

4 TRAFFIC

4.1 INTRODUCTION

The traffic appraisal has been based on surveys undertaken in 2006 from which a local traffic model was created. The existing road network is shown in Figure 4.1.

The traffic effects are described for the A82(T) as well as changes in traffic on the wider network. The environmental implications of the predicted changes in traffic flows are reported elsewhere in the ES, in particular the chapters dealing with disruption due to construction (Chapter 12), noise and vibration (Chapter 13), air quality (Chapter 14), pedestrian, cyclists, equestrians and community effects (Chapter 15) and vehicle travellers (Chapter 16).

4.2 ASSESSING TRAFFIC CHANGES

The completion of the A82 Crianlarich Bypass would result in the transfer of A82 through traffic onto the new route and a reduction of traffic through the village of Crianlarich.

Traffic flow changes have been predicted using modelling software, NESA (Network Evaluation from Surveys and Assignment). NESA has been developed by Transport Scotland for the traffic and economic appraisal of trunk road schemes. The primary purpose of the traffic model is to predict the main traffic effects and provide a cost - benefit analysis for the scheme.

The modelled area follows the length of the A82 route through Crianlarich (the Glenfalloch and Tyndrum roads). It also includes the A85 in the village. The main side roads such as Tyndrum Terrace have been modelled along with the effect of restrictions that the existing rail bridges in the village have on general traffic speeds.

The traffic effects of the scheme have been modelled for the following years:

- the base year 2006;
- the assumed year of opening 2011 allowing for traffic growth between 2006 and 2011; and
- the design year 2026, 15 years after scheme opening allowing for general traffic growth between 2011 and 2026.

The traffic flow predictions produced by the NESA modelling are discussed in Section 4.4.

4.3 EFFECTS ON TRAFFIC LEVELS DURING CONSTRUCTION

4.3.1 Traffic Effects on Trunk Road

Various construction activities would require the removal and delivery of materials during the course of the 12 month construction period. The activities are summarised in Table 4.1.

Table 4.1: Assumed Construction Traffic Generation Outwith Works Areas for 12 Month Construction Period³³

Activity	Approximate Quantity of Material for Transportation	Approximate Number of HGV Movements ³⁴
Transport of unsuitable earthworks material off site	68,800m ³	14,000
Import of suitable fill material to site	3,800m ³	800
Import of concrete for structures and general use	1200m ³	400
Import of steel for structures	42 tonnes	10
Import of road pavement products (including surface course, binder, base, sub-base and capping)	10,500m ³	2,100
TOTAL HGV Movements		17,310 (8,655 trips)
Average movement per day, (assuming a 6 day working week)		60

There would also be general activity on the road network with contractor's vehicles moving between the site compound and various parts of the site. In overall terms the increase in heavy good vehicle (HGV) movement would be significant, with an increase of approximately 60 movements per day over the construction period. A worst case scenario would be that all these movements passed through the village centre. The existing HGV movements at the A82/A85 junction are approximately 330 HGV per day (annual average). The worst case would therefore generate an increase of 18%. It is however likely that HGVs would be routing to a variety of destinations.

4.3.2 Disposal and Import of Materials

The identification of approved receptor sites for the disposal of excess materials associated with earthworks and the import of bulk materials required to make up design levels would be the responsibility of the contractor who would be required to meet all legal obligations relating to licensing and planning approvals if required.

Where such import and export of materials is required, haulage routes would be subject to agreement with Transport Scotland. Specific consideration would be given to the potential sensitivity of communities located along potential routes when choosing routes

Options for the import of concrete and road pavement products have also been investigated and a number of potential supply sources identified. These are illustrated in Figure 4.2 and Table 4.2.

³³ Estimates of HGV movements are based on the following assumptions:

- 10m³ of soil / topsoil material per load
- 6 m³ of concrete per load
- 10 tonnes of steel per load
- 10 m³ of road pavement product per load

A worst case assumption has been made that there is no back loading for vehicles.

³⁴ One trip involves two movements e.g. site to tip and tip to site

Figure 4.2: Map of Quarry Locations

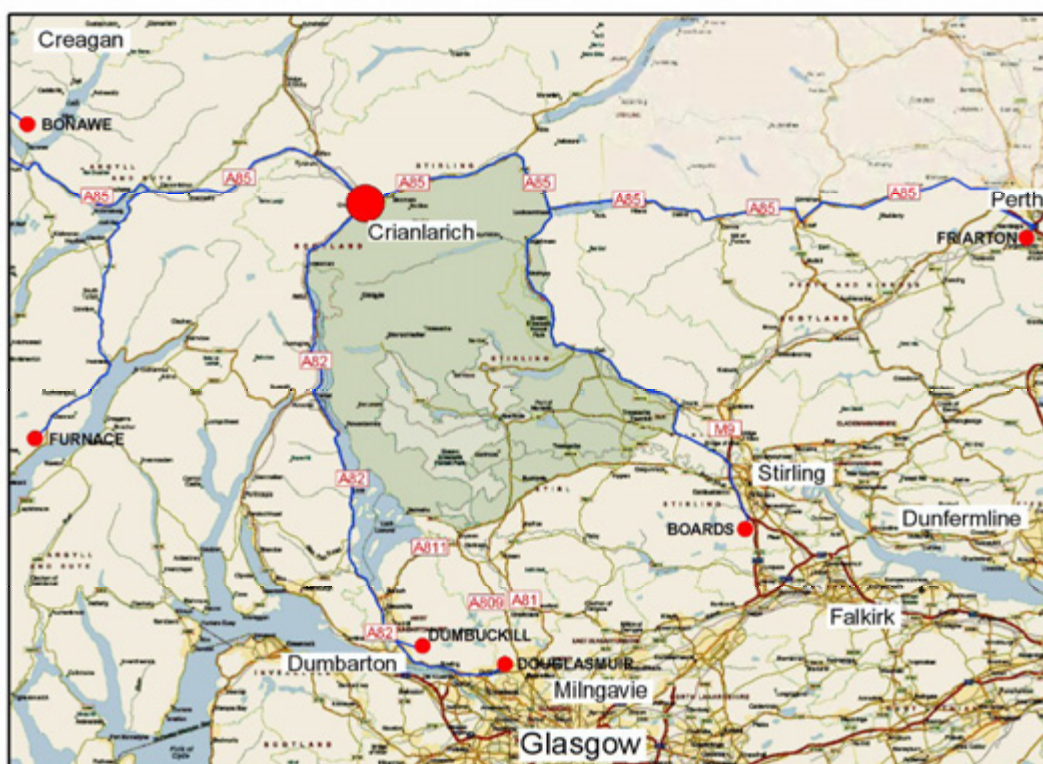


Table 4.2: Location of Existing Quarries

Name of Quarry	Operator	Products	Location	Distance	Approximate Travelling Time
Dumbuckhill Quarry	Bardon	Aggregate Concrete	Stirling Road Milton Dumbarton G82 2SE	38 miles 61 km	51 mins
Furnace Quarry	Ennstone Thistle	Aggregate Asphalt Concrete	Furnace (on Loch Fyne) (South-west of Inveraray) PA32 8XN	40.5 miles 65 km	54 mins
Bonawe Quarry	Ennstone Thistle	Aggregate Asphalt	Bonawe Near North Connel PA37 1RL (On north side of Loch Eive)	45 miles 73 km	1 hour 24 mins
Douglasmuir Quarry	Tarmac	Aggregate	Stockiemuir Road Milngavie G62 7HJ	47 miles 76 km	1 hour 9 mins
Boards Quarry	Tarmac	Aggregate Asphalt	Northfield Denny FK6 6RA	51 miles 82 km	1 hour 13 mins
Friarton Quarry	Tarmac	Aggregate Asphalt	Gleneagles Rd Perth PH2 0AW	54 miles 87 km	1 hour 16 mins

Note - Distances and traveling times are from the AA's route planning web page (http://www.theaa.com/travelwatch/inc/planner_main_redirect.jsp)

4.3.3 Possible Alternatives to the Trunk Road

Alternative routes for the A82 and A85 trunk roads, which avoid Crianlarich would be extensive and time consuming, however, it is considered highly unlikely that the construction works would necessitate the requirement for an alternative route to avoid Crianlarich.

4.4 OPERATIONAL TRAFFIC EFFECTS

The proposed bypass would remove through traffic using the current A82 route through the village (Glenfalloch and Tyndrum roads) as it would provide a quicker and more direct route. Traffic flows on the route are seasonal with the highest flows during the summer period of July and August. Annual average daily traffic (AADT) on the new bypass is predicted to be 2,700 vehicles per day, two way. Traffic flows on the existing A82 route at scheme opening would reduce from 5,700 AADT to approximately 3,000 AADT on the western section and 3,400 AADT to 700 AADT on the southern section. These effects, as well as the forecasts for the design year, are shown on Figure 4.1.

4.1 SUMMARY OF TRAFFIC EFFECTS

- The construction of the scheme would result in a significant increase in HGV movements (some 18%). In a worst case scenario all the HGVs would travel through the village but it is likely that they would be routing to a variety of destinations.
- The identification of approved receptor sites for the disposal of excess materials associated with earthworks and the import of bulk materials required to make up design levels would be the responsibility of the contractor. Haulage routes would be subject to agreement with Transport Scotland. Specific consideration would be given to the potential sensitivity of communities located along potential routes when choosing routes.
- Traffic flows on the existing A82 route at scheme opening would reduce from 5,700 AADT to approximately 3,000 AADT on the western section and 3,400 AADT to 700 AADT on the southern section.