Derby City Council

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The Planning Inspectorate
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Dear Sir

A38 Derby Junctions Regulation 9 and Regulation 16 Consultation

In response to Highways England consultation, the following provides a summary of the comments on the EIA and DCO application by Derby City Council on Traffic and Transportation and Land Drainage grounds. These comments represent the views of Officers in relation to the technical areas of the application as set out under the main headings below.

Transport Assessment

The city council welcome the grade separation of the three Derby Junctions and the significant level of capital investment that this represents. The scheme will have clear benefits for Derby's local highway network. It will optimise route choices and reduce delays and congestion as a result of traffic that currently uses the local road network to avoid congestion on the A38 Trunk Road. Further, the grade separation of the A38(T) will remove the current delays at the three Derby junctions, improving journey times and reliability for Derby's residents and business users, and regional and national connections via the wider strategic road network.

The grade separation will also improve road safety as a direct result of separating A38(T) traffic from local traffic, and from the removal of traffic that is currently using inappropriate local routes to avoid congestion on the A38(T).

Local Impacts

The transport assessment does show that there are some areas of the local network, particularly where the local road network connects to the A38 Trunk Road, where there are significant increases in traffic.

For example, on the Kedleston Road corridor north of the A38 it is predicted that in the AM Peak that there is an increase in southbound traffic of 157 PCUs and an increase of 564 PCUs on the on-slip. This change in traffic is largely as a result of traffic that currently uses Markeaton Lane or new traffic taking advantage of the scheme. Conversely there is a decrease in traffic between the A38(T) and Five Lamps Junction of around 200 PCUs. The issue for Derby City is that whilst there

are benefits of traffic avoiding inappropriate routes, such as Markeaton Lane, the change in flows through the Kedleston Road traffic signals will need to be managed. Potentially this means reconfiguring the signal timings and potential changes to white road markings, which might impact on the off-slip phase and the operation of the Trunk Road Network.

Similarly there are also significant major traffic flow changes at the following junctions:

- Manor Road/Kingsway Junction
- Hospital Gyratory
- Kingsway Junction/Cherry Tree Close/Kingsway Retail Park
- Uttoxeter New Road/Brick Street/Ashbourne Road
- Friar Gate/Agard Street
- Prince Charles Avenue/A52 Ashbourne Road
- A61 Sir Frank Little Way/Alfreton Road
- A608/A61/Hampshire Road

It can be difficult using a strategic transport model to fully predict every local impact that the A38(T) Junctions scheme will have, and how to best manage the changes on the local network. Further, the long construction programme might in itself change traffic patterns in the long term.

The Transport Assessment does not consider in detail any wider impacts on the local road network as a consequence of the scheme, other than the slip road closures discussed in the next section. As such, Derby City Council, would like Highways England to consider how it might manage changes on the local network as a result of the scheme, and for the benefit of an integrated network, provide support post scheme. For example, we already anticipate that the Kedleston Road corridor and at Five Lamps junction will require some changes following completion of the scheme. The Council requests that a fund is available, held by Highways England, that we can call upon to fund changes during the first 12 to 18 months after practical completion of the three junctions.

Local Slip Road Closures

As part of the scheme the substandard slip roads at Ford Lane, Raleigh Street and Brackensdale Avenue will close. There are clearly going to be changes in traffic patterns as a result, both increases and decreases. For example, an increase in eastbound traffic on Brackensdale Avenue, but an equal decrease in westbound traffic. This is unavoidable in order to deliver the scheme and maintaining consultation with residents that are affected through the design process will be important.

As a result of the closure of Ford Lane on-slip to the A38 Highways England has put forward a scheme to signalise the A6/Ford Lane Junction. This has partly been driven by feedback from public consultation and the strategic modelling, which has predicted that with forecast growth that

this junction requires direct intervention. However, Officers have considered the forecasting and route choice prediction of the model and in this case have questioned its realism. It is a significant decision to signalise a junction on a Primary A Route. This is an issue that we would like to consider further as part of the detailed design process.

Construction Traffic Management Plan

At this stage the phasing plans lack detail in terms of explaining capacity (number of trafficable lanes and lane widths) during the construction phases. In summary, more information needs to be provided on the following:

- Haulage construction traffic in works areas and how this will be managed and interface with adjacent running lanes.
- A clear picture of how phasing sequences at all thee junctions will interlink.
- Detailed traffic management plans showing site layouts.
- Clarification on speed limits as the document says it will be 'at least' 30mph during construction phases.
- More detail is required on the coordination of other works in the City as the document makes reference to this. Traffic and Transportation need a clear understanding of Highways England's expectations. Derby City Council does not operate a Road Space Booking system as referenced in the Construction Traffic Management document.
- Incident management strategy.
- More detail on pedestrian management for example controlled crossing points.

There is concern that there is no flexibility in the Traffic Management Plan. The plan may provide the best solution for maintaining traffic flow on the A38(T), however, this could be at the expense of more delays and traffic on Derby's local road network. For example, the document makes reference to queue lengths on the A38(T) during construction, which should not exceed the queue lengths prior to construction. As a consequence does this mean that Derby City's outer and inner ring roads are expected to be utilised to achieve this outcome?

Further, during the construction, entering and exiting Derby from the west is going to be difficult. Under Phase Two of the plan around the Markeaton Roundabout, it is proposed to ban the right turn and provide a shuttle lane under traffic control for the ahead movements on Ashbourne Road. This is likely to cause significant congestion and will be extremely disruptive to people living on the Mackworth Estate, and anyone entering or leaving the City. Is this the only option to manage this phase of the construction?

The construction of the A38(T) Derby Junctions Scheme will be a challenging period for the City, with major employers, city centre retailers, and the hospital all expressing concerns about accessibility and congestion having negative impacts. As such, communication and flexibility will be key in managing the movement of traffic through and around Derby. To this end it is critical that Highways England continue liaise with key stakeholders and Traffic and Transportation over the Traffic Management Plan. However, the Council will struggle to meet this demand and we would like to explore with Highways England any resources they could provide to facilitate this function through the construction programme.

For example, the Council has identified that a Communications Officer will have to work in Derby ahead of the scheme, primarily working with the Local Travel Behaviour Change group, which includes key stakeholder from the city centre, Marketing Derby, public transport operators and the Hospital. The Council will provide access to the business contact and engagement plan that we have developed over several years, and are prepared to work closely with an HE Communications Officer. The Council will welcome the Communications Officer spending some of their time based in the Council House, and being available to work with city centre stakeholders.

Further, the Council has also identified that some accommodation works may be necessary on the local road network, to accommodate changes in traffic patterns, and to support pubic transport during the construction period. For example, changes to traffic signal sequences and potentially changes to the current allocation of road space. The Council will be seeking financial assistance to make any necessary changes.

To support the scheme, assist with technical comments, and to monitor and respond to changes in traffic, the Council has assessed that additional technical resources will be required. We ask that Highways England consider making funding available to support a technical officer ahead of, and throughout the construction period.

Sustainable and Public Transport

Traffic and Transport welcome the cycle and pedestrian improvements that have been incorporated into the scheme design. It is important that Highways England continue to liaise with Derby City Council, transport providers and user groups through the detailed design process, to ensure that the best solutions can be incorporated to reduce severance and maximise connectivity for none motorised users and public transport.

Traffic and Transportation would like to explore any channels of funding available within Highway England, through a business case, for funding. This is to support behavioural change initiatives prior to scheme construction to reduce the demand for car travel on the road network across Derby. We would welcome the support of the A38 Junctions Project Team in exploring any funding opportunities available.

Traffic Regulation Measures and Stopping Up

It is noted that under Part 2, Schedule 13 of the DCO application, that any works on the local highway network has to be done to the satisfaction of the Highway Authority. Some areas appear to be being 'Stopped up' or have the links to the Highway severed. Consideration should be given to the formal stopping up process, land ownership after stopping up and utility services that may be affected. In addition, if roads are being stopped up within Highway England's ownership, which tie into the DCC maintained highway, there are some instances where Derby City Council will be left with a 'stub end'.

Please give consideration to the following points relating to Traffic Regulation Order (TRO) measures:

- A5111 from Uttoxeter New Road junction to in advance of A38 roundabout is subject to No Waiting at Any Time as of 28th January 2019. This replaced No Stopping (Rural Clearway) (At Any Time) (Carriageway Only).
- TRO details for A5111 hospital egress.
- Ashbourne Road is subject to No Waiting Mon-Fri 8am-6pm, No Waiting at Any Time may be more appropriate to accommodate the changes.
- Ashbourne Road bus stops nearest to the proposed splitter island are likely to affect the flow of traffic. If it is considered necessary to relocate the bus stops there will be sections of road left unrestricted.
- Ashbourne Road is currently subject to 30mph.
- Sutton Close right turn on to Ashbourne Road.
- It is necessary for Derby City Council to maintain an up to date map based system, therefore we would need to be notified of all changes relating to Traffic Regulation Orders.

The comments bullet pointed above are not exhaustive. Again, it is assumed that as set out in Part 2, Schedule 13 of the DCO application that Derby City Council will be technically consulted further on the traffic regulation measures as the scheme moves through the design process.

Derby City Roadside NO2 Scheme

As you are aware we have a ministerial direction to implement a scheme to tackle predicted nitrogen dioxide exceedances identified in Stafford Street in Derby. We are required to implement the scheme in the shortest possible time and then maintain compliance. As previously stated in our discussions with Government about the roadside NO2 project, the Council still wishes to see the A38 scheme taken forward as soon as possible for valid transport reasons and not delayed. However, the A38 Derby Junctions Scheme, both during the construction period and once opened, needs to ensure that it does not put the ability of the council to achieve and maintain NO2 compliance at risk.

Land Drainage

On Land Drainage grounds there are the following detailed points raised:

General Comments

1. 3.1.2 - NPSNN paragraph 5.115 states "Applicants should seek opportunities to use open spaces for multiple purposes such as amenity, wildlife habit and flood storage uses. Opportunities can be taken to lower flood risk by improving flow routes, flood storage, flood storage capacity and using SuDS".

2. Whilst it may be difficult to accommodate additional flood storage within the confines of the scheme there are significant opportunities upstream of the Kingsway Island. There is a large area of public open space where natural flood risk management techniques could have been used to slow runoff, reduce flood risk to the scheme and the urban areas within the city and provide environmental improvements.

Markeaton Junction FRA

1. Fluvial Flood risk. At Markeaton Junction, the fluvial flood risk has only been briefly considered. I would have expected to see reference to the EA fluvial flood model. It is accepted that this model does not predict fluvial flooding over the A38 but outputs from the model should have been included in the FRA. We have concerns about the flood risk in this catchment as the fluvial model does not predict the flooding recorded on Markeaton Lane. See detailed comments on combined flood risk below.

2. We agree with the assessment that the Markeaton Brook catchment could have periodically high groundwater. We also now believe groundwater may play a significant part in the flooding mechanism in this catchment. There appears to be no further assessment of this.

3. The secant piles have the potential to cut off groundwater flows through the alluvium which could increase flood risk upstream. It must be demonstrated that adequate groundwater flows can be maintained through the scheme.

4. Given the regularity of the flooding within this catchment we are now coming to the conclusion that it is a combination of fluvial, surface water and possibly groundwater that could cause flooding in this catchment.

5. Surface water flood risk at the Markeaton Junction. The surface water flood outlines have been reproduced however there is no consideration of the 1 in 100 plus climate change event

(which given the new revised climate change allowances) may have the potential to flood the A38 and possibly into the underpass. I would have expected to see this event modelled and assessed.

6. I would have expected a more detailed consideration of exceedance events given the vulnerability of the underpass.

Kingsway Junction Flood Risk Assessment

1. The Flood Risk Assessment for the Kingsway junction appears more robust than the Markeaton Junction which is welcomed. As the model has the sewer network, the known watercourse network and also considers surface runoff I believe the approach take here considers most flood risks. The baseline model provided by DCC for the project assumed a saturated catchment based on our local knowledge of the site, where standing water in the catchment just upstream of the A38 is often noted. This was also adopted as a method of considering the high groundwater levels that are believed to exist in the area. (see comments on groundwater) I would therefore question the return to more normal dryer catchment perimeters.

2. Groundwater. The British Geological Survey has now made its groundwater flooding data available and this gives a very high risk of groundwater flood fooding in small areas of the catchment in the immediate vicinity of the Junction. (See comments on the model in 1 above)

3. I would recommend consideration of the exceedance event and blockage in order to understand risks and also inform maintenance procedures.

Drainage Strategy

PCF Road Drainage Strategy results in the following comments to:-

1. It should be noted that the A38 as it stand increases the flood risk in Derby as it has an unrestricted discharge to watercourses. Both the Markeaton Brook and the Bramble Brook flow through the city centre which is predicted to flood on a 1 in 30 year event.

2. The NPPF and the NPSNN both indicate that the project should look to lower flood risk. The Planning Practice Guidance makes reference to "Sustainable Drainage Systems Non-statutory technical standards for sustainable drainage systems" published by DEFRA which indicates that "Where reasonably practicable, for developments which have been previously developed, the runoff volume from the development to any highway drain, sewer or surface water body in the 1 in 100 year, 6 hour rainfall event must be constrained to a value as close as is reasonably practicable to the greenfield runoff volume for the same event, but should never exceed the runoff volume from the development site prior to redevelopment for that event."

3. Point 1 and 2 above give the reason we asked that all drainage systems should be limited back to greenfield runoff rates.

4. I would have expected to see a table showing the existing discharge rates for all the junctions as they existed compared to the proposed discharge rates in the final scheme. This would have allowed an assessment of the overall effects of the scheme on the discharge to the various watercourses.

5. There should be calculations provided to show how the existing discharge and proposed discharge rate were derived.

6. It is difficult to compare the drainage calculations provided with the drawing as there are no titles on the calculation or pipe and node reference on the drawings.

7. At present it difficult to make a detailed assessment of the drainage system but it appears that the proposals may only provide enough attenuation to ensure there is no increase in flood risk but no or very little betterment.

8. The proposal to design the collection systems (kerb drainage systems and gullies) to the 1 in 5 year event will result in exceedance of the system for storms in excess of this. This will lead to water cascading along the highway to the lowest point presumably the underpasses. I am concerned that this could put undue pressure on the drainage systems in the underpasses and has the potent. The NPPF requires flood routing to be considered where the drainage network can flood in the design flood event (1 in 100 year plus climate change). The impacts of this event should be considered if the 1 in 5 year standard is maintained.

9. We would ask that very careful consideration is given to discharge rates to the Mill Pond system. The pond is formed by a dam which is predicted to over top on the 1 in 30 year event. The dam failed in 1977 contributing to flooding downstream. Although the system is now regularly inspected by a Reservoir Inspector the system is still considered vulnerable.

Water Treatment

NPPSN Paragraph 3.5 states that "Government policy is to bring forward targeted works to address existing environmental problems on Strategic Road Networks and improve the performance of the network"

Silt loading in the Markeaton Brook has been a problem for the city for many years. The Council undertook the desilting of the main Markeaton Brook Culvert in 2001. These were extensive works that required the use of excavators operating along the 1.3km culvert. Highways England also undertook works to desilt culvert connecting the Markeaton Lake and the Mill Ponds in 2017. DCC undertook further works in 2018 in partnership with the Environment Agency using European Regional Develop Fund money to remove silt from the Markeaton Brook in various areas between Ford Lane and the A38.

The Mill Ponds and Markeaton Lake are impounded water features and are therefore very susceptible to the quality of the water that discharges to them.

Given the Government Policy drives and the issue with silt loading in the Markeaton Brook I would ask that all outfalls within the project have some form of water treatment within the system. It currently appears that not all systems within the scheme have treatment provided.

In terms of our local internal consultation process this letter brings forward all those responses received in the relatively tight timescale available.
Yours sincerely

Paul Clarke
Chief Planning Officer