

## INTRODUCTION -----

Merry Christmas to all our readers! Link Line is the newsletter for the M1-A1 Link Road (Lofthouse to Bramham) issued to provide the public with information about the project. The M1-A1 Link Road is the largest project ever awarded by the Highways Agency and is a Design, Build, Finance and Operate contract. Link Line is updated quarterly and includes details of progress, the forthcoming programme and future traffic management layouts.



Construction of Lofthouse Lane Bridge, Aberford

## PROGRESS TO DATE

Work is progressing well both in the Wakefield design office and on site. The design team of just over 100 engineers and

support staff are working on almost 40 structures and roadworks. The detailed design prepared by the Babbie Group is communicated to the construction team by drawings and all drawings have to pass through a review procedure before they can be released for construction. It has been important for the design team to work quickly to prepare sufficient drawings for the

construction team to be able to progress the works on site. On site, the team is building in size and is expected to peak at about 1,000 site employees. The principal activities have been archaeological investigations, bulk earthmoving and the construction of bridge foundations, piers and abutments. Over one and a half million cubic metres of earth has been shifted out of the total of

nearly five million cubic metres. Most is relocated along the project route so that the quantity of material excavated equals the quantity of material placed to form embankments and fill low spots. Much of the excavated material has come from alongside the existing A1 near Aberford. The rock is Magnesian Limestone and it can be put to many uses in construction. A mobile crushing and sorting plant has been set up on site alongside the A1 to process the rock into useful sizes. Larger sizes (75-125mm) are used for filling soft areas and forming drainage blankets. Smaller sizes (20mm) are used to create the sub-base for the road and are used in weak concrete mixes forming the base of the road.

## PROGRAMME TO THE END OF FEBRUARY 1997 -----

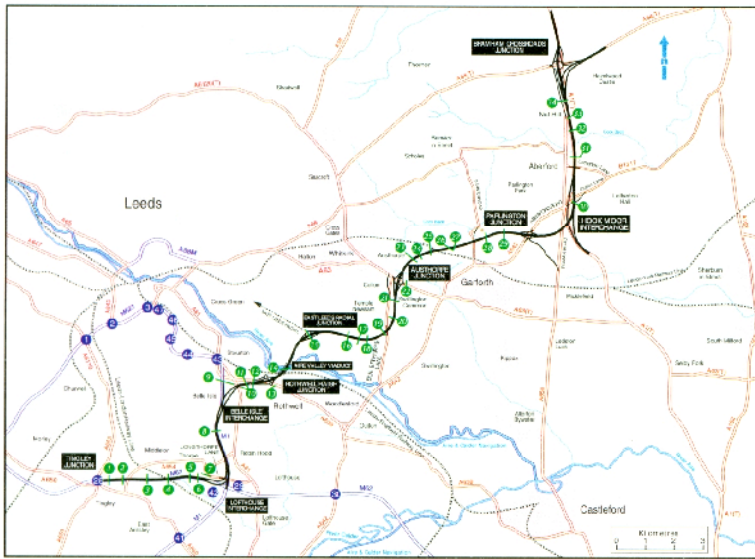
Detailed design will continue and be well progressed by the end of February 1997 releasing much of the information required for construction. Earthmoving will be difficult during winter and the emphasis will be on the construction of bridges to complete the earthmoving haul route through the site and so keep construction traffic off the local highways. Many of the bridges are already well underway with structures rising from the ground. These include bridges at Bullerthorpe Lane, Austhorpe Junction, Parlington Junction, Collier Lane and Lotherton



Lane. Piling for the Aire Valley Viaduct is substantially complete and bridge piers will soon appear above ground level. Traffic management measures will include hardshoulder closures on the M1 and M62, minor local diversions of Sharp Lane and the A61 at Bell Hill and the temporary closure of Longthorpe Lane which is expected mid-February 1997. **An overnight closure of the A1 between the A63 and A642 will be necessary to allow the erection of a temporary Bailey bridge across the A1 to complete the site haul route. The closure is expected overnight on 7th December 1996, between 21.00 and 06.00 and diversion routes will be in operation.**

Left: Piling for the Aire Valley Viaduct





## ARCHAEOLOGY

Construction of the M1-A1 Link Road has presented a unique opportunity to examine the heritage of a part of West Yorkshire where little archaeological investigation has previously been done. Firstly, existing information including aerial photographs was studied to locate possible sites of archaeological interest. Subsequently, ground surveys using remote sensing techniques and trial trenching identified fifteen sites for full archaeological excavation. Field work was undertaken on behalf of the Trafalgar House-Balfour Beatty Joint Venture by Archaeological Services WYAS of Wakefield, working to designs prepared by Babbie Group's archaeologists. Sites dating to the Bronze Age, Iron Age, Roman and Dark Age periods have been under investigation, as well as industrial sites of more recent origin.

## FOOTPATHS

We have received many enquiries regarding footpath closures and therefore a map is included showing the current status of footpaths along the M1-A1 Link Road. Generally, footpaths remain open where possible although some diversions or closures have been unavoidable for safety reasons. All closures have been agreed with the Public Rights of Way Officer of Leeds Leisure Services.

### Footpath Status

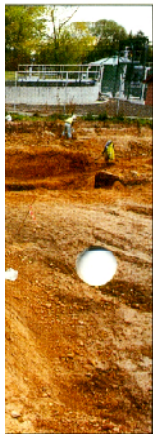
- 1-3 *Unchanged*
- 4 *Access available during most of the construction period. Possible temporary closure in 1997 or 1998.*
- 5 *Oakley Subway. A temporary closure will be necessary around December 1996/January 1997.*
- 6 *Dolphin Lane Footbridge. Open. Partial access restriction on north side.*
- 7 *Open*
- 8 *Clapgate Lane Subway. Temporary closure for construction works planned shortly.*
- 9, 10 *Local diversion will be put in place shortly.*
- 11 *Closed*
- 12 *Diverted to Rose Cottage Subway (No 13 below)*
- 13 *Rose Cottage Subway. Open*
- 14 *Trans Pennine Trail. A two year diversion is open*
- 15 *Pontefract Lane. Currently open but subject to the decision on East Leeds Radial.*
- 16 *Dog Kennel Hill. Open*
- 17 *Diverted to The Avenue.*
- 18, 19 *The Avenue. Open with local diversion.*
- 20 *A temporary access will be maintained although the location may vary locally during construction.*
- 21, 25, 28, 31 *Closed*
- 22, 24, 26, 30 *Open*
- 23 *Diverted to No 24*
- 27 *Diverted to No 26*
- 29 *The Flyline. Open*
- 32, 33 *Temporarily closed. The footpaths will be diverted to a footbridge when constructed.*
- 34 *Black Horse Farm. A new underpass is under construction*

Below: Seccs Banks



The work has brought to light significant new evidence for both East Leeds area and West Yorkshire as a whole. For the first time in the modern archaeological era Bronze Age cremation burials have been found whilst on another site early Saxon houses known as grubenhauser have made their debut in the county's archaeological record. Other sites investigated include Iron

Age and Romano-British enclosure sites representing both farming and a settlement; Dark Age earthworks and a post-mediaeval brick kiln site. Perhaps of greatest importance are the investigations of the enigmatic linear earthworks known as Grim's Ditch and Becca Banks, near Colton and Aberford respectively. The monuments have in the past been linked with the post-Roman British Kingdom of Elmet, although previous work has so far failed to provide adequate dating evidence to confirm this notion. It is hoped that samples obtained from below the earthwork banks and the bottoms of the ditches will on this occasion be able to provide reliable dating and environmental information for that period. Archaeological investigations are now almost complete and sites have been covered over. The potential for post-excavation analysis of the data and publication of the findings is being assessed. Detailed analysis is expected to take up to two years to complete.



### SCHOOL VISITS -----

Green Lane Primary School, Garforth was the first to visit the M1-A1 Link Road project on 9 October 1996.

Amy Ingram (age 10) reports:



Through the eyes of Jennifer Stanton (age 10)



Above: James Anderson training apprentice surveyors

### The Great Trip

Today Wednesday 9th October, I practically ran to school. I was going to Bullerthorpe site with my class because we are learning about the M1-A1 Link. Yorkshire Link was providing transport which was a coach. My class went on their journey to the roundabout near Sainsburys. 35 children clambered off the coach. Our class went into a little hut where there were three long tables, I sat at the back. Mr Waller talked to us about the route for building, which was going on and where the motorway was going to be widened. After that the archaeologists talked about their findings. Most of their findings were near the Aberford area. I found out that the colour of the pots they find can indicate how old they are. Keith (one of the archaeologists) showed us half of a object that was used in Roman times for grinding corn. Then another archaeologist told us about animal bones and let us look at them and feel them. After that we put on fluorescent jackets and safety helmets

to protect our heads. 35 children again clambered onto the coach with James and Mr Waller. Mr Waller, James and our class stopped at another site where there was more machinery. Diggers, cranes and a mini steam-roller was flattening it. Back onto the coach we clambered. After we had found our places we looked out of our windows to see the places where they are building. At first I didn't want the M1-A1 Link to be built because I thought it would ruin our countryside and cause more pollution, but now I have seen the good side of it and have thought about how it helps people like the 999 Emergency services and people who have to work. My dad says "I'm fed up with traffic going to and from Leeds and I'd wish they'd get the thing built!!!"

I would also like to compliment on the lovely buffet. Thank you for lending your time so we could come and visit!

**By the end of November, the site will have been visited by ten classes from Green Lane; Ninelands Primary, Garforth; West Garforth Primary; Aberford School and Gillamoor School, Pickering. More visits are expected to be arranged commencing Spring 1997.**



Above : Foundation Works at Rothwell High

### SAFETY WARNINGS---

Cars have been jumping red lights at plant crossings along the route. This is extremely dangerous and has resulted in one serious accident to date.



Earthmoving plant is heavy and takes a considerable time to stop. The traffic light systems have been improved to reduce the number of unnecessary changes to red and should be obeyed. It is an offence to jump these lights and the police will prosecute any offender. Apart from essential works and emergency cover, the site will be closed for Christmas and the New Year and precautions will be taken to ensure that the site is left safe over the holiday period. However, many areas of work which may look interesting and challenging to children are potentially hazardous and we would therefore ask parents to emphasise to children that under no circumstances should they cross or play on the M1-A1 Link Road site.



### PUBLIC LIAISON -----

The project team recognises that not everyone welcomes the construction activities on the M1-A1 Link Road. It is one of our priorities to work together with local residents to ensure that you are kept informed of construction activities. We attend regular meetings with Leeds City Council, Parish Councils and Residents Groups along the route. Every reasonable effort will be made to minimise disruption to the local community. If you have any queries relating to the project please contact Gordon Hounslow on 0831 196325. This is a 24 hour line available for emergency use. Alternatively, you can phone Gordon at the site office on 0113 204 4068 or Andrew Waller on 0113 204 4014.

If office phones are unattended you can leave a recorded message.

**Trafalgar House Balfour Beatty JV and Babbie Group**  
M1/A1 Site Offices, Bullerthorpe Lane,  
Leeds LS15 9JJ  
Tel: 0113 204 4014 Fax: 0113 204 4001

### PUBLIC EXHIBITION FEEDBACK

Public exhibitions were held at four different venues during September and October. Approximately 665 members of the public attended these exhibitions as follows:

- Aberford 300**
- Garforth 165**
- Rothwell 100**
- Swillington 100**

*The exhibitions were permanently manned by representatives from the Trafalgar House-Balfour Beatty Joint Venture and Babbie and visitors were able to familiarise themselves with details of the project. Many of the questions posed to the staff at the exhibitions related to the measures taken to alleviate the noise and visual impact of the motorway, new road layouts, lighting, landscaping and the programme for the works.*



# LinkLine

Kvaerner - Balfour Beatty JV and Babbie Group

ISSUE 3 APRIL 1997

## INTRODUCTION

Link Line is the newsletter for the M1-A1 Link Road (Lofthouse to Bramham), issued to provide the public with information about the project. The M1-A1 Link Road is the largest capital project ever awarded by the Highways Agency with a capital value of around £190m and is a Design, Build, Finance and Operate contract.

Link Line is generally updated quarterly although this issue has been held back slightly to coincide with the start of major works to improve the M1-M62 Lofthouse Interchange. Link Line includes details of progress, the forthcoming programme and future traffic management layouts.

## INTRODUCING KVAERNER

The M1-A1 Link Road is being designed and constructed by the Kvaerner - Balfour Beatty Joint Venture on behalf of Yorkshire Link Limited. Kvaerner is the large

international engineering and construction organisation originally based in Norway but now with its international headquarters in London that has taken over Trafalgar House.

## OPERATIONS AND MAINTENANCE

On behalf of Yorkshire Link Limited, the Kvaerner - Balfour Beatty Joint Venture became responsible during early Summer 1996, for the Operation and Maintenance of sections of the A1, M1 and M62 within the limits of the project road. This responsibility, traditionally held by the Highways Agency, runs concurrently with that for constructing the M1-A1 Link Road. Carriageway repair and other essential maintenance work is being carried out overnight if possible to minimise disruption.

## PROGRESS TO DATE

The project celebrated its first anniversary on 26 March. From a standing start with only concept drawings



Above: The temporary bridge at Hook Moor

and no detailed design, good progress has been made. Design of the project by Babbie group (on behalf of the Kvaerner - Balfour Beatty Joint Venture) is currently being carried out in seven different offices around the UK and managed from Wakefield.

On site, John Jones, the earthworks subcontractor, has made excellent progress assisted by fair Winter weather. The Aberford cut east of the A1 is substantially complete and filling has progressed well at Barnbow Common, Austhorpe Junction and Rothwell Haigh. The near five million cubic metre 'muckshift' is just over half complete.

New structures have been appearing throughout the route and several of the critical bridge decks are now in place. The bridge decks are predominantly precast concrete beams with insitu concrete topping and the project currently requires 517 precast concrete beams. All except three of the beams are prestressed (i.e. cast in tendons are stressed and provide the bending strength of the

beams) with lengths ranging from 12m to 31m and weights up to 40 tonnes. The beams are being cast off-site in Europe and transported by RORO ferry to Liverpool. Usually the beams are transported from Liverpool on the M62 motorway during the evening and are then held in "holding areas" near the M1-A1 Link Road project until permitted by the Police to progress to the site itself - usually during the night.

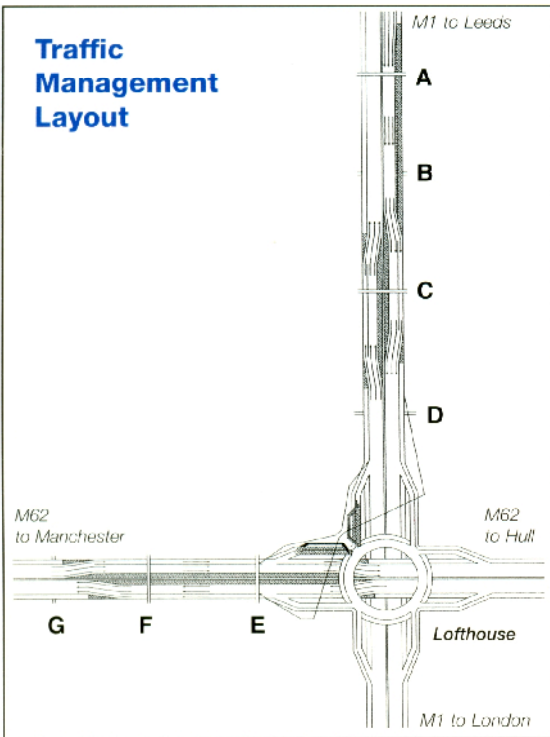
Permanent bridges and structures will be used to cross major obstructions where possible to complete the haul route through the site. The main structure of Cock Beck culvert east section has been completed allowing backfilling and completion of the haul route across the valley. The main structure of Collier Lane bridge was completed during February with 1050m<sup>3</sup> concrete placed to the deck in one day. A temporary bridge has also been constructed across the A1 at Hook Moor for the haul route.

Below: Placing beams at Parlington Junction



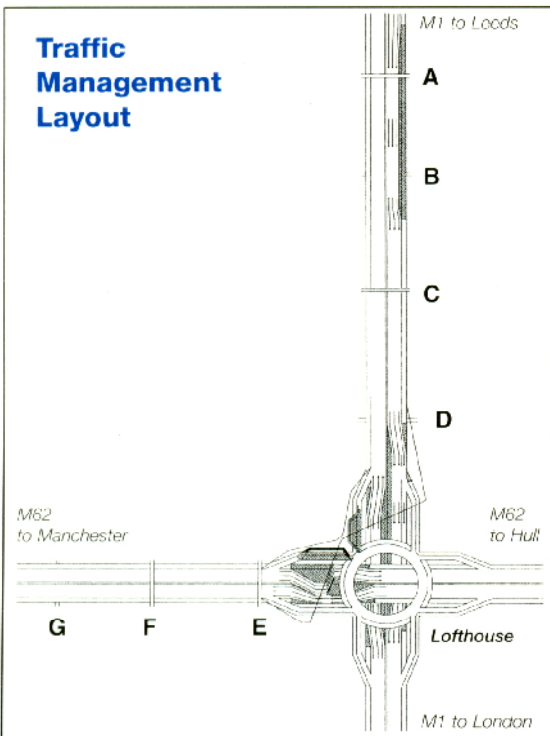
M1/M62  
Lofthouse Interchange  
Special

## Traffic Management Layout



Early April 1997

## Traffic Management Layout



Late April 1997

## THE M1/M62 LOFTHOUSE INTERCHANGE

Major improvements to the M1/M62 Lofthouse Interchange will take place as part of the M1-A1 Link Road project. Free flow links will be provided from the M1 southbound to M62 westbound and the M62 eastbound to M1 northbound.

Challenging civil engineering works include the construction of three bridges and two tunnels within the confines of a very small site which includes the live M1 and M62 motorways and a local road, Longthorpe Lane.

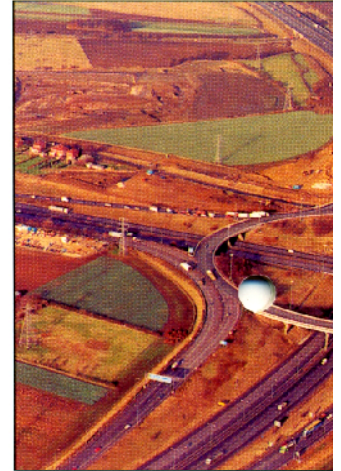
The tunnels will be 112m and 150m long and will pass under the M1 and M62 respectively. The bridges will be constructed on Longthorpe Lane, the M1 northbound on slip road and the M62 eastbound off slip road. The M1 and M62 slip roads have been diverted to allow space for bridge construction. To ensure the safety of the public, Longthorpe Lane was closed to through traffic on 17 March for eighteen months. Pedestrian access will be maintained using diversion routes around the site works as necessary.

Phased traffic management schemes will be in place on the M1 and M62. The aim of traffic management is to reduce the impact on road users to a minimum and to ensure public safety and the safety of the workforce who will be operating in close proximity to live traffic. Considerable thought has been given to planning the most effective traffic management systems. The traffic management will allow construction of the tunnels by the "cut and cover" method. By this method the tunnel is constructed in a cutting from the bottom up and surrounded with backfill on completion. Tunnel construction will progress across the line of the existing motorway carriageways in phases co-ordinated with the traffic management. To maximise the space available, work has already started on

## Legend to Traffic I

- A Belle Isle Interchange
- B Clapgate Lane Subway
- C Sharp Lane
- D Thorpe Lower Lane

Below: Lofthouse Interchange looking



hardening the verges and central reservations to create additional running surfaces for traffic. The first contraflows are expected on the M62 on 19 April and on the M1 on 12 May. Traffic management phases will be in place until summer 1998.

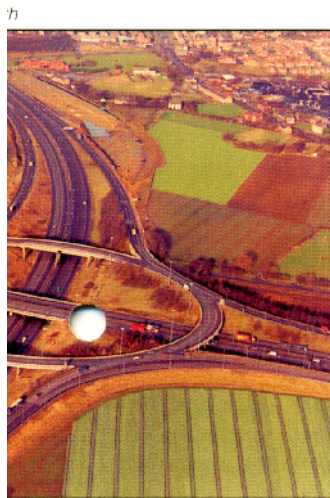
Throughout the works three lanes of each motorway will remain open in each direction at peak times and reduced lane availability will be restricted

Below: Hook Moor Interchange looking



## Management Layouts

- E** Lingwell Gate Lane
- F** Dolphin Lane
- G** Oakley Subway



to off peak hours. Appropriate speed limits will be in force and cameras will be used to monitor the speeds of vehicles. Moderate delays are expected and motorists are encouraged to use alternative means of transport to avoid the interchange if possible, particularly at peak times.

During all traffic management on the A1, M1 and M62, CCTV cameras will monitor traffic and recovery vehicles will be on standby to deal



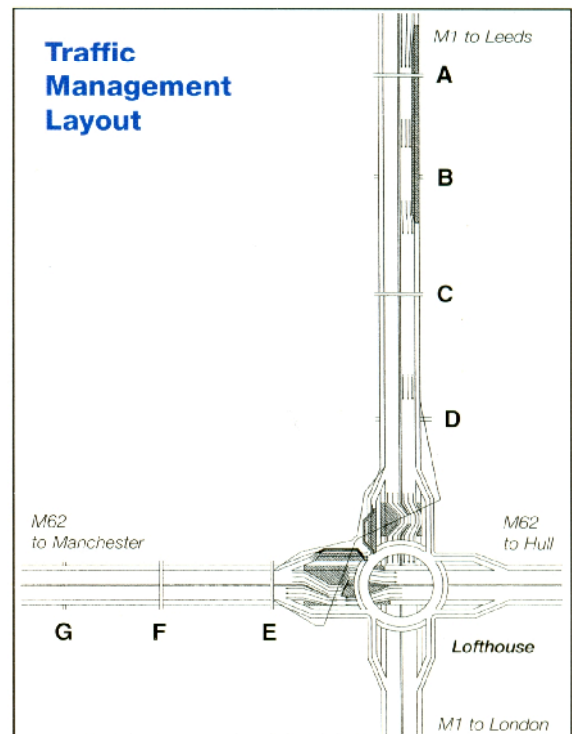
with broken down vehicles quickly.

### WIDENING THE M1 AND M62

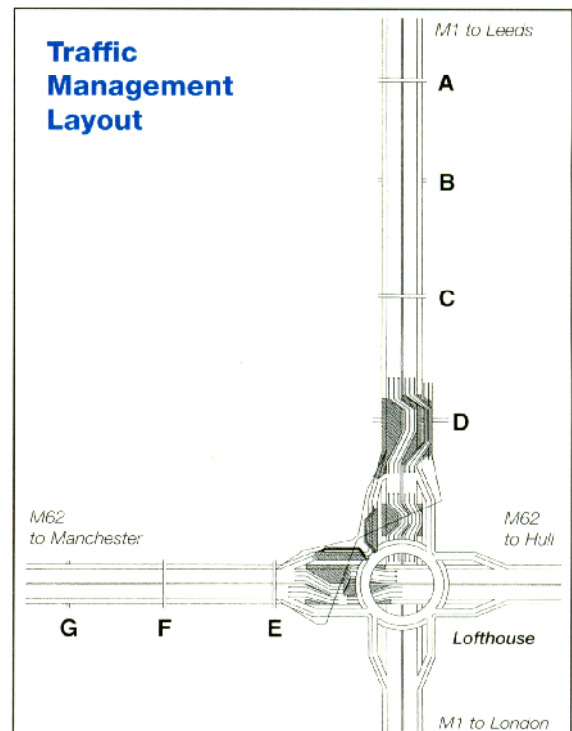
As part of the M1-A1 Link Road project, the M62 is being widened to four lanes in each direction between Tingley (junction 28) and Lofthouse (junction 29) and the M1 is being widened to five lanes in each direction between Lofthouse (Junction 42) and a new interchange which is being constructed at Belle Isle. Bridges at Dolphin Lane, Lingwell Gate Lane, Thorpe Lower Lane and Sharp Lane are currently being lengthened to accommodate the widened motorways and traffic management is in place on the M1 and M62, which has been co-ordinated with the traffic management at Lofthouse Interchange. Central pier construction at Dolphin Lane and Lingwell Gate Lane will take place simultaneously with central reserve hardening at Lofthouse.

The new overbridges at Dolphin Lane, Lingwell Gate Lane and Sharp Lane are being constructed off their existing alignment. The permanent bridge deck at Sharp Lane is being constructed on a temporary alignment using structural steel beams. These beams will be delivered on either 26 April or 10 May, during the night when the M1 will be closed in both directions between junctions 42 and 43 for safety reasons. Diversion routes will be in operation. The temporary alignment will be used for a temporary traffic diversion during demolition of the existing bridge and abutment reconstruction. The new bridge deck will subsequently be slid across from its temporary location to the permanent location which coincides with the existing alignment of Sharp Lane. This bridge slide is expected in the Autumn.

Beams to the extended underbridge at Thorpe Lower Lane will be delivered overnight in April/May and traffic will be diverted along the temporarily re-opened Longthorpe Lane.



Mid May 1997



June 1997



Above: Bramham Crossroads south bridge

### PROGRAMME TO END OF JUNE 1997

Detailed design will continue and the design of major works will be substantially completed by the end of this three month period.

Significant earthworks are planned for the Spring. This will include works on the embankment which has been constructed north of the River Aire as the approach to the Aire Valley Viaduct. This embankment is located on soft compressible ground and was constructed higher than necessary during Autumn 1996 to overload the ground and accelerate settlement. Settlement has taken place through the Winter as expected and the extra material can now be removed to construct embankments near Pontefract Lane.

Completion of the railway crossing at Crawshaw Wood and the relocation of traffic across new bridges on the A63 will allow earthmoving from south to north to create the cuttings from Temple Newsam to Barrowby Lane and the embankments from Barnbow Common to Parlington Junction.

Completion of the Aberford cut will allow road formation and surfacing work to commence on the new alignment of the A1 southbound carriageway east of the existing A1 alignment.

The construction work will also begin to make a very noticeable difference to the travelling public with new road alignments over the newly constructed bridges and traffic management on the major trunk roads in the area. The centre pages are dedicated to traffic management on the M1 and M62. Elsewhere, Austhorpe Junction on the A63 will be opened to traffic in stages which are planned to be complete by the end of June. Off-peak lane closures will allow the construction of tie-ins and roadside works. Parlington Junction will be partially completed and the A642 will be re-routed over the west bridge in early Summer. Numerous services diversions are required alongside and across the A64 at Bramham Crossroads and off-peak lane closures will continue during the next three months.

After completion of the Austhorpe Junction, Bullerthorpe Lane will be closed for six weeks to complete the tie-in works for the new bridge as quickly as possible. At Lotherton, Collier Lane will be re-routed to its new and partly temporary alignment in June. The B6481 will also be diverted onto a new alignment using the new roundabout north of Rothwell Haigh junction.

The construction of bridges will continue through the Spring with wing walls and parapets being completed to the more advanced structures. Columns and the north abutment of Aire Valley Viaduct will be progressed. Beam erection will include bridges at Lingwell Gate Lane, Thorpe Lower Lane, St George's, Bell Hill, Rothwell Haigh, Bullerthorpe Lane and Barrowby Carr Lane. The underpasses at Hawks Nest Wood and the Flyline are being precast off-site in box sections and delivery of these sections will commence during Spring.

#### TRAFFIC MANAGEMENT INFORMATION

The Joint Venture has established a traffic management information telephone line on 0113 204 4226.

The line gives up to date details of traffic management on the A1, M1 and M62 in a recorded message. Details of traffic management on local roads can be obtained by telephoning Peter Thickbroom on 0113 204 4072 or the Public Liaison team on 0113 204 4014 or 4068.