

A38 Derby Junctions TR010022

8.86 Supplement to Air Quality Compliance Risk Assessment

Planning Act 2008

Rule 8 (1)(c)(ii)

The Infrastructure Planning (Examination Procedure) Rules 2010

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Supplement to Air Quality Compliance Risk Assessment

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Author	A38 Derby Junctions Project Team, Highways England

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Introduction

This technical note contains additional information to that provided in 8.75 Updated Air Quality Compliance Risk Assessment (REP6-020) submitted for Deadline 6, following a request from Derby City Council. This information includes predicted nitrogen dioxide (NO₂) concentrations at qualifying features in 2021 and a more detailed map showing the location of PCM links and qualifying features (refer to Appendix A).

Results

The compliance assessment has also been undertaken at the qualifying features in 2021, the results of which are presented in Table 1.

Table 1: Predicted NO₂ Concentrations at Qualifying Features near the A38 in 2021 with Scheme Construction Scenarios

PCM Link	2021 (μg/m³)							
	Do-	Scenario	Sc0	Scenario	Sc2	Scenario	Sc4	
	Minimum	0	Change	2	Change	4	Change	
74456	28.8	28.8	0.0	29.1	0.3	28.4	-0.4	
46394	23.0	23.1	0.1	23.1	0.1	17.4	-5.6	
57767 (1)	36.0	36.2	0.2	30.7	-5.3	29.2	-6.8	
57767 (2)	40.2	40.5	0.3	33.0	-7.2	31.1	-9.1	
57767 (3)	46.4	46.9	0.5	44.2	-2.2	43.7	-2.7	
57767 (4)	33.9	34.1	0.2	31.1	-2.8	29.6	-4.3	
57767 (5)	47.4	50.5	3.1	42.3	-5.1	39.8	-7.6	
57767 (6)	34.0	36.0	2.0	30.7	-3.3	29.2	-4.8	
16361(1)	29.5	29.7	0.2	37.5	8.0	36.0	6.5	
16361 (2)	39.5	39.9	0.4	22.7	-16.8	23.1	-16.4	
16361 (3)	36.8	37.2	0.4	31.4	-5.4	32.1	-4.7	

Note: Some sections of footpath may be closed during construction

Discussion

Based on the preliminary Scheme design, the assessment illustrates that there is a predicted exceedance of the EU limit value at one PCM link, link 57767. This link has an increase in annual mean NO_2 concentrations $>0.4\mu g/m^3$ at some locations. However, as the increase is short term in Scenario Sc0 (which lasts approximately 8 months), the construction activities would not delay compliance as there would be an exceedance on the PCM link regardless of construction of the Scheme beyond 2021. This is based on measured concentrations at DT34 which are likely to exceed beyond 2021 based on historic measured concentrations. As the construction progresses through the various phases there is subsequently an improvement on PCM link 57767 as the footpaths are realigned as a result of the Scheme. This demonstrates that construction will not delay the date for attaining EU limit value compliance along this link. This additional information does not affect the conclusions set out in REP6-020 i.e. that the Scheme does not affect compliance with the Air Quality Directive.

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At the detailed design stage when the Scheme construction methods, programmes and traffic management proposals are developed in more detail, air quality at footpaths will be re-assessed. If air quality is expected to be poor during the Scheme construction phase and made worse by construction of the Scheme, alternative routes for some footpaths will be defined where appropriate.



Appendix A: Location of PCM Links and Qualifying Features

