

A43 MOULTON BYPASS: TRANSPORT ASSESSMENT SCOPING REPORT

Northhamptonshire County Council

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DRAFT

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1 INTRODUCTION

1.1.1 Parsons Brinckerhoff (PB) has been commissioned by Northamptonshire County Council (NCC) to provide highways and transport planning advice in support of an outline planning application for the A43 Moulton Bypass highway improvement which is required to facilitate the proposed Overstone Leys Development. The proposed road is located to north west of Northampton, east of Moulton and north of Southfields and Round Spinney.

1.1.2 The proposed bypass will modify the existing alignment of the A43. The majority of the proposed Overstone Leys development will be located to the east of the new alignment with a small amount located on the west side of the A43 to the south west of the Overstone Road/A43/Overstone Lane junction. Figure 1.1 below shows the study area with the red line representing the current A43 alignment.



Figure 1-1 Scheme Study Area

1.1.3 The purpose of this report is to set out the proposed method and scope of work to be undertaken to prepare the Transport Assessment (TA) that will form part of the supporting documentation for the planning application. It is intended that this scoping report will be agreed with both NCC and Northamptonshire Highways (NH) at an early stage.

2 DEVELOPMENT PROPOSALS

- 2.1.1 The study area encompasses approximately 250m of the existing A43 from the Round Spinney Roundabout to the Overstone Road/A43/Overstone Lane roundabout and continues to the north up to the proposed northern access junction of the Overstone Leys Development. Also included is the Overstone Link, connecting the A43 with Sywell Road as a new arm of the Overstone Lane/A43/Overstone Road roundabout. This link will be constructed at a later stage to the main A43 bypass.
- 2.1.2 The main realignment will be on the section of the A43 to the north of the Round Spinney Roundabout between the Round Spinney Industrial Estate and the Overstone Road/A43/Overstone Lane roundabout. This section will also be widened with a central reservation and relevant access junctions included. Further realignment and widening will take place to the north of the Overstone Road/A43/Overstone Lane roundabout. The road will be delivered within land owned by the developer or NH so no additional land take is required.
- 2.1.3 The new alignment of the A43 will be through the western side of the proposed Overstone Leys development and will enable access to the southern, central, eastern and northern elements of the development.
- 2.1.4 The A43 Moulton Bypass will commence construction in ## with construction anticipated to take ## months with an opening in ## 2016 [TBC].

3 OUTLINE METHODOLOGY

- 3.1.1 The indicative methodology used to evaluate the transport impacts of the forecast Development-generated movements reflects the Department for Transport's "Guidance for Transport Assessments" (March 2007), the work stages involved are summarised below. The assessment will consider the impacts of the proposed highway with and without the adjacent Overstone Leys development to ensure that the highway network has sufficient capacity.
- 3.1.2 It has been agreed that the Northamptonshire Strategic Transport Model (NSTM) is to be used to evaluate the vehicle trip movements generated by proposed local developments on the existing highway network. This model is an integrated land use and transport model consisting of a land use and transport demand model element combined with a highway SATURN network. Both AM and PM Peak periods are modelled. The model will be used to identify forecast vehicle turning movements at each of the junctions to be modelled for each of the proposed scenarios.
- 3.1.3 All this work will be included and reported in full within the Transport Assessment. Further details of the TA document are included in the next section.

4 SCOPE OF WORK

4.1 Report Summary

- 4.1.1 Based on the DfT guidance, the TA report will include the following items of work:
- Executive Summary
 - Introduction
 - Background and Local Development Proposals

- Existing Conditions
 - Summary of Policy Review
 - Access and Movement Strategy
 - Pedestrian, Cycle and Equestrian Access Strategy (as applicable)
 - Alignment and junction layouts
 - Travel Demand Management Strategy
 - Construction Access Assessment
 - Details of the NSTM and assumptions applied
 - Traffic and Junction Analysis
 - Conclusions
- 4.1.2 The essential elements of work are discussed in further detail within the following sections.
- 4.2 Introduction**
- 4.2.1 The Introduction section will include:
- A description of the application site in terms of its location and the current highway alignment
 - Key junctions
 - A brief summary of the structure of the Transport Assessment
- 4.3 Background and Local Development Proposals**
- 4.3.1 The Background and Development Proposals section will include details of permissions for the adjacent Overstone Leys development, including access arrangements and forecast residual impacts.
- 4.3.2 Wider developments will also be discussed that are likely to have an impact on the traffic levels on the A43, as agreed with Northamptonshire Highways.
- 4.4 Existing Conditions**
- 4.4.1 This section will include a description of the baseline transport conditions in the vicinity of the site, identifying key strategic issues that may impact on the development proposals. This section will include reviews of:
- Existing Pedestrian, Cycle and Equestrian facilities
 - Existing Bus Services
 - Traffic Data Review
 - Local Traffic Conditions in and around the A43
 - Road Safety Assessment
- 4.4.2 As part of the review of the baseline conditions, a comprehensive traffic data collection strategy was undertaken in November 2012. Information will be presented in the TA, including traffic flows, vehicle routing and journey times.

4.4.3 Personal injury collision data for the previous five years in the study area will be obtained and analysed to identify any significant highway safety issues and provide analysis of the recent road safety history.

4.5 Policy Review

4.5.1 A review of the local, regional and national policy related to the development site and the proposals will be presented, identifying how the development performs against these policies. The policy review will include, but not be limited to:

National Policy and Guidance

- National Planning Policy Framework – 2012
- 'Guidance for Transport Assessment' – 2007
- Circular 02/2007 'Planning and the Strategic Road Network' – 2007
- Draft Circular 'The Strategic Road Network and the Delivery of Sustainable Development' – February 2013

Local Policy and Guidance

- Northampton Local Development Plan – 2003
- West Northamptonshire Joint Core Strategy – 2012
- Northampton Longer Term Growth Options Study – 2007
- WNJCS Sustainability Appraisal Report – 2011

Local Transport Policy and Guidance

- Northamptonshire Transportation Plan – March 2012
- Transport Strategy for Growth – 2007
- Northampton Town Transport Strategy – 2013
- Infrastructure Delivery Plan Update – 2012
- Transport Spatial Portrait Paper – 2011
- Transport Options Technical Paper – 2011
- Northampton Corridor Review – January 2012

4.6 Access and Movement Strategy

4.6.1 This section will provide a summary of the proposed Access and Movement Strategy for the Development, incorporating references to the strategies within the next sections.

4.7 Pedestrian, Cycle and Equestrian Strategy

4.7.1 Although this scheme is a highway development, there is a requirement to consider other non-motorised users. This section will provide details of the pedestrian, cycle and equestrian facilities included as part of the bypass scheme with an assessment on the impact of the highway scheme on these users.

4.7.2 The forecast level of pedestrian and cycle trips generated by the adjacent Overstone Leys development will be considered to ensure that pedestrian and cycle facilities are fit for purpose and provide sufficient capacity.

4.7.3 A Rights of Way Strategy will be included to address any impacts on existing rights of way in the area, including any requirements for diversions or alterations.

4.8 Public Transport Strategy

4.8.1 The impact of the highway scheme on public transport operations will be considered. Currently there is limited public transport on the A43. The scheme aims to provide greater journey time certainty and reliability, and reduced congestion allowing service enhancements associated with adjacent developments to be accommodated.

4.8.2 The Overstone Leys development includes commitments toward public transport contributions and improvements. These will be considered alongside the highway proposals to ensure the revised highway design proposals work with proposed public transport network improvements, in particular at key junctions.

4.9 Site Layout and Vehicular Access

4.9.1 Appropriate levels of car and cycle infrastructure form an essential part of travel demand management. The proposed Overstone Leys development will have three vehicular accesses onto the realigned A43 in addition to multiply cycle and pedestrian only accesses. The intention is to improve north-south movements on the A43 whilst also facilitating access to the new development and Overstone for new and existing traffic.

4.9.2 The attached drawings provide an indicative alignment for the proposed highway – currently in draft format.

4.9.3 The key development accesses onto the A43 will be as follows (from south to north):

- Site Access 1 (Village Avenue) – a three-arm signal-controlled t-junction
- Site Access 2 (Overstone Lane) – the existing Overstone Lane roundabout, upgraded to accommodate the Overstone Link route
- Site Access 3 – a three-arm roundabout at the north of the proposed development

4.9.4 These access junctions will be tested in capacity terms using appropriate modelling software based on turning movements obtained from the Overstone Leys TA and the NSTM.

4.9.5 Swept path analysis will also be undertaken to ensure the junctions are designed with appropriate dimensions to accommodate buses and HGVs.

4.10 Construction Access Strategy

4.10.1 A Construction Access Strategy will be developed in detail once a contractor is appointed to construct the road. An overview of the likely content of this strategy will be included within the TA.

4.10.2 As part of the Construction Access Strategy, a Construction Environmental Management Plan (CEMP) will be prepared. The CEMP will set out the Developer's

aim to reduce the transport impacts of the construction traffic servicing the Site, and the movements associated with construction waste. It will apply to all the individual construction sites within the Development. This will include measures such as wheel washing, restricted hours of operation and consolidated deliveries to mitigate the impact of construction as much as possible.

- 4.10.3 The level of construction vehicle trip generation will be calculated based on an outline programme and the routing of these vehicles to and from the development site will be agreed.

4.11 Northamptonshire Strategic Transport Model (NTSM)

- 4.11.1 The analysis of the likely effects of the A43 realignment and Overstone Leys development is being undertaken, as agreed with NCC and NH, using Northamptonshire County Council's Northamptonshire Strategic Transport model (NTSM).

- 4.11.2 The NSTM is an integrated land use, transport demand and network assignment model that allows stand-alone testing of road, public transport, cycle, walk schemes, standard economic benefit tests using the highway and demand model with fixed trip ends, as well as complex test of strategic policy options incorporating land use responses.

- 4.11.3 Account will be taken in the NSTM scenario modelling of the 2,000 dwellings at Overstone Leys and the additional 1,500 dwellings identified in the emerging Core Spatial Strategy for a site to the north of Overstone along with the associated infrastructure that is anticipated through planning policy. This will be reported in the Transport Assessment.

4.12 Traffic and Junction Impact Analysis

- 4.12.1 The impact analysis within this TA will examine scenario with and without the new highway alignments in place. This will essentially demonstrate the need for the highway improvements and that they provide sufficient capacity and therefore are 'fit for purpose'.

- 4.12.2 The TA will therefore focus on the results of a series of scenarios from the NSTM, which will be assessed in terms of relative link flow on the A43 and assessments of the individual junctions.

- 4.12.3 Over and above the proposed new junctions, the impact of the new highway, when combined with the new developments will be assessed at the Round Spinney Roundabout. The impact on link flow will determine whether to assess further existing junctions on the network.

4.13 Mitigation Strategy

- 4.13.1 The link road itself is unlikely to generate the need for further mitigation. However, an assessment will be made as to the 'with development' and 'without development' scenarios to ensure the mitigation measures secured as part of the Overstone Leys development are appropriate to the level of impact forecast.

- 4.13.2 Without the Overstone Leys development, it is anticipated that these could include a combination of:

- Additional transport management measures
- Noise reduction measures
- Highway enhancement measures to mitigate any residual predicted trips
- A monitoring strategy with potential mitigation if required
- Measures to preserve, enhance and improve the network pedestrian and cyclist capacity, bus user capacity, and network vehicle capacity

4.13.3 With the Overstone Leys development it is anticipated that in addition to the above, the mitigation could include a combination of the following:

- Measures to reduce the development vehicle trip generation
- Measures to reduce off-site trip generation

5 SCENARIOS TO BE TESTED

5.1.1 The Transport Assessment traffic impact assessment will consider the weekday AM and PM peak periods.

5.1.2 The Guidance for Transport Assessment requires assessment 5 and 10 years after the date of application. As the NSTM considers the network condition in 5 year increments up to 2026, the years that closest reflect these requirements are 2021 and 2026.

5.1.3 The testing using the NSTM results will include:

- 2012 Base Year assessment
- 2016 Do Minimum (without road and no adjacent development)
- 2016 Do something (with road and no adjacent development)
- 2021 Do minimum (without road and no adjacent development)
- 2021 Do something (with road and no adjacent development)
- 2021 Do something (with road and with adjacent development)
- 2026 Do minimum (without road and no adjacent development)
- 2026 Do something (with road and no adjacent development)
- 2026 Do something (with road and with adjacent development)

6 OTHER TECHNICAL WORKSTREAMS

6.1.1 The following will also be submitted to the highway authority in support of the planning application:

- Environmental Statement – Transport Chapter

7 PROGRAMME

7.1.1 It is intended that the planning application will be submitted in autumn 2014.

DRAFT

A43 Moulton Bypass: Transport Assessment Scoping Report

DATE: JULY 2014

Note control

Note type	Number	Comments
Technical note:	007	Document reviewed: A43 Moulton Bypass: Transport Assessment Scoping Report, April 2014

Version control

Version	Date	By	Reviewed by	Authorised (TN only)	Notes
1	02/07/14	DC	SY	MD	

PURPOSE

The document reviewed is a Transport Assessment Scoping Note relating to the outline planning application for the A43 Moulton Bypass. It is noted that the A43 Moulton Bypass highway improvement is closely linked to the proposed Overstone Leys development, a Sustainable Urban Extension of up to 2,000 homes in North Northampton, for which a separate Transport Assessment has been prepared.

The remainder of this report sets out Northamptonshire Highways comments on the Scoping Note.

SCOPING NOTE REVIEW

CHAPTER 2: DEVELOPMENT PROPOSALS

Comment: The study area for the Transport Assessment needs to include the Round Spinney Roundabout as the introduction of the bypass may result in the reassignment of base traffic. The reason for this is that the introduction of the A43 Moulton Bypass may result in this route becoming more attractive. Therefore a comparison of the without bypass and with bypass scenarios at this junction is required.

The study area will also need to include the existing alignment of the A43 (including existing junctions) between Round Spinney Roundabout and the location of the northern end of the proposed bypass. This will enable an assessment of the benefits of the bypass to the existing A43 road and existing junctions along it.

A clear plan of the proposed study area for the TA is required; this can then be submitted to Northamptonshire Highways.

CHAPTER 3: OUTLINE METHODOLOGY

Paragraph 3.1.2

Comment: The Northamptonshire Strategic Transport Model (NSTM) will be used to identify vehicle turning movements for modelling in the TA.

The consultants scoping note has been reviewed in advance of the runs of the NSTM which will support the TA. Northamptonshire Highways therefore reserve the right to review our comments in this report in light of the NSTM outputs.

CHAPTER 4: SCOPE OF WORK

Paragraph 4.3.2

Comment: The consultant will need to provide details of the modelling of committed developments included in the NSTM. This information should be agreed in advance of any model runs.

Paragraph 4.4.3

Comment: PIA data will need to be obtained from NCC and not a third party source. PIA analysis should cover the TA study area to be agreed with Northamptonshire Highways.

Paragraph 4.9.2

Comment: There are no attached drawings of the proposed highway alignment.

Paragraph 4.9.4

Comment: The testing of junction capacity for the three Overstone Leys development access junctions is deemed appropriate.

Paragraph 4.11.3

Comment: See comment for Paragraph 4.3.2.

Section 4.12 – Traffic and Junction Impact Analysis

Comment: As discussed in the comment for Chapter 2, the TA study area will need to include the Round Spinney Roundabout as the introduction of the bypass may result in the reassignment of base traffic. Therefore junction capacity analysis will be required for the Round Spinney Roundabout, rather than just flow assessment.

As discussed in the comment for Chapter 2, the TA study area will need to include the existing alignment of the A43 (and junction along it) to assess the benefits of the bypass to the existing A43 road and existing junctions along it. Therefore both link flow assessments and junction capacity assessments will also be required for this area.

Paragraph 4.13.1

Comment: It should be noted that paragraph 4.6.1 refers to the bypass road as 'the Development', whereas Paragraph 4.13.1 refers to 'with development' and 'without development' in relation to the Overstone Leys development. We suggest a clear distinction between the Overstone Leys development and the A43 Moulton bypass development.

CHAPTER 5: SCENARIOS TO BE TESTED

Paragraph 5.1.3

Comment: The proposed scenarios are deemed appropriate. However, in order to test the 'Do Minimum without road scenarios', the additions to the study area identified in the comments for Chapter 2 are required.

CHAPTER 6: OTHER TECHNICAL WORKSTREAMS

Paragraph 6.1.1

Comment: Scoping for the Transport Chapter in the Environmental Statement will need to be included in the formal scoping document produced for the Environmental Impact Assessment.

CHAPTER 7: PROGRAMME

Paragraph 7.1.1

Comment: No Comment.