

Hastings Town Centre & Bohemia Area Action Plan (AAP) Transport Modelling Report

1. Purpose of Study

Hastings Borough Council (HBC) is responsible for developing the Hastings Town Centre and Bohemia Area Action Plan (AAP). The AAP is part of the Hastings Local Plan and covers the period to 2033. The transport model study (a mathematical representation of a transport system) has been used to evaluate existing road conditions and to project future effects and impacts on road infrastructure in Hastings town centre, as a result of the emerging Hastings Town Centre and Bohemia Area Action Plan (AAP).

ESCC worked in partnership with HBC and commissioned Mott Macdonald to undertake the transport study in July 2017.

2. Transport Model Study

Objectives

The transport model study's objectives were to assess:

- **impact of all the AAP development proposals on the town centre road infrastructure**
- **issues and challenges which may need to be addressed as the town centre population grows**
- **a number of schemes highlighted for delivery during the AAP period**

Transport Models Developed

In order to assess the traffic impacts of future development across Hastings and within the Town Centre and Bohemia area, two different highway traffic models were developed. This included an update to an existing strategic SATURN based highway model. This model provided an assessment of how traffic flows and identified all forecast development across the Borough. In addition, a new local VISSIM transport model was developed covering a localised area of the town centre. This provided a more detailed representation of the interaction between vehicles and pedestrians.

3. Scenarios the study modelled

Transport Model Study Scenarios	Description
Do Nothing on the network	<ul style="list-style-type: none"> ▪ Assessed network includes forecasts for housing and employment development information across Hastings, including the Town Centre and Bohemia area, provided by Hastings Borough Council. ▪ Future development information for Rother was taken from the assessments for the North Bexhill Access Road.
Do Minimum on the network	<ul style="list-style-type: none"> ▪ Trip rates for each development type were agreed with Hastings Borough Council. ▪ Department for Transport 2015 National Road Traffic Forecasts (RTF) were used to provide growth factors for Light Goods Vehicle and Heavy Goods Vehicle flows ▪ Two key local schemes, namely Queensway Gateway Road (QGR) and the North Bexhill Access Road (NBAR), were also added into the base year network to create 2028 and 2040
Do Something on the network	<ul style="list-style-type: none"> ▪ Five Do Something networks were created each additionally including a package of potential network changes predominately in the Bohemia and Town Centre area of Hastings.

4. The transport study assessed the following potential packages of network changes

Package 1 - White Rock Area

- Closure of Schwerte Way and part of White Rock/St Margaret's Road (and the addition of two new signalised pedestrian crossings on Bohemia Road, east and west of Falaise Road.

Package 2 - Proposed new Sports Hub

- A new traffic signal junction at the junction of the A259/Freshfields between Bexhill and Hastings, with signalled pedestrian crossings included across all arms of the junction and the removal of the existing zebra crossing on the A259 west of Freshfields.

Package 3 - A259 junction Harold Place/ Denmark Place/ Carlisle Parade

- The introduction of an at grade Toucan crossing across the A259 from Harold Place to the beach. Signalised, non-staggered pedestrian crossings provided across the other arms of the junction. At the junction of Carlisle Parade/Robertson Street, improved pedestrian crossings are assumed. The existing crossings would be widened and moved slightly. An additional signalised crossing would be provided on the west side of the junction. It is assumed that due to footpath widening one lane on the A259 eastbound approach would be lost. At the Albert Road/Denmark Place junction, the existing crossing would be converted from a staggered to a non-staggered crossing and additional crossings would be added across Albert Road and to the west of Albert Road across the A259.

Package 4 - Rail Station to Seafront corridor

- At the junction of Devonshire Road/Cornwallis Terrace/Havelock Terrace, the current traffic signal timings would be modified to reduce waiting times for pedestrians and cyclists.
- The traffic models include no physical changes, but the pedestrian stage is assumed to run twice every cycle.
- The pedestrian crossing at the junction of Devonshire Road/Middle Street is not located on the pedestrian desire line. For the forecast models it has been assumed that the existing staggered crossing arrangement would be removed and instead 3 non-staggered signalised crossings will be added to this junction. In addition, this package includes the conversion of Havelock Road and Harold Place into a shared space.

In addition to the above individual packages, a cumulative impacts option was assessed in the transport model which assessed combining packages 3 and 4.

5. Transport Modelling Results

A detailed analysis of the outcomes of the modelling are outlined in the Transport Model Report. In summary a number of schemes packages result in junctions becoming close to or over capacity, but provide greater provision for cycle and pedestrian access. It is important to note that the models currently do not consider re-distribution and re-timing of trips that aim to avoid delays or changes to mode choice in response to cycling and public transport initiatives, which could result in lower impacts of the packages tested. As future packages of schemes are developed for the town centre, further transport modelling will be undertaken to test this, and scheme packages will be subject to public consultation.