11.0 TRANSPORT

Introduction

11.1 WSP were commissioned to undertake a Transport Assessment (TA). This Chapter describes the findings of the TA and fully addresses the traffic and transport issues arising from the proposed development.

11.2 The proposed development will integrate with the wider proposal of the South West Exeter expansion area as identified within the South West Exeter Framework and contribute towards the transport infrastructure package, to be implemented by Devon County Council. The transport infrastructure will facilitate the delivery of the expansion area.

11.3 The package includes improvements to local traffic bottlenecks, bus infrastructure and services, pedestrian and cycle network, and rail station improvements.

11.4 This assessment considers the existing transport conditions in the vicinity of the application site and the wider area covering walking, cycling, public transport and vehicle borne modes of travel. It considers how the site is currently accessed and then assesses the impact, both adverse and beneficial, on each mode of travel of the development proposals and identifies mitigation measures required to address the impacts.

11.5 This Chapter must be read in association with the corresponding TA which can be found at Appendix 11.1. This provides all the design information and technical assessment on traffic movements.

Policy Context

11.6 The following policy documents are considered relevant to the highway and transport implications of the proposed development.

National Planning Policy Framework

11.7 The National Planning Policy Framework (NPPF) was published in March 2012 and sets out the national planning policies for England. Section 4 of NPPF details key transport policy requirements. In paragraph 32 it states that development plans and decisions should take account of the following:

- “the opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure;
- safe and suitable access to the site can be achieved for all people; and
- improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development. Development should only be

prevented or refused on transport grounds where the residual cumulative impacts of development are severe."

11.8 The NPPF states that in order to achieve the above objectives, a key tool will be a Travel Plan and that all developments which generate significant amounts of traffic should be requested to provide a Travel Plan. The Travel Plan in relation to this development site and the wider South West Exeter site will be developed and delivered by Devon County Council

Devon and Torbay Local Transport Plan 2011-2026

11.9 The Devon and Torbay Local Transport Plan (LTP) identifies the objectives in delivering the long term vision and transport strategy for the County. These objectives are priorities are underpinned by the need for transport to contribute towards better health and wellbeing, promoting safety, enhancing the environment and offering equality of opportunity for all.

11.10 The objectives set by Devon and Torbay in order to meet their own vision and strategy are:

- Deliver and support new development and economic growth;
- Make best use of the transport network and protect the existing transport asset by prioritising maintenance;
- Work with communities to provide safe, sustainable and low carbon transport choices;
- Strengthen and improve the public transport network; and
- Make Devon the 'Place to be naturally active'.

11.11 In the context of the site, the LTP also sets out five transport priorities for Exeter;

- Improve access to the city;
- Enable and support smart travel;
- Unlock major growth east of Exeter;
- Deliver major development within Exeter; and
- Protect Exeter as a gateway.

11.12 There are no specific schemes within the LTP that will alter the infrastructure provision within the immediate vicinity of the site. However the proposed Marsh Barton Station (part of the Devon Metro project) and Alphington Park & Ride will remove traffic from the A379 and the north accesses to the Marsh Barton Industrial Estate. The precise nature of this impact has been agreed with Devon County Council and is detailed in the Transport Assessment.

Teignbridge Local Plan

11.13 The Teignbridge Local Plan 2013-2033 was adopted in May 2014, the Local Plan aligns with Teignbridge District Councils overarching objectives of:

- Economic Prosperity
- Quality Environment
- Wellbeing

11.14 The Local Plan policies that are relevant to the proposed development in transport terms are:

- Policy S9 Sustainable Transport.
- Policy S10 Transport Networks
- Policy SWE1 South West Exeter Urban Extension

11.15 The requirements of these specific policies are detailed in the Transport Assessment in Appendix 11.1.

South West Exeter: Development Framework

11.16 The South West Exeter Development Framework (April 2014) amplifies and clarifies the requirements of Policies SWE1 and SWE3 of the Teignbridge Local Plan 2013-2033. The transport requirements of the Development Framework are set out below:

- Enhance public transport route
- 1000 space park & ride hub to be delivered at the Alphington Interchange on the A30
- Access to a new rail halt at Marsh Barton
- Improvements to Bridge Road
- Enhancements to the A379 from Chudleigh Road to Bridge Road
- Remodelling to the Devon Hotel junction at the A379 and B3123

Summary

11.17 There is a comprehensive planning policy framework that includes the National Planning Policy Framework through to a specific local development framework for South West Exeter.

Consultation

11.18 The parties consulted and their responses as well as the assessment response are set out in Table 11.1.

Table 11.1 Consultations

Consultee	Context	Comment of Comment of Consultee	Assessment Response
Devon County Council & Highways Agency	Scope of Transport Assessment	Requirements as set out in Scope of Transport Assessment are included in the appendices of the Transport Assessment.	Transport Assessment to be carried out as set out in Scope of Transport Assessment

11.19 The consultation with Devon County Council and Highways Agency has been extensive. It has included a series of meetings and correspondence with the County Council to agree the scope and approach to be taken for the associated Transport Assessment with this application and the other applications that form part of the wider South West Exeter masterplan area.

Methodology

11.20 The transport assessment methodology is covered in part in the scope of Transport Assessment which is contained in the Transport Assessment in Appendix 11.1. Site inspections were undertaken of the application site and surrounding areas to establish the existing transport infrastructure and operational conditions.

11.21 Consultations were undertaken with Devon County Council in transportation terms, background transportation information, available data and the scope of the transport assessment required to support a planning application for this and the wider site.

11.22 The assessment considers relevant transport policy; the means and location of access to the site for pedestrians, cyclists and vehicles; the accessibility of the site to supporting facilities such as schools, shops, health facilities, leisure and public transport; the ability to achieve sustainable travel to and from the site; the ability to achieve a permeable development and improved links through the site; the level of vehicular traffic generated by the development and the ability of the road network to accommodate that traffic and any existing road safety issues. This assessment considers the adverse and beneficial impacts.

11.23 A glossary of terms is provided in Annex 11.1.

Study Area

11.24 The study area for the Transport Assessment was defined through consultations with Devon County Council and is determined by the Council's requirement that the traffic impact on certain road junctions within the vicinity of the site to be assessed.

11.25 For the environmental assessment the analysis has been confined to the proximity of the site and immediate area where the impacts are greatest, which is at the following locations:

- A379 south of Chudleigh Road
- A379 north of Chudleigh Road
- Chudleigh Road north of the site accesses and
- Chudleigh Road south of the site accesses

Temporal Scope

11.26 The development impacts are considered for the following time periods:

- Construction: an assessment has been made of the maximum expected daily construction traffic during the construction period which is expected to last up to four years between 2015 and 2019.
- On Completion: the assessment includes analysis of the expected impacts of the development once the full development and associated works are completed and the development is functioning normally. This is expected to be in 2019.

11.27 The assessment has been carried out against a baseline case in 2013. Traffic surveys were undertaken in 2013 for all 4 junctions assessed shown on Figure 11.1. The resulting data has been factored to represent the baseline and future years.

Figure 11.1 Junction Locations

11.28 The assessment has been carried out against a baseline case in 2013. Traffic surveys were undertaken in 2013 for all 4 junctions assessed. The resulting data has been factored to represent the baseline and future years.

Sources of Data

11.29 The sources of baseline data are set out in Table 11.2.

Table 11.2 Data Sources

Baseline Topic	Data Source
Existing traffic flows	Traffic surveys commissioned in 2013 by WSP
Collision data	Devon County Council and Crash Map Data
Rights of Way	Devon County Council
Development trip rates	Agreed with Devon County Council as part of South West Exeter Masterplanning
Traffic growth	Adjusted traffic growth based on historical trends, agreed with Devon County Council
Bus service details	Devon County Council

Assessment of Significance

11.30 A three stage process has been adopted for the assessment of the environmental impact of the development in transportation terms. First the sensitivity of the transport receptors was assessed. Then the magnitude of the transport impacts was assessed and then based on the first two stages the significance of the transport impacts was assessed. The assessment considers adverse and beneficial impacts.

11.31 Guidance on the identification of receptors, affected parties and key issues has been derived from the "Guidelines for the Environmental Assessment of Road Traffic" prepared by the Institute of Environmental Assessment. The key potential impacts are set out in Table 11.3. The table indicates which impacts are dealt with in this report and which are dealt with in other reports within this Environmental Statement.

Table 11.3 Traffic and Transport Impacts

Impact	Chapter of the Environmental Statement
Noise	Chapter 12, Noise & Vibration
Vibration	Chapter 12, Noise & Vibration
Visual Effects	Chapter 8, Landscape and Visual Impact
Severance	This Chapter
Driver Delay	This Chapter
Pedestrian Delay	This Chapter
Pedestrian Amenity	This Chapter
Fear and Intimidation	This Chapter
Accidents and Safety	This Chapter
Hazardous Loads	This Chapter
Air Pollution	Chapter 13, Air Quality
Dust and Dirt	Chapter 13, Air Quality
Ecological Effects	Chapter 9, Ecology
Heritage and Conservation Areas	Chapter 10, Archaeology

11.32 In addition public transport accessibility is included in the assessment as is the accessibility of facilities by foot and cycle from the development site.

Sensitivity

11.33 The sensitivity of the impacts has been assessed on the basis of professional judgement in the absence of definitive classifications.

Table 11.4 Sensitivity of Transport Receptors with Regard to Residents

Sensitivity	Receptor /Affected Party
High	Fear and Intimidation, Accidents & Safety and Hazardous Loads are considered to be of high sensitivity because of their potentially serious implications for the well -being of individual people.
Medium	Pedestrian Amenity and Severance are considered to be of medium significance because they do not have the same potentially serious implications for people as the high sensitivity receptors.

Low	Driver Delay and Pedestrian Delay are considered to be of low significance because while there is some increase in travel time this is relatively less important than other impacts.

Impact Magnitude

11.34 The impact magnitude criteria are based on guidance in the document "Guidelines for the Environmental Impact of Road Traffic" with some professional judgement applied.

Table 11.5 Traffic and Transport Impact Magnitude

Category	Description
Major	Over 90% increase in traffic or impact
Moderate	Over 60% increase in traffic or impact
Slight	Over 30% increase in traffic or impact
Negligible	Under 30% increase in traffic or impact
Beneficial	A reduction in traffic or impact

11.35 In most instances the change in traffic level is used as a measure of the impact magnitude.

Impact Significance

11.36 Table 11.6 sets out the scale applied to the assessment of the significance of the traffic and transportation impacts. Impacts can be beneficial or negative.

Table 11.6 Assessment of Traffic and Transportation Impact Significance

Sensitivity of Receptor	Major Impact or Benefit	Moderate Impact or Benefit	Slight Impact or Benefit	Negligible Impact or Benefit
High	Significant	Significant	Moderately Significant	Not Significant
Medium	Moderately Significant	Moderately Significant	Not Significant	Not Significant
Low	Moderately Significant	Not Significant	Not Significant	Not Significant

Baseline Conditions

11.37 The application site comprises agricultural land, with five cottages and a range of agricultural buildings. The parcel of land that is on the eastern side of the Chudleigh Road contains an industrial building.

Site Location and Context

11.38 The application site is located to the south west of Exeter and forms part of the wider South West Exeter expansion area. The location and context of the application site is described in detail in Chapter 3 of the ES.

Accessibility

11.39 The proposed development west of Chudleigh Road will be accessed via three access points in the form of priority T-junctions. These three junctions will serve the majority of the housing development and the gypsy and traveller pitches. The parcel of land to the east of the Chudleigh Road junction will have a simple priority 'T' junction, in a similar location to the existing access to this area.

11.40 The application site is located within an approximate 1.5km walking distance from the Marsh Barton Trading Estate, a major employer within Exeter. The Trading Estate comprises a diverse range of up to 500 businesses and employs in the region of 4,500 people.

11.41 The detailed isochrone plan is contained in the Transport Assessment which shows that the application site is located within a maximum walk of 30 minutes from the following local services and facilities:

- Alphington Primary School;
- West Exe Technology Centre;
- Sainsbury's;
- Spar;
- Lidl;
- Dentists and Pharmacies.

11.42 It should be noted that the majority of the services outlined above are located within the Alphington area of Exeter. The application site is also located within an approximate 400m to 600m walk to bus stops located on the A379.

11.43 The application site is highly accessible to range a range of key services within a 30 minute cycle these include Exeter Quay leisure facilities, the City Centre, Devon County Hall, Isca College of Media and Art, West Exe Technology College and the Royal Devon & Exeter Hospital.

11.44 As a planned development area, there are proposed to be a range of new services and facilities constructed within the South West Exeter expansion area. These are considered in the Cumulative Impacts section of this Chapter and will include Primary and Secondary Schools and Neighbourhood and Local Centres.

Road Network

11.45 The access points to the application site are located along the eastern side of Chudleigh Road. Chudleigh Road is a single carriageway road which is subject to a 40mph speed restriction in the vicinity of the application site. Chudleigh Road links to the B3123 to north which in turn link to Marsh Barton Trading Estate and the A377. The A377 Alphington Road is a commuter corridor into Exeter City Centre from areas to the south-west of the city.

11.46 The A379 connects to the southern end of Chudleigh Road. The A379 forms part of the local primary network subject to a 40mph speed limit at the junction with Chudleigh Road. It links to the A38 to the south and to the Junction 30 to the north-east. Between the proposed development site and M5 Junction 30, the A379 provides a link to Marsh Barton Trading Estate, Dawlish and Topsham Road.

Pedestrian and Cycle Routes

Pedestrian Network

11.47 Footways are provided along the eastern side of Chudleigh Road from the A379 to point approximately 80 metres south of Waybrook Lane. At this point pedestrian footway is then provided along the western side of the Chudleigh Road for approximately 400 metres after which footways are provided on both sides of the road, which connects into the wider footway provision in Alphington.

11.48 The A379 benefits from a shared footway cycleway along its southern side with street lighting present on either side of the road. There are currently no formal crossing points within the vicinity of the A379 / Chudleigh Road junction, however dropped kerbs are provided to enable pedestrians to cross the A379. As part of the wider masterplan there is a proposal to locate a pedestrian over-bridge to the north-east of the A379 / Chudleigh Road junction. The shared footway cycleway on the A379 connects into Marsh Barton at the Devon Hotel Roundabout with a signalised crossing provided on the eastern arm of the roundabout.

Cycle Network

11.49 The application site is adjacent to an extensive network of on and off road cycle routes in Exeter – a cycle demonstration city.

11.50 The route adjacent to the south eastern boundary of the application site is the shared footway / cycleway on the A379. This route provides an excellent off-road cycle route

that connects to the cycle network on Marsh Barton Trading Estate at the Devon Hotel Roundabout approximately 900 metres to the north-east of the application site. The further network of cycle routes within Marsh Barton connects to the traffic-free Exe Valley Ride which connects to other cycle facilities that provides an access to a wide range of facilities.

11.51 Approximately 800metres to the north of the northern boundary of the site there is an advisory on-road cycle route along the quiet lane of Clapperbrook Lane. Going east this route then connects to the traffic free route than runs alongside Alphinbrook connecting to Marsh Barton. The routes within Marsh Barton the link to the Exe Valley Ride route which connects to other section of cycle network. Travelling west along the on-road Clapperbrook Lane the route links to a network of on and off-road routes which connects to West Exe Technology College and the St Thomas Rail Station.

Rights of Way

11.52 A review of the definitive Public Rights of Way Plan reveals that there are no public rights of way across the application site, although there are some in the general area.

Public Transport

11.53 The nearest bus stops to the application site are located on the A379 and in the vicinity of the Chudleigh Road / Shillingford Road double mini-roundabout. The A379 bus stops can be reached in approximately 6 to 8 minutes (480-640m) on foot these bus stops are standalone posts. The bus stops in the vicinity of the Chudleigh Road / Shillingford Road double mini-roundabout can be reached in approximately 9 minutes (720m) on foot these stops are standalone posts with bus boarder kerbs.

11.54 The bus stops benefits from a good provision of connections to Exeter city centre and the bus stations at Exeter, Paignton and Plymouth. On Monday to Saturday these services run frequently and there is a reduced service on Sundays. Table 4.1 provides a detailed summary of the buses that route along Chudleigh Road (Service 366) and the A379 (all other services).

Traffic Levels

11.55 Existing traffic levels on the road network at the junctions defined by Devon County Council as part of the study area and to be included for impact analysis have been established through traffic surveys undertaken in 2013. The two-way AM and PM peak traffic flows are shown in Table 11.7 below:

Table 11.7 Baseline Traffic Flows

Link Location	2013 AM Peak Two-way Flow	2013 PM Peak Two-way Flow
Chudleigh Road (south of site accesses)	537	344
Chudleigh Road (north of site accesses)	537	344
A379 North of Chudleigh Road	1745	1567
A379 South of Chudleigh Road	2118	1765

11.56 Traffic levels in the general area of the site are modest with Chudleigh Road currently serving as a route for Alphington traffic to gain access to the A38 via the A379. The five weekday average daily traffic flow on the A379 in the vicinity of the site is 18754 vehicles. This is within the capacity of the road.

11.57 Table 2 of Volume 5 Section 1 (TA 79/99 Traffic Capacity of Urban Roads) of the Design Manual for Roads and Bridges indicates that for a road of this nature, classified as UAP2 (Urban All Purpose 2), the hourly capacity in the busiest direction, assuming a 60/40 split in either direction is 1550 vehicles, for a road classified as a UAP3 the capacity in the busiest direction is 1300. The A379 at this location meets the criteria of a UAP2 road and Chudleigh Road meets the criteria of a UAP3 road.

Accidents and Safety

11.58 The Department for Transport personal injury accident data for the highway network in the vicinity of the application site has been examined data between 2008 and 2012. A showing the location of the collisions is included in Transport Assessment.

11.59 In general there is an excellent road safety record including the Chudleigh Road/Church Road/Alphinbrook Road roundabout and the Chudleigh Road/A379 junction. The Chudleigh Road collisions are summarised below:

- 1 slight collision occurred at the Chudleigh Road / AA379 Junction in 2009
- 1 slight collision occurred at the Church Road / Brookfield Gardens junction in 2012
- 1 slight collision occurred on Chudleigh Road between Ide Lane and Dawlish Road at the zebra crossing this collision only involved a single vehicle

11.60 The data did reveal there that are two collision clusters located at the A379 Devon Hotel Roundabout and the A379 Bridge Road Roundabout. As a result, detailed information between 2009 and 2013 has been obtained from Devon County Council to enable more in depth analysis of these locations.

11.61 The data also shows that 14 collisions occurred at the A379 Bridge Road/Sannerville Way roundabout, of which one was classified as serious and 13 as slight injury collisions.

11.62 The serious collision occurred in December 2011 on Sannerville Way and involved a motorcycle and a tractor. The report stated that the motorcycle was travelling towards Exeter on the A379 behind a line of traffic. The traffic slowed due to the tractor at the front turning right into the farm, and the motorcycle had overtaken traffic and collided with the trailer as the tractor had turned. The serious collision at this location was down to driver error.

11.63 The 13 slight collisions occurred at the A379 Bridge Road / Sannerville Way roundabout and for a variety of reasons, all of which could be attributed to driver error.

11.64 It is considered that all the collisions at this location are attributable to driver error and not associated with the highway infrastructure or volume of traffic at this location.

Devon Hotel Roundabout

11.65 The data shows that 14 collisions occurred at the Devon Hotel roundabout, of which two were classified as Serious and 12 as Slight. One of the serious collisions occurred in January 2013 on the A379 and involved a pedal cycle and a van. The report stated that the van was travelling in lane one away from the Devon Hotel, and the cyclist swerved to avoid a drain cover and into the path of van. The van could not avoid the cyclist due to other vehicles in lane two overtaking, and clipped the cyclist with their near side wing mirror. This particular collision was the result of driver / rider error and cannot be attributed to the highway infrastructure.

11.66 The other serious collision occurred in September 2012 on the A379 outside the Devon Hotel and involved a car and a motorcycle. The accident report stated that the motorcyclist assumed that the car was turning left onto the A379 from the roundabout and started to overtake in lane two. The car then started to turn right into lane one of the roundabout and collided with the motorcyclist. This collision maybe attributable to the lack of distinction of lane markings are the junction and could also potentially be exacerbated by 4 exits being available at the junction.

11.67 The 12 slight collisions occurred at the Devon Hotel roundabout and for a variety of reasons, all of which could be attributed to driver error; of the 12 collisions two involved cyclists.

11.68 As a result of the road safety record associated with Devon Hotel a scheme has been developed to simplify the movements at the junction in order to make the junction less confusing to drivers. This scheme is assessed in the Impact Assessment section of this Chapter.

Impact Assessment

Impacts during Construction

11.69 The traffic and transportation impacts during construction are set out in Table 11.9 and described in the following text.

11.70 The construction phasing period is expected to be 4 years, during which time demolition of existing buildings will be undertaken, as will the construction of the proposed development.

11.71 It is proposed that a Construction Environmental Management Plan will be implemented and construction traffic routes and construction working hours will be controlled, and will be the subject of a planning condition. It is proposed that construction traffic will be confined to the site access on Chudleigh Road and will route via the A379 and that no construction traffic will travel through Alphington.

11.72 The construction traffic in relation to the baseline traffic is set out in Table 11.8

Table 11.8 Construction Traffic

Road	Weekday AM Peak Hourly Traffic			Weekday PM Peak Hourly Traffic		
	Baseline 2013	Construction	% Change	Baseline 2013	Construction	% Change
Chudleigh Road (south of site accesses)	537	13	+2	344	14	+4
Chudleigh Road (north of site accesses)	537	3	+1	344	3	+1
A379 North of Chudleigh Road	1745	10	+1	1567	10	+1
A379 South of Chudleigh Road	2118	3	+<1	1765	3	+<1

11.73 The maximum construction traffic impact will be at the southern end of Chudleigh Road and beyond that, the effects will be diluted as construction traffic spreads over various routes.

11.74 The impact magnitude of the construction traffic on all of the roads will be negligible as the increase in traffic is under 30% (refer to Table 11.8). The overall impacts on each of the topic areas prior to mitigation is shown in Table 11.9 below:

Table 11.9 Traffic and Transport: Construction Impacts

Topic Areas	Road Location	Level	Sensitivity	Nature of Impact	Impact Magnitude	Impact Significance before Mitigation	Mitigation Measures
Severance	Chudleigh Road (north of site accesses)	Local	Medium	Temporary Negative	Negligible	Not Significant - Negative	Restricted construction working hours and traffic routes
	All other assessed roads	Local	Medium	No impact	Negligible	Not Significant - Negative	Restricted construction working hours and traffic routes
Driver Delay	On Chudleigh Road (north of site accesses)	Local	Low	Temporary Negative	Negligible	Not Significant - Negative	Restricted construction working hours and traffic routes
	All other assessed roads	Local	Low	No impact	Negligible	Not Significant - Negative	Restricted construction working hours and traffic routes
Pedestrian Delay	On Chudleigh Road (north of site accesses)	Local	Low	Temporary Negative	Negligible	Not Significant - Negative	Restricted construction working hours and traffic routes
	All other assessed roads	Local	Low	No impact	Negligible	Not Significant - Negative	Restricted construction working hours and traffic routes
Pedestrian Amenity	On Chudleigh Road (north of site accesses)	Local	Medium	Temporary Negative	Negligible	Not Significant - Negative	Restricted construction working hours and traffic routes
	All other assessed roads	Local	Medium	No impact	Negligible	Not Significant - Negative	Restricted construction working hours and traffic routes
Fear & Intimidation	On Chudleigh Road (north of site accesses)	Local	High	Temporary Negative	Negligible	Not Significant - Negative	Restricted construction working hours and traffic routes
	All other assessed roads	Local	High	No impact	Negligible	Not Significant - Negative	Restricted construction working hours and traffic routes
Accidents & Safety	On Chudleigh Road (north of site accesses)	Local	High	Temporary Negative	Negligible	Not Significant - Negative	Restricted construction working hours and traffic routes
	All other assessed roads	Local	High	No impact	Negligible	Not Significant - Negative	Restricted construction working hours and traffic routes
Hazardous Loads	On Chudleigh Road (north of site accesses)	Local	High	No impact	None	Not applicable	No hazardous loads expected
	All other assessed roads	Local	High	No impact	None	Not applicable	No hazardous loads expected

Impacts during Operation

11.75 The traffic and transportation impacts during the operation of the development site are set out in Table 11.10. It provides a comparison between the baseline traffic (2019 base traffic without development) and the increase in traffic associated with the operation of the development during the AM and PM peak time periods.

Table 11.10 Traffic and Transport: Operational Impacts

Road	Weekday AM Peak Hourly Traffic			Weekday PM Peak Hourly Traffic		
	Baseline	Operational	% Change	Baseline	Operational	% Change
Chudleigh Road (south of site accesses)	547	56	+10	351	56	+16
Chudleigh Road (north of site accesses)	547	54	+10	350	54	+15
A379 North of Chudleigh Road	1693	45	+3	1512	45	+3
A379 South of Chudleigh Road	2073	11	+1	1713	11	+1

11.76 Table 11.10 above shows the project's baseline (without development) and operational (with development) estimates at weekday peak AM and PM. It is evident that operational development traffic on Chudleigh Road (north and south of site access) will result in similar percentage increases in both AM Peak Hours (+10%,+10%) and PM Peak Hours (+16%,+15%). The impact the operational development traffic will have on the A379 north and south of Chudleigh Road is minimal, ranging from (+1%) to (+3%) at peak AM and PM hours.

11.77 With regard to Driver Delay in particular the introduction of mitigation measures at the A379 Chudleigh Road junction will result in a reduction in delay at this location when compared to situation without mitigation. Table 11.11 summarises the delay (in seconds) for the 2019 without the development and the 2019 with development (including mitigation). This demonstrates that overall there will be a reduction in delay at this particular junction.

Table 11.11 A379 Chudleigh Road Junction Traffic Delay Summary

Arm / Movement	AM PEAK (delay in seconds)		PM PEAK (delay in seconds)	
	2019 Base without Development	2019 Base with Development	2019 Base without Development	2019 Base with Development
Chudleigh Road (left)	41.83	25.48	212.84	11.88
Chudleigh Road (right)	160.33	117.2	173.81	197.72
A379 East (right/ahead)	18.48	17.89	8.48	9.03

11.78 The impact magnitude of the operational traffic on all of the roads will be negligible as the increase in traffic is under 30% (refer to Table 11.5). The overall impacts on each of the topic areas prior to mitigation is shown in Table 11.12 below:

Table 11.12 Traffic and Transport: Operational Impacts

Topic Areas	Description of Impact	Level	Sensitivity	Nature of Impact	Impact Magnitude	Impact Significance before Mitigation	Mitigation Measures	Comment
Severance	On Chudleigh Road (south of site accesses)	Local	Medium	Permanent Negative	Negligible	Not Significant - Negative	None proposed	
	On Chudleigh Road (north of site accesses)	Local	Medium	Permanent Negative	Negligible	Not Significant - Negative	None Proposed	
	On A379 North and South of Chudleigh Road	Local	Medium	Permanent Negative	Negligible	Not Significant - Negative	CIL contribution towards strategic transport improvements	
Driver Delay	On Chudleigh Road (south of site accesses)	Local	Low	Permanent Negative	Negligible	Not Significant - Negative	Local highway improvement at A379 Chudleigh Road junction	
	On Chudleigh Road (north of site accesses)	Local	Low	Permanent Negative	Negligible	Not Significant - Negative	None Proposed	
	On A379 North and South of Chudleigh Road	Local	Low	Permanent Negative	Negligible	Not Significant - Negative	CIL contribution towards strategic transport improvements	
Pedestrian Delay	On Chudleigh Road (south of site accesses)	Local	Low	Permanent Negative	Negligible	Not Significant - Negative	None proposed	
	On Chudleigh Road (north of site accesses)	Local	Low	Permanent Negative	Negligible	Not Significant - Negative	None Proposed	
	On A379 North and South of Chudleigh Road	Local	Low	Permanent Negative	Negligible	Not Significant - Negative	CIL contribution towards strategic transport improvements	
Pedestrian Amenity	On Chudleigh Road (south of site accesses)	Local	Medium	Permanent Negative	Negligible	Not Significant - Negative	None proposed	
	On Chudleigh Road (north of site accesses)	Local	Medium	Permanent Negative	Negligible	Not Significant - Negative	None Proposed	
	On A379 North and South of Chudleigh Road	Local	Medium	Permanent Negative	Negligible	Not Significant - Negative	CIL contribution towards strategic transport improvements	
Fear & Intimidation	On Chudleigh Road (south of site accesses)	Local	High	Permanent Negative	Negligible	Not Significant - Negative	None proposed	
	On Chudleigh Road (north of site accesses)	Local	High	Permanent Negative	Negligible	Not Significant - Negative	None Proposed	

	On A379 North and South of Chudleigh Road	Local	High	Permanent Negative	Negligible	Not Significant - Negative	CIL contribution towards strategic transport improvements	
Accidents & Safety	On Chudleigh Road (south of site accesses)	Local	High	Permanent Negative	Negligible	Not Significant - Negative	Local highway improvement at A379 Chudleigh Road junction	
	On Chudleigh Road (north of site accesses)	Local	High	Permanent Negative	Negligible	Not Significant - Negative	None Proposed	
	On A379 North and South of Chudleigh Road	Local	High	Permanent Negative	Negligible	Not Significant - Negative	CIL contribution towards strategic transport improvements	
Hazardous Loads	All Road Locations Assessed	Local	High	No impact	None	Not applicable	None Proposed	Hazardous load are not expected during the operation of the development

Mitigation

11.78 The proposed development incorporates a range of mitigation measures as set out below.

11.79 During Construction:

- A Construction Environmental Management Plan will be implemented which will control construction traffic and will be secured by a planning condition;

11.80 During Operation:

- Improvements to the A379 Chudleigh Road junction.
- The site will be permeable for pedestrians and cyclists
- Connections to the existing pedestrian and cycle networks will be provided.
- Contributions via CIL will be made to improvements at the A379 Devon Hotel Roundabout and the proposed Pedestrian Footbridge.
- A travel plan will be introduced by Devon County Council to encourage sustainable travel.

11.81 The delivery of the wider South West Exeter expansion area will result in the closure of the A379 Chudleigh Road junction and the provision of new link road between Chudleigh Road and the A379 as well as access junctions on the A379 for the wider site. The delivery of the entire South West Exeter expansion area will deliver strategic highway infrastructure and transport measures that will be funded by developer CIL financial contributions.

Construction Impacts Following Mitigation

11.82 The construction impacts following mitigation are assessed to be “not significant – negative”. In the immediate area construction traffic and therefore the highest impact will be confined to A379, with lesser impacts only on Chudleigh Road north of the site accesses due to routing restrictions on heavy vehicles. Whilst the mitigation will reduce the impact of construction traffic as far as practicable the residual impact falls into the category “Not Significant” – Negative for each impact element using the methodology from the “Guidelines for the Assessment for Road Traffic” produced by the Institute of Environmental Assessment 1993.

Operational Impacts Following Mitigation

11.83 The development proposals will add some additional and mainly light vehicle traffic to local roads and, there is a minor improvement at the A379 Chudleigh Road junction to accommodate these movements. In addition, the proposed development site will make via CIL a financial contribution toward the strategic transport improvements as part of the wider South west Exeter expansion area.

Severance

11.84 The impact on Chudleigh Road north and south of the site is assessed to have a “Not-Significant” negative impact due to the increases in traffic.

11.85 The CIL contribution toward the wider strategic transport improvements will contribute to the provision of a pedestrian footbridge over the A379 resulting in a reduction in severance. Without mitigation the impact significance is assessed to be “Not Significant” negative impact and with mitigation this will have a “Moderately Significant” benefit.

Driver Delay

11.86 The proposed development is assessed to have a “Not Significant” Negative impact due to the traffic associated with the site.

11.87 However, the introduction of mitigation measures at the A379 Chudleigh Road junction will result in a reduction in delay at this location in comparison to without the scheme. Table 11.14 summarises the delay (in seconds) for the 2019 without the development and the 2019 with development (including mitigation). This demonstrates that overall there will be a reduction in delay at this particular junction. The result of this mitigation at this location the significance impact will be a “Not Significant” benefit.

Pedestrian Delay

11.88 The proposed development is assessed to have a “Not Significant” Negative impact on Chudleigh Road due to the traffic associated with the site.

11.89 The CIL contribution toward the wider strategic transport improvements will contribute to the provision of a pedestrian footbridge over the A379 resulting in a reduction in pedestrian delay at this location. This is assessed to have a “Not Significant” Negative impact and with mitigation will have a “Moderately Significant” benefit.

Pedestrian Amenity

11.90 The proposed development is assessed to have a “Not Significant” Negative impact on all locations due to the traffic associated with the site.

11.91 The CIL contribution toward the wider strategic transport improvements will contribute to the provision of a pedestrian footbridge over the A379 resulting in an increase in pedestrian delay at this location by providing a traffic-free route. This is assessed to have a “Not Significant” Negative impact and with mitigation will have a “Moderately Significant” benefit at this location.

Fear and Intimidation

11.92 The proposed development is assessed to have a “Not Significant” Negative impact on all locations due to the traffic associated with the site.

11.93 The CIL contribution toward the wider strategic transport improvements will contribute to the provision of a pedestrian footbridge over the A379 resulting in reduction in fear and intimidation at this location by providing a traffic-free route. This is assessed to have a “Not Significant” negative impact and with mitigation will have a “Moderately Significant” benefit at this location.

Accidents and Safety

11.94 The proposed development is assessed to have a “Not Significant” Negative impact on all locations due to the traffic associated with the site.

11.95 The proposal for the A379 Chudleigh Road junction will provide additional capacity, reducing queuing and driver frustration. This will lead to a slight increase in road safety. This is assessed to have a “Not Significant” Negative impact and with the mitigation will have a “Not Significant” benefit at this location.

11.96 The CIL strategic transport measures will deliver a new pedestrian footbridge which will be provided over the A379 providing a traffic-free route. With the CIL contribution toward strategic highway improvements along the A379 including at the Devon Hotel Roundabout will result in an improvement in the road safety record. This is assessed to have a “Not Significant” negative impact and with the mitigation will have a “Moderately Significant” benefit at this location.

Hazardous Loads

11.97 The proposed development does not involve the transportation of hazardous loads and is not applicable to the proposal site.

Monitoring Requirements

11.98 The construction work and its impact will be managed by the site management team through the Construction Environmental Management Plan.

11.99 A Travel Plan will be implemented and monitored to encourage sustainable transport.

Cumulative Impacts

11.100 It has been demonstrated in the Transport Assessment that the proposal can come forward in transport terms on a stand-alone basis as it can mitigate its direct impact

and not prejudice the wider South West Exeter expansion area. This section examines the cumulative impact of the proposed development in the context of wider South West Exeter expansion area.

11.101 The cumulative traffic and transportation impacts during the operation of the development site along with the wider South West Exeter expansion area set out in Table 11.13. It provides a comparison between the baseline traffic (2019 base traffic without development) and the increase in traffic associated with the operation of the South West Exeter expansion area including the application site during the AM and PM peak time periods.

Table 11.13 Traffic and Transport: Cumulative Impacts

Road	Weekday AM Peak Hourly Traffic			Weekday PM Peak Hourly Traffic		
	Baseline	Operational	% Change	Baseline	Operational	% Change
Chudleigh Road (south of site accesses)	547	-547	-100	351	-351	-100
Chudleigh Road (north of site accesses)	547	635	+116	350	689	+197
A379 North of Chudleigh Road	1693	486	+3	1512	269	+18
A379 South of Chudleigh Road	2073	106	+5	1713	68	+4

11.102 It is evident that there will be no operational development traffic on Chudleigh Road (south of site access) this is due to the closure of the A379 Chudleigh Road junction in the context of the wider South West Exeter expansion area in reference to Table 11.5 magnitude of the impact is major positive. The AM and PM peak traffic increases north of the site accesses are due to the new link road that will be connect onto Chudleigh

Road between the site accesses, these increases in reference to Table 11.5 the magnitude of these impacts is a major adverse impact.

11.103 Whilst the significance of the impact north of the site access on Chudleigh Road is a major adverse this must be taken in the context of the road capacity. The two-way flow is highest in the operational AM peak which totals 1182 vehicles. As described in paragraph 11.1.54 the capacity of Chudleigh road in the busiest one-way direction based on a 60/40 split is 1300. Chudleigh Road remains well within capacity. In terms of delay on Chudleigh Road the AM and PM Peak junction assessment for the Chudleigh Road / Shillingford Road / Chantry Meadow Double Mini Roundabout is shown in Table 11.14

Table 11.14: Chudleigh Road / Shillingford Road / Chantry Meadow Double Mini Roundabout

Arm	AM Peak				PM Peak			
	2019		2019 + Application + SWE Development		2019		2019 + Application + SWE Development	
	Queue (veh)	Delay (s)	Queue (veh)	Delay (s)	Queue (veh)	Delay (s)	Queue (veh)	Delay (s)
South Give Way	<1	3.56	<1	4.09	<1	3.01	<1	3.19
Chudleigh Road	<1	5.08	<1	5.41	<1	6.04	1	7.34
Chantry Meadow	<1	6.4	<1	6.7	<1	5.84	<1	6.34
Chudleigh Road (South Arm)	<1	6.94	1	9.52	<1	6.18	1	7.06
Shillingford Road (West Arm)	<1	7.45	<1	8.82	<1	5.79	<1	6.19
North Give Way	<1	3.44	<1	3.57	<1	3.26	<1	3.57

11.104 The overall delay at the junction in the AM peak increases by 16% and by 12% in the PM peak and queuing remains minimal when compared to the 2019 base.

11.105 Regarding the impacts on the A379 north and south of Chudleigh Road these increases in reference to Table 11.5 the magnitiude of the impact is negligible.

11.106 The overall impacts on each of the topic areas prior to mitigation is shown in Table 11.15 below:

Table 11.15 Traffic and Transport: Cumulative Impacts

Topic Areas	Description of Impact	Level	Sensitivity	Nature of Impact	Impact Magnitude	Impact Significance before Mitigation	Mitigation Measures	Comment
Severance	On Chudleigh Road (south of site accesses)	Local	Medium	Permanent Negative	Major	Moderate Significant - Benefit	Contribution towards transport improvements via CIL	
	On Chudleigh Road (north of site accesses)	Local	Medium	Permanent	Major	Moderate Significant - Negative	Contribution towards transport improvements via CIL	
	On A379 North and South of Chudleigh Road	Local	Medium	Permanent	Negligible	Not Significant - Negative	Contribution towards transport improvements via CIL	
Driver Delay	On Chudleigh Road (south of site accesses)	Local	Low	Permanent Positive	Major	Moderate Significant - Benefit	Contribution towards transport improvements via CIL	
	On Chudleigh Road (north of site accesses)	Local	Low	Permanent Negative	Major	Moderate Significant - Negative	Contribution towards transport improvements via CIL	
	On A379 North and South of Chudleigh Road	Local	Low	Permanent Negative	Negligible	Not Significant - Negative	Contribution towards transport improvements via CIL	
Pedestrian Delay	On Chudleigh Road (south of site accesses)	Local	Low	Permanent Negative	Major	Moderate Significant - Benefit	Contribution towards transport improvements via CIL	
	On Chudleigh Road (north of site accesses)	Local	Low	Permanent	Major	Moderate Significant - Negative	Contribution towards transport improvements via CIL	
	On A379 North and South of Chudleigh Road	Local	Low	Permanent	Negligible	Not Significant - Negative	Contribution towards transport improvements via CIL	
Pedestrian Amenity	On Chudleigh Road (south of site accesses)	Local	Medium	Permanent Negative	Major	Moderate Significant - Benefit	Contribution towards transport improvements via CIL	
	On Chudleigh Road (north of site accesses)	Local	Medium	Permanent	Major	Moderate Significant - Negative	Contribution towards transport improvements via CIL	

	On A379 North and South of Chudleigh Road	Local	Medium	Permanent	Negligible	Not Significant - Negative	Contribution towards transport improvements via CIL	
Fear & Intimidation	On Chudleigh Road (south of site accesses)	Local	High	Permanent Negative	Major	Significant - Benefit	Contribution towards transport improvements via CIL	
	On Chudleigh Road (north of site accesses)	Local	High	Permanent	Major	Significant - Negative	Contribution towards transport improvements via CIL	
	On A379 North and South of Chudleigh Road	Local	High	Permanent	Negligible	Not Significant - Negative	Contribution towards transport improvements via CIL	
Accidents & Safety	On Chudleigh Road (south of site accesses)	Local	High	Permanent Negative	Major	Significant - Benefit	Contribution towards transport improvements via CIL	
	On Chudleigh Road (north of site accesses)	Local	High	Permanent Negative	Major	Significant - Negative	Contribution towards transport improvements via CIL	
	On A379 North and South of Chudleigh Road	Local	High	Permanent negative	Major	Not significant - Negative	Contribution towards transport improvements via CIL	
Hazardous Loads	All Road Locations Assessed	Local	High	Negative	Not Applicable	Not Applicable	None Proposed	Hazardous load are not expected during the operation of the development

The delivery of the wider South West Exeter expansion area will result in the closure of the A379 Chudleigh Road junction and the provision of new link road between Chudleigh Road and the A379 as well as access junctions on the A379 for the wider site.

Severance

11.107 The cumulative impact on the Chudleigh Road south of the application site is assessed to be “Not Significant” Negative due to the increases in traffic. As part of the CIL transport package and the closure of the A379 Chudleigh Road junction the cumulative severance impact of the wider development is assessed to have a “Moderate Significant” benefit.

11.108 The CIL funded transport improvements will provide a comprehensive walking and cycling network and this will result in the cumulative severance impact on the accesses to the north of the Chudleigh Road being assessed to have a “Moderate Significant” benefit due to the provision of additional pedestrian crossing points.

11.109 A new footbridge over the A379 will be provided as part of the CIL transport package and the cumulative impact will have a “Moderate Significant” benefit.

11.110 Overall the cumulative severance impact is assessed to have a “Moderate Significant” benefits following mitigation.

Driver Delay

11.111 The impact on Chudleigh Road south of the application site is assessed to be “Not Significant” Negative due to the increases in traffic. As part of the CIL transport package the A379 Chudleigh Road junction will be closed and a link road and new junction on the A379 provided. The new A379 will be designed to operate within capacity. The cumulative impact is assessed to have a “not significant” benefit.

11.112 The CIL funded transport improvements will provide a number of measures designed to reduce congestion these being comprehensive walking and cycling networks, bus provision, Marsh Barton Rail Station and Alphington Park & Ride. These measures will mitigate the congestion north of the site accesses on Chudleigh Road. It is considered that in terms of driver delay at this location the cumulative impact would remain “Not Significant” Negative based on junction set out in Table 11.16 and that as described earlier Chudleigh Road remains well within its capacity.

11.113 On the A379 the cumulative impact of the wider development is assessed to have a “Not Significant” Negative impact. The wider cumulative development and the CIL associated improvements on the A379 will result in additional signalised junctions along the route, whilst they will operate and provide journey reliability, journey times may decrease slightly. As a result the cumulative impact is assessed to be “Not Significant” Negative.

11.114 Overall in terms of driver delay the cumulative impacts are assessed to be “Not Significant” Negative whilst the mitigation measures will lessen the cumulative impact there will still be a slight increase in driver delay.

Pedestrian Delay

11.115 The cumulative impact on Chudleigh Road south of the application site is assessed to be “Not Significant” Negative due to the increases in traffic. As part of the CIL transport package the A379 Chudleigh Road junction will be closed and a link road and new junction on the A379 provided. This will decrease traffic making it much easier for pedestrian to cross at this location south of the site access. The impact of this on pedestrian delay is assessed to have a “Moderate Significant” benefit.

11.116 Without mitigation there will be a “Moderate Significant” negative cumulative impact on Chudleigh Road north of the site access. A comprehensive pedestrian and cycle network will be delivered and will result in dedicated facilities for these users. This will result in reduced pedestrian delay and will result in the cumulative impact being of a “Moderate Significant” benefit.

11.117 On the A379 the cumulative impact of the development is assessed to have a “Not Significant” Negative impact. The wider development and the CIL associated improvements on the A379 will result in new footbridge over the A379. As a result the cumulative impact is assessed to have a “Moderate Significant” benefit.

11.118 Overall in terms of pedestrian delay the cumulative impacts are assessed to have a “Moderate Significant” benefit.

Pedestrian Amenity

11.119 The cumulative impact on Chudleigh Road south of the application site is assessed to be “Not Significant” Negative due to the increases in traffic. As part of the CIL transport package the A379 Chudleigh Road junction will be closed and a link road and new junction on the A379 provided. This will result in a better pedestrian environment on Chudleigh Road south of the site access. The impact on pedestrian amenity is assessed to have a “Moderate Significant” benefit.

11.120 A comprehensive pedestrian and cycle networks will be delivered and will result in dedicated facilities for these users. This will result in improved pedestrian amenity with the cumulative impact being assessed to have a “Moderate Significant” benefit.

11.121 On the A379 the cumulative impact of the wider development is assessed to have a “Not Significant” Negative impact. The wider development and the CIL associated improvements on the A379 will result in new footbridge over the A379 and the cumulative impact is assessed to have a “Moderate Significant” benefit.

11.122 Overall in terms of pedestrian amenity the cumulative impacts are assessed to have a “Moderate Significant” benefit.

Fear and Intimidation

11.123 The impact on Chudleigh Road south of the application site is assessed to be “Not Significant” negative due to the increases in traffic. As part of the CIL transport package the A379 Chudleigh Road junction will be closed and a link road and new junction on the A379 provided. This will result in a decrease in traffic at this location encouraging greater pedestrian activity and an increase in observability. The cumulative impact on fear and intimidation is assessed to have a “Moderate Significant” benefit.

11.124 A comprehensive pedestrian and cycle network will be delivered and will result in dedicated facilities for these users increasing usage and better observability. This will result in reduced fear and intimidation the cumulative impact is assessed to have a “Moderate Significant” benefit.

11.125 On the A379 the cumulative impact of the wider development is assessed to have a “Not Significant” negative impact. The wider development and the CIL associated improvements on the A379 will result in new footbridge over the A379, reducing the fear and intimidation of crossing the A379 at-grade. As a result the cumulative impact is assessed to have a “Moderate Significant” benefit.

11.126 Overall in terms of fear and intimidation the cumulative impact has been assessed to have a “Moderate Significant” benefit.

Accidents and Safety

11.127 The cumulative impact on Chudleigh Road south of the application site is “Not Significant” Negative due to the increases in traffic. As part of the CIL transport package the A379 Chudleigh Road junction will be closed and a link road and new junction on the A379 provided. This junction will be designed to modern standards and subject to a safety audit. In addition the decrease in traffic south of the site accesses will make it a safer environment for vulnerable road users. The impact on accidents and safety is assessed to have a “Moderate Significant” benefit.

11.128 A comprehensive pedestrian and cycle network will be delivered and will result in dedicated facilities. This will result in a better road safety record and it should be noted that this location already has an excellent road safety record. However with dedicated crossing facilities the perception will be that the road is a safer place to cross. The cumulative impact is therefore assessed to have a “Moderate Significant” benefit.

11.129 On the A379 the cumulative impact of the wider development is assessed to have a “Not Significant” Negative impact. The wider development and the CIL associated improvements on the A379 will result in new footbridge over the A379, providing

pedestrians with a traffic-free route over the A379. The proposals for the A379 and Devon Hotel Roundabout will address the road safety issues.

11.130 Overall in terms of accidents and safety the cumulative impact the proposal is assessed to have a “Moderate Significant” benefit.

Hazardous Loads

11.131 The wider South West Exeter expansion area does not involve the transportation of hazardous loads and is not considered applicable.

Residual Effects

11.132 Tables 11.16 and 11.17 above summarise the key transport residual effects of the construction and operational phases of the proposed development.

Table 11.16 Summary of Residual Effects – Construction Phase

Topic Areas	Road Location	Impact Significance before Mitigation	Mitigation Measures	Impact Significance Post Mitigation	Comment
Severance	Chudleigh Road (north of site accesses)	Not Significant - Negative	CEMP and restricted construction working hours and traffic routes	Not Significant - Negative	Heavy construction traffic will be routed via A379 with only local site worker traffic routing via Chudleigh Road north of the site accesses
	All other assessed roads	Not Significant - Negative	CEMP and restricted construction working hours and traffic routes	Not Significant - Negative	Heavy construction traffic will be routed via A379 with only local site worker traffic routing via Chudleigh Road north of the site accesses.
Driver Delay	On Chudleigh Road (north of site accesses)	Not Significant - Negative	CEMP and restricted construction working hours and traffic routes	Not Significant - Negative	Heavy construction traffic will be routed via A379 with only local site worker traffic routing via Chudleigh Road north of the site accesses.
	All other assessed roads	Not Significant - Negative	CEMP and restricted construction working hours and traffic routes	Not Significant - Negative	Heavy construction traffic will be routed via A379 with only local site worker traffic routing via Chudleigh Road north of the site accesses.
Pedestrian Delay	On Chudleigh Road (north of site accesses)	Not Significant - Negative	CEMP and restricted construction working hours and traffic routes	Not Significant - Negative	Heavy construction traffic will be routed via A379 with only local site worker traffic routing via Chudleigh Road north of the site accesses.
	All other assessed roads	Not Significant - Negative	CEMP and restricted construction working hours and traffic routes	Not Significant - Negative	Heavy construction traffic will be routed via A379 with only local site worker traffic routing via Chudleigh Road north of the site accesses.
Pedestrian Amenity	On Chudleigh Road (north of site accesses)	Not Significant - Negative	CEMP and restricted construction working hours and traffic routes	Not Significant - Negative	Heavy construction traffic will be routed via A379 with only local site worker traffic routing via Chudleigh Road north of the site accesses.
	All other assessed roads	Not Significant - Negative	CEMP and restricted construction working hours and traffic routes	Not Significant - Negative	Heavy construction traffic will be routed via A379 with only local site worker traffic routing via Chudleigh Road north of the site accesses.
Fear & Intimidation	On Chudleigh Road (north of site accesses)	Not Significant - Negative	CEMP and restricted construction working hours and traffic routes	Not Significant - Negative	Heavy construction traffic will be routed via A379 with only local site worker traffic routing via Chudleigh Road north of the site accesses.
	All other assessed roads	Not Significant - Negative	CEMP and restricted construction working hours and traffic routes	Not Significant - Negative	Heavy construction traffic will be routed via A379 with only local site worker traffic routing via Chudleigh Road north of the site accesses.
Accidents & Safety	On Chudleigh Road (north of site accesses)	Not Significant - Negative	CEMP and restricted construction working hours and traffic routes	Not Significant - Negative	Heavy construction traffic will be routed via A379 with only local site worker traffic routing via Chudleigh Road north of the site accesses.

	All other assessed roads	Not Significant - Negative	CEMP and restricted construction working hours and traffic routes	Not Significant - Negative	Heavy construction traffic will be routed via A379 with only local site worker traffic routing via Chudleigh Road north of the site accesses.
Hazardous Loads	On Chudleigh Road (north of site accesses)	Not applicable	Not applicable	Not applicable	Transport of hazardous loads is not expected during construction.
	All other assessed roads	Not applicable	Not Applicable	Not applicable	Transport of hazardous loads is not expected during construction.

Table 11.17: Summary of Residual Effects – Operational Phase

Topic Areas	Description of Impact	Impact Significance before Mitigation	Mitigation Measures	Impact Significance Post Mitigation	Comment
Severance	On Chudleigh Road (south of site accesses)	Not Significant - Negative	None proposed	Not Significant - Negative	
	On Chudleigh Road (north of site accesses)	Not Significant - Negative	None Proposed	Not Significant - Negative	
	On A379 North and South of Chudleigh Road	Not Significant - Negative	CIL contribution towards strategic transport improvements	Moderately significant - benefit.	The CIL strategic transport measures will deliver a new pedestrian footbridge over the A379.
Driver Delay	On Chudleigh Road (south of site accesses)	Not Significant - Negative	Local highway improvement at A379 Chudleigh Road junction	Not Significant - Benefit	Development will contribute toward local highway improvements at the A379 Chudleigh Road junction.
	On Chudleigh Road (north of site accesses)	Not Significant - Negative	None Proposed	Not Significant - Negative	
	On A379 North and South of Chudleigh Road	Not Significant - Negative	CIL contribution towards strategic transport improvements	Not Significant - Negative	Development will contribute via CIL toward strategic highway improvements along the A379
Pedestrian Delay	On Chudleigh Road (south of site accesses)	Not Significant - Negative	None proposed	Not Significant - Negative	

	On Chudleigh Road (north of site accesses)	Not Significant - Negative	None Proposed	Not Significant - Negative	
	On A379 North and South of Chudleigh Road	Not Significant - Negative	CIL contribution towards strategic transport improvements	Moderately significant - benefit.	The CIL strategic transport measures will deliver a new pedestrian footbridge over the A379.
Pedestrian Amenity	On Chudleigh Road (south of site accesses)	Not Significant - Negative	None proposed	Not Significant - Negative	
	On Chudleigh Road (north of site accesses)	Not Significant - Negative	None Proposed	Not Significant - Negative	
	On A379 North and South of Chudleigh Road	Not Significant - Negative	CIL contribution towards strategic transport improvements	Moderately significant - benefit.	The CIL strategic transport measures will deliver a new pedestrian footbridge over the A379.
Fear & Intimidation	On Chudleigh Road (south of site accesses)	Not Significant - Negative	None Proposed	Not Significant - Negative	
	On Chudleigh Road (north of site accesses)	Not Significant - Negative	None Proposed	Not Significant - Negative	
	On A379 North and South of Chudleigh Road	Not Significant - Negative	CIL contribution towards strategic transport improvements	Moderately significant - benefit.	The CIL strategic transport measures will deliver a new pedestrian footbridge over the A379, providing an alternative route to crossing at grade the A379.
Accidents & Safety	On Chudleigh Road (south of site accesses)	Not Significant - Negative	Local highway improvement at A379 Chudleigh Road junction	Not Significant - benefit	
	On Chudleigh Road (north of site accesses)	Not Significant - Negative	None Proposed	Not Significant - negative	This area has an excellent road safety record and it is not considered that this will change as a result of the development.
	On A379 North and South of Chudleigh Road	Not Significant - Negative	CIL contribution towards strategic transport improvements	Moderately significant - benefit.	The CIL strategic transport measures will deliver a new pedestrian footbridge over the A379 providing a traffic-free route. Development will contribute toward strategic highway improvements along the A379 including at the Devon Hotel Roundabout which should result in a reduction in accident risk.
Hazardous Loads	All Road Locations Assessed	No Impact	None Proposed	Not applicable	

Summary

11.133 In summary during the construction phase there will be negligible increase in related traffic on the A379 and Chudleigh Road. The construction impact will be mitigated through the implementation of a Construction Traffic Management Plan which will restrict the routes for heavy good vehicles associated the construction traffic as well as the working times for deliveries to site. The residual impact of the construction stage is therefore assessed to be Not Significant.

11.134 In terms of the operational phase of the proposal there will be a negligible increase in traffic on the A379 and Chudleigh Road and with mitigation the residual effect is assessed to have a Not Significant benefit to Moderate Significant benefit.

11.135 In terms of the cumulative impacts of the South West Exeter expansion area the CIL funded package of transport measures provides a comprehensive transport investment strategy and it is considered that the overall residual cumulative effect is assessed to be Not Significant benefit to Moderate Significant benefit.

Annex 11.1 Glossary of Terms

Accidents : The use of the word accidents to refer to collisions which result in an injury to one or more persons has been changed recently. The word accident is only used where it is directly related to the IEMA document.

ARCADY : A computer program for simulating the operation of roundabout junctions.

Collision Data: Data collected by the police of reported highway collisions resulting in injury to one or more persons.

Construction Traffic: Traffic generated during and by the construction of a development.

Cycleway: A road or off road space `designated for use by cyclists, sometimes in combination with pedestrians.

Framework Travel Plan: An initial travel plan prepared at planning application stage which can be converted into an operational travel plan when the development becomes occupied.

LINSIG: A computer program for simulating the operation of traffic light (signalised) controlled junctions.

Local Distributor Road: A road which conveys traffic and people from one local area to another.

National Road Traffic Forecasts (NRTF) : Forecasts of road traffic levels and future growth produced by the Department for Transport.

PICADY : A computer program for simulating the operation of priority (T) junctions.

Public Right of Way (PROW): A route formally designated by the local highway authority as a route for use by a combination of pedestrians, cyclists and equestrians depending upon the precise designation.

TEMPRO: Adjustments of national road traffic forecast to represent local conditions. Produced by the Department for Transport.

Transport Receptor: A person or condition that could be impacted upon by development traffic.

Travel Plan: A document setting out the means by which vehicle trips from a development can be minimised and sustainable travel encouraged.

Transport Assessment: An assessment of the impact of a proposed development on transport infrastructure and conditions covering a range of modes of travel.

Traveline: The national website providing information on available public transport services and timetables.

TRICS: A database of traffic surveys for a variety of land uses, providing typical trip rates for vehicles and people.

APPENDICES

Appendix 11.1 Transport Assessment

REFERENCES

Guidelines for the Environmental Assessment for Road Traffic, Institute of Environmental Assessment (1993);

National Planning Policy Guidance (2012)

Guidance for Traffic Assessment, DfT (2007);

Manual for Streets, DfT (2007);

Manual for Streets 2: Wider Application of the Principles DfT (2010)

Design Manual for Roads and Bridges (DMRB), Highways Agency;

Highways in Residential & Commercial Estates Design Guide, Devon County Council;

The Devon and Torbay Local Transport Plan 2011-2026;

Adopted Teignbridge Local Plan 2013-2033, Teignbridge Council; and

South West Exeter: Draft Development Framework