

M74 Completion NEWS

ISSUE 4 / JULY 2009



Welcome to the fourth issue of our M74 Completion project newsletter.

Suddenly we find ourselves in midsummer having made tremendous progress in the first six months of the year.

Earthworks and structures piling are well advanced. The first bridge beams on the project were placed on Farmeloa Road underbridge in late March. In early June, Carnoustie Street underbridge precast concrete beams were placed and steel beams have been arriving at our fabrication yard.

At this stage, the project is well "out of the ground" and clearly visible to members of the public many of whom, we are pleased to say, have been taking a keen interest in what's happening. At this point I would remind you of our open invitation to you to pay a visit to Interlink House to look at drawings, plans and programmes if you wish to expand your knowledge of the scheme.

Having a healthy interest in the project is good, there is no doubt, but I would ask all readers with children in their care to remind the young ones, that, although construction sites may appear very appealing as a potential playground, the risk of serious injury to unauthorised visitors is very high. The best way to manage this risk is to stay well clear of the site. With the summer holidays upon us and children with time on their hands the message must be - observe the operations from the public side of the fence by all means but please, for the safety of yourselves and everyone on site, do not attempt to take entry.

In the next few months dramatic changes to the landscape shall be evident, as embankments are completed and bridge beams throughout the project are craned into place.

At this point we are in good shape. We remain on target for completion. Stakeholders have embraced the project with great enthusiasm and a very positive culture of team cooperation has developed. The feedback we have received from our neighbours and the general public has been very positive and I would like to express my appreciation once again for the patience and consideration you have shown us, particularly at this time when our site deliveries are at a peak.

I have no doubt that ongoing good communications and first class teamwork shall continue to build towards successful project delivery.

David Welsh,

David Welsh,
Project Director, Interlink M74 JV

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Interlink M74 JV



M74 Employability Partnership



M74 Employability Partnership youngsters

A key objective of the M74 Completion project is to facilitate economic regeneration of the route corridor through investment and improvement of the local infrastructure and environment. In accordance with this objective the M74 Employability Partnership has been established to maximise community benefit through the provision of training and employment opportunities for unemployed people.

The partnership comprises Glasgow East

Regeneration Agency, Renfrewshire Council, Glasgow City Council and South Lanarkshire Council.

Interlink M74JV, in partnership with the M74 Employability Partnership has committed to maximising the opportunities for local workers, suppliers and sub-contractors to find employment on the project.

The partnership was formalised recently with a charter signing ceremony.

Women in Construction

Three members of staff recently attended Trinity High School to talk to female pupils about career opportunities in construction. Because the industry was not traditionally an option that girls might have considered when planning their future careers, the talk was designed to give food for thought and highlight the wide variety of roles available in the construction sector.

Claire Duguid, Nicola Perry and Laura Polson talked about their own experiences in the industry:

Claire Duguid

Claire is a Section Engineer looking after the construction of Glasgow Road underbridge, one of the thirteen bridges along the route of the new motorway. Her role involves project managing the building of the bridge from ensuring the correct materials are ordered to keeping the construction programme to schedule.

Claire originally wanted to be an architect but the subjects she studied at school were also well suited to civil engineering; Glasgow University launched a new course which combined the two and was ideally suited. She has now been working in the construction industry for five years on projects such as Europe's largest onshore wind farm, Whitelee, south of Glasgow, as well as other roads jobs.

For Claire, the satisfaction of being able to step back and look at, or drive past, something that she has worked on, is the best part of her career in construction.



Nicola Perry

Nicola is an Assistant Designer's Site Representative for the project designers Jacobs Atkins. Working along the whole five mile route, she plays a project management role ensuring that the road is being built as per the design and that mitigation measures in relation to issues like contaminated land are being adhered to.

Nicola has plenty experience in environmental engineering; after completing a degree in Environmental Sciences at Strathclyde University she joined a ground investigation company working on a number of housing projects among others. The M74 Completion is her first transport project.

Being able to spend much of her day outdoors rather than behind a desk is what Nicola enjoys most about her job although perhaps not so much when it's raining!

Women in Construction (cont)

Laura Polson

Laura is one of three Design Coordinators on the project. Acting as interface between the designers and the construction team, she develops workable solutions to deliver the M74 Completion working along the full route of the new motorway.

Laura studied Civil and Transportation Engineering at university before working in her first role as a Graduate Engineer on site.

She also has a keen interest in Health & Safety and has recently completed a post graduate diploma in Health & Safety Management to assist her and the company to develop and respond to the everyday challenges in modern construction.

Laura loves the variety in her role; coming in to new challenges each day and the diverse options available on a large scale project such as the M74 Completion keeps things fresh and interesting.

Schools, Colleges and Universities

Since the last newsletter Interlink has been heavily involved with the education sector e.g. Shawlands Academy (Careers Fair), Trinity High School (Women in construction and product design and development talks), Cairns Primary (design and construction of Auchenshuggle Bridge), Burnside Primary (creation of school garden), St Fillans Primary (joinery demonstration) and St Francis Primary (fly through and safety video). We have hosted visits from Strathclyde University and Forth Valley College in the period.

In this issue we focus on our work with Cairns Primary School:

Primary Three pupils from the school will be working alongside Clyde Gateway, an urban regeneration organisation which aims to improve social, economic and physical change in the local community.

The children will be investigating how links

between different places have developed by looking at roads, maps, railways and other transport links across Scotland. They will use information about the M74 Completion project to canvass opinions of neighbours and identify ecological issues from their investigations. Pupils will also be collecting and studying samples to investigate the likely effects on wildlife within and around the River Clyde. They will be keeping residents informed of their research findings.

Throughout the project Interlink M74JV will be facilitating the site based research by providing monitoring facilities for the construction of Auchenshuggle Bridge (a two year project in itself), our only crossing of the River Clyde. Our engineers will provide drawings and explanations of the design and construction of the bridge and the children's new found knowledge shall be deployed in the design and construction of their own bridges.



Cairns Primary School visit adjacent to site

The project complements the Curriculum for Excellence and Cairns Primary School teachers hope it will allow their pupils to:

- Use literacy, communication and numeracy skills
- Use technology for learning
- Learn independently and as part of a group
- Develop an understanding of the world and Scotland's place in it
- Evaluate environmental, scientific and technological issues
- Widen their awareness of science and engineering within their community
- Communicate in different ways and different settings
- Make informed choices and decisions

Progress Overview

West Section



Beams arrive at Gloucester Street

Mineworkings and Grouting – Grouting is progressing well and earthworks have commenced with work now 84% complete; final completion is due in August 2009.

M74/M8 Eastbound Viaduct – The sub-structure work is now complete. The assembly of beams is in progress and crane platforms are prepared for the beam erection due to take place late July.

M74/M8 Westbound Link Bridge – The sub-structure work is complete with reinforced concrete beams in place across all three spans and the deck pour is complete.

Port Eglinton Viaduct – Piling is now completed to all areas. Reinforced concrete to pilecaps and

abutments is 85% complete. Commencement of erection of launch steelwork due in August 2009.

Strathbungo Railway Underpass – Construction of the underpass is three months ahead of schedule. The full base has been concreted with wall construction well advanced.

Cathcart Road Overbridge – Phase one of piling is 90% complete with phase two due in 2010.

Polmadie Road Underbridge – All columns completed. Abutment piling imminent. Service diversions underway.

Rutherglen Station Underbridge – East abutment piling complete. Piling commenced for adjacent retaining wall.

Reco Retaining walls – The construction of retaining walls for the embankments is making progress with walls 1, 2 (Kingston), 10 (Scotland St) and 17(Polmadie) underway.

Band Drains – All band drains in West section are complete.

Earthworks and Roadworks – Earthworks are ongoing at Kingston with 145,000m³ of a total of 230,000m³ of material placed. All Polmadie material is in place. Strathbungo is 50% complete.

Further sources of reusable material have been identified with the potential of further reducing the need to import fill and thereby minimise the environmental impacts of transporting materials from elsewhere.

East Section

Earthworks

Since the last newsletter the weather has, in general, been favourable and import of fill materials has peaked at a rate of 43,000m³ per week. To date, 515,000m³ of 766,000m³ has been placed; the remaining fill shall be completed in October of this year.

Quay Road - Bulk import is ongoing.

Cambuslang Road – Bulk import is substantially complete with only the Network Rail access track and westbound merge slip road awaiting progression.

River Clyde – Paper pulp remediation, whereby paper pulp present in the existing soil is treated to ensure a solid foundation for structures, is now complete and mine seam consolidation to the eastern embankment is nearing completion.

Works will commence on the western embankment approaching Cambuslang Road once band drains are complete in late July. Imported fill shall run 'til September 2009.

Fullarton Road – Mine seam consolidation in this area finished in early July and bulk import is ongoing. During the period vibro stone columns, a technique used to construct columns in fill material, have been installed on the western approach to Fullarton Roundabout.

Pre-Earthworks Drainage – Good progress throughout the section and is ongoing.

Culverts

The culverts at Eastfield, Battleburn and Scion are complete.

Structures

Glasgow Road Underbridge - Piling work is complete and reinforcement and formwork to the West abutment is ongoing with concrete works having commenced at the end of June.

Farmloan Road Underbridge - This structure is substantially complete with work progressing on the parapets; the removal of temporary works and waterproofing of the deck will follow.

Cambuslang Road Underbridge - To date the west abutment base and bearing shelf, the west pier base and columns and the east pier base have all been cast. Work on the east columns is ongoing and piling to the east abutment is now underway. The delivery of the bridge beams has begun and they will be stored until the other columns have been completed (presently anticipated at the end of September).

Auchenshuggle – Piling work is now complete and excavation works are underway. West abutment is progressing towards a major base pour at end July.

Fullarton – Piling for both structures 75% complete. Steelfixing underway.



Auchenshuggle Bridge

Beam Fabrication and Erection

In each newsletter we like to give an insight into an operation which may not be well known or understood. In this issue we provide a brief overview of the manufacture, delivery and erection of the steel beams, a key component of many of the structures along the route of the new motorway.

Structure	Approx. Length	No. of Spans	No. of Girder Lines	Steel Weight	No. of Fabricated/ Delivered Box Girders	Painted Area
M74/M8 Link Bridge	232m	4	2	1,300t	20 Delivered as full boxes	10,000m ²
Port Eglinton Viaduct	750m	12	6 / 4	14,500t	163 Delivered as 326 half boxes	115,000m ²
Rutherglen Station underbridge	200m	4	4	1,900t	27 Delivered as 54 half boxes	20,000m ²
Auchenshuggle Bridge	82m	1	7	1,900t	35 Delivered as full boxes	7,000m ² Internal Only

Beams by Numbers

Work on the fabrication of the steelwork for the Port Eglinton Viaduct and the M74/M8 Link Bridge has been underway for several months at Cleveland Bridge UK Ltd's Darlington factory. Up to 2,000 tonnes of steel plate is being supplied each month by Corus with a stock pile of 11,700 tonne of plates varying in thickness from 10 mm to 130 mm now in place. The project will require 20,000 tonnes of plate in total.

Box girders are being used to support the structures and have some difficult geometry built into them to ensure the final shape of the bridge is achieved as planned. After being assembled, tested and inspected to ensure they are fit for purpose, they are then painted with four external and two internal coats ready for delivery to site.

The erection scheme requires 1,500 tonnes of temporary steelwork sections and plates to support and hold the bridge sections as they are assembled and erected. 175,000 Tension Control bolts are being manufactured in America from one of the few suppliers of these special steel fasteners while 200,000 shear studs have been sourced from Germany as they are not available from a UK manufacturer.

M74/M8 Link Bridge

The fabrication of the 1,350 tonnes of box girders required for the M74/M8 Link Bridge is complete with the girders painted and held in storage. Deliveries commenced late June early July 2009.

The M74/M8 Link Bridge is being manufactured in 20 sections ranging from between 16 and 34 metres long, each weighing between 40 and 80 tonnes. After delivery to site, the sections are joined together to form eight larger sections weighing up to 200 tonnes each which will be lifted into their final position using the UK's largest mobile crane.

The assembly will be carried out alongside the M8 carriageways, Paisley Road off ramp and Gloucester Street.

The massive 1200 tonne crane, which will take four days to assemble, will first be positioned to erect the girders at the Paisley Road off ramp and will then move to the other side of the M8 to erect the Gloucester Street section of the bridge. First lifts will be late July / early August.

Port Eglinton Viaduct

Work is well underway on assembling the half width box girders for the West Street to Paisley Rail line section of the Port Eglinton Viaduct. There will be 13 large girders, varying in size up to 200 tonnes and 70m long, assembled in the car park with the remainder required for this first stage assembled alongside the embankment adjacent to Gloucester Street.

The crane that will be used for the M74/M8 Link Bridge will be transferred over to the Port Eglinton Viaduct where it will be rigged on site near West Street. The assembled box girders will be moved to West Street where the crane will lift them over the Paisley Rail Line into their positions on the new bridge piers. This is repeated with one girder each night until the steelwork is assembled safely on the piers.

Next issue: Port Eglinton Viaduct - raising the main span into position.



Beam Fabrication Shop

Be Safe This Summer

Now that school is out and the summer holidays are here, the project team has an important safety message for youngsters. While construction sites may look like an exciting place to play they can be extremely dangerous and should never be entered by members of the public.

Interlink recently paid a visit to Cairns Primary School in Halfway and St Francis Primary in the Gorbals to warn them of the dangers of playing on construction sites and would ask that all parents do the same. The Health and Safety Executive has the following advice for parents:

- warn children against playing in dangerous areas, including building sites
- make sure you know where your children are going and when they will be back
- encourage them to play only in safe areas such as playgrounds

Health and safety is the top priority for the project and there are a number of measures in place to ensure that sites are secure from a 24 hour security patrol and CCTV cameras to substantial fencing on all sites.

Blood Donors Get Busy

Earlier this year the project arranged a visit from the Scottish National Blood Transfusion Service (SNBTS) to encourage staff to give blood. 55 staff members took time to visit the van, donating over 45 pints of much needed blood.

The SNBTS provides vital, and often life saving, blood transfusions for over 100,000 patients in Scotland every year. To keep up with demand they need to add another 10,000 donors to their register in the coming year. The project will continue to support this initiative with a second visit in place for this October.

Your Feedback

The M74 Completion News is produced to keep you, the public, informed about the project, its progress and how it affects you. To ensure that we are doing this effectively we would welcome your comments and feedback on the newsletter.

If there is anything you would like to see included in the newsletter or if you have any comments please email community.relations@jvm74.com or call 0800 328 1697.

Contact Us

By telephone:

If you have any queries please contact our freephone Community Helpline, 24 hours a day, 7 days a week on

0800 328 1697

Alternatively you can contact us at the address below:

Community Relations Team, Interlink M74 JV, Interlink House, 150 Polmadie Road, Glasgow, G5 0HD

Or email:

community.relations@jvm74.com

The project website is regularly updated, for the latest information please visit www.m74completion.com

The purpose of these newsletters, which are printed on environmentally friendly paper (9 Lives 200gsm Silk), is to provide the public with information about the M74 Completion project. These newsletters will be issued regularly and contain details of progress, forthcoming programme and other interesting aspects of the scheme.