

Environmental Conservation

As part of the Project's focus on sustainability, construction of the new Raith Junction at Junction 5 of the M74 has been carefully planned to minimise the impact on the adjacent Hamilton Low Parks, a designated Site of Special Scientific Interest (SSSI). This work has been planned in close liaison with Scottish Natural Heritage.



The bog is a great habitat for palmate newts

Mitigation measures will be implemented to compensate for land-take within the Hamilton Low Parks SSSI, protect wetland areas and maintain the value of the area to wildlife.



The bog supports an array of insect species

These measures include a designated ecological mitigation area, new areas of habitat creation, pre-construction protected species surveys and plans to protect adjacent habitats out-with the scheme footprint during both the construction and operational phases.



The area supports a specific biodiversity of bog flora

New wetland areas will be created in association with the drainage management system, while native-species trees and scrub will be planted along with species-rich conservation grassland and wildflowers. At Raith, this will include some 4.5 hectares of new woodland and shrub areas and approximately 1.7km of new hedgerow, using native species to the area. This is in addition to a further 20km of hedgerow across the project.

To learn more about local habitats and as part of our Sustainability Week, ten members of the project staff volunteered to help Scottish Wildlife Trust (SWT) in the conservation of Cander Moss Nature Reserve.

Owned and managed by the SWT, Cander Moss is located near the village of Stonehouse, east of the M74 motorway. This lowland raised bog is a naturally formed dome of peat that started its life as a loch or marshy hollow after the last Ice Age about 10,000 years ago, kept wet purely from the high amount of rainwater that falls on it.

As part of a wider management plan to re-wet the 24 hectare peat bog and restore its ecosystem the work was designed to protect the reserve and its unique species by preventing it turning back to woodland. The prime objective of the maintenance of the moss is wildlife conservation.

Monitoring of the water level in Cander Moss has shown that the dams installed by the SWT raised the water table significantly, but there is still too large a fluctuation occurring throughout the year, so additional tree felling around the edges and continued control of the seedlings and saplings on the open bog is essential to help it recover further.

This is where our team of volunteers lended a helping hand to Scottish Wildlife Trust. The conservation work undertaken by the group has made a lasting difference to preserve the rare raised bog habitat and species found there. It also helped prevent carbon locked in the peat from being released into the atmosphere.

As well as the vast array of mosses, bogs support a whole range of other species including plants like bog asphodel and insectivorous sundews and wildlife such as bees, moths and butterflies, lizards, newts, frogs, toads and a whole host of birds including meadow pipits, stonechat, short-eared owl and harriers.

This rarity and diversity is why many sites, including Cander Moss and Hamilton Low Parks, are legally protected SSSI's. Conservation management is necessary at the Cander Moss to ensure it is kept in optimum condition for the wildlife conservation and for scientific and educational study. Visit <http://scottishwildlifetrust.org.uk/> for more information and to get involved.



Volunteers L-R: James Ng, Graduate Engineer; Robert Walsh, Volunteer intern (SWT); Clement Larmanou, Volunteer work experience (SWT); Alec Cook, Community Jobs Scotland placement (SWT); Susan Barnes, Volunteer (SWT); David Jones, Environmental Advisor; Pamela Ward, Community Liaison Officer; Daniel Murray, Environmental Summer Placement; Chris Adair, Deputy Project Manager; Chris Archbold, Reserves Project Officer; Gillian Smith, Student Placement Engineer; Gillian McKinnon, Office Manager; Lianne Wilson, Traffic Control Co-ordinator; Scott Rodgers, Traffic Management Co-ordinator

Summer Placements

During the summer the Project provides placement opportunities for university students and recent graduates to gain hands on work experience.

This year the Project supported 10 summer placements for a 12 week period. During this time each person has been assigned a role within the Project which allowed them to gain the skills necessary for future employment through the various tasks and responsibilities they have been given.

Read about summer placement engineer Gillian Smith and her experience on page 4.

Muniza Shan joined the Communications and Liaison team in August:

“I graduated with a degree in Business with Marketing from Glasgow Caledonian University. The summer placement is a great opportunity to gain experience in a communications role. I especially enjoy interviewing people and helping to design workforce communications.”



Contact the SRP team:

Scottish Roads Partnership
Hermiston House, Unit B,
M8 Central Business Park
Greenhouse Road, Newhouse
Motherwell, ML1 5FL
Tel: 0800 042 0188
Email: info@scotroadspartnership.co.uk
Visit: www.transportscotland.com

It's all in a day's work

for the Trunk Road Incident Support Service (TRISS) Officers, but when your car breaks down and you are left stranded in the middle of the motorway, TRISS are the unsung heroes of the road.

TRISS is a patrol service provided by Amey on behalf of Scottish Roads Partnership as part of the Transport Scotland ITS (Intelligent Transport System) Action Plan.

The Operational Control Room (OCR) is manned 24/7 by a team of operators who are the eyes and ears behind TRISS. Based in Eurocentral they receive information relating to issues on the roads from Traffic Scotland National Control Centre, Police Scotland and third parties including members of the public.

Airwave Radio' provides secure communication between TRISS vehicles, the Operational Control Room, the Traffic Scotland National Control Centre and the emergency service, ensuring the appropriate resource is dispatched to each incident.

The OCR and TRISS vehicles provide a coordinated service that ensures incidents are monitored and dealt with in a safe and timely manner to remove hazards or blockages on the roads and return it to normal service, thus reducing congestion to travellers and improving journey time reliability.

Fully equipped to deal with the majority of incidents which occur on the network, the TRISS vehicles operate between the hours of 06:00 to 19:30, however these hours can be extended during special events like the Commonwealth Games.

Two TRISS vehicles pro-actively patrol the project motorways at any given time and attend on average 10-15 incidents per day.

“He was very calm and thoughtful, he got me safe and off the motorway in no time at all.”
Road User referring to John Melrose (right) pictured with his colleague Stevie Brogan



Project update

Autumn 2014



Raith Junction

Welcome to the second edition of the M8 M73 M74 Motorway Improvements Project newsletter. This quarterly publication provides an insight into the progress of works currently underway on this major scheme.

Engineering

A career in Engineering from Summer Placement Gillian Smith.



Page 4

Conservation

Read about our first volunteering day - helping to conserve the Cander Moss Nature Reserve.



Page 5

Scottish Roads Partnership

ferrovial
agroman Lagan



Scottish Roads Partnership

Welcome

Over this summer months the construction teams have been busy finalising the pre-construction activities across the site. With works being carried out over such a large geographical area, it is essential that every effort is made to minimise disruption on all roads as far as possible. This was made more pertinent as Games fever came to Glasgow with the arrival of the 2014 Commonwealth Games.

Scottish Roads Partnership worked closely with Transport Scotland and the local councils ensuring that Project works did not adversely affect any of the traffic routes to and from the Games for the thousands of visitors who came to Scotland to enjoy the Games atmosphere.

We are proud to have played our part in helping to facilitate such a prestigious event. However, work must go on and considerable progress was made at various locations outside the current road network.

Sustainability

Sustainability is based on a simple principle: everything that we need for our survival and well-being depends, either directly or indirectly, on our natural environment.

Sustainability is important to ensure that we have and will continue to have, the water, materials, and resources to protect human health and our environment.

Transport Scotland (TS) and Scottish Roads Partnership (SRP) have a shared commitment to sustainability which is reflected in the delivery of the M8 M73 M74 Motorway Improvements Project.

The project is a prime example of sustainable development - maintaining and improving the connections between Scotland's cities and other centres of population with the aim of providing a lasting economic and social benefit.

Furthermore, SRP is always looking for innovative ways to deliver this Project with additional benefits to communities and the natural environment.

To further the Project's sustainability agenda Sustainability Week was introduced by the projects Environmental team. This annual initiative reinforces and furthers our commitment to sustainability.

Through our week-long programme of events, we aimed to raise awareness of the key issues around sustainability and sought to encourage a proactive approach to make the project and the personal lives of our employees more sustainable.

During Sustainability Week we issued bulletins on topics related to green travel, energy efficiency and social sustainability,

highlighting how we can make a difference. To encourage everyone to get involved we held a sustainability quiz amongst the Project Team offering the prize of a kindle HD fire, which was presented to Roads Engineer, Andrew Moody by Environmental Manager, Neil Abraham.

The week also included the first staff volunteering day which you can read in full on page 5.

Transport Scotland and Scottish Roads Partnership share a commitment to reducing the transport-related carbon footprint by working towards increasing levels of cycling and walking for transport and leisure. In line with this, commuting was one of the areas the Project Environmental Team tackled as part of Sustainability Week.

The Environmental Teams' Summer Placement, Daniel Murray, conducted a travel survey which is being used to assist in preparing a Green Travel Plan for the Project.

Sustainability Week encouraged employees to think about their daily commute and how their carbon footprint can be reduced. The Green Travel Plan will highlight how simple measures such as adapting your style of driving can have a significant impact on the environment.

Green Travel not only reduces your carbon footprint, it can help you stay fitter, healthier, happier and even wealthier.

Together we can make a huge difference.

For more information please visit: www.transportscotland.gov.uk/environment



"In just a few weeks of working on the M8 Project, I already feel that I have gained a lot of invaluable experience about working in this industry that I don't get through my studies at university.

Before starting my placement I was nervous about joining my first project, however I was immediately welcomed to the team.

It is great knowing that I am not only learning here, but my contributions are helping to deliver this amazing project."

- Daniel Murray, Environmental Summer Placement

Construction

During the past three months the construction team has been developing the designs which will form the new layout of the roads within the scheme.

These designs provide the contractor with detailed information required to construct the new motorway, including bridge structures, earthworks and drainage. The team has also conducted site clearance works, constructed site access roads and completed the site compound at Raith.

The preparation work involved in upgrading the motorway network should not be underestimated and even when a scheme such as the M8 M73 M74 Motorway Improvements Project has been given the go ahead, there is still a substantial amount of pre-construction works that need to be completed before the new road can start to take shape.

The team has been carrying out investigative works on bridge structures and abandoned coal mines in the area to ensure both are safe before construction can begin.

Ground investigations include drilling in areas with potential of previous mining activity to assess the presence of voids or soft ground. This determines the level of treatment required to ensure the long-term stability of the ground.

Soil samples are taken for laboratory testing, the results of which will provide vital information to assist the design process and improve design certainty.

And in addition to all the engineers, environmentalists and scientists on site, the team also employs the skills of archaeologists. Prior to any major

excavation works, archaeological trenches are dug by stripping back the topsoil to determine if there is anything of archaeological significance (pictured bottom right). Only after this has been completed and the archaeologists have recorded their findings can the main construction works commence.

Environment

From the outset, the environmental team has played a crucial role in preparing the way for the main works.

The team has been conducting various ecological surveys throughout the summer which aim to help preserve as much of the natural environment for wildlife and plants as possible.

The unsuspecting wildlife that have made their homes amidst the urban backdrop of central Scotland's motorway network have no idea they are being watched!

Camera surveys have been completed at various locations where it was suspected badgers may have had a sett.

The monitoring ensures that the land is protected until the badgers have been rehoused in a newly created habitat.

Surveys have also been completed for bats with night and dawn watches on derelict buildings to confirm they have left the roosting area before demolition can take place.

And in a similar way, watercourses around several areas of the project are also being monitored to ensure the surrounding works has no effect on the natural streams and waterways.

In Numbers:

- 45 access roads built
- 6850 metres of fencing erected
- 501 design packages are required for the entire Project
- 12-15 Average number of TRISS call outs per day



Q: Why did you choose to pursue engineering as a career?

A: When I was 17 I spent six weeks working on a charity project in the highlands of Guatemala. During this time we built several large 'fog collectors' which provided clean drinking water for the people of the villages. Before these were installed the villagers had to walk four miles for clean drinking water. The engineering was simple, as the fog drifts through the nets the water droplets are caught and collected in a storage tank and that was enough to drastically improve the local community's quality of life. Seeing such a modest idea change the way people live is what initially motivated me to pursue a career in engineering.

Q: What and where did you study?

A: I have just finished my fourth year at Strathclyde University, completing my honors degree in Architectural and Structural Engineering. I will be returning to university to complete my Masters after this summer placement.

Q: What skills and personal characteristics are necessary in this field to be a successful?

A: Patience and a good sense of humour! Willingness to work long hours and having the drive to get the work done despite all challenges. Analytical skills, being practical and having an eye for detail are all crucial. Forward planning is vital as well. Most importantly when working on a project it is necessary to relay information to your colleagues and help each other, therefore being able to work as part of a team is very important.

Q: Can you describe what your typical day on the project is like??

A: Engineering brings something different everyday. I arrive early each morning for a daily briefing, reply to my emails and complete any paperwork. Then I get ready to go on site to face any number of challenges the day may bring. I have worked on boreholes, trial pits and I have been involved in the pre-earthworks drainage works. These will form part of the permanent works around the Newhouse roundabout area.

I also regularly take the quantities from the site drawings, order the required materials and should be present on site to see

them installed. This is while studying the various guidelines and manuals in order to understand the finer details of the drainage works.

Engineers come in early and leave late, there is no typical working hours, you must ensure you get things done and then move on to the next task.

Hands on experience is very different to studying engineering in university, I am learning a lot on this placement and everything is new to me.

Working on this project has given me a valuable insight into the construction industry and provided me with practical skills which I can continue to develop and put to use when I return to university to complete my Masters.

The knowledge I have gained from my time here is invaluable and I am sure this placement will be influential in my future career choices.

Q: What was your most recent assignment?

A: I had to complete a Health and Safety inspection. I visited different accesses and checked signage, welfare units and vehicles. I drafted a report and sent it to the team to be signed off and put into the system. This is done every week by a different team member.

Q: What have you enjoyed most working on the Project?

A: I enjoy the variety but my favourite part has been working with the drainage and Traffic Management Teams. I have been involved in drainage right from the start and seeing the progress that you are part off feels great.

I have also been involved in the phasing of the Traffic Management. I prepared several drawings which considered where the traffic would be at various stages of the Project. For example, after the slip roads have been built at Newhouse the traffic can be moved from the old road on to these while we are building the mainline. This will minimise disruption and reduce the risks involved with live traffic. I have also completed several Traffic Management requests for the construction of the access roads.

Q: What is the most exciting aspect of being an engineer?

Being an engineer is challenging, but very rewarding. I get excited about analysing and solving problems and ensuring nothing is overlooked. Sense of achievement is the most exciting part for me.

For example, the rock we use to form the road needs to be excavated. We therefore create a borrow pit and remove the unsuitable soil until we reach the rock. Once we excavate enough rock we refill the hole with the unused soil. This method is more environmentally friendly than transporting it from a quarry.

Q: What will you remember most about your time on the project? ?

A: This is a huge Project, and it will improve the quality of life for commuters - that is a motivation in itself. It's amazing to be part of it and work with this great team.