

# 14481 Great Chesterford to Saffron Walden

## Feasibility Review

1<sup>st</sup> March 2023

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# 1.0 Project Background and Objectives

Essex Highways originally undertook a feasibility study in 2014 investigating the possibility of a cycling route between Great Chesterford and Saffron Walden. Great Chesterford is a village that is situated to the north east of Essex and Cambridge and has a population of around 1400. Saffron Walden, situated to the south of Great Chesterford is the nearest town, 6 miles away. The primary purpose was to find a cycle route that connects Great Chesterford in the north, with the nearby village of Littlebury and onto Saffron Walden in the south. Figure 1 displays two options that were assessed and accepted as feasible connecting routes between the two towns.

Option 1 London Road via Littlebury was the preferred option which comprised of a shared use footway/cycleway route from Church Street, with Great Chesterford in the north and Saffron Walden to the south. This route proposes the widening or creation of the footway to the west of the carriageway along the B1383 London Road, with the route then continuing either via Audley End House estate or along Spring Hill/Audley End Road.

Option 2 proposed the use of the B184 Walden Road from Great Chesterford connecting into Little Chesterford. The route comprises of a shared use footway and cycleway from Rose Lane in Great Chesterford, via Public Rights of Way and along the widened footway that runs adjacent to the B184 Walden Road.

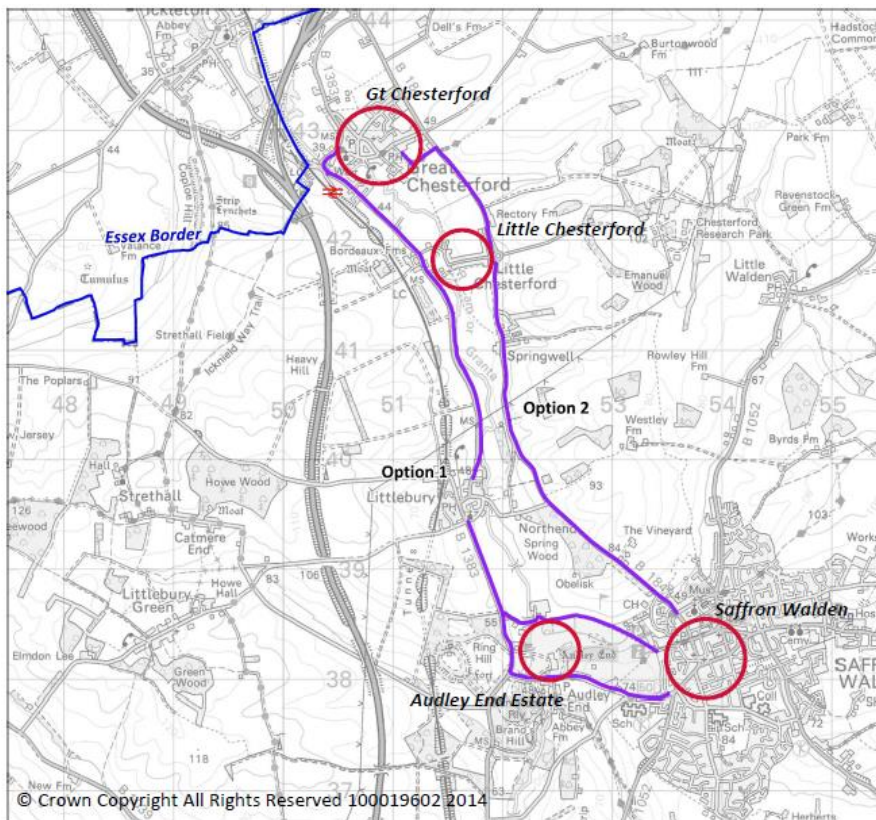


Figure 1: Essex Highways alignment of the two options.

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## 2.0 Route Option Appraisal

### Option 1 – London Road via Littlebury

This option proposed a shared use footway/cycleway route from Church Street, Great Chesterford in the north to Saffron Walden in the south. The design proposed the widening or creation of footway to the west of the carriageway along the B1383 London Road then either via Audley End House estate or along Spring Hill/Audley End Road. The benefits of this route were that it serves both Littlebury and Audley End House as well as connecting the Great Chesterford town centre with the railway station.

The route also has the potential for connecting to the Wenden Road scheme in the south, creating a more connected network. The risks are that some existing sections have no existing footway at all making it expensive to deliver in places. Routing through Littlebury will have to be on road and therefore less attractive to some potential cyclists.

The route has two viable options in the south, either going through or around Audley End House with the former preferred but dependent upon agreement with landowners.

### Option 2 – B184 Walden Road

This option serves the village of Little Chesterford and connects into the east of Great Chesterford, where the Science Park is located. However, it does not serve the Great Chesterford railway station, Littlebury or Audley End House.

Due to the narrow verges in places, ecological value (woodland priority habitats), and proximity to the boundary wall at Audley End estate, it's envisaged that this option would have been more costly, has less design leeway due to the possible spatial and ecological constraints and forecasted to cost at least £2,750,000.

Based on the strategic connective network and delivery costs that Option 1 provides, it is a more feasible option in comparison to Option 2. Option 1 was therefore the preferred route.

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## 3.0 Potential Usage

There is little data on actual cycle usage between Great Chesterford and Saffron Walden, but some indication can be made from various modelling tools.

The Propensity to Cycle Tool uses census and school travel census data to examine current cycling levels, and to estimate what proportion of trips might be cycled under different scenarios. These are largely based on trip characteristics, being distance and hills. Because the PCT uses origin-destination data (i.e. we know the small area where people live and where they work/study) we can map cycling potential at a route level, as well as at an area level. A possible limitation of the PCT is that it uses data from 2011, when the last census and school travel census took place.

For the areas covered between Great Chesterford and Saffron Walden, using area-based data indicated that cycling levels across the area are typically low. Based on the 2011 census, out of a population of 1,400 in Great Chesterford, between 1-2% of the total population cycle to work, with up to 71% of commuters driving.

The tool also uses various scenarios such as “Go Dutch” whereby it assumes that the infrastructure in place are similar to a Dutch city, adding in factors for hilliness, which will deter usage. Applying the Go Dutch model in the Great Chesterford and Saffron Walden area presents increased rates of cycling from 1% to 13% and reducing vehicles by 333, in addition to other indirect benefits. Therefore, it can be assumed that with the correct cycle infrastructure in place, that percentages are likely to rise.

The tool also uses an “Ebike” scenario, under this scenario, the use of e-bikes in the Great Chesterford and Saffron Walden area could potentially increase cycling rates from 1% to 19% and reduce vehicles in the towns by 547.

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Data: <https://www.pct.bike/>

# 4.0 Compliance to LTN 1/20 Guidance for Cycle Infrastructure design

Part of the original study included design recommendations for route Option 1, split into deliverable phases. Design recommendations were not concluded for Option 2, therefore compliance to LTN 1/20 has been assessed for Option 1 only. The design plans by Essex Highways are below together with standard path construction.

## Local Transport Note 1/20

LTN1/20 provides the current guidelines for designing and assessing cycle infrastructure. Any cycle scheme would have to comply with LTN1/20 in order to obtain funding from the Department for Transport.

In most cases, where a route is used by pedestrians and cyclists, separate facilities should be designed for. Shared use routes are an option in cases where the location is on a busy interurban road or there are many building frontages, and the option to reuse carriageway or verge spaces have been rejected. The design plans by Essex highways proposes a shared 2.0m path.

Figure 4.1: Appropriate protection from motor traffic on highways

Speed Limit <sup>1</sup>	Motor Traffic Flow (pcu/24 hour) <sup>2</sup>	Protected Space for Cycling			Cycle Lane (mandatory/ advisory)	Mixed Traffic
		Fully Kerbed Cycle Track	Stepped Cycle Track	Light Segregation		
20 mph <sup>3</sup>	0	Green	Green	Green	Green	Green
	2000	Green	Green	Green	Green	Green
	4000	Green	Green	Green	Yellow	Yellow
	6000+	Green	Green	Green	Yellow	Pink
30 mph	0	Green	Green	Green	Yellow	Yellow
	2000	Green	Green	Green	Yellow	Yellow
	4000	Green	Green	Green	Yellow	Pink
	6000+	Green	Green	Green	Yellow	Pink
40 mph	Any	Green	Yellow	Yellow	Pink	Pink
50+ mph	Any	Green	Pink	Pink	Pink	Pink

- Provision suitable for most people
- Provision not suitable for all people and will exclude some potential users and/or have safety concerns
- Provision suitable for few people and will exclude most potential users and/or have safety concerns

- Notes:
1. If the 85<sup>th</sup> percentile speed is more than 10% above the speed limit the next highest speed limit should be applied
  2. The recommended provision assumes that the peak hour motor traffic flow is no more than 10% of the 24 hour flow
  3. In rural areas achieving speeds of 20mph may be difficult, and so shared routes with speeds of up to 30mph will be generally acceptable with motor vehicle flows of up to 1,000 pcu per day

LTN 1/20 recommends a segregated cycleway, with a separator kerb between the cycleway and footpath for clearly defined spaces and widths. Shared use paths are not always well observed, and do not provide directness or high levels of comfort for users. Pedestrians and cyclists can encounter conflict as spaces are not well defined.

If a shared use path is the only option, then the minimum required width should be at 3.0 metres. Table 6-3 shows that for a shared use route the minimum width of the path must be 3.0m. If there are obstructions to the sides of the path, such as a fence or wall, then an additional 0.5m would be required. For this reason, the current design does not comply with LTN 1/20 guidelines.

**Table 6-3: Recommended minimum widths for shared use routes carrying up to 300 pedestrians per hour**

Cycle flows	Minimum width
Up to 300 cyclists per hour	3.0m
Over 300 cyclists per hour	4.5m

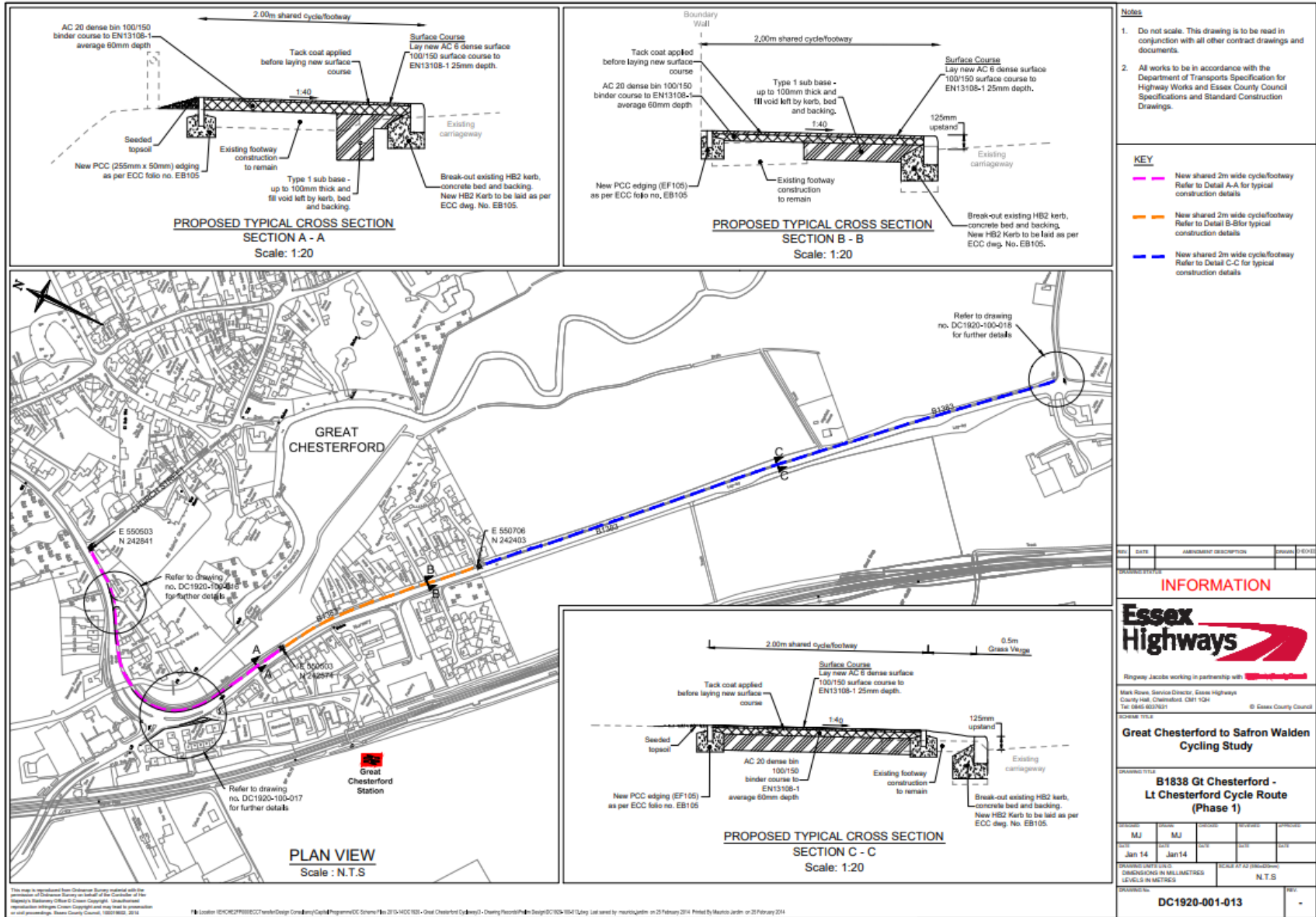
Depending on the speed and volume of motor traffic along the B1383, clear protected space for cycling and walking needs to be designed in the form of either fully kerbed cycle tracks, stepped cycle tracks or a light segregation, shown on Table 6-1 from the LTN 1/20 Cycle Infrastructure Design guidelines.

**Table 6-1: Minimum recommended horizontal separation between carriageway and cycle tracks\***

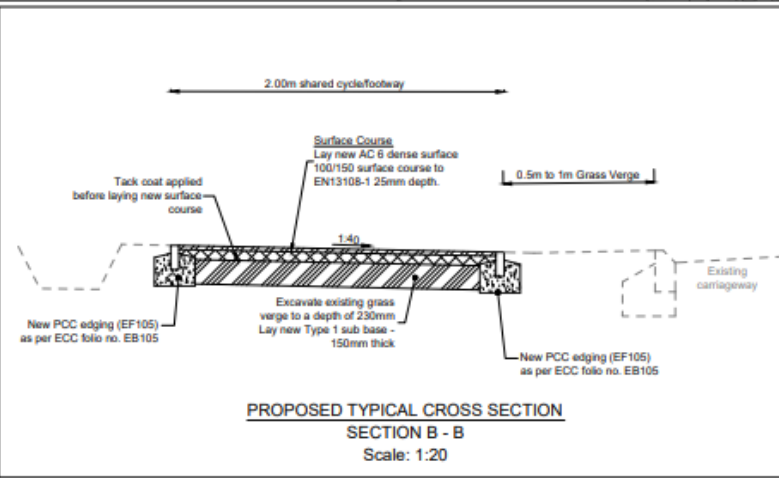
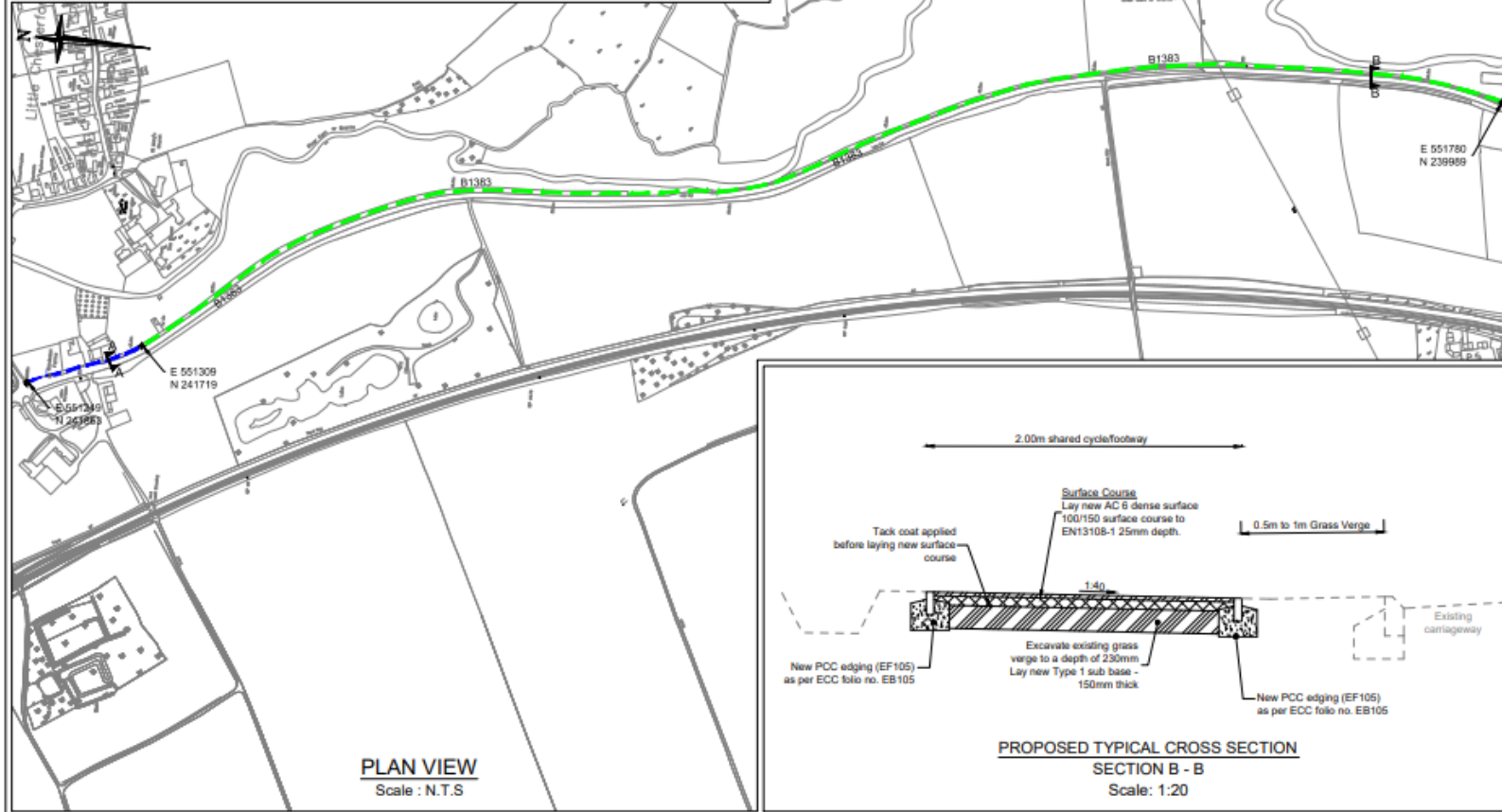
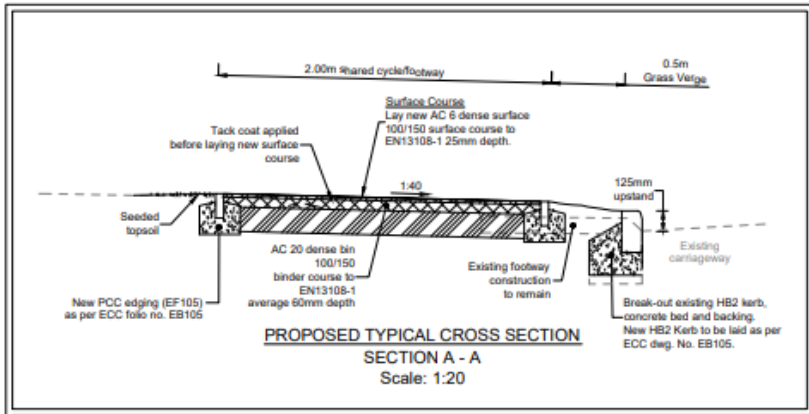
Speed limit (mph)	Desirable minimum horizontal separation (m)	Absolute minimum horizontal separation (m)
30	0.5	0
40	1.0	0.5
50	2.0	1.5
60	2.5	2.0
70	3.5	3.0

\*Separation strip should be at least 0.5m alongside kerbside parking and 1.5m where wheelchair access is required.

A length of the B1383 has a speed limit of 50mph which requires a minimum horizontal separation of 1.5m. The current designs have no horizontal separation and therefore do not comply with LTN1/20.







- Notes**
1. Do not scale. This drawing is to be read in conjunction with all other contract drawings and documents.
  2. All works to be in accordance with the Department of Transport Specification for Highway Works and Essex County Council Specifications and Standard Construction Drawings.

- KEY**
- New shared 2m wide cycle/footway Refer to Detail C-C for typical construction details
  - New shared 2m wide cycle/footway Refer to Detail D-D for typical construction details

REV	DATE	AMENDMENT DESCRIPTION	DESIGN	CHECKED

**INFORMATION**



**Great Chesterford to Safron Walden Cycling Study**

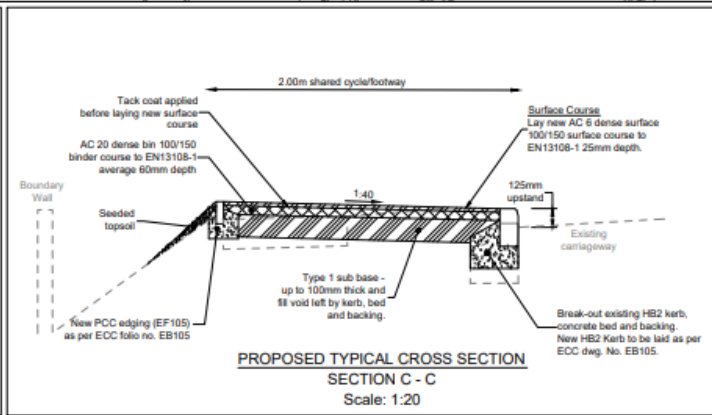
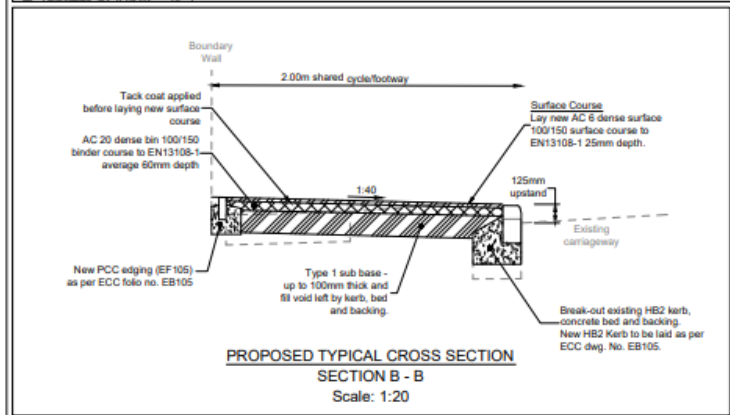
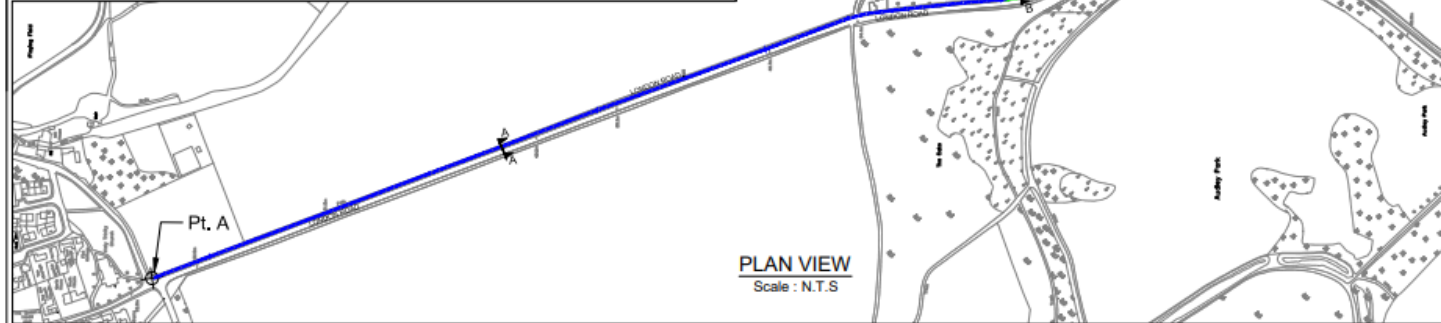
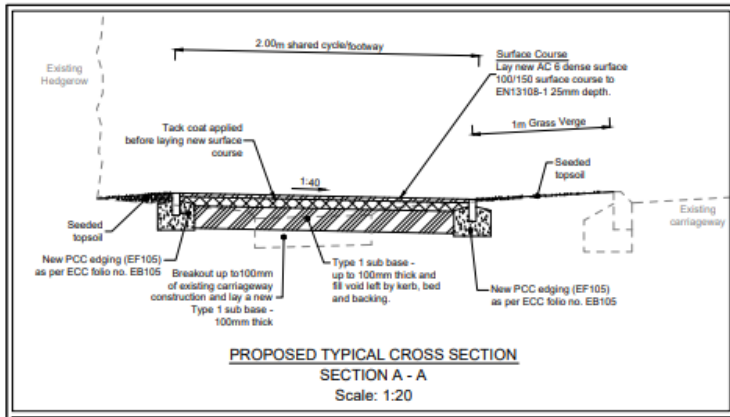
**B1838 Lt Chesterford - Littlebury Cycle Route (Phase 2)**

DESIGNED	CHECKED	DATE	DATE	DATE	DATE
MJ	MJ	JAN 14	JAN 14	JAN 14	JAN 14

DRAWING UNITS ONLY DIMENSIONS IN MILLIMETRES LEVELS IN METRES SCALE 1:20 (plan/elevation) N.T.S.

DRAWING NO. **DC1920-001-014** REV. -

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NO.	DATE	AMENDMENT DESCRIPTION	DRAWN	HECKED

**Notes**

- Do not scale. This drawing is to be read in conjunction with all other contract drawings and documents.
- All works to be in accordance with the Department of Transport Specification for Highway Works and Essex County Council Specifications and Standard Construction Drawings.

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- New shared 2m wide cycle/footway Refer to Detail E-E for typical construction details
- New shared 2m wide cycle/footway Refer to Detail F-F for typical construction details
- New shared 2m wide cycle/footway Refer to Detail G-G for typical construction details

**INFORMATION**

**Essex Highways**

Ringway Jacobs working in partnership with

Mark Rose, Service Director, Essex Highways  
County Hall, Chelmsford, CM1 1QH  
The Essex Highway © Essex County Council

**PROJECT TITLE**  
Great Chesterford to Safron Walden Cycling Study (Phase 3)

**DRAWING TITLE**  
B1838 Littlebury - Audley End Farm Cycle Route

NO.	DATE	BY	CHKD.	REVISED	APPROVED
MJ	MJ				
JAN 14	JAN 14				

DRAWING(S) USED:  
DIMENSIONS IN MILLIMETRES  
LEVELS IN METRES

SCALE 1:10 (Structures)  
As Shown

DRAWING NO.  
**DC1920-001-015**

REV:  
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## 5.0 Conclusions

The 2014 feasibility study does not comply with LTN 1/20 cycle infrastructure guidance due to the widths of proposed shared path and the lack of separation/buffer from the carriageway.