A66 Northern Trans-Pennine Project
TR010062

3.4 Environmental Statement
Appendix 2.1 Traffic Modelling Report

APFP Regulations 5(2)(a)

Planning Act 2008

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

Volume 3

June 2022

Infrastructure Planning

Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

A66 Northern Trans-Pennine Project Development Consent Order 202x

3.4 ENVIRONMENTAL STATEMENT APPENDIX 2.1 TRAFFIC MODELLING REPORT

Regulation Number:	Regulation 5(2)(a)
Planning Inspectorate Scheme Reference	TR010062
Application Document Reference	3.4
Author:	A66 Northern Trans-Pennine Project Team, National Highways

Version	Date	Status of Version
Rev 1	13 June 2022	DCO Application

CONTENTS

2.1 Traffic Modelling Data

2.1.1 Introduction

Purpose of Report

2.1.1.1 The purpose of this report is to illustrate the changes in vehicle flows for each of the schemes that form the A66 Northern Trans-Pennine Upgrade (the Project) of the 'Do-Something' (with Scheme) against the 'Do Minimum' (without Scheme) traffic flows for the opening year (2029) and design year (2044) on which the assessments and conclusions made within the Environmental Statement (ES) have been based.

2.1.1.2 The 'Do Minimum' forecasts reflects forecast conditions in the assessment year with all of the committed development and forecast year population in place but without the Project being implemented.

2.1.1.3 The 'Do Something' forecasts reflects the Do Minimum forecast but with the addition of the Project.

2.1.1.4 The plots presented show the change in traffic flows due to the project, and the following should be noted:

- Any existing link with a traffic increase is shown in purple
- Any existing link with a traffic decrease is shown in green
- Any new link is shown in red. Within this category there is no comparison to be made in traffic as the link did not exist within the Do Minimum.

2.1.1.5 It should be noted that the air quality modelling presented in the ES is based on Annual Average Daily Traffic (AADT) whereas the noise modelling is based on Annual Average Weekday Traffic (AAWT). Both sets of data are derived through annualising the modelled network hourly traffic flows from the traffic model (i.e. utilise the same data output from the traffic model). The AADT are presented here as a representation of the overall change in traffic expected to arise as a result of the Project.

2.1.1.6 AADT is the average 24-hour traffic volume at a given location over a full year (365 days) including weekends. To calculate AADT flows from the A66TM (AA66 Traffic Model), a series of factors were required to work out a 24-hour flow from the individual models which represent an hour within each respective time period.

2.1.1.7 AAWT is the average 24-hour traffic volume at a given location over all weekdays within a year. AAWT flows are similarly calculated from the A66TM hourly data utilising a series of factors to calculate a 24-hour flow from the individual models.

2.1.1.8 More information on the traffic model, the full suite of data outputs and the outputs within this appendix is presented in the Transport Assessment (Application Document 3.7) and the Combined Modelling and Appraisal Report (Application Document 3.8).

2.1.2 Forecast local traffic flow changes for each scheme (opening year, 2029)

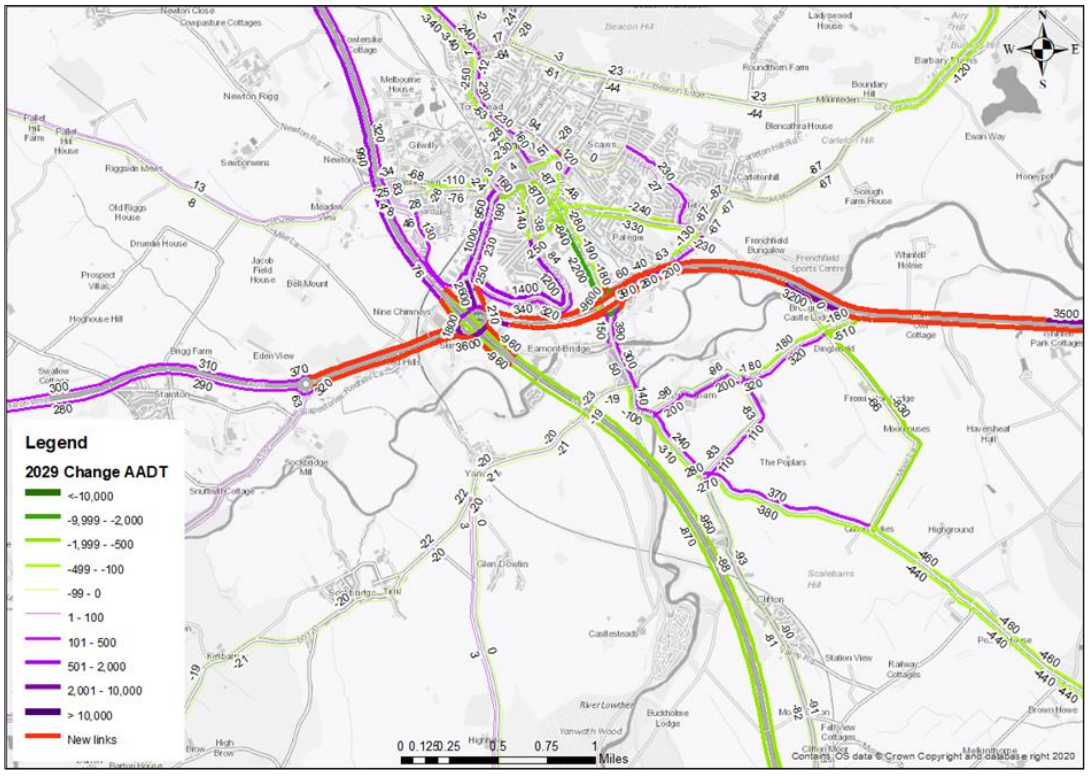

Plate 1: M6 Junction 40 to Kemplay Bank – Opening Year (2029) Do Something Flow (Change from Do Minimum)

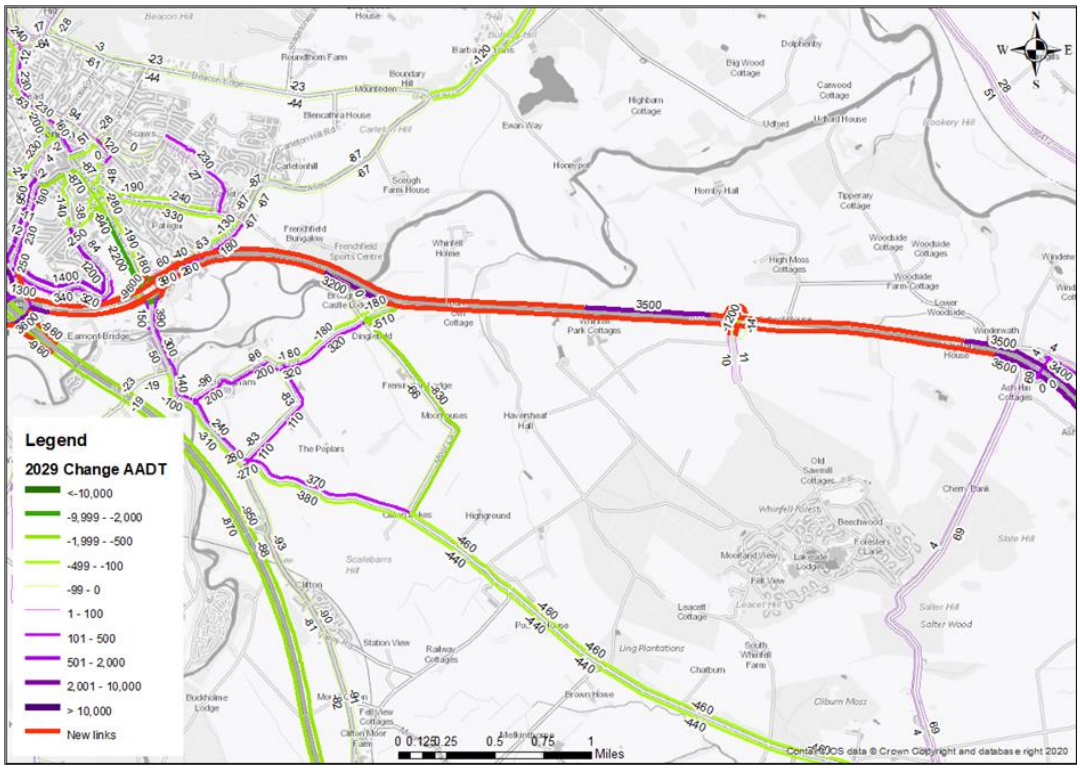

Plate 2: Penrith to Temple Sowerby - Opening Year (2029) Do Something Flow (Changes from Do Minimum

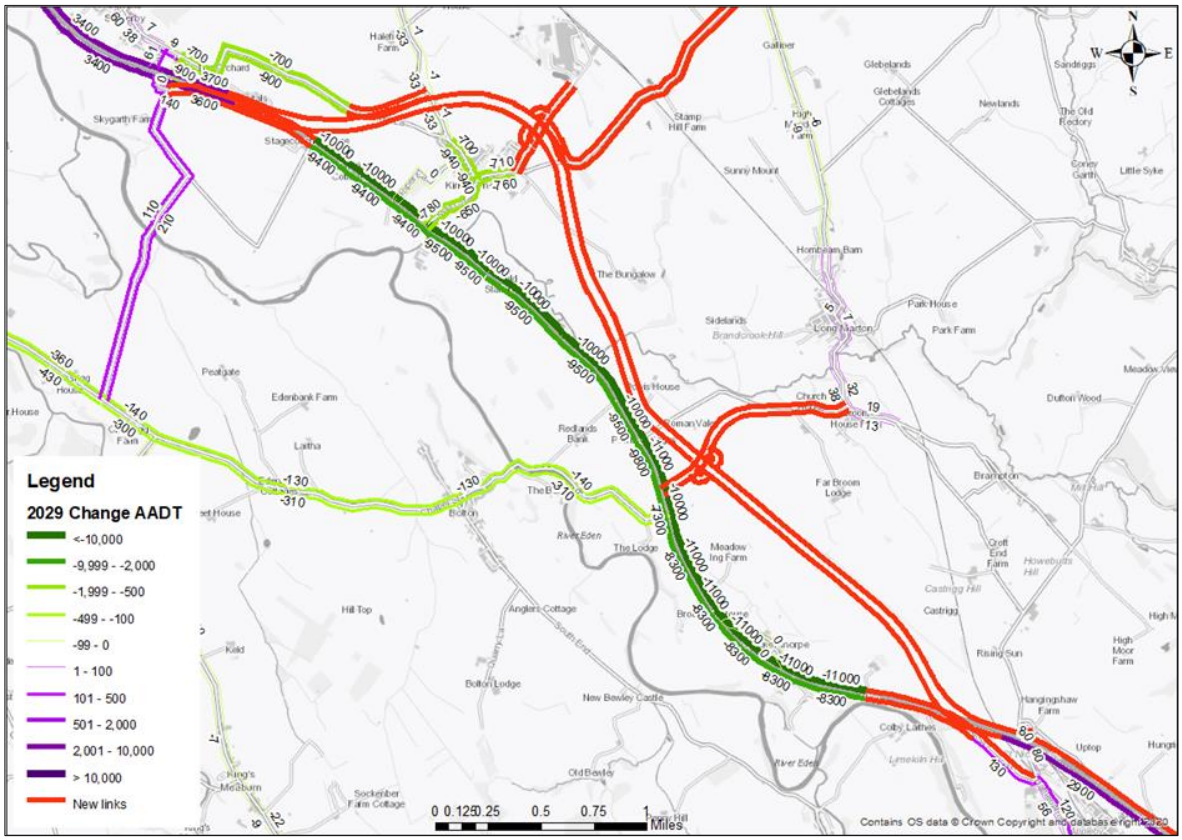

Plate 3: Temple Sowerby to Appleby - Opening Year (2029) Do Something Flow (Changes from Do Minimum)

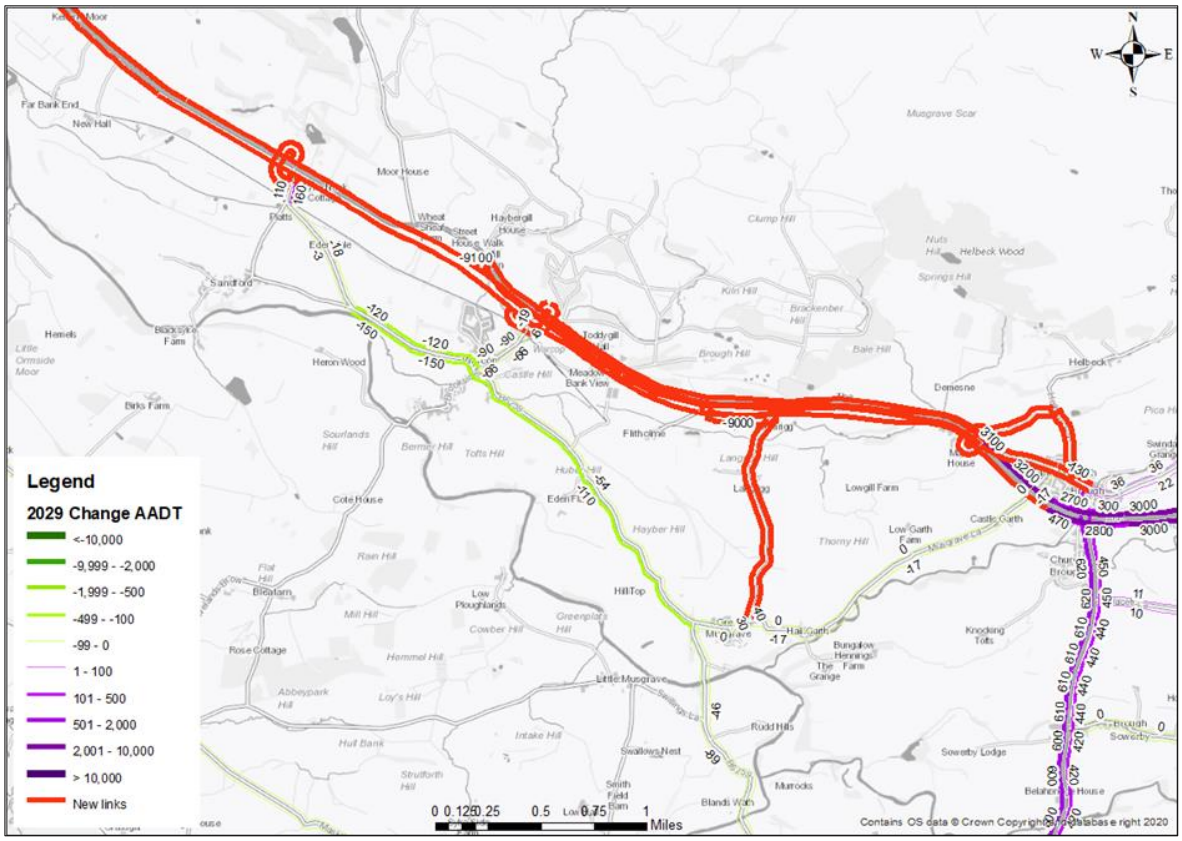

Plate 4: Appleby to Brough – Opening Year (2029) Do Something Flow (Changes from Do Minimum)

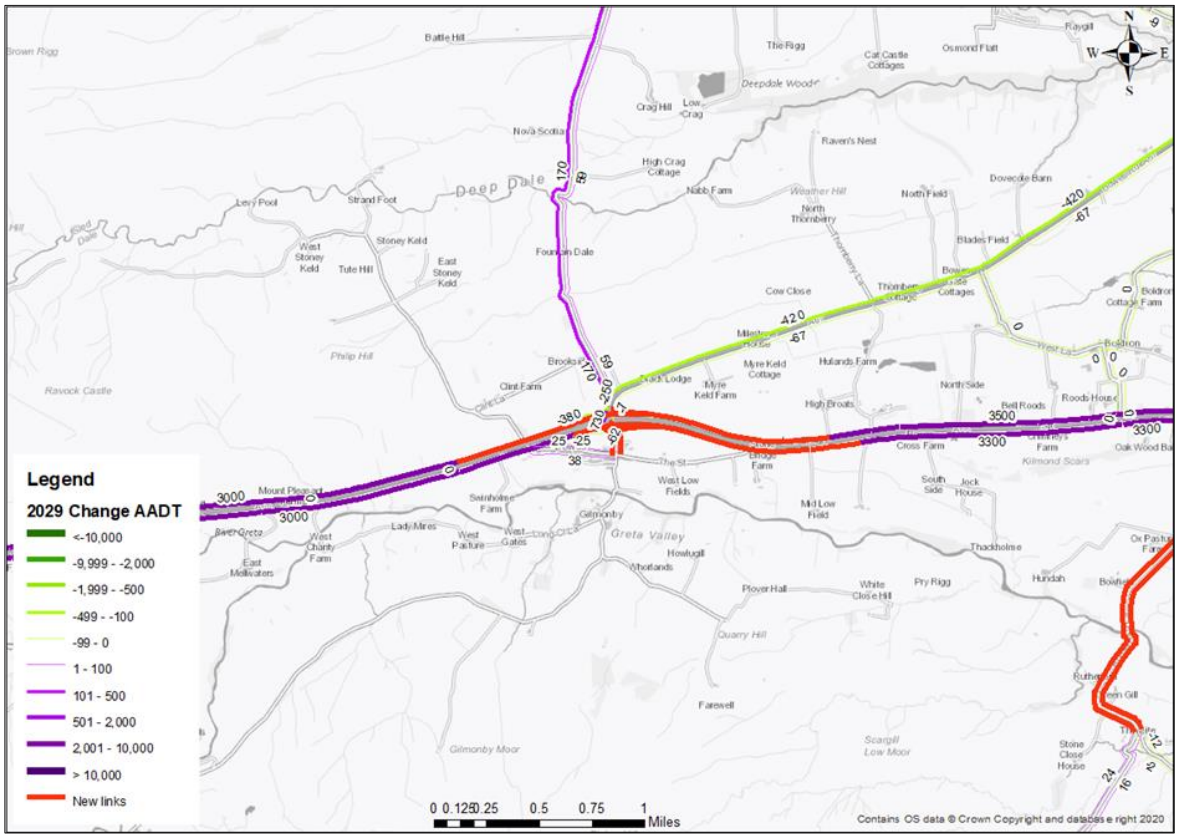

Plate 5: Bowes Bypass – Opening Year (2029) Do Something Flows (Change from Do Minimum)

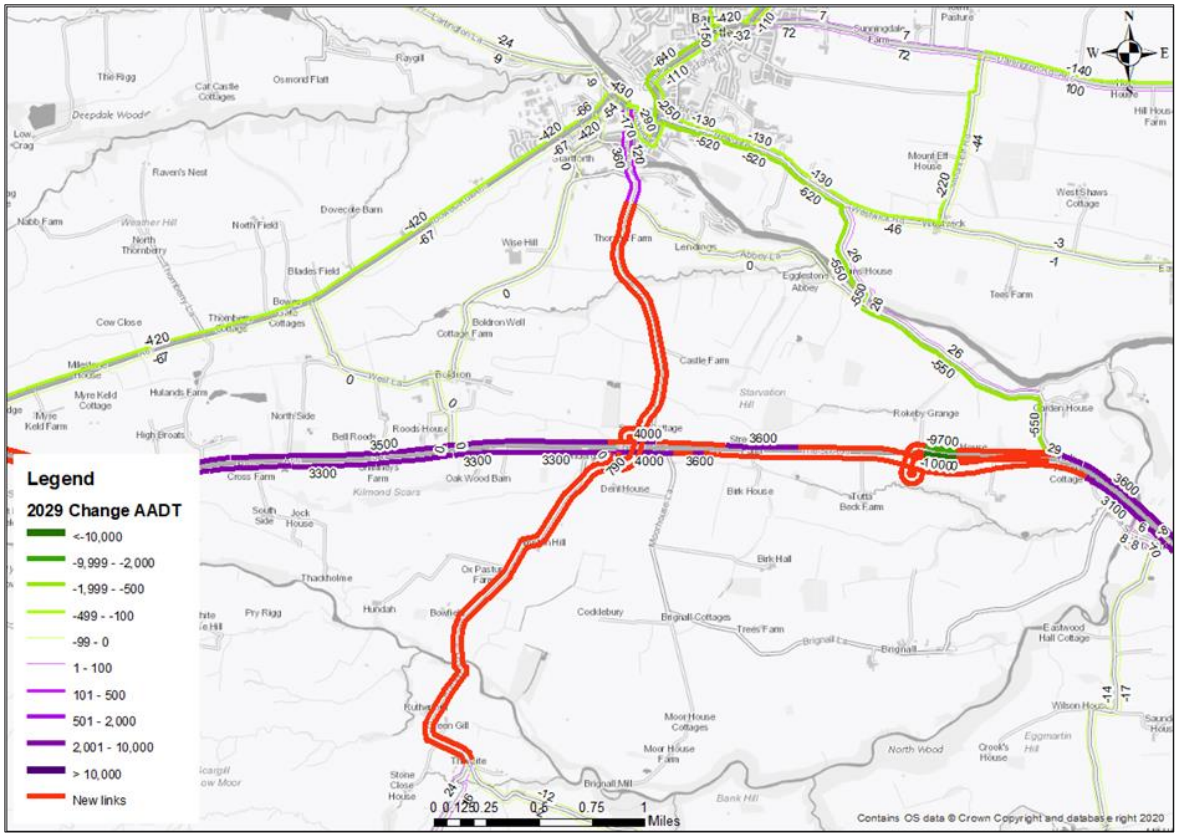

Plate 6: Cross Lanes to Rokeby – Opening Year (2029)) Do Something Flow (Changes from Do Minimum)

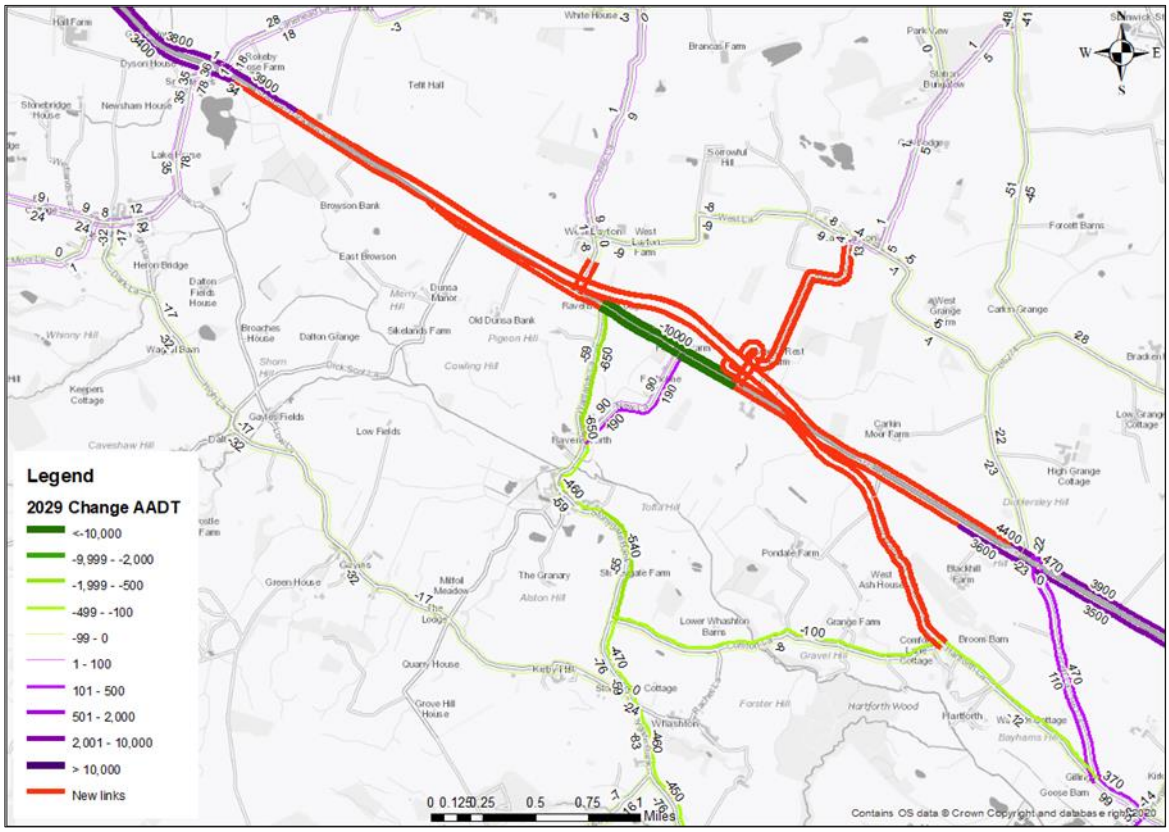

Plate 7: Stephen Bank to Carkin Moor – Opening Year (2029) Do Something Flow (Change from Do Minimum)

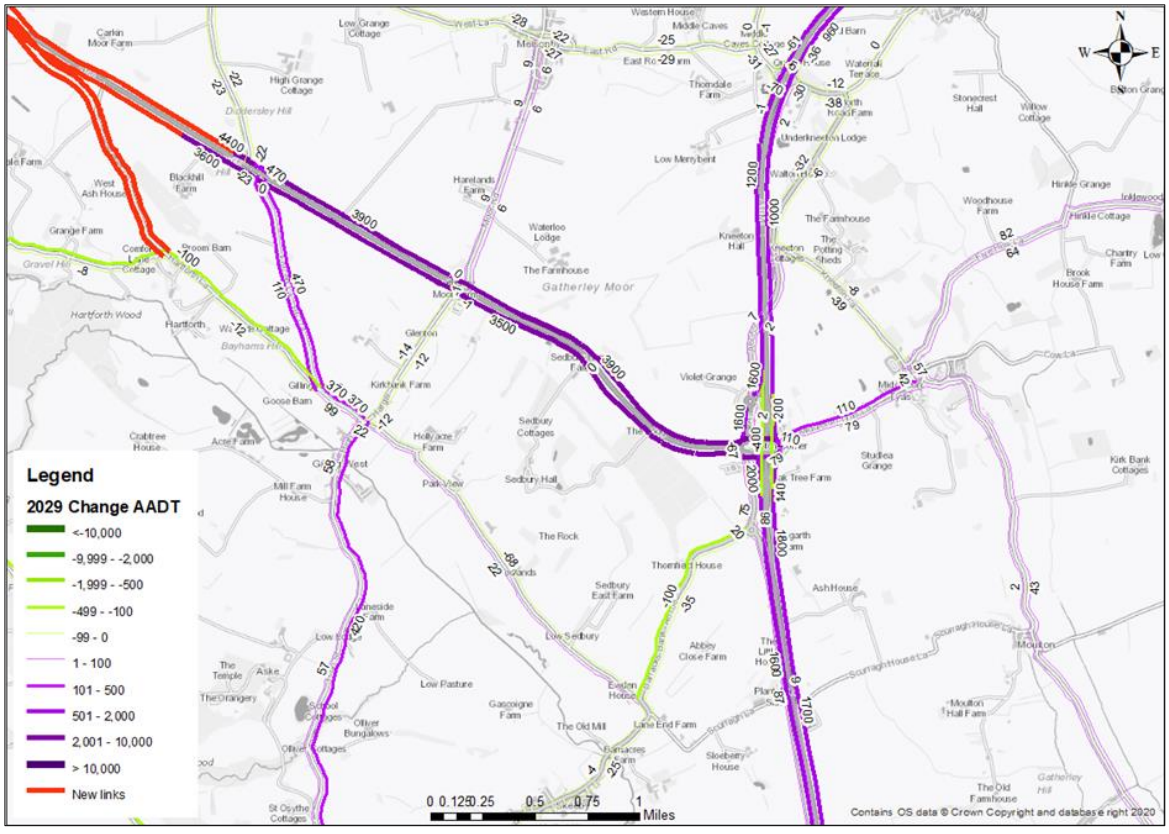

Plate 8: A1(M) Scotch Corner – Opening Year (2029) Do Something (Changes from Do Minimum)

2.1.3 Forecast local traffic flow changes for each scheme (design year, 2044)

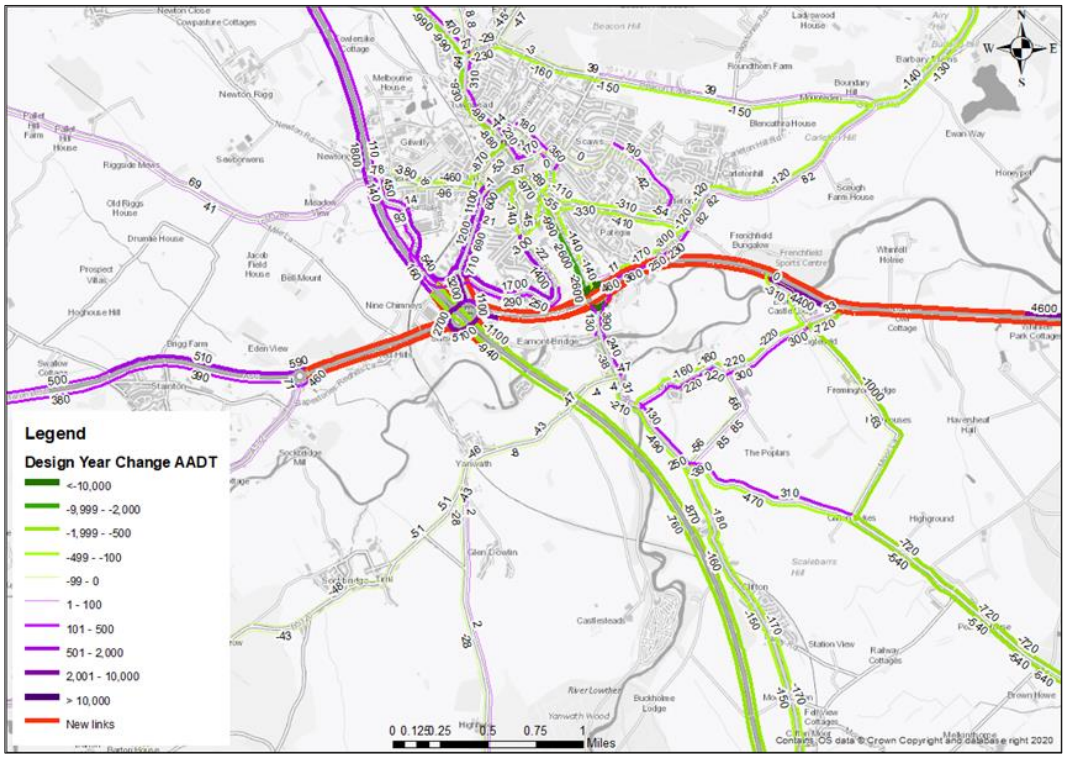

Plate 9: M6 Junction 40 to Kemplay Bank – Design Year (2044) Do Something Flow (Change from Do Minimum)

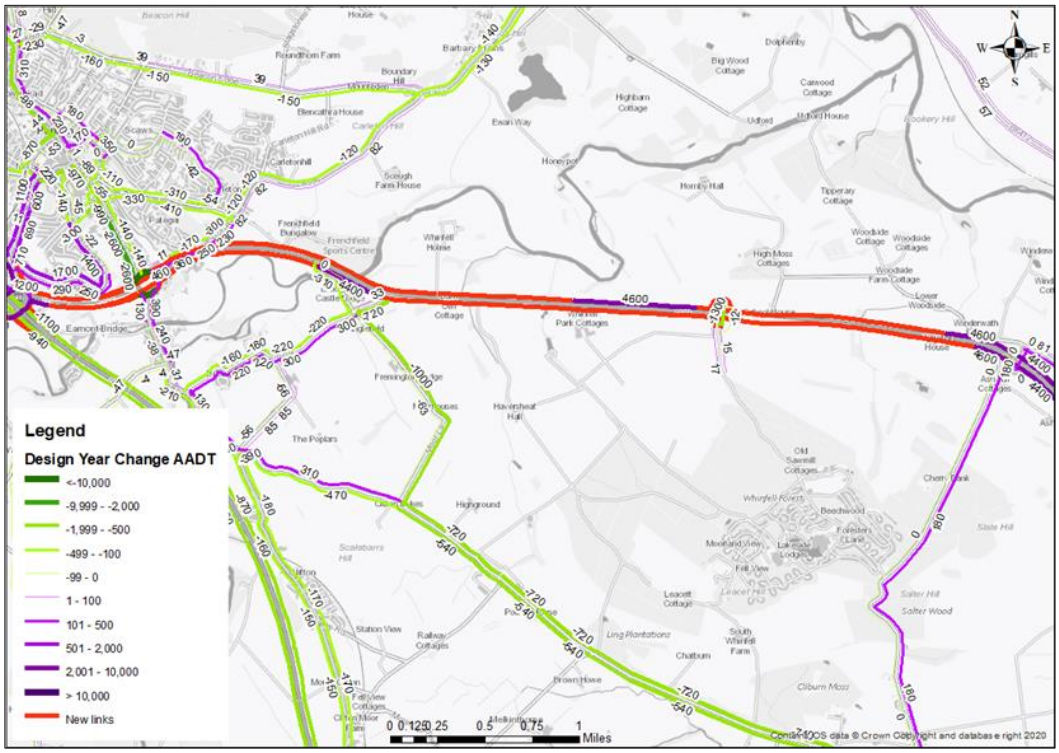

Plate 10: Penrith to Temple Sowerby - Design Year (2044) Do Something Flow (Changes from Do Minimum)

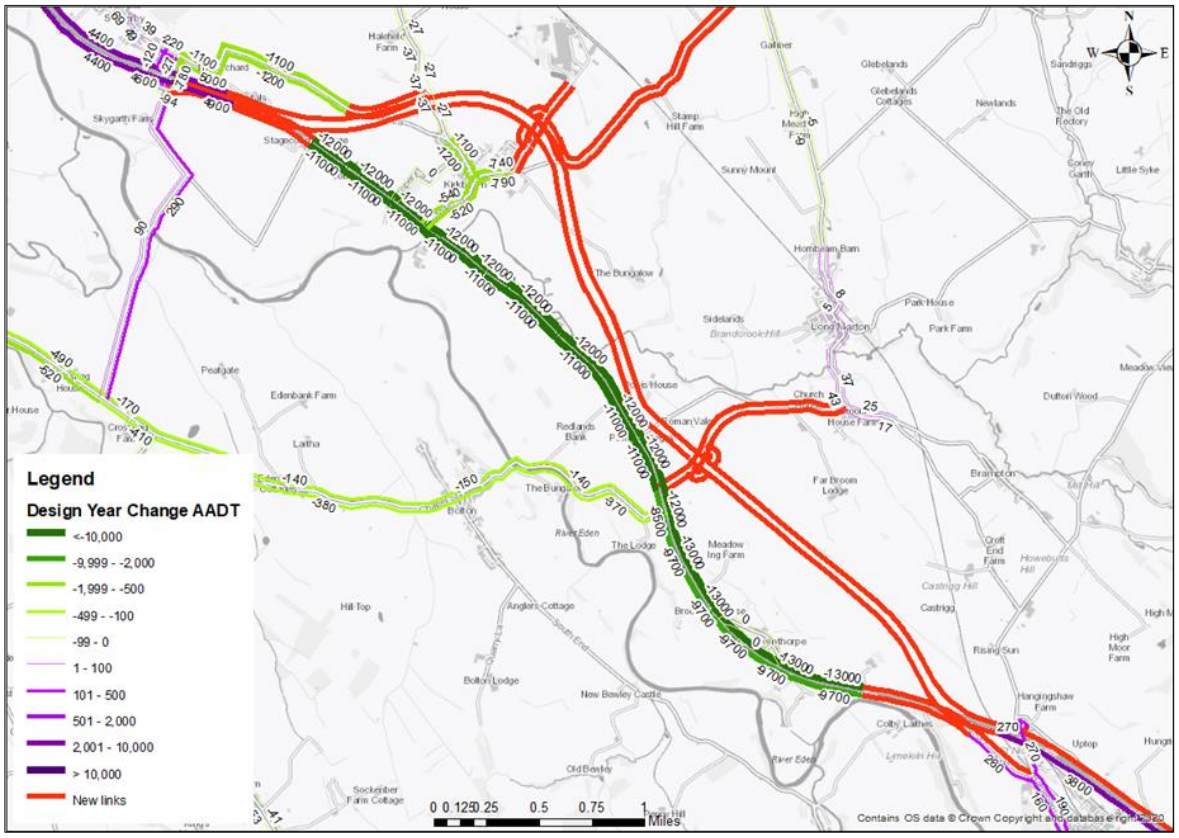

Plate 11: Temple Sowerby to Appleby - Design Year (2044) Do Something Flow (Changes from Do Minimum)

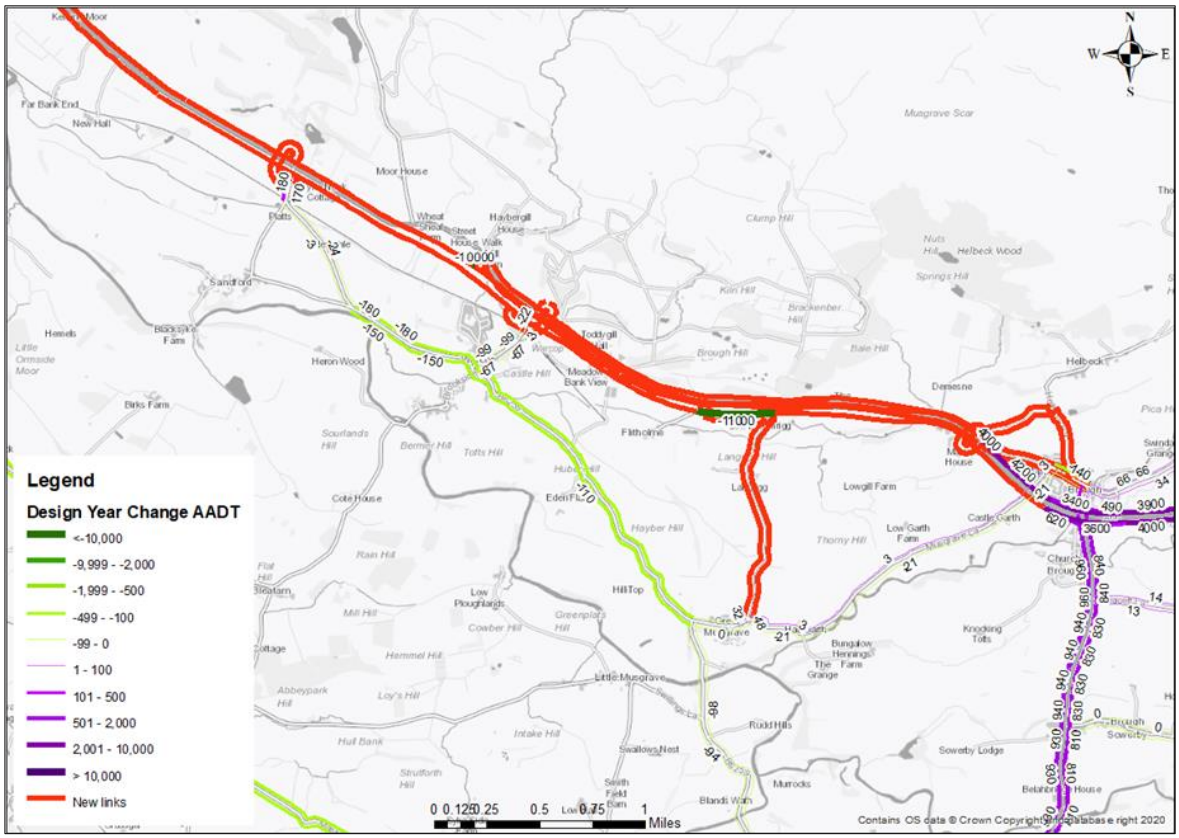

Plate 12: Appleby to Brough – Design Year (2044) Do Something Flow (Changes from Do Minimum)

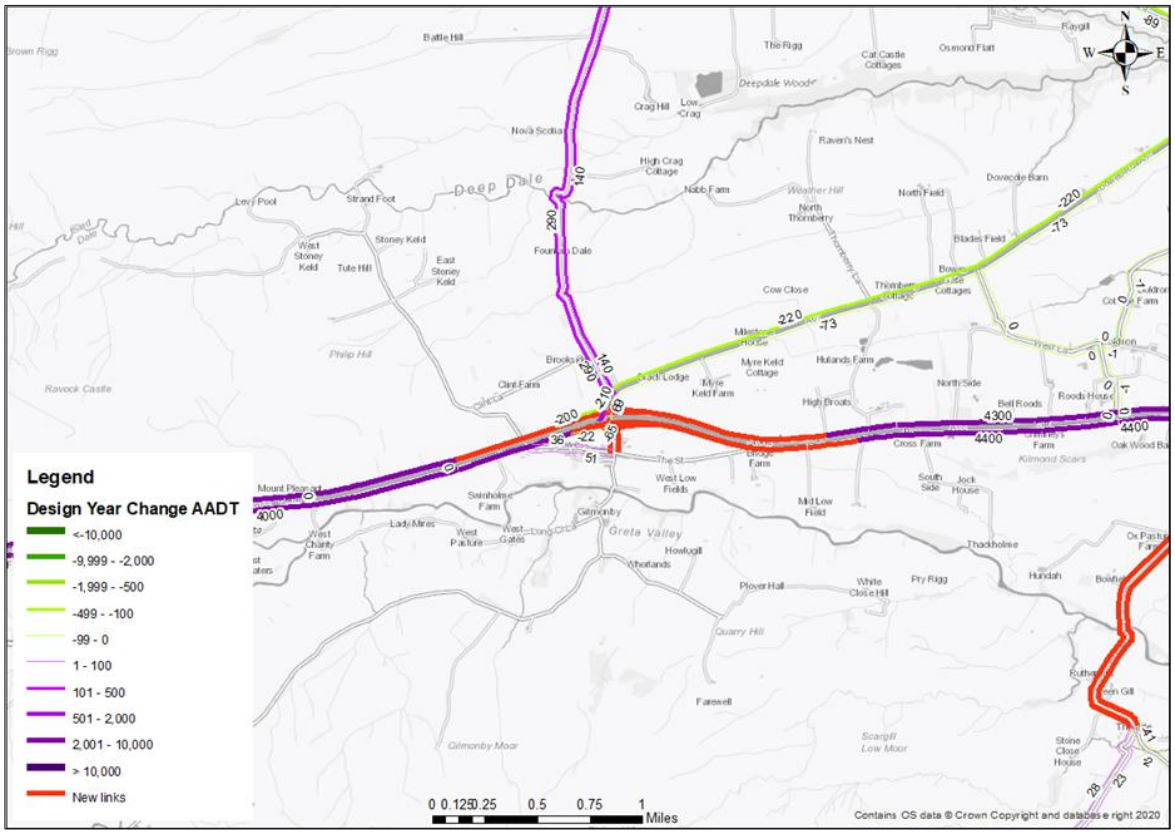

Plate 13: Bowes Bypass – Design Year (2044) Do Something Flows (Change from Do Minimum)

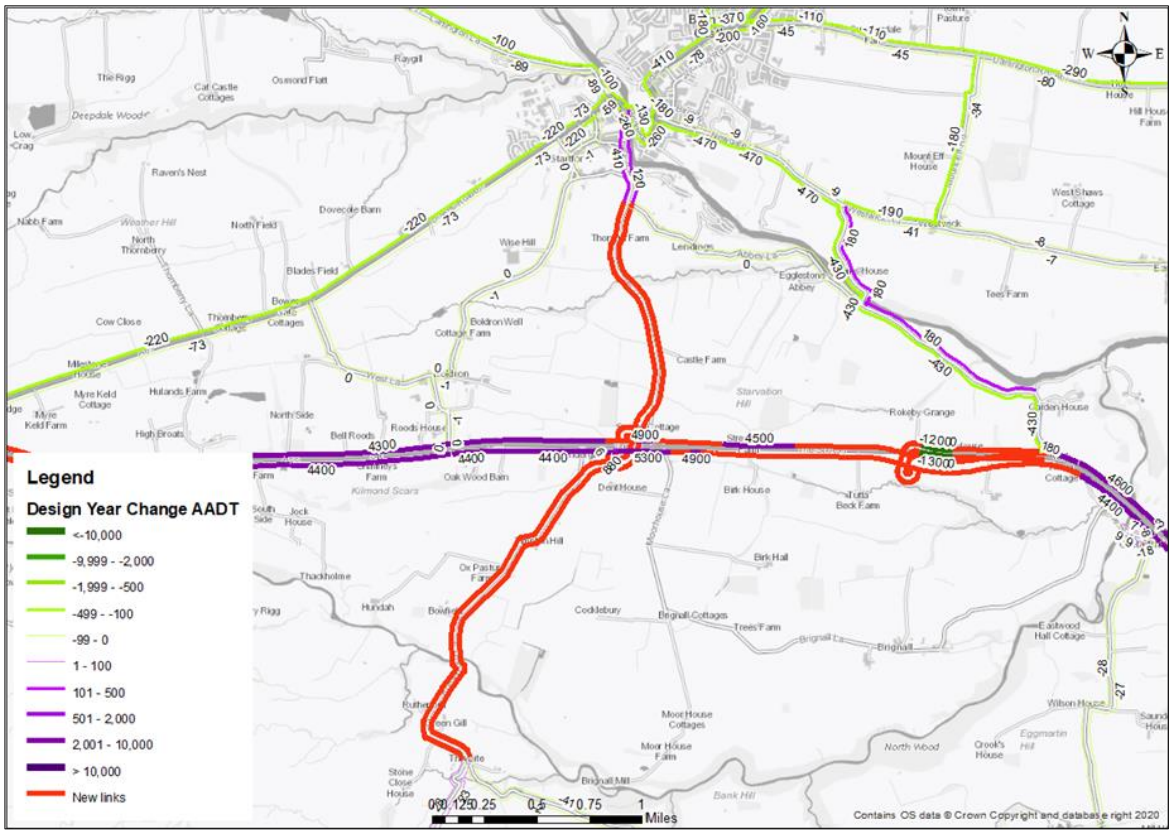

Plate 14: Cross Lanes to Rokeby – Design Year (2044) Do Something Flow (Changes from Do Minimum)

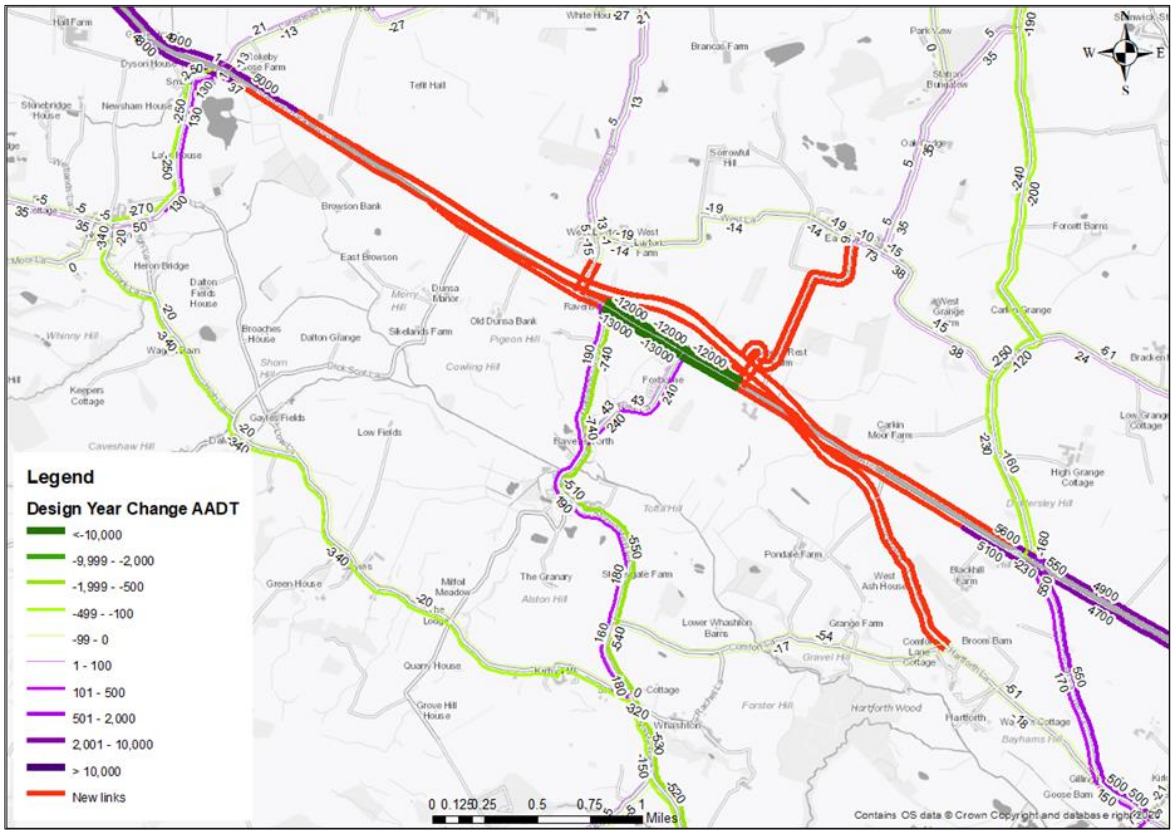

Plate 15: Stephen Bank to Carkin Moor – Design Year (2044) Do Something Flow (Change from Do Minimum)

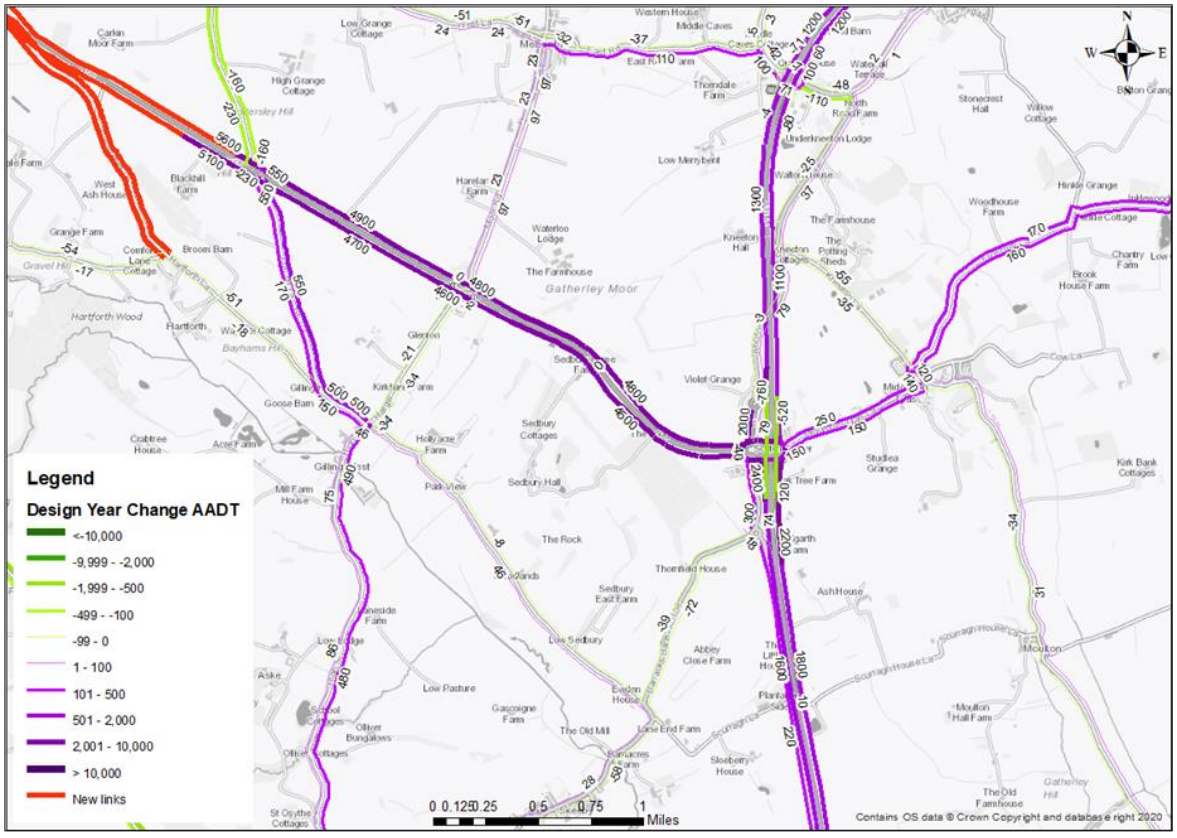

Plate 16: A1(M) Scotch Corner – Design Year (2044) Do Something (Changes from Do Minimum)