NOISE STUDY QC AND REPORT REVIEW CHECKLIST

Project Name: _______________________________________________
Noise Analyst: _______________________________________________
Senior Reviewer: _____________________________________________
Date Reviewed: ______________________________________________

For checkboxes that are missing or not applicable, please write in explanations.

Table of Contents (optional)

Summary

Concise project description
Noise levels ranges, by year, and alternative and noise impacts (include distance to Oregon NAAC levels for undeveloped land)
Abatement considerations and commitments
Construction Noise
Information to local officials (1–2 sentences)

Introduction

Purpose of the report (Why is this a Type 1 study?)

Project Description

Description of proposed construction
Existing alignment and proposed alignment shown on mapping
Number of existing and proposed travel lanes

Land Use

Existing houses, apartments, schools, places of worship, parks, businesses, etc. shown on 1:100 or 1:200 mapping
Identification of all activity categories in project area
Future Zoning and Comprehensive Land Use Plan designations shown on mapping
Displacements due to project construction

Methodology

Defining area of potential effect
Regulatory setting
Tables of NACs (include Oregon approach levels)
Measurement procedures and equipment
Analysis procedures/model/version/model inputs/analysis years
Selection of noise sensitive receptors
Basis for worse-case noise condition (peak hour or peak truck hour)
Noise abatement requirements
Existing Acoustic Environment

Selection of noise sensitive receptors including the number of equivalents units selected.

Noise Measurements:

Summary of each noise measurement location which includes noise sources present during monitoring
Figure of monitoring locations shown on 1:100 or 1:200 mapping
Table summarizing date and time of measurements, traffic counts per vehicle type and direction, speed, and Leq level, distance of monitoring site from roadway.
References to noise monitoring sheets and photographs of monitoring locations

Model Calibration:

Table of model calibration including measured and FHWA Traffic Noise Prediction Model modeled noise levels and difference
Modeling files for a calibration that include only traffic counts and speeds observed during monitoring.
Statement confirming that measured and monitored noise levels differ by less than 3 dBA.
References to modeling files.

Traffic Noise Analysis

Predicted Leq Levels:

Comparison for worse case between peak hour and peak truck hour
Table of predicted noise levels for Existing
Table of predicted noise levels for No-Build Future
Tables of predicted noise levels for Build Future, all alternatives
Figures of prediction sites shown on 1:100 or 1:200 mapping
Discussion in text of noise levels ranges for exist, no-build and future build.

Note: The number of tables used to summarize project noise levels will depend on size of project

Traffic Noise Summary

Summary table of Existing, No-Build Future, and Build Future noise levels that approach or exceed NAC for each alternative
Noise Abatement Criterion discussed and noise impacts using this criterion identified
Substantial Increase Criterion discussed and noise impacts using this criterion identified
Existing, No-Build Future, Build Future noise level that approach or meet NAC shown on 1:100 or 1:200 mapping

Noise Level Contours for Undeveloped land:

Predicted distances to Leq 65 dBA and 70 dBA for Category G
Use 50-foot intervals or discrete locations
Contour maps (optional if discrete Activity G receivers were reported in text)
Evaluation of Noise Abatement Measures

Discussion of alternative noise abatement measures: Alignment shifts, speed restrictions, grade changes, buffer zones, truck restrictions, etc.

Noise Abatement Measures

Number of equivalent-unit impacts mitigated per impacted receiver
Predicted noise levels without mitigation for each impacted receiver
Predicted noise levels with mitigation for each impacted receiver
Noise level reductions due to mitigation for each impacted receiver
Percent of first-row receivers achieving 5 dBA reduction
Total number of benefited receivers/units
Total number of benefited units receiving 7 dBA reduction in noise levels
Design goal requirements
Total cost as calculated in section 7.4.2 and cost per unit
Summary table of noise levels without barrier, with barrier, and noise reductions per receiver
  Barrier summary table: length, height, area, cost, cost per equivalent unit, and recommendation
Locations of barriers shown on 1:100 or 1:200 map and marked as recommended for construction
Noise abatement likelihood statement
Noise Evaluation and Recommendation form for each noise abatement measure considered
Discussion of unavoidable impacts (by receiver as necessary)

Construction Noise Analysis

Typical construction noise levels
Mitigation measures: Standard Noise Control Specifications
Nature and duration of construction noise
Local ordinances relating to construction noise
Land use of activities that may be affected by construction noise

Information for Local Government Officials

Discussion of noise compatible planning concepts
Discussion of design year noise levels and distance to NAC criteria or NAC contours for undeveloped land
Discussion of unavailability of federal funding for abatement after the date of public knowledge

Appendices

Traffic data used in the noise analysis
Electronic copies of all TNM modeling files, including TNM model calibration and mitigation files
Noise measurement field sheets and photographs (should include traffic counts taken in field)
Special use area worksheets
Abatement worksheets for recommended abatement
Other

Analyst should keep the following records on file:

- Calibration certificate of noise measurement equipment
- Worksheets showing cost per residence calculation

Comments and Responses
This space is provided to document comments made by Consultant Quality Control Reviewer and how they were addressed by the Noise Analyst prior to transmitting the report to ODOT.

Quality Control Signatures
I, the undersigned, attest that the quality of the subject report is acceptable and meets all requirements of federal noise regulation 23 CFR 772 and the ODOT Noise Manual.

__________________________________________  ________________
Analyst

__________________________________________  ________________
Consultant Quality Control Reviewer

__________________________________________  ________________
ODOT Noise Specialist