

TRANSPORT PLANNING TECHNICIAN
END POINT ASSESSMENT PROJECT BRIEF (E)

PROJECT TITLE

Construction Traffic Management Plan for the disposal of excess earthworks from site.

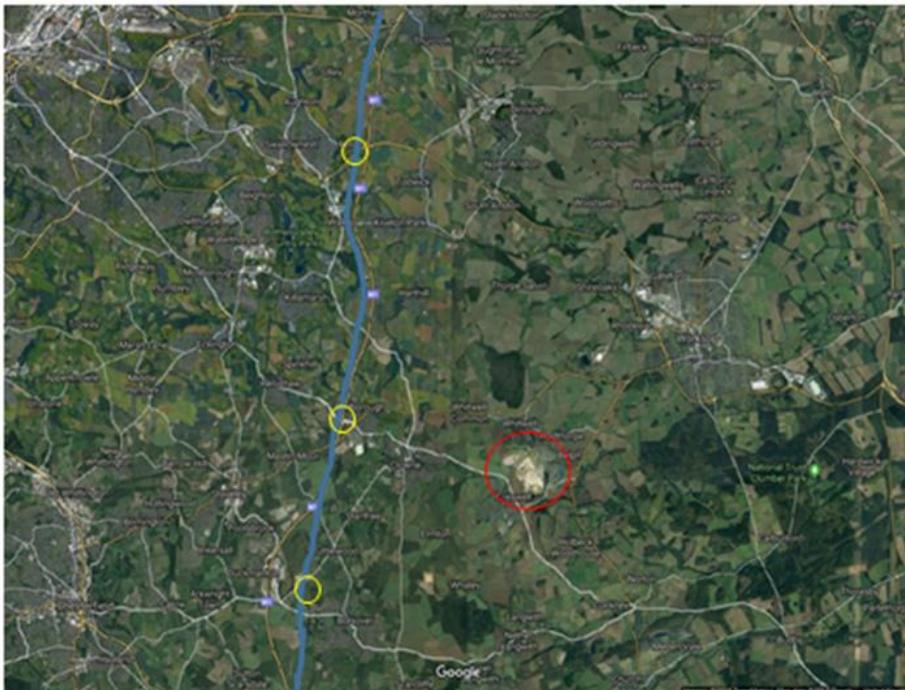
PROJECT SCENARIO (Used for educational purposes – not a real life project)

This end point assessment project involves producing elements of a Construction Traffic Management Plan for the transportation of excess material produced as a waste product from the earthworks excavated as part of a major rail project.

Project Brief

The proposed railway line is shown in blue on the plan below and the proposed location of the reclamation works is circled in red.

There are three access and egress points from the project site onto the existing highway network (ringed in yellow). It has been agreed as part of the works that any excess material suitable for reclamation and reprocessing can be removed off site and treated at the nearby stone works (ringed in red).



The existing route into the proposed reclamation site is via the A460 Craggs lane with the main access to the Tarmac site (postcode S80 3LH) having fairly good access to the surrounding highway network. However, the volume of Heavy Goods Vehicles (HGVs) entering and leaving each of the three site accesses has been restricted to 20% from each of the northern and southern accesses with the remaining 60% coming from the mid-point site access. In addition, the time of operation has also been limited as part of the Planning Consent to preserve public amenity – No HGVs used to transport waste are to enter or leave the site between 15:00 and 09:30 Monday to Friday.

The total amount of material needed to reclaim the site is 1,000,000 tonnes – 200,000 tonnes from each of the northern and southern site entrances and 600,000 tonnes from the mid-point site access.

Main Tasks:

Design the most cost effective method and routes to achieve the completion of the removal of the earthworks within (a) 6 months and (b) 12 months. You should:

1. Describe the three routes you would use from each site entrance to travel to the Tarmac reprocessing plant, taking account of any physical or signed highway restrictions (traffic calming, weight restrictions, etc) and residential areas.
2. Consider other restrictions the Planning Authority could impose to protect the surrounding highway network and villages and propose potential mitigation measures.
3. Justify the size of HGV(s) you would use to transport the waste material to the Tarmac reprocessing plant and calculate how many HGV trips would be needed (recommended to use rigid HGVs).
4. Put forward proposals to ease any traffic problems that additional HGV movements may cause on the existing highway network. For instance, are all highway links on your chosen routes suitable for two HGVs to pass, or can the HGVs you have selected to transport the waste material make the required manoeuvres at the junctions they need to pass through?
5. Compare the two levels of HGV traffic that would be travel on the highway network and determine which would, in your opinion be the preferred timescale for removal of the waste material.
6. Indicate where and how time and cost savings can be made to achieve the most economical design solution.
7. Propose innovative solutions to change the disposal rate from the site.



PROJECT OUTPUT AND DELIVERABLES

Project Brief Outline – Introduction

Full Project Report – including plans and diagrams

Project presentation slides & Materials

Supporting Documentation – Appendices and list of Key References

RELEVANT SKILLS

Awareness of Legal Requirements and relevant Road Traffic Acts

Planning and Schedule of Workload

Survey & Data Collection Skills

Analytical & Data Processing Skills

Transport Modelling & Impact Assessment

Communication & Liaison Skills

Innovative & Critical Thinking

Technical Report Writing

<https://www.google.co.uk/maps/@53.2757114,-1.2005611,16814m/data=!3m1!1e3>

RESOURCES

Appendix A - Moving goods by road

Appendix B – HGV dimensions and haulage weights

Appendix A: Moving goods by road Last updated 5 April 2016

The different road haulage vehicles

In the UK, with some exceptions, the maximum vehicle weight is 44 tonnes gross (truck, fuel and load) and has up to 6 sets of axles. Most foreign vehicles coming to the UK have 2 axles on the tractor and 3 on the trailer, which limits them to a weight of 40 tonnes both here and in their home state. The maximum individual truck length is 12 metres, articulated truck and trailer length is 16.5 metres and road trains are allowed up to 18.75 metres. The maximum width for all is 2.55 metres. If a vehicle has an overall height of 3 metres or above, a notice is required must be displayed in the cab showing its full height.

The main vehicles used to transport goods by road are Articulated Lorries (Artics). These consist of a tractor unit with a turn-table device which can be linked to a trailer. With or without a trailer, the Gross Combination Mass - the combined prime mover and trailer - must exceed 3.5 tonnes. Artics have different types of trailers, including:

- Flatbed trailer - used for almost any kind of cargo, but goods need to be protected from the elements and theft
- Tilt trailer - like a flatbed trailer, but with a removable PVC canopy
- Curtain-sider - the mainstay of road haulage, this has a rigid roof and rear doors - the sides are PVC curtains that can be drawn back for easy loading
- Box trailer - an entirely rigid unit, with loading through back doors - a secure option for valuable goods
- Road train - a rigid vehicle at the front, which pulls a trailer behind it
- Swap-body system - built to accommodate standard cargo containers - allows containers to be swiftly transferred during intermodal transport
- Low-loaders - often used for transporting heavy machinery and other outsize goods - set low to the ground for easy loading

Vans are frequently used to transport smaller cargoes shorter distances.

While goods are being transported, drivers are responsible for the security of goods and compliance with weight and similar restrictions. Traders are responsible for providing adequate dunnage (protective wrapping) to protect and stabilise the goods and for any damage caused to the vehicle while being loaded if they are the party actually loading the vehicle.