

POPE of Major Schemes Summary Report

Scheme Title	A14 Haughley New Street to Stowmarket Improvement
Opening Date	December 2008
POPE Stage	One Year After Study

Scheme Description

The A14 Haughley New Street to Stowmarket Improvement scheme opened in December 2008 and consists of a new re-aligned dual carriageway linking Haughley New Street and Stowmarket. This section of the A14 previously suffered from a high accident rate as a result of the road's poor alignment and visibility from at-grade local access roads entering the A14. The key features of this scheme are:

- A new dual carriageway running parallel to the old road;
- A new grade separated junction connecting Tot Hill and Stowmarket Road;
- An underpass at the old Quarries Cross junction; and
- Transformation of the old dual carriageway into a single carriageway local road and a route for cyclists, pedestrians and equestrians.

Objectives (from Environmental Summary)

- Improve safety, fewer accidents
- Separation of long distance and local traffic
- Improved journey times and reliability
- Improved access for non motorised users
- Achievement of the above objectives in an environmentally sustainable and sensitive way.

Objective Achieved?

Too early to determine

Yes

Yes

Yes

Yes

Key Findings

- The objectives of the scheme were to reduce accidents and journey times whilst improving access for non motorised users and separating long distance and local traffic. These objectives have been met, with the exception of a reduction in accidents, but this is because it is too early to determine at this one year after stage.
- The scheme has resulted in a small reduction in accidents in the local scheme area (in the immediate vicinity of the scheme). However accident numbers across the wider appraisal area (roughly between Elmswell and Stowmarket) have increased.
- Traffic volumes on the old section of the A14 (converted from dual carriageway to a single carriageway local road) are higher than predicted, and on the new A14 they are lower than predicted. The overall corridor flow is lower than forecast due to a combination of factors including the current economic climate and the full scale of developments expected at the time of the appraisal not coming to fruition.
- The scheme has resulted in large journey time benefits (2 – 3 minutes) for those using the local roads, along with some savings of up to a minute for those using the A14. However, as traffic volumes are lower than predicted, the total vehicle hour savings are also lower than predicted. This has resulted in a lower Benefit to Cost Ratio (BCR) than predicted.

- The scheme has reduced severance by providing new junctions and transforming one side of the old dual carriageway into a route for non motorised users (i.e pedestrians, cyclists and horse riders) giving new travel options. There is also an increase in the level of non-motorised usage on the route.
- Overall traffic volumes around the scheme both before and after the improvement are lower than predicted in the Environmental Statement which also predicted no increase as a result of the scheme. Traffic flows are in fact greater after the scheme than before, although the final flow remains lower than originally predicted. The increase in carbon emissions due to the scheme is thus greater than predicted because of the observed increase in traffic flows which was not predicted. Nevertheless, the actual outturn traffic flows and carbon emissions are both lower than predicted.

Summary of Scheme Impacts

Traffic

- There are 4,900 vehicles per day (vpd) travelling along the old A14; this is 33,800 less than the pre-scheme situation representing a reduction of 87%.
- There are now 38,200 vpd using the A14. The traffic passing through the corridor (former and new A14) at this point is 43,100 vpd; this is 14% higher than in the pre-scheme situation. However it is lower than predicted.
- Journey times for those on the A14 have fallen by an average of 53 seconds, this is likely to be a result of the removal of the 50mph speed limit and the at-grade junctions with local roads.
- Journey times on routes connecting local villages have been reduced by over 2 - 3 minutes. This reduction is primarily due to the reduction in junction delay as road users can now use the new at-grade junctions to cross the A14

Safety

- There was an average of 57.8 accidents per year within the wider (COBA) area before the scheme was implemented. This increased to 60 accidents in the year since the scheme opened, giving an increase of 2.2 accidents per year. It is considered too early to draw a meaningful conclusion due to the limited data available at the one year after stage.
- In the local area there was an average of 9.6 accidents per year; this decreased very slightly to 9.0 accidents in the year since the scheme opened, which is not a statistically significant change.
- Lay-bys have been provided along the new section of the A14. These do not have emergency telephone facilities however this appears to be in line with some other lay-bys along the A14.

Environment

- Overall, the scheme's impact on the noise, townscape, cultural heritage, physical fitness and journey ambience are generally as expected.
- Based on traffic flows, local air quality is generally as expected on the old A14 and slightly better than expected on the new A14 as HGV numbers westbound are lower than predicted in the Environmental Statement.
- The scheme has resulted in an increase in traffic related carbon emissions. The increase in carbon emissions is due to the increased speeds on the new carriageway (i.e. due to the removal of the 50mph speed limit and move to the national speed limit).
- The scheme has been reasonably well integrated into the local landscape, and planting is establishing well however, due to changes at the detailed design stage, feathered trees have not been used in woodland planting mixes and individual standard size trees have

been substituted by smaller feathered tress and therefore planting will have slightly less impact than expected while it establishes. Natural England commented negatively on the site compound adjacent to Quarries Cross Junction and surplus topsoil from the scheme left in a mound on adjacent land. It would appear that visual impacts for Moorbridge Lane were not taken into consideration in the Environmental Statement.

- Mitigation measures with regard to biodiversity have generally been implemented in line with the proposals, although currently the mammal ledge of Tot Hill Culvert is broken and therefore does not provide a viable route for mammals, and the badger tunnel exits into a Contractor's compound which is considered unsatisfactory. The scheme did not impact on native cornflower or the adjacent County Wildlife Site.
- Water quality and drainage mitigation measures generally appear to have been provided as proposed. The westbound carriageway at the western end of the scheme is prone to flooding as a result of a pre scheme drainage issue which has come to light as a result of the scheme. Solutions are currently being proposed to resolve the flooding problem

Accessibility

- The scheme introduced a NMU route along the old A14. NMU surveys have shown a considerable increase in users of the public footpaths around the scheme, as well as a number of cyclists using the route. The addition of these facilities will enable more people to feel that non motorised modes are a safe, viable option of travel.
- Severance has also been reduced as a result of the new NMU route and separation of the trunk road from the village and local traffic. Mitigation measures including the under bridge at Haughley Road also effectively stop the new carriageway introducing severance.

Integration

- The scheme has generally contributed towards the national, regional and local land use and other Government policies as expected.

Summary of Scheme Economic Performance

	Pre Scheme Forecast (AST) (2002 Prices discounted to 2002)	Post Opening Reforecast (2002 Prices discounted to 2002)
Journey Time Benefit	£79.2m	£76.7m
Safety Benefit	£12.5m	-£5.9m
Total 30 Year Benefits (PVB)	£91.7m	£70.8m
Costs	£23.7m	£29.9m
Indirect Tax	-£17.1m	-£20.4m
Total PVC (with Indirect Taxation)	£6.6m	£9.5m
Benefit Cost Ratio (BCR)	13.9	7.5

- Overall benefits are lower than predicted; the main cause of this is the lack of accident savings resulting in a negative safety benefit.
- The present value cost (PVC) of the scheme is also higher than predicted. This difference in cost is in part due to the additional work carried out at the entrance to the Household Waste Recycling Centre and additional works needed at the join between the old and new carriageway.
- The higher cost along with the lower than predicted benefits results in the scheme's BCR being lower than predicted although still very robust.