, pedestrian routes and remaining road width for vehicle movements;
- k. Phasing Plan.

Reason: In order to protect highway safety and the amenity of other users of the public highway and rights of way in accordance with Policies 5, 12, 17 and 22 of Hertfordshire's Local Transport Plan (adopted 2018).

- 7) Rights of Way (PROWS Graveley 006, 007 and 008)
- A) Design Approval

Notwithstanding the details indicated on the submitted drawings no on-site works above slab level shall commence on site unless otherwise agreed in writing until a Rights of Way Improvement Plan for the off-site and on-site Rights of Way improvement works has/have been submitted to and approved in writing by the Local Planning Authority.

B) Implementation / Construction

Prior to the first occupation/use of the development hereby permitted the off-site and on-site Rights of Way improvement plan works (including any associated highway works) referred to in Part A of this condition shall be completed to the written satisfaction of the Local Planning Authority. Works will be subject to a 12 months defect repair period.

Reason: To ensure construction of a satisfactory development and that the highway improvement works are designed to an appropriate standard in the interest of highway safety and amenity and in accordance with Policy 5, 13 and 21 of Hertfordshire's Local Transport Plan (adopted 2018).

## 8) Travel Plan – Requested Prior to Use

At least 3 months prior to the first occupation / use of the approved development a detailed Travel Plan for the site shall be submitted to and approved in writing by the Local Planning Authority in consultation with the Highways Authority. The approved Travel Plan Statement shall be implemented in accordance with the timetable and target contained in therein and shall continue to be implemented as long as any part of the development is occupied subject to approved modifications agreed by the Local Planning Authority in consultation with the Highway Authority as part of the annual review.

Reason: To ensure that sustainable travel options associated with the development are promoted and maximised to be in accordance with Policies 3, 5, 7, 8, 9 and 10 of Hertfordshire's Local Transport Plan (adopted 2018).

#### 9) School Travel Plan

Prior to the first use of the development hereby permitted, a School Travel Plan shall be submitted to the County Council for approval. Within three months of the first use of the development, the School shall submit to the Modeshift STARS – National Accreditation Scheme and, with the support of Hertfordshire County Council officers, shall undertake best practicable endeavours to promote and increase levels of sustainable and active travel in order to improve the health and wellbeing of children and young people, as well as reduce local highway impacts arising from pick up / drop off. Within six calendar months of first occupation, the School Travel Plan shall achieve a minimum of bronze status under and in accordance with the Modeshift STARS Accreditation Framework, maintaining a minimum accreditation of bronze for 7 years. The travel plan will be up-dated annually for the lifetime of the school and will include objectives, targets, planned and completed initiatives. The role of Travel Plan Champion shall be created and the responsibility for adhering to the above travel plan requirements shall sit within that role.

Reason: To ensure that sustainable travel options associated with the development are promoted and maximised to be in accordance with Policies 3, 5, 7, 8, 9 and 10 of Hertfordshire's Local Transport Plan (adopted 2018).

10) Traffic Regulation Order (Extension of 30mph on North Road to Graveley Road)
Prior to the first occupation / use of the development hereby permitted any Traffic Regulation Orders (TROs), including for parking restrictions / clearway / waiting restrictions / speed limits that are required as part of improving access and accessibility to the site must be secured in place and implemented.

Reason: In the interests of highway safety, amenity and capacity to ensure free and safe flow of traffic and to be in accordance with Policies 4, 5, 12, 15 and 17 of Hertfordshire's Local Transport Plan (adopted 2018).

11) Monitor & Manage - (A1M J8, North Road/ Graveley Rd, High Street Graveley/ Church Lane (Back Lane), Chantry Lane/ Stevenage Rd (north of A602), and Chantry Lane/ Stevenage Rd (south of A602)

No development shall commence until a monitoring programme to assess the level of traffic utilising the junctions of the 1M J8, North Road/ Graveley Rd, High Street Graveley/ Church Lane (Back Lane), Chantry Lane/ Stevenage Rd (north of A602), and Chantry Lane/ Stevenage Rd (south of A602) shall be submitted to and approved in writing by the Local Planning Authority and a management plan with appropriate mitigation measures agreed.

Reason: To ensure that agreed traffic levels are not breached and thus highway network is adequate to cater for the development proposed to be in accordance with Policies 5 and 12 of Hertfordshire's Local Transport Plan (adopted 2018).

#### APPROPRIATE INFORMATIVES

HCC as Highway Authority recommends inclusion of the following Advisory Note (AN) / highway informative to ensure that any works within the highway are carried out in accordance with the provisions of the Highway Act 1980:

AN1) Extent of Highway: Information on obtaining the extent of public highway around the site can be obtained from the HCC website:

www.hertfordshire.gov.uk/services/highways-roads-and-pavements/changes-to-your-road/extent-of-highways.aspx

AN2) Storage of materials: The applicant is advised that the storage of materials associated with the construction of this development should be provided within the site on land which is not public highway, and the use of such areas must not interfere with the public highway. If this is not possible, authorisation should be sought from the Highway Authority before construction works commence. Further information is available via the County Council website at:

https://www.hertfordshire.gov.uk/services/highways-roads-and-pavements/business-and-developer-information/business-licences/business-licences.aspx or by telephoning 0300 1234047.

AN3) Obstruction of highway: It is an offence under section 137 of the Highways Act 1980 for any person, without lawful authority or excuse, in any way to wilfully obstruct the free passage along a highway or public right of way. If this development is likely to result in the public highway or public right of way network becoming routinely blocked (fully or partly) the applicant must contact the Highway Authority to obtain their permission and requirements before construction works commence. Further information is available via the County Council website at: https://www.hertfordshire.gov.uk/services/highways-roads-and-pavements/business-and-developer-information/business-licences/business-licences.aspx or by telephoning 0300 1234047.

AN4) Debris and deposits on the highway: It is an offence under section 148 of the Highways Act 1980 to deposit compost, dung or other material for dressing land, or any rubbish on a made up carriageway, or any or other debris on a highway to the interruption of any highway user. Section 149 of the same Act gives the Highway Authority powers to remove such material at the expense of the party responsible. Therefore, best practical means shall be taken at all times to ensure that all vehicles leaving the site during construction of the development and use thereafter are in a condition such as not to emit dust or deposit mud, slurry or other debris on the highway. Further information is available by telephoning 0300 1234047.

AN5) Avoidance of surface water discharge onto the highway: The applicant is advised that the Highway Authority has powers under section 163 of the Highways Act 1980, to take appropriate steps where deemed necessary (serving notice to the occupier of premises adjoining a highway) to prevent water from the roof or other part of the premises falling upon persons using the highway, or to prevent so far as is reasonably practicable, surface water from the premises flowing on to, or over the footway of the highway.

AN6) Roads to remain private: The applicant is advised that where roads and Sustainable Travel Links (STLs) are not adopted through a S38 agreement, roads within the development will remain unadopted (and shall not be maintained at public expense by the highway authority). At the entrance of the new estate the road name plate should indicate that it is a private road and the developer should put in place permanent arrangements for long-term maintenance.

AN7) Estate road adoption (section 38): The applicant is advised that if it is the intention to request that Hertfordshire County Council as Highway Authority adopt any of the highways included as part of this application as maintainable at the public expense then details of the specification, layout and alignment, width and levels of the said highways, together with all the necessary highway and drainage arrangements, including run off calculations must be submitted to the Highway Authority. No development shall commence until the details have been approved in writing and an Agreement made under Section 38 of the Highways Act 1980 is in place. The applicant is further advised that the County Council will only consider roads or STL's for adoption where a wider public benefit can be demonstrated. The extent of adoption as public highway must be clearly illustrated on a plan. Further information is available via the County Council's website at:

https://www.hertfordshire.gov.uk/services/highways-roads-and-pavements/business-and-developer-i

nformation/development-management/highways-development-management.aspx or by telephoning 0300 1234047.

AN8) Construction Management Plan (CMP): The purpose of the CMP is to help developers minimise construction impacts and relates to all construction activity both on and off site that impacts on the wider environment. It is intended to be a live document whereby different stages will be completed and submitted for application as the development progresses. A completed and signed CMP must address the way in which any impacts associated with the proposed works, and any cumulative impacts of other nearby construction sites will be mitigated and managed. The level of detail required in a CMP will depend on the scale and nature of development.

The CMP would need to include elements of the Construction Logistics and Community Safety (CLOCS) standards as set out in our Construction Management template, a copy of which is available on the County Council's website at:

https://www.hertfordshire.gov.uk/services/highways-roads-and-pavements/business-and-developer-information/development-management/highways-development-management.aspx

AN9) The Public Right of Ways should remain unobstructed by vehicles, machinery, materials, tools and any other aspects of the construction during works. Safe passage past the site should be maintained at all times for the public using this route. The condition of the route should not deteriorate as a result of these works. Any adverse effects to the surface from traffic, machinery or materials (especially overspills of cement & concrete) should be made good by the applicant to the satisfaction of the Highway Authority. No materials shall be stored or left on the Highway including Highway verges. If the above conditions cannot reasonably be achieved, then a Temporary Traffic Regulation Order (TTRO) would be required to close the affected route and divert users for any periods necessary to allow works to proceed, for which a fee would be payable to Hertfordshire County Council. Where surface Improvements are required early engagement with the Highway Authority PROW is required. A Guide to PRoW improvement for Non Motorised Users is available to inform surface choice. All design, specification and delivery to be agreed with the HA PROW as part of the Local Rights of Way Improvement Plan.

Further information is available via the County Council website at https://www.hertfordshire.gov.uk/services/recycling-waste-and-environment/countryside-access/right

s-of-way/rights-of-way.aspx or by contacting Rights of Way, Hertfordshire County Council on 0300 123 4047.

AN10) Street works licence (New Roads and Street Works Act - Section 50): The applicant is advised that they are not authorised to carry out any work within the Public Highway and that to do so they will need to enter into a legal agreement with the Highway Authority (NRSW agreement). This consent is separate and additional to any planning permission that may be given. Before proceeding with the proposed development, the applicant shall obtain the requirements and permission for the associated placement of apparatus within the adjacent highway as part of the proposal via the County Council's website at:

https://www.hertfordshire.gov.uk/services/highways-roads-and-pavements/business-and-developer-information/permit-scheme/east-of-england-permit-scheme.aspx or by telephoning 0300 1234 40047. This should be carried out prior to any new apparatus is placed within the highway.

AN11) Abnormal loads and importation of construction equipment (i.e. large loads with: a width greater than 2.9m; rigid length of more than 18.65m or weight of 44,000kg - commonly applicable to cranes, piling machines etc.): The applicant is directed to ensure that operators conform to the provisions of The Road Vehicles (Authorisation of Special Types) (General) Order 2003 in ensuring that the Highway Authority is provided with notice of such movements, and that appropriate indemnity is offered to the Highway Authority. Further information is available via the Government website

www.gov.uk/government/publications/abnormal-load-movements-application-and-notification-forms or by telephoning 0300 1234047.

AN12) Travel Plan (TP): A TP, in accordance with the provisions as laid out in Hertfordshire County Council's Travel Plan Guidance, would be required to be in place from the first occupation/use until 5 years post occupation/use. A £1,200 per annum (overall sum of £6000 and index-linked RPI March 2014) Evaluation and Support Fee would need to be secured via a Section 106 agreement towards supporting the implementation, processing and monitoring of the full travel plan including any engagement that may be needed. Further information is available via the County Council's website at:

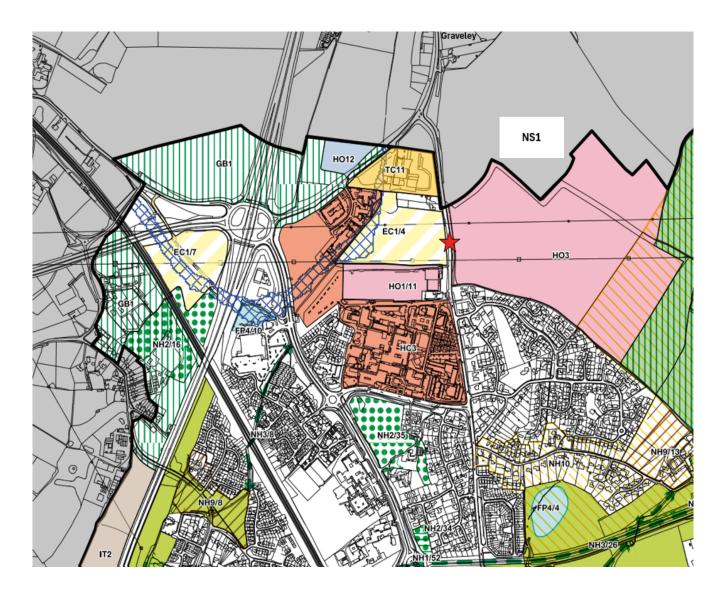
https://www.hertfordshire.gov.uk/services/highways-roads-and-pavements/business-and-developer-information/development-management/highways-development-management.aspx OR by emailing travelplans@hertfordshire.gov.uk

AN13) School Travel Plan: Modeshift STARS is the national schools accreditation scheme that has been established to recognise schools that have demonstrated excellence in supporting cycling, walking and other forms of sustainable and active travel. The scheme encourages schools across the country (including Hertfordshire) to promote and increase levels of sustainable and active travel in order to improve the health and well-being of children and young people, as well as reducing local highway impacts arising from school pick up / drop off. Every school in England (outside of London) can participate in Modeshift STARS for free and on completion of an application, schools will automatically have a brand new national standard School Travel Plan. To register for Modeshift Stars, visit https://www.modeshiftstars.org/contact. Support is available to schools in Hertfordshire from Hertfordshire County Council's Active & Safer Travel Team by contacting active and safertravel@hertfordshire.gov.uk or travelplans@hertfordshire.gov.uk

## COMMENTS

## Introduction

The NS1 site, which lies within the North Herts District council (NHDC) borders, (forms part of an ambitious expansions plans for North Stevenage and directly compliments the Stevenage Borough Council (SBC) allocated HO3 site. The under construction HO3 site will accommodate 800 homes supported by a primary school and a district centre. For the NS1 site 900 homes (500 privately owned dwellings and 400 affordable homes) a 2-form entry primary school and community uses, including a mobility hub are proposed. An internal road will connect the two sites (NS1 and HO3) and will host a new bus service. Also, in the immediate vicinity, and located to the west of North Road and opposite HO3 site, the EC1/4 employment site has recently been occupied (18,534sqm). A further 149 homes is planned on the HO1/11 site to the south of EC1/4. HC3 is the existing Lister Hospital and TC11 is the existing garden centre which is zoned for further retail development.



#### **Sustainable Transport Access**

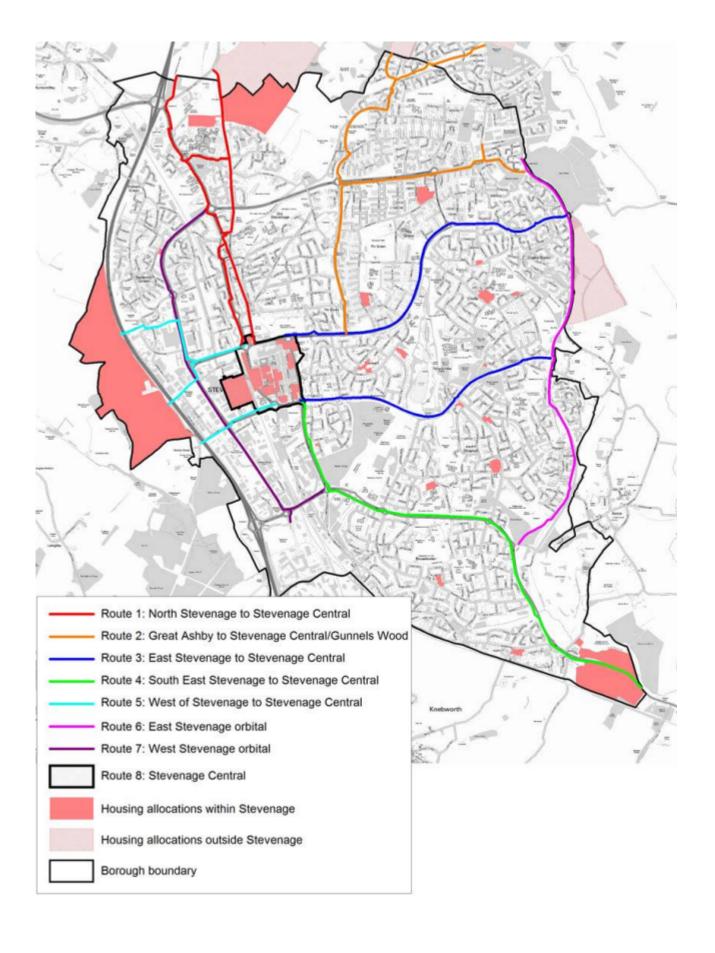
In line with the Policies of HCC's 4th Local Transport Plan (LTP4, May 2018), particularly Policies 1 (the Transport User Hierachy) and 5 (Development Management), it is essential given the declared climate emergency that the issue of sustainable access is considered first, and the appropriate infrastructure provided to unlock a site sustainably.

## Walking and Cycling

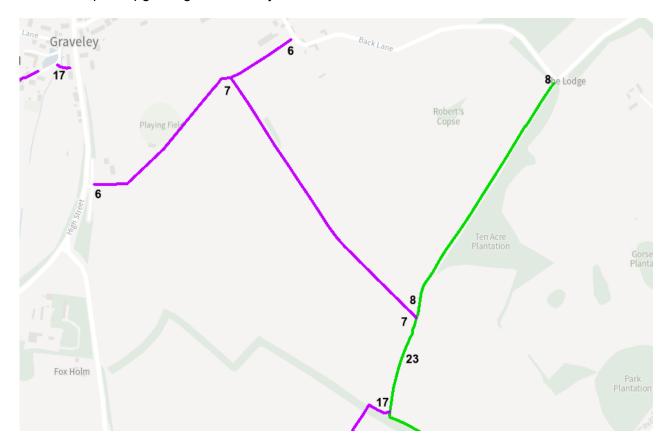
The site is reasonably well located in terms of the existing Stevenage walking and cycling networks currently however it doesn't actually connect to them, however HCC Highways have worked with the applicants transport consultants to secure these vital connections.

The SBC Local Cycling Infrastructure Plan (LCWIP) identifies North Road as a key cycling corridor, Route 1. Upgrades have already been implemented between the A602 gyratory (north of the Thomas Alleyne Academy) to the Lister Hospital (just short of HO3), to establish a fully LTN1/20 compliant segregated cycle track and the frontage of HO3 (17/00862/OPM) is currently being constructed as a shared (foot/cycleway) facility. Ideally the North Road footway outside HO3 would also have been segregated but the design for it was approved pre LTN1/20 and the pedestrian

traffic adjacent to an arterial road as per Section 6.5.6 of LTN1/20 is envisaged to be low. Therefore, the continuation of the shared facilities along the frontage of NS1 has been accepted by both HCC Highways and NHDC. The LCWIP route 1 also connects the development site into the existing pedestrian network. In addition to the Strand 1 S278 delivery of Route 1 adjacent to the proposal site an element of the Strand 2 contribution would be allocated to delivery of the route ensuring a safe and continuous cycle route into Stevenage town centre.

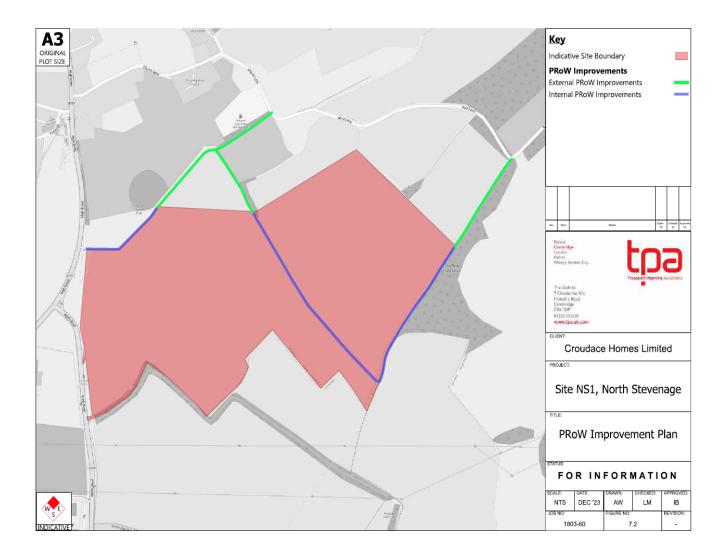


Footpaths Graveley 006 and 007 run along the northern boundary of the NS1 site these will require to be upgraded to bridleways under the suggested ROWIP condition above in order to facilitate cycle commuting (Strand 1 mitigation). The section of PROW 006 which connects the site to Back Lane will also require upgrading to bridleway status.



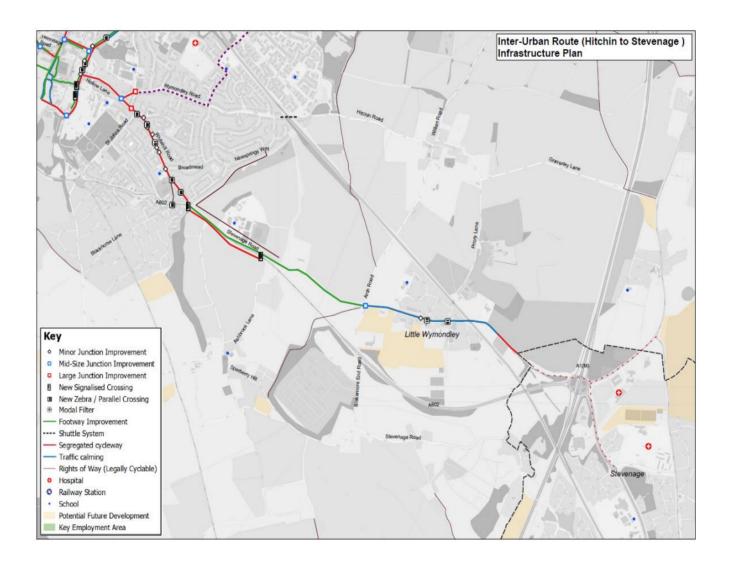
The Bridleway Stevenage 23 borders the east of the NS1 site and continues as Graveley 008 to Back Lane. This will also require upgrading under the suggested condition for a ROWIP.

Figure 7.2 of the Transport Assessment (TA) provided in support of the application identifies improvements of PROW 6, 7 and 8 on and off site.



Slightly further afield NCN Route 12 runs just west of Graveley Road and runs via Graveley Lane to Willian. NCN Route 12 despite its poor condition, largely poorly surfaced bridleways, forms a key off road commuting route between Letchworth Garden City and Stevenage. Therefore, an element of the Strand 2 contribution associated with the site will be directed to extension of the PROW Graveley 006, which borders the site, so that it intersects NCN route 12 and resurfacing of the NCN route 12 sections between Graveley Road and Graveley Lane and between Graveley Lane and Willian respectively.

Also slightly further afield the adopted North Herts District Council LCWIP (September 2023), proposes a cycling route between Hitchin and Stevenage via Junction 8 (J8) of the A1(M). This also has the potential to become an important cycle commuting link. Therefore, an element of the Strand 2 contribution will be allocated to this route in the NHDC LCWIP, Specific Measure (SM) 29 of the HCC's emerging North Central Growth and Transport Plan (NC GTP) also promotes the Hitchin to Stevenage cycle route and SM84 of the GTP promotes upgrade of the motorway junction to complete the cycle route. SM84 will also upgrade J8 for bus travel.

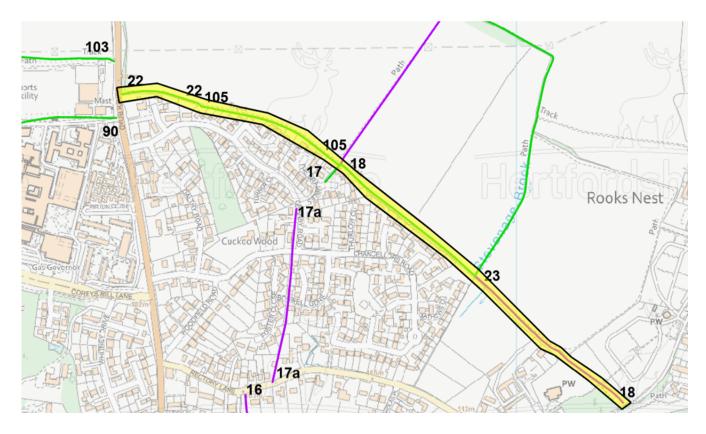


To connect the site into the Stevenage pedestrian/cycle network the CRoW team have also requested that an element of the overarching Strand 2 contribution be attributed to:

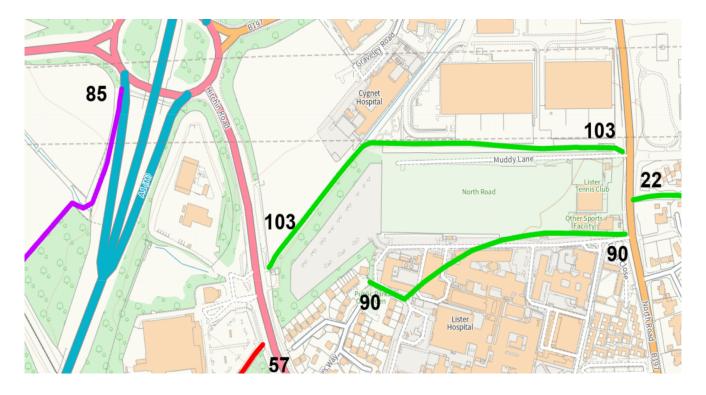
Upgrading the section of Stevenage Bridleway 023 south of the site to connect with Stevenage Bridleway 105 and Footpath/Bridleway 018 which borders the current Stevenage urban boundary. Stevenage Bridleway 023 should ideally be 6m wide as per Chapter 8 of the Place and Movement Planning Design Guide (P2/M1 Active Travel Links).

https://www.hertfordshire.gov.uk/media-library/documents/highways/development-management/part-3.pdf

Surface improvements would also be made to Stevenage Bridleway 22, Stevenage Bridleway 105 and Footpath/Bridleway 018 via the Strand 2 contribution. Whilst the western section of Stevenage 018 is a bridleway, the eastern section is currently designated a footpath (as shown by the purple line). Improvements to the surface will help facilitate a potential upgrade to Bridleway status in the future in line with the remainder of the aforementioned network.



Stevenage Bridleway 103 runs just south of the recent EC1/4 development and potentially forms an important connection from North Road to a large retail supermarket adjacent to the A602 (Hitchin Road). Whilst the section of Bridleway 103 was widened and surfaced, the circa 220m west of this remains un-surfaced, making it unviable for year round travel and non user-friendly. The junction of Bridleway 103 with North Road also needs improvements. The CRoW team estimate that to surface this section and complete the link would cost £20,000 which would also be taken from the overarching Strand 2 contribution.



#### Bus

The existing number 55 bus service is insufficient for the size of the proposed development, and some houses would be circa 1km (15 minutes) walk from a frequent bus service. The recommended threshold is 400m (or 5 minutes) walk. Therefore, HCC Passenger Transport Unit (PTU) consider that in order unlock the proposal site that a service needs to be directed in to the proposal site. The new service would continue through a bus gate outside the proposed NS 1 school, continue to HO3, via the link road under construction, and rejoin North Road via the proposed Bus Gate at the southern end of the HO3 development, as per the long term masterplanning. In order to establish a viable service that will likely succeed when S106 funding finishes (after 5 years), the PTU consider that a new number 92 bus service should be established. The new 92 bus service would operate between Stevenage and Baldock, via the development, Graveley, and Letchworth. It is estimated that the short fall in funding for this service would be £262,950.86pa for its first 5 years of operation. Any changes to this proposed service which may result in a reduced need for subsidy would need to be agreed with the PTU team and would be returned to the developer if unspent but it is fundamental that a service is established to unlock this site sustainably.

As indicated within the NS1 site, to ensure the efficient operation of this service and in the interest of road safety and place making the area immediately outside the proposed school is to operate as a bus only link.

#### **Vehicle Access**

As conditioned the main vehicle access to the proposal site is to take the form of a signalised access onto North Road as shown in the drawing 1803-60 PL101 Rev -

Secondary vehicle access to the site will be via a link road from the HO3 development immediately to the south. The link road will also facilitate the movement of the new bus service between the site.

## Road Safety/ Place Making

The existing speed of North Road in the vicinity of the site is 40mph and whilst this is appropriate in the absence of development, pedestrians and cyclists, it is considered appropriate in the interest of road safety and place making to extend the existing 30mph speed limit past the site to the new signalised junction with Graveley Road. With 4 signalised junction in circa 500m and active frontages this speed limit would not only be safer but self enforcing as per HCC's Speed Management Strategy (Nov 2020).

#### Travel Plan

Whilst the submitted framework travel plan is acceptable for this stage in the planning process before its full acceptance in order to discharge the associated Residential Travel Plan condition:

- Full name and contact details of TPC must be provided;
- A steering group between internal and external parties must be considered;
- Measure such as fast broadband must be considered to enable people working from home
- Parking measures must be introduced;
- A Residential Travel Voucher of £100 per house and £50 per flat must be considered;
- A Modeshift target must be set. HCC required a minimum of 10% reduction in car usage;
- There must be a commitment to review the Travel Plan annually for 5 years.

An Evaluation and support fee of £1200 per annum for a minimum of 5 years post full occupation must be secured via s106 legal agreement.

Furthermore, depending upon the status of the school element of this application there may also be the need for a School Travel Plan.

## Traffic Impact

HCC's Stevenage S-Paramics Model was consulted in the first instance to establish 2021 peak hour base flows within Stevenage. The model accounts for planned road changes and developments across the greater area. The S-Paramics model accords with HCC's strategic comet model which assumes a 10% modal shift from private car to more sustainable transport modes across the Stevenage area between 2021 and 2031, due to Sustainable Travel Town Programme.

A similar 10% modal shift reduction was applied to the predicted trips from the development, and predicted growth and localised traffic impacts due to committed developments were added to the base flows.

The S-Paramics model was subsequently rerun with these inputs to establish 2031 peak flows.

Traditional modelling was then carried out at:

- High Street / North Road / Graveley Road Priority Junction (2021 Only)
- North Road / Chancellors Road / Coreys Mill Lane Double Mini roundabouts (2021 Only)
- A602 / Coreys Mill Lane / Ingleside Drive 4-arm Roundabout
- A602 / Martins Way / Gunnels Wood Road 4-arm Part Time Signalised Roundabout

- A1(M) / Graveley Road / A602 / Stevenage Road 6-arm Partially Signalised Roundabout (A1M Junction 8)
- B197 / Graveley Lane Priority Junction
- B197 / A505 Left-in / Left-out Priority Junction
- A1 (M) / A505 Letchworth Gate 4-arm Partially Signalised Roundabout (A1M Junction 9)
- The North Road corridor From a planned signalised Coreys Mill Ln/ Chancellors Rd junction to the recently signalised High Street/ Graveley Road Junction (2031 Only)

## High Street / North Road / Graveley Road Priority Junction (2021 Only)

The High Street / North Road / Graveley Road Priority Junction was initially modelled in the PICADY Module of the industry standard Junctions 10 programme. The results showed that in 2021 the junction was operating within capacity but close to capacity. The recognised operational capacity threshold within the Junctions 10 model is an Ratio of Flow to Capacity (RFC) value of 0.85. Above which cognisance of queuing is required. The absolute capacity of a junction is an RFC of 1.00.

The maximum RFC during the peak 15minutes of the AM peak in 2021 was 0.79 and respectively during the PM peak was 0.81. In both periods (AM & PM) this was experienced at the right turn from North Road to High Street.

The junction has now been signalised and thus for 2031 period the junction was modelled within the Linsig model of the North Road corridor.

## North Road / Chancellors Road / Coreys Mill Lane Double Mini roundabouts (2021 Only)

The North Road / Chancellors Road / Coreys Mill Lane Double Mini roundabouts junction was also modelled for the the 2021 peak periods (AM & PM) in Junctions 10 but utilising the roundabout specific ARCADY module.

The model showed that during the peak of the AM peak hour in 2021 that the junction was operating slightly over its operational threshold but within absolute capacity. A peak AM period RFC of 0.88 was experienced on the southern North Road approach to the southern roundabout. A queue of 6 vehicles is associated with the AM peak RFC. During the PM peak the junction was operating narrowly within capacity with a peak RFC of 0.80 experienced.

The junction is due to be signalised and thus for 2031 period the junction was modelled within the Linsig model of the North Road corridor.

## A602 / Coreys Mill Lane / Ingleside Drive 4-arm Roundabout

The A602 / Coreys Mill Lane / Ingleside Drive 4-arm roundabout was also modelled using the ARCADY module of the Junctions 10 programme.

The 2021 AM peak hour model showed that the A602 / Coreys Mill Lane / Ingleside Drive 4-arm roundabout was operating slightly beyond its ideal operational capacity, with a peak 15 minute RFC of 0.88 experienced on the northern A602 approach to the junction. This corresponds to an AM peak queue of 7 vehicles. During the 2021 PM peak however, the junction is operating within capacity with a peak RFC of 0.82 on the southern A602 approach to the roundabout.

With the assumed area wide modal shift by 2031 the junction is brought back narrowly within operational capacity in both periods, with a peak AM RFC of 0.83 and a peak PM RFC of 0.79.

The addition of 90% development trips predicted however, causes the peak period in the AM peak to go beyond the operational capacity with peak RFC's of 0.86 (A602(N)) and 0.92 (Coreys Mill Lane). Given 100% of the development trips predicted the peaks RFC's rise to 0.87 on the A602(N) and 0.944. Whilst the impact of the development on queuing on the A602 is limited, the queue on Coreys Mill Lane increases 75% to 7 vehicle with 90% of the predicted development trips and doubles to 8 vehicles with 100% of the predicted development trips. This highlights the importance to mitigate the development through schemes aimed at encouraging modal shift. It also highlights the need for a monitor and manage approach so that the appropriate Strand 1 mitigation items are developed if required.

During the PM peak hour of 2031 the development does not however result in the junction going beyond operational capacity. The peak RFC with both 90% and 100% of the predicted development trips is 0.83 and the southern approach of the A602 to the junction remains the most sensitive, and changes in queuing on it are minimal.

## A602 / Martins Way / Gunnels Wood Road 4-arm Part Time Signalised Roundabout

The partially signalised A602 / Martins Way / Gunnels Wood Road 4-arm Roundabout was modelled in the standard LINSIG programme as would be expected. In the first instance the capacity of a junction is indicated by its Practical Reserve Capacity (PRC) and the capacity of individual approach lanes are reflected in their peak Degree of Saturation (DoS) and corresponding Mean Max Queue (MMQ). A DoS of 90% is recognised as the operational threshold for a signalised approach, as before cognisance of queuing is only really required beyond this and the MMQ includes vehicles joining the back end of red queue and may only be stopped for seconds.

During the peaks of 2021 the partially signalised A602 / Martins Way / Gunnels Wood Road 4-arm Roundabout was operating just within capacity with a AM peak PRC of 0.8% and a PM peak PRC of 3.9%. With the predicted area wide modal shift prior to 2031, there is slightly more spare capacity in the junction and the PRC rises to 4% during the AM peak and 8.3% during the PM peak. The addition of 90% of the predicted development trips removes any Practical Reserve Capacity, particularly in the PM. The 2031 AM peak PRC with 90% development trips is -1.0% and the PM peak PRC is -3.8%. The inside lane of the Martins Way approach experiences the biggest impact, in the AM peak of 2031 with a DoS 90.9% the increase in queuing of 33.3% to 12 PCU's (Passenger Car Units). During the PM peak the left turn lane on the Gunnels Wood Road approach has DoS of 93.4% predicted which corresponds in an increase in queuing of 75% to 14.

In the event the predicted modal shift of residents does not materialise (100% of the predicted development trips) in 2031 during the AM peak a PRC of -3.7% and a PM peak PRC of -5.0% are predicted respectively. During the AM peak the circulating carriageway at the Martins Way approach could experience the worst congestion with a DoS of 93.4%, which corresponds in a 43% increase of queuing to 10 PCU's. This increase in queuing is likely to see the queue interfere with the A602 SB approach and circulatory which could see results worsen.

This again highlights the importance to mitigate the development through schemes aimed at encouraging modal shift. It also highlights the need for a monitor and manage approach so that the appropriate Strand 1 mitigation items are developed if required.

## A1(M) / Graveley Road / A602 / Stevenage Road 6-arm Partially Signalised Roundabout (Junction 8)

The J8 roundabout was also modelled in LINSIG and was estimated to be performing within but close to capacity in 2021, with a AM peak PRC of 1.6% and 1.0.

With the predicted modal shift across Stevenage this is predicted to improve slightly in 2031 with an AM and PM peak PRCs of 2.0% in the absence of the NS1 development.

However, with the addition of the development (even assuming the 10% modal shift improvement) the predicted AM peak PRC falls significantly to -11.6% with the Graveley Road approach going above absolute capacity to 100.5%, which corresponds to an increase of queuing by 257% to 25PCU. During the PM the impact is predicted to be less severe but the junction will still be over operational capacity with a PRC of -2.9%. The inside lane of the A602 (Hitchin Road) approach is predicted to experience the greatest congestion with a D0S of 92.6% which corresponds in an 23% increase in queuing to 32 PCU. The DoS of the circulatory at the EB entry of the A602 rises to 92.1% which corresponds to a 33.3% increase in queuing to 12PCU. However unlike the previous junction this should be accommodated due to size of J8.

Failure of the NS1 development to achieve its initial mode shift could see an AM peak PRC of -17.0%, with Graveley Road seeing a 386% increase in queuing to 34 PCU. The PM peak PRC is predicted to be -5.7%. As before the Graveley Road approach is predicted to see the greatest increase in congestion to a DoS of 95.1% which corresponds to a large increase in queuing of 400%, however it is only an increase to 10 PCU from a small base of 2PCU. Other notable predictable increases in congestion could be seen on the previously mentioned Hitchin Road approach where the DoS becomes 93% corresponding again with a 23% increase in queuing to 32 PCU, and on the A602 EB circulatory which could increase to a DoS of 92.8%, corresponding with a increase in queuing of 44.4% to 13 PCU which could interfere tithe A1(M) NB on slip.

This again highlights the importance to mitigate the development through schemes aimed at encouraging modal shift. It also highlights the need for a monitor and manage approach so that the appropriate Strand 1 mitigation items are developed if required.

#### B197 / Graveley Lane Priority Junction

The B197 / Graveley Lane Priority Junction was modelled in the aforementioned PICADY module of Junctions 10 and is predicted to be performing within capacity in all modelled scenarios, with a maximum RFC of 0.57 during the AM peak of 2031 with all development trips compared to a insignificant base of 0.50 in 2021.

#### B197 / A505 Left-in / Left-out Priority Junction

The left out at the B197 / A505 Junction is predicted to have been beyond it operational threshold in 2021 during the peak of the AM peak where its RFC is at 0.89. This corresponds to 6 vehicle queue. The 2021 PM peak was estimated to be within capacity with an RFC of 0.68.

This junction is shown to benefit less from modal shift across Stevenage and the maximum AM peak RFC in 2031 increases to 0.95, corresponding in a queue of 8 vehicles. Whilst the development, regardless of its modal shift potential, result in the maximum RFC increasing to 0.99 and almost absolute failure (RFC = 1.00) the increase in queuing is a marginal 2 vehicles.

The 2031 PM peak remains within capacity both pre and post development with a maximum RFC of 0.78 and a marginal increase in queuing of a single vehicle.

Its therefore concluded by HCC Highways that the impact of the development proposals at the B197 / A505 Junction is negligible.

## A1 (M) / A505 – Letchworth Gate 4-arm Partially Signalised Roundabout (Junction 9)

The potential impact of the development at J9 of the A1(M) was also modelled in LINSIG. The junction was estimated to be performing well beyond its operational capacity during the 2021 AM peak hour with a PRC of -17.1%. With corresponding DoS's of 102.5% and 105.4% (queues of 22 and 28 PCUs respectively) at A1(M) NB slip (lanes 2 & 3) despite the slip to Letchworth.

During the PM peak of 2021 the junction was estimated to be operating narrowly within operational capacity with a PRC of 0.4%.

The AM peak benefits slightly from the predicted wider Stevenage modal shift prior to 2031 however the junction is still predicted to be operating substantially to -12.5%. However, only lane 3 of the A1(M) NB slip remains over absolute capacity at 101.3%, corresponding in an associated queue of 21 PCU. Lane 2 improves to a DoS of 98.0% with a corresponding queue of 21 PCU.

The PM peak hour is not predicted to benefit from the predicted modal shift and the PRC during the PM peak of 2031 is predicted to fall to -6.7% in the absence of the proposed development.

With 90% of the predicted development trips the situation naturally worsens with the AM peak PRC falling to -14.4%, corresponding with a maximum DoS of 102.9% on lane 3 of the A1(M) NB off slip (a 24 PCU queue) and 99.8% (18 PCU queue) in the lane 2 approach. With 100% of the predicted development trips the AM peak PRC falls to -14.6% corresponding with a DoS of 103.1% (a queue of 24 PCU) in lane 3 an 100.0% (18 PCU) in lane 2.

During the PM peak hour with 90% of the predicted development trips the junction PRC falls to -10.9% with the maximum DoS being predicted on the A505 western approach being 99.8% which corresponds with a predicted queue of 29 PCU.

With 100% of the predicted development trips with possibly the re-balancing of traffic flows and signal timings, the PRC of the junction becomes -10.5% corresponding to a DoS of 99.4% (28 PCU) on the western A505 approach, however the A1(M) NB off slip as with the AM peak goes above capacity with a Dos of 94.2% (17 PCU queue) in lane 2 and a DoS of 95.7% (20 PCU queue) in lane.

In this location however, it is seen that the although the PRC and DoS values worsen post development the impact of the the development on queuing is marginal.

#### North Road Corridor Model (2031 only)

During the 2031 AM peak in the absence of development the North Road corridor in the vicinity of the proposed site is predicted to be performing well with a PRC of 9.2%. During the 2031 PM peak the corridor is predicted to be slightly over operational capacity with a PRC of -3.1%. The Lister Close approach to North Road sees the highest predicted DoS at 92.8% which corresponds to a queue of 10 PCU.

However, when 90% of the predicted development traffic is considered the corridor is predicted to go slightly above capacity during the AM peak, with the PRC falling to -0.1% and substantially over capacity in the PM peak where the PRC is -10.4%. During the AM peak the predicted DoS of the northern North Road approach rising to 90.1% corresponding with a queue of 29 PCU which is a 45% increase on the base of the predicted 20 PCU. During the PM peak post developmen the

northern North Road approach at Chancellors Road is predicted to have a DoS of 91.0% (34 PCU queue), the Coreys Mill Lane approach to North Road is predicted to have a DoS of 93.7% (15 PCU queue), and the Lister Close approach to North Road is predicted to have a DoS of 99.4% (22 PCU queue).

With 100% of the predicted development (no modal shift benefits) the situation on North Road worsens again. The PRC during the AM peak hour becomes -0.9% and the PM peak predicted to have a PRC of -11.2%. During the AM peak the predicted DoS of the northern North Road approach rising to 90.8% corresponding with a queue of 30 PCU which is a 50% increase on the base of the predicted 20 PCU. During the PM peak post development the northern North Road approach at Chancellors Road is predicted to have a DoS of 91.6% (34 PCU queue), the Coreys Mill Lane approach to North Road is predicted to have a DoS of 94.6% (15 PCU queue), and the Lister Close approach to North Road is predicted to have an over absolute capacity DoS of 100.1% (44 PCU queue).

This again highlights the importance to mitigate the development through schemes aimed at encouraging modal shift. It also highlights the need for a monitor and manage approach so that the appropriate Strand 1 mitigation items are developed if required.

## North Road 2031 S- Paramics Motorised Vehicle Journey Time Impacts

The S-Paramics model enables predictions of motor vehicle journey times both prior to and post development.

The S- Paramics model identifies that in 2031 in the absence of development during the AM the southbound journey time on North Road (from Graveley Road to the A602 Gyratory) is predicted to be 229 seconds and northbound journey time (from the A602 gyratory to Graveley Road) is predicted to be 204 seconds. If the development is successful in promoting a 10% modal shift, the proposed development development could result in a 35 seconds (15%) increase to southbound journey times and an 8 seconds (4%) increase in northbound journey times. If it is unsuccessful and 100% of the predicted development trips is realised, the development could result in a 42 second (19%) increase in southbound journey times on North Road during the AM peak and 10 second (5%) increase in northbound journey times respectively.

During the PM peak in the absence of development the journey time southbound on North Road is predicted to be 217 seconds and the journey northbound is predicted to be 219 seconds respectively. 90% of the predicted development traffic is predicted to result in a 23 seconds (11%) increase in a southbound journey times and a corresponding 21 seconds (10%) increase in northbound journey times. If 100% of the predicted development trips are realised the PM peak journey time southbound on North Road could increase by 29 seconds (13%) and the northbound journey times could increase by 23 seconds (11%)

This again highlights the importance to mitigate the development through schemes aimed at encouraging modal shift. It also highlights the need for a monitor and manage approach so that the appropriate Strand 1 mitigation items are developed if required.

## Monitor & Manage Study & Potential Mitigation

The applicant through the associated Transport Assessment (TA) indicates their willingness to partake in a Monitor & Manage strategy that would consider the impact of the NS1 development and other major developments coming forward in the north/west of Stevenage area. Considering impacts during and post construction at:

- A1 (M) Junction 8;
- North Road / Graveley Road;
- High Street Graveley / Church Lane (Back Lane);
- Chantry Lane / Stevenage Road (north of A602); and
- Chantry Lane / Stevenage Road (south of A602).

The contribution which in addition to the study will be put to schemes that will directly mitigate the above potential impacts of the development if realised, will be subject to a Strand 1 S106 agreement between the developer, the highway authority and any other relevant party. In the event that the above potential impacts are not realised in full and all the S106 monies are not required, the remaining moneys will be returned to the developer.

## **Contributions**

HCC Highways operate two levels of mitigation agreements (Strand 1 and Strand 2). Strand 1 mitigation works being works that are directly required to unlock the development and solely the responsibility of the development. Strand 2 mitigation works being works that address the wider cumulative impact of the development for which the development isn't solely responsible for but does derive benefit from.

In the first instance (Strand 1) HCC would envisage that the agreed site access junctions and any potential off site improvements (ROWIP, TRO's etc) are delivered through a S278 agreement and the bus contribution, the monitor and management mitigation contribution (once agreed) and travel plan contribution are contained in a S106 agreement.

In the second instance (Strand 2) HCC calculate an appropriate headline figure based on the findings of HCC's adopted Developers Planning Obligation Toolkit (2021). Strand 2 contributions should address the cumulative impacts of all development, large and small, facilitating delivery and enhancement of the necessary active and sustainable transport networks. These local sustainable networks must be provided in their entirety to provide the sustainable connections to the key trip generators, as such contributions will be pooled to fund these networks within the local area subject to any legislative restrictions), as supported by National Planning Policy Framework (NPPF).

This second strand contribution is intended to help implement broader transport measures in the catchments of new development from which contributions are secured. The need for second stand contributions will be balanced against the level of first strand contributions and any other relevant planning matters.

In accordance with the HCC Guide a development of 900 homes is likely to attract a second strand (Strand 2) contribution of £6,143,400 (900 x £6,826).

As detailed previously this Strand 2 contribution would be allocated to:

- SBC LCWIP Route 1,
- Extension of PROW Graveley 006 to NCN route 12,
- resurfacing of NCN route 12 between Graveley Road and Graveley Lane,
- resurfacing of NCN route 12 between Graveley Lane and Willian,
- North Herts District Council LCWIP (September 2023) cycling route between Hitchin and Stevenage/ Specific Measure (SM)29 of the HCC's emerging North Central Growth and Transport Plan (NC GTP),
- SM84 of the the NC GTP, which promotes upgrade of A1(M) J8 for cyclists and buses,

- resurfacing of Stevenage Bridleway 023 south of the proposal site,
- resurfacing of Stevenage Bridleway 22, Stevenage Bridleway 105 and Footpath/Bridleway 018.
- completion of Stevenage Bridleway 103 resurfacing, and
- Improvement of the junction of Stevenage Bridleway 103 with North Road.

## Signed

Adrian McHale

27 February 2025