

## POPE of Major Schemes Summary Report

Scheme Title	<b>A66 Temple Sowerby Bypass and Improvements at Winderwath</b>
Opening Date	October 2007
POPE Stage	One Year After

### Scheme Description

A66 Temple Sowerby Bypass and Improvements at Winderwath officially opened on 18 October 2007. Key components of the scheme included construction of:

- A three mile new dual carriageway, bypassing the village of Temple Sowerby.
- Link roads connecting the bypass to the local road network by means of bridges at each end of the scheme.
- A new bridge carrying the bypass over River Eden.
- An overbridge for public bridleway and underpasses for diverted public footpath and farm track.

After bypass opening, the old A66 was transferred to local authority control, and the speed limit reduced from 40 mph to 30 mph.

### Objectives (1998 Roads Review)

### Objective Achieved?

- |   |                       |
|---|-----------------------|
| • Provide dual carriageway bypass to cater for predicted future traffic growth. | Yes                   |
| • Remove through traffic from the village.                                      | Yes                   |
| • Reduce noise in village.  | Yes                   |
| • Reduce severance in village.  | Yes                   |
| • Enhance safety for all road users including pedestrians.                      | Too early to conclude |

### Key Findings

- The objectives of the A66 Temple Sowerby Bypass to cater for future traffic growth, remove traffic from the village and to reduce noise and severance have been achieved, but it is too early to assess the impacts on safety with any statistical confidence.
- In the study area used for the appraisal there has been a slight accident saving, but it is less than predicted.
- Post opening flows match predictions well for the new and old A66, but are less accurate for minor side roads (although in absolute numbers differences are low). The differences are likely to be due to subtle inaccuracies in modelling local turning movements at the appraisal stage.
- Journey time savings using the bypass are as predicted. Journey times on the old A66 are similar to before.
- Travel time benefits are higher than predicted, but accident savings are lower than predicted, leading to a benefit-cost ratio (BCR) exactly the same as predicted. Actual scheme cost is only very marginally higher than predicted,
- Environmental impacts are generally as expected with most of the mitigation measures establishing well.

- The landscape elements of the 'green bridge' (planted verges) require additional maintenance.
- There are benefits to pedestrians and cyclists in the village with reduced severance.
- The scheme conforms to and supports regional, county and district transport policies.

## Summary of Scheme Impacts

### Traffic

- The average weekday traffic volume on the bypass is about 15,900 vehicles per day (vpd).
- The flow remaining on the old A6 is approximately 900 vpd, representing a fall of about 94% compared with before the bypass was built.
- The flows on the new A66 and bypassed section are within 10% of predictions;
- There are greater percentage differences on the four link roads, although the absolute values are small. The differences are likely to be due to difficulties in modelling local turning movements.
- The combined flow on the new and old A66 is now 9% greater than the flow previously on the old road. This is above background growth for the area. This is probably due to local reassignment from minor roads not covered by traffic surveys, together with traffic generated by new developments in Penrith. There appears to have been no significant reassignment of traffic to the A66 from the A685, which is an alternative route to the M6 motorway.
- Journey time savings of about 2 to 3 minutes are experienced by through traffic using the bypass, closely in accordance with predictions. Journey time savings on the old A66 are similar to before.

### Safety

- In the five years before scheme construction there was an average of 4.8 accidents per year.
- There were 4 accidents during the one year after scheme opening, giving a reduction of 0.8 accidents per year. This is less than the predicted savings of 2.5 accidents in the first year. *[Note that the prediction was based on default national values due to the introduction of traffic calming in Temple Sowerby shortly before the scheme forecasting was carried out, which was believed to have invalidated the use of local historical accident data obtained before that time.]*
- There were no personal injury accidents on either the new section of the A66 or the old road which was bypassed. Pre-scheme there were an average of 4.6 a year.
- The accident rate has fallen from 0.127 PIA/mvkm before to 0.105 PIA/mvkm after.
- The changes in accident numbers are too small at this one year after stage to be able to evaluate the statistical significance of the change, and hence at this stage we cannot confidently state that the data provides a reliable indication of the improvement to safety in the long term.

### Environment

- As traffic flows on the bypass are broadly in line with those in the Environment Statement (ES) forecasts, it is likely that local noise and air quality impacts are as expected, including a substantial beneficial improvement in the village centre due to the significant reduction in traffic on the old A66.
- Increase of 10% in carbon emissions in the first year. This is in good agreement with the forecast of 9.5%;
- Impacts on the other environmental objectives are generally as expected and mitigation measures have been implemented as planned.

- At the time of the site visit it appeared that the landscape elements of the 'green bridge' required additional maintenance and attention.
- Further targeting of aerial photography anomalies and permanent monitoring of the topsoil strip would have been preferred by the County Archaeologist.

### Accessibility

- Severance in the village has reduced due to the transfer of traffic to the bypass. There has been a benefit to non-motorised users, particularly as traffic calming has been implemented in the village.
- Access to the transport system has been unaffected, with bus services continuing to run through the village, and no change to the timetable.

### Integration

- As expected, the scheme had had no impact on transport interchange
- The scheme was integrated with and contributes to the land-use policies at the Regional, County, and District levels contained in: Regional Spatial Strategy (RSS) for the North West (2003), the Cumbria Structure Plan (1995), Cumbria and Lake District Structure Plan (2006) and The Eden Local Plan (1996).

### Summary of Economic Performance

	Costs in £m 2002 Prices discounted to 2002 at 3.5%	
	Pre-opening Forecast	Post-scheme re-forecast
Journey Time Benefit	£47.6m	£64.8m
Safety Benefits	£20.3m	£6.5m
Total 60 Year Benefits (PVB)	£67.8m	£71.3m
Costs (2002) prices	£27.3m	£28.3m
Benefit Cost Ratio (BCR)	2.5	2.5

- Journey time benefits are 36% more than predicted. This is attributed to a larger than expected increase in local traffic, and a greater than predicted inter-peak time saving.
- Accident benefits at £6.5m are considerably lower than the forecast.
- The higher total benefits and slightly higher costs result in the BCR being exactly the same as expected at 2.5, representing good value for money.