

2EN2 Stage 2 - Traffic Noise and Air Quality

QA Checklist for TRAFFIC NOISE REPORT

SPOT ID/Project TIP #: _____

County: _____

Note: This QA checklist is for the initial submittal only. For subsequent submittals, the Comment/Response matrix will serve as QA checklist.

Item #	Review Item	Yes	No	N/A
QA.0	Appropriate QC has taken place (all applicable State and Federal regulations, standards, and policies are met and all calculations, designs, reports, etc. are complete, accurate and reasonable.)	<input type="checkbox"/>	<input type="checkbox"/>	
QA.1	Reporting			
QA.1.1	Prepared by a traffic noise analyst prequalified with NCDOT to prepare a TNR.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
QA.1.2	The Traffic Noise Report Template has been followed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
QA.1.2.1	Includes the appropriate version of the NCDOT Traffic Noise Policy on the Cover Page.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
QA.1.2.2	Includes accurate statement on the likelihood of noise barriers in the Executive Summary.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
QA.1.2.3	Includes noise model validation results that adequately demonstrate the accuracy of the TNM models.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
QA.1.2.4	Includes an accurate Traffic Noise Impact Summary table.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
QA.1.2.5	Includes an accurate Noise Barrier Analysis Summary table with all evaluated noise barriers (both likely and unlikely).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
QA.1.2.6	Includes accurate statement on the likelihood of noise barriers in the Conclusion.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
QA.2	Figures			
QA.2.1	Includes all noise sensitive receptors and defines the outer limit of impacts and benefits for the project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
QA.2.2	Figures accurately depict impacted and/or benefited and non-impacted and/or non-impacted receptors, as well as likely vs. unlikely noise barriers. Benefited receptors are included only for likely noise barriers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
QA.3	Appendices			
QA.3.1	Includes information on the ambient noise level measurements consistent with the approved Noise Model Validation Memo.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
QA.3.2	Hourly Equivalent Traffic Noise Level Tables appendix presents accurate predicted noise level results for all noise-sensitive receptors and follows the table format from Section 11.20.2 of the 2022 NCDOT Traffic Noise Manual.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
QA.3.2.1	Equivalent receptor calculation tables for all appropriate locations are included, accurate, and follow the format from Appendix C of the 2022 NCDOT Traffic Noise Manual.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Item #	Review Item	Yes	No	N/A
QA.3.3	Noise Barrier Analysis tables adequately demonstrate that NCDOT feasibility and reasonableness criteria either have or have not been met for all evaluated noise barriers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
QA.3.3.1	Noise Barrier Analysis tables for each likely noise barrier do not suggest that the barrier has been overdesigned or underdesigned with respect to NRDG.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
QA.3.3.2	Includes table outlining accurate calculation of allowable quantity per benefit for all evaluated noise barriers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
QA.3.4	Traffic Information appendix provides a sufficient level of detail for the reader to recreate the development of traffic volumes for TNM.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
QA.4	TNM Files			
QA.4.1	TNM files included that encompass the entire project study area for every scenario and alternative included in the TNR.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
QA.4.2	All TNM modeling follows the guidance outlined in Section 7.10 of the 2022 NCDOT Traffic Noise Manual.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
QA.4.3	For each TNM file, the traffic volume input is accurate and consistent with the Traffic Information appendix.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
QA.4.4	For each TNM file, all vehicle speeds are modeled as posted speed + 5 mph (not to exceed the design speed).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
QA.4.5	With noise barrier TNM models include all evaluated iterations of noise barrier design and demonstrate that barrier optimization has been conducted in a sufficient level of detail, making every effort to find feasible and reasonable noise barrier designs that achieve the NRDG for as many predicted traffic noise impacts as possible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
QA.5	Miscellaneous			
QA.5.1	Includes noise barrier analyses for all appropriate and feasible locations with predicted traffic noise impacts.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
QA.5.2	Parallel barrier analyses and absorptive material discussions address all pertinent locations and have appropriate and clear conclusions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
QA.5.3	Analysis of areas with existing noise walls was correctly conducted, and discussion of it in the report is clear.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
QA.5.4	Other (non-traffic) major noise sources in the project study area (railroads, airports, etc.) appropriately discussed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

For items marked NO or N/A that require further explanation, provide comments or action items in the table below.

Item #	Comments and Action Items

This checklist may not be comprehensive to every project. All items may not be applicable for smaller projects. It is the responsibility of the reviewer to ensure that an adequate review is performed.

I have reviewed the deliverables for consistency with this checklist and confirmed that all items have been completed.

QA Reviewer Name: _____ **Date:** _____

QA Reviewer (Signature): _____