

Traffic Management

Due to construction activities, there will be a need for temporary alterations to the existing road network. The following traffic management is in place or planned for the following quarter:

- ❖ Glennascaul (N18). Site Access No. 2
- ❖ Caherbriskaun. Site Access No. 3
- ❖ Athenry Junction. Site Access No. 4
- ❖ Boyhill. Site Access No. 5
- ❖ West Ballinasloe. Site Access No. 18
- ❖ Pollboy. Site Access No. 19
- ❖ Garraun North. Cross Road No. 3
- ❖ Lisheenkyle. Cross Road No. 7

Upcoming works

Upcoming works on site for the coming months are as follows:

- › Cutting and filling operations will continue in sections 1 and 4 and will concentrate on finishing the bulk earthworks to start placing capping layers. Earthworks will also commence in sections 2 and 3.
- › Blasting of rock will advance in Section 1 from Ch. 0+080 to Ch. 1+280 and in section 4 in chainage 49+000. In sections 2 and 3 blasting will commence if required.
- › Timber Post and Rail fence installation will be completed along the mainline.
- › Bridge works will start in section 4 at Liscappul (Bridge ST35), Pollboy (Bridge ST37), Tulrush (Bridge ST41) and in section 1 at Carnmore (Bridge ST2) and Caherbriskaun (Bridge ST4).

Project and Contact details



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Construction Progress over the last three months

Since our previous Newsletter in October 2007 both Design and Construction works on the N6 PPP Scheme have progressed well. The Design Team are making substantial progress in gaining acknowledgement from the NRA on all major design submissions for the Earthworks, Drainage and Structure elements of the contract.



Earthworks

Maximum use is being made of the quantities of glacial fill, gravel etc available in areas of cut within the contract site for embankment construction in the adjoining areas of fill.

Embankment fill consists primarily of Gravel [Type 1] and Subsoil [Type 2] materials. Rock is also used for general fill purposes but only where gravel or subsoil cannot be sourced cost effectively.

Embankments

The embankments on this contract range from 0.5km to 5.0km in length and from 1m to more than 12m in height. All unsuitable materials such as topsoil, alluvium, peat etc are first removed and the embankments are founded on pre-approved suitable formations. The standard embankment side slope is 1m vertical to 2m horizontal and the width of the embankment is dictated by its design height.



MILESTONES FOR THE PPP SCHEME

Contract Award	4 th April, 2007
Design & Construction Commencement	4 th April, 2007
Design & Construction Period	33 months
Target D&C Completion Date	4 th Jan, 2010
Operation & Maintenance Commencement	4 th Jan, 2010
Contract Period	30 years

It is intended to progress Design Acknowledgement with earnest this winter to facilitate the commencement of as many aspects of the construction works as possible on site during the 2008 spring / summer / autumn seasons.

Despite the limitations on construction works in winter due to daylight hours and weather conditions good progress has still been made on site with earthworks and all aspects of earthworks to date are reported in detail hereunder.



N6 GALWAY TO BALLINASLOE PPP

In section 4 the target has been to go above the maximum flooding level recorded in the river Suck area, granting access to machinery to the West side of the navigable channel during the flooding period. Both have been accomplished and at the end of 2007, 10% approx of the fills of the whole scheme have been completed.

Where it is possible to construct embankments entirely from good quality rock fill or from good quality granular material derived from Glacial materials it may be possible to increase side-slope angles up to 1(v) to 1.5(h).

Staged construction is required for high embankments founded on soft ground in order to allow the strength of the soft ground to increase as consolidation occurs.

Filling operations have progressed in section 1 in order to reach the penultimate layer underneath capping in the lower embankments and at-grade sections.



Cuttings

The majority of cuttings at the site are formed in Glacial Cohesive [subsoil] and Glacial Granular [gravel] material with a smaller number of rock cuttings as well.

Cut slopes up to 12m deep have been designed in Glacial material. The material mainly consists of a well graded mixture of gravel with a smaller percentage of silt, clay cobbles and boulders scattered throughout.

A design slope angle of 1(v) in 2(h) is being implemented in the majority of cuttings. This slope angle is typical for highways cuttings formed in Glacial materials in Ireland.

The motorway cuts through limestone at a number of locations along its route. Here blasting is applied to extract the rock material. Most of cut operations done during the last three months have been achieved thanks to blasting activities. At the moment, more than 20% of the cuts have been completed.

Blasting

The blasting of rock started in November 2007 at Glennascaul (N18), chainage 3+900 of the N6 mainline. Since then 50 blasts have been carried out in three areas of section 1 (Ch. 1+200, Ch. 3+000 to Ch. 3+850 and Ch. 9+300) and in section 4 (South-West of Ballinasloe - Ch. 49+000).

Rock will be used mainly in embankments.



N6 GALWAY TO BALLINASLOE PPP



Instrumentation and Monitoring



At all embankments constructed on soft ground, plate settlement gauges and pneumatic piezometers are being installed to monitor for settlement. Installation of pneumatic piezometers has been undertaken at Pollboy (Ch. 54+400 to Ch. 54+900). The distance among them is 50 m. Regular measurements are being done to control the degree of consolidation during construction.

At bridges settlement monitoring is being carried out case by case and is likely to consist of a combination of rod and plate settlement gauges, surface movement beacons and monitoring pins.



Environment & Archaeology

The requirements of the Environmental Impact Statement together with all Ecological requirements are being strictly adhered to in the design and construction of this project.



These requirements include water surveys and monitoring, and flora, fauna and habitat surveys. To take an example, some areas have been fenced and trimmed in order to protect the Small White Orchid; and licences have been acquired from NPWS for the removal and relocation of badgers sets outside the scheme. Badgers removal started in December 2007.

A Monitoring Licence has been obtained from the DoEHLG to proceed with any outstanding works on site which still require the supervision of a Licensed Archaeologist.

Artificial Badger Sets (Post-Construction)