



# TECHNICAL NOTE 1

<b>DATE:</b>	08 September 2021	<b>CONFIDENTIALITY:</b>	Confidential
<b>SUBJECT:</b>	Addendum to Stage 1 Feasibility Report		
<b>PROJECT:</b>	North Walsham Link Road Feasibility Study - Stage 2	<b>AUTHOR:</b>	CG
<b>CHECKED:</b>	IG	<b>APPROVED:</b>	BS

## INTRODUCTION

This Technical Note (TN) is an addendum to the North Walsham Link Road Feasibility Report produced by WSP in November 2020. Therefore, this should be read in conjunction with the feasibility report. The purpose of this TN is to assess the possible traffic impacts of the growth allocated in North Walsham in the emerging North Norfolk Local Plan on the B1150 section in Coltishall.

This assessment includes the analysis of the existing traffic situation in Coltishall, especially on the B1150 bridge; the anticipated forecast flows without the growth allocated in North Walsham and the traffic impact of the growth allocation on Coltishall.

## EXISTING TRAFFIC CONDITIONS

The B1150 runs broadly in a north–south alignment for approximately 13.7 miles, connecting North Walsham to Norwich via Coltishall. The B1150 is of single carriageway standard and it has a narrow bridge in Coltishall. This bridge has a speed limit of 20 mph and the carriageway width is approximately 4.6 metres, which allows two light vehicles to drive over it at the same time. The location of this bridge is shown in **Figure 1** and **Figure 2** shows an image of the bridge.

At the time of producing this study, traffic patterns were impacted by the Covid 19 pandemic situation, and therefore traffic data was considered not to be representative, hence traffic counts were not commissioned. However, there were existing traffic counts from June 2019 on the B1150 at approximately 300 metres south west from the Coltishall bridge, which have been used to understand the level of existing traffic demand at the bridge.

The location of these traffic counts in relation to the bridge is shown in **Figure 1**.

# TECHNICAL NOTE 1

<b>DATE:</b>	08 September 2021	<b>CONFIDENTIALITY:</b>	Confidential
<b>SUBJECT:</b>	Addendum to Stage 1 Feasibility Report		
<b>PROJECT:</b>	North Walsham Link Road Feasibility Study - Stage 2	<b>AUTHOR:</b>	CG
<b>CHECKED:</b>	IG	<b>APPROVED:</b>	BS

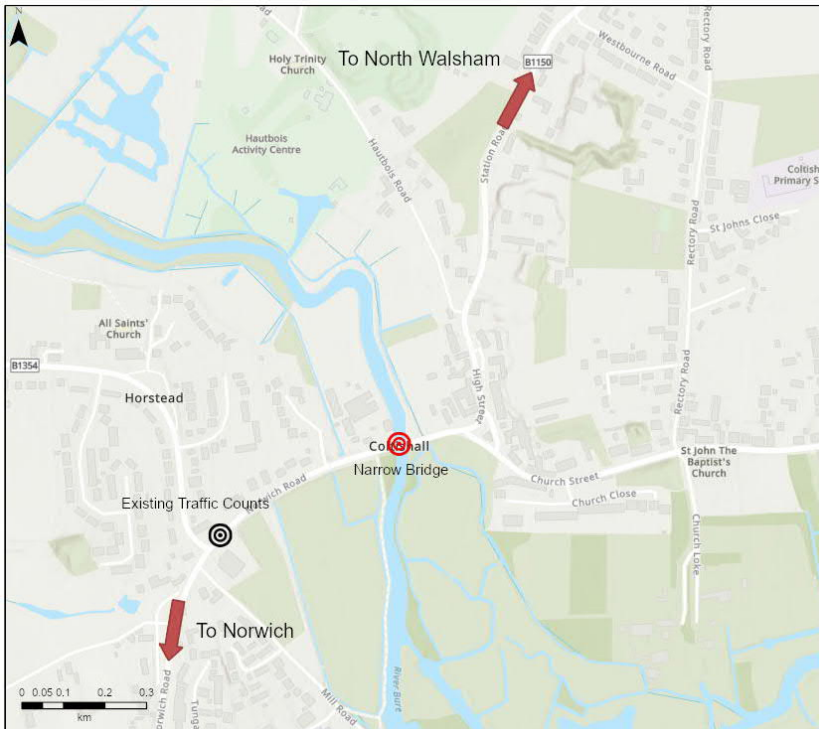


Figure 1 - Location Plan



Figure 2 – B1150 Coltishall Bridge

# TECHNICAL NOTE 1

<b>DATE:</b>	08 September 2021	<b>CONFIDENTIALITY:</b>	Confidential
<b>SUBJECT:</b>	Addendum to Stage 1 Feasibility Report		
<b>PROJECT:</b>	North Walsham Link Road Feasibility Study - Stage 2	<b>AUTHOR:</b>	CG
<b>CHECKED:</b>	IG	<b>APPROVED:</b>	BS

**Table 1** summarises the 2019 traffic volumes in the AM and PM peak hours on the B1150 in Coltishall. The traffic volumes are very similar for both directions, but the small differences indicate that traffic using the B1150 is more likely to go towards North Walsham (northbound) in the morning and towards Norwich (southbound) in the evening.

*Table 1 - 2019 Traffic counts on the B1150 per direction in PCUs*

Direction	AM Peak	PM Peak
Northbound	867	722
Southbound	663	843
Combined	1,530	1,564

It must be noted that the traffic counts were collected in month of June and this data is likely to be affected by the start of the summer season, which generally shows an increase of tourist trips and therefore may be higher than in a neutral month period.

## FORECAST TRAFFIC

### Background traffic growth impact

To estimate the expected traffic volumes on the B1150, the existing traffic flows have then been factored up to 2036 to align with the end of the emerging Local Plan period. The growth in background traffic has been derived using the National Transport Model (NTM) within the TEMPro 7.2 dataset for the period between 2019 and 2036 for the Broadland 003 Middle Layer Super Output Area (MSOA), which covers Coltishall.

**Table 2** shows the resultant growth factors adopted to forecast traffic growth between 2019 and 2036.

*Table 2 - TEMPro Growth Factors (2019 - 2036)*

Period	AM Growth Factor	PM Growth Factor
2019 - 2036	1.2824	1.2963

Source: TEMPro Version 7.2

This methodology is considered appropriate and follows the guidance, however it has several limitations:

- It estimates the overall traffic growth in the area based on the estimated demographic changes in the area, but it does not consider congestion. Therefore, it is likely to overestimate traffic growth in congested areas.

# TECHNICAL NOTE 1

<b>DATE:</b>	08 September 2021	<b>CONFIDENTIALITY:</b>	Confidential
<b>SUBJECT:</b>	Addendum to Stage 1 Feasibility Report		
<b>PROJECT:</b>	North Walsham Link Road Feasibility Study - Stage 2	<b>AUTHOR:</b>	CG
<b>CHECKED:</b>	IG	<b>APPROVED:</b>	BS

- It also does not take into account travel patterns due to recent changes affected by the Covid 19 situation.

In order to overcome these limitations further analysis is required.

## North Walsham traffic growth impact

To assess the traffic increase on the B1150 caused by the employment and housing growth proposed to be allocated in the emerging Local Plan in North Walsham a similar approach was considered as described in the North Walsham Link Road Feasibility Report produced in November 2020. Using the original assessment methodology predicts that 28% of the residential trips and 13% of the employment trips generated by the growth allocated by the Local Plan in North Walsham are likely to pass by the B1150 in Coltishall, this means that traffic volumes in Coltishall are likely to increase

However, there are several limitations which must be considered when observing this data:

- The trip distribution is based on 2011 Census data. Since 2011 the commuting patterns in North Walsham may have changed.
- The trip generation was carried out using historical TRICS data, which does not take into account recent changes in travel behaviours such as flexible and remote working.
- The assessment also not take into account the effects of congestion and rerouting caused due to congestion and therefore is likely to overestimate traffic forecasts.

**Table 3** presents the 2036 traffic volume comparison for the B1150 in Coltishall without and with the growth allocated in the Local Plan in North Walsham using the Link road methodology.

*Table 3 – Forecasted Traffic Volumes Comparison*

Direction	AM			PM		
	NB	SB	Combined	NB	SB	Combined
2036 Without LP	1,111	850	1,962	935	1,092	2,028
2036 With LP	1,241	1,065	2,306	1,099	1,186	2,284
2036 Difference	130 (12%)	215 (25%)	344 (18%)	164 (18%)	94 (9%)	256 (13%)

In order to overcome all these limitations, it is required to collect a new set of traffic data and build an area wide transport model.



# TECHNICAL NOTE 1

<b>DATE:</b>	08 September 2021	<b>CONFIDENTIALITY:</b>	Confidential
<b>SUBJECT:</b>	Addendum to Stage 1 Feasibility Report		
<b>PROJECT:</b>	North Walsham Link Road Feasibility Study - Stage 2	<b>AUTHOR:</b>	CG
<b>CHECKED:</b>	IG	<b>APPROVED:</b>	BS

## SUMMARY

Using the high-level approach to traffic generation and distribution undertaken for the link road feasibility suggests that by 2036 traffic will increase by 28% and 30% in the AM and PM peak hours respectively between 2019 and 2036 without the growth allocated in North Walsham in the emerging North Norfolk Local Plan.

With the Local Plan growth, traffic volumes are expected to increase an extra 18% and 13% in the AM and PM peak hour respectively. However, the traffic impact of the growth allocated in North Walsham is expected to have a lower impact in Coltishall in comparison to background traffic growth expected in the MSOA Broadland 003 for the same period.

As stated above, the data used for the analysis to assess the impacts of growth in North Walsham on the Coltishall area has its limitations and is unable to quantify these impacts to an adequate level of accuracy. It is suggested that further data is collected along with information of changing travel patterns and information from the emerging masterplan, for the proposed growth to be taken into account to mitigate the uncertainties in this technical note.

As the masterplan for the North Walsham West development comes forward, we will be able to obtain a greater understanding of the impact on Coltishall. For example, the level of sustainable measures within the masterplans will guide the level of trip generation. The emerging developments will also require their own travel plans as a requirement which will be targeted to reduce trip generation levels to agreed levels. Therefore, the development of the masterplan for North Walsham West will inform on the impact traffic flows on the surrounding road network more accurately.

Further, more detailed analysis also needs to be carried out to mitigate the limitations highlighted in this technical note and to obtain a clearer, more robust understanding of the impacts on Coltishall.

This initial piece of work on Coltishall highlights the scope of works for the next stages.