

3081 – Corby Northern Orbital Road Extension

Technical Note Describing Amendment to Alignment of CNOR Revision A

February 2014

1.0 Introduction

The Corby Northern Orbital Road currently has planning consent from Northamptonshire County Council. The section that is the subject of this technical note, the remainder of Road 3 west of the Willow Brook Bridge and Roundabout 4, was consented under application 07/00052/CCD & EN/07/1983/EXT in May 2008. The scheme was constructed to a point on road 3 just west of the Willow Brook Bridge when construction finished in 2009.

In the intervening period proposals for the area around the Rockingham Motor Speedway have been developed. These have identified a requirement to alter the position of Roundabout 4 to provide a more effective connection into the Rockingham Motor Speedway site. In addition the impact of the road on the Deene Quarry landfill has been reviewed in an effort to minimise any such impact. As a result the vertical alignment of Road 3 has been raised and the attenuation pond for Rockingham Motor Speedway repositioned.

This technical note describes the proposed changes and confirms there are no significant technical, environmental or other impacts resulting from the change.

2.0 Revised Position of Roundabout 4

Roundabout 4 was previously positioned immediately south of Mitchell road. It comprised a dual carriage way arm from Road 3, a dual carriage way arm to connect on to Mitchell Road and two single carriageway arms, one to connect into the Rockingham Motor Speedway site and one to provide a connection into development land to the south.

The revised roundabout is approximately 75m south east of the currently consented position. As a result, the final 200m of Road 3 has been realigned to connect appropriately into the revised position. The size and geometry of roundabout 4 and the arms off the roundabout remain the same as the original roundabout, with the exception of nominal adjustments to satisfy the national highway design standards.

The revised position of Roundabout 4 and the amended alignment of Road 3 remain within the current planning 'red line'.

3.0 Revised Vertical Alignment of Road 3

In the current consented scheme, Road 3 was to be constructed in a cutting through the edge of the Deene Quarry landfill cell at the southern edge of the Rockingham Motor Speedway car park. This

would have resulted in a significant volume of waste from the landfill being removed and treated or taken off site to another landfill.

In order to minimise the impact on the landfill cell the vertical alignment of Road 3 has been raised such that it passes over the top of the landfill. As a result no waste material will be removed from the landfill cell. To achieve the revised levels, the vertical alignment will begin to increase immediately west of the Willow Brook bridge.

4.0 Revised Position of Rockingham Attenuation Pond

In the current consented scheme the replacement attenuation pond for the Rockingham Motor Speedway is located in the Rockingham car park area to the north of road 3. In this position it would require significant excavation into the Deene Quarry landfill cell and would result in water being stored in a lined pond within the cell.

In order to prevent additional excavation into the landfill cell the attenuation has been relocated and split into two ponds. One new pond is to be located to the north east of Roundabout 4 to serve the western side of the Rockingham car park catchment. A second pond will be located beside the highway attenuation pond on the west side of the Willow Brook bridge. The outfalls from these ponds will connect back into the existing Rockingham Motor Speedway piped network which flows to existing headwalls on the Willow Brook.

The second pond is outside of the application area and will be subject to a separate planning application to East Northants District Council.

5.0 Impact of Proposed Changes

5.1 Highways

The proposed changes to the position of roundabout 4 and the vertical alignment of road 3 do not result in any significant changes to the highway design. A revised technical approval submission will be made to Northamptonshire County Council Highways to cover the changes.

In the previous arrangement the highways passed over and through the backfilled Deene Quarry and the landfill cell. The ground was to be treated with a 9m high rolling surcharge for 7 days to prepare the subgrade for the road construction. In the revised arrangement the cutting through the landfill cell has been removed but the highways still pass over the landfill and backfilled quarry. A revised ground treatment methodology has been developed comprising sorting and dynamic compaction of a 2m zone below the road construction. It is considered that this will provide a more robust subgrade than the short term rolling surcharge.

5.2 Drainage

The proposed changes to the position of roundabout 4 and the vertical alignment of road 3 do not change the drainage strategy for the highways. There have been some updates to invert levels and

drainage routes to accommodate the new alignment and levels but the highway drains to the existing highway attenuation pond on the western bank of the Willow Brook as in the current design.

The relocation of the Rockingham Motor Speedway attenuation pond only constitutes a change in the pond position and not the overall drainage strategy. The drainage for the Rockingham Motor Speedway car park will continue to drain to the attenuation ponds and then connect into the existing piped network as in the current scheme. A technical note summarising the changes will be provided to the Environment Agency.

It should be noted that the second pond located to the west of the Willow Brook Bridge is outside of the application area and will be subject to a separate application to East Northants District Council.

5.3 Contaminated Land

The proposed changes to the levels for road 3 have been specifically developed to address the issues with contaminated land previously identified in the Deene Quarry landfill cell. By raising the road level it is able to pass over the landfill cell and disturbance to the cell is minimised. In addition all waste material from the cell will be able to remain in the cell. This is a significant betterment to the current design where there is a significant cutting through the landfill cell resulting in waste being removed from the cell.

The proposals have been presented to the Environment Agency who have given agreement in principle. A Construction Quality Assurance (CQA) plan will be required which will cover the methodology of the earthworks across the landfill cell and the quality assurance for the construction of the clay cap to the landfill. This document will be submitted to the Environment Agency prior to construction works and then at various stages through the works as testing results are obtained. At the end of the earthworks it will provide a validation of the reinstatement of the landfill cell.

5.4 Ecology

The proposed works remain within the site area that was surveyed and cleared as part of the original works. The proposed changes do not alter the ecological position of the current consent.

Wardell Armstrong the project Ecologist, have reviewed the site and can confirm that the ecological matters outstanding will be dealt with as per Wardell Armstrong letter dated 29th January 2014 and that the site remains suitable for construction.

6.0 Supporting Information

The following information is provided in support of this technical note:

- Clarke Bond Drawing CL00490 P23 Rev B – This drawing shows the currently consented alignment.
- D2e Drawing 3081(I)009 Rev A – This drawing overlays the currently consented alignment with the proposed alignment

- D2e Drawing 3081(P)011Rev A, 3081(P)012 Rev A, 3081(P)013 Rev A, 3081(P)501Rev A, 3081(P)502 Rev A, 3081(P)503 Rev A – These drawings show the detail of the proposed alignment and drainage.

It should be noted that drawing 3081(P)503 Rev A includes details of pond 2 for information and context only, as this pond will be subject to a separate application to East Northants District Council.

7.0 Further Submissions

Following the revision of the current planning consent further submissions will be made to Northamptonshire County Council Highways and the Environment Agency. These submissions will provide additional technical detail beyond the scope of the planning process for:

- Section 38 technical approval update
- Construction Quality Assurance Plan for reinstatement of landfill cell
- Technical Note for revised surface water attenuation.