

APPENDIX 16 A - EXAMPLE AIR AND NOISE TRAFFIC DATA REQUEST FORMS

Air Quality Analysis Traffic Data Requirements Check List			
Project			
Highway			
County			
Key #			

Data Needed			
MSAT Analysis Years and Cases:	Existing Year		
	Project Completion Year		
	20-year Projection Year		
	Existing AADT		
	No-Build AADT		
	Build AADT		
1 Design Year Build AADT			
	If project is located in proximity to populated area and the AADT is greater than 140,000 or creates significantly high levels of diesel particulate , a detailed MSAT analysis will be required. Links with volume changes of 5% or more will need to be included. Traffic volumes in peak and off peak blocks or hourly over a 24-hour period may be needed. Methodology should be reviewed with FHWA. TPAU and air analysts should meet to discuss MSAT methodology.		
2 For Qualitative MSAT Analysis			
	Regional Annual VMT and average regional speed, or average daily traffic and average speeds on links		
3 Quantitative MSAT- Contact ODOT Air Quality Specialist to discuss methodology			
	<i>Example of Additional Data needed for MSAT Quantitative Analysis</i>		
	Traffic Data needed for each link		
	Link id		
	Length of link		
	AADT		
	Roadway type (arterial or highway)		
	AM peak speed		
	PM peak speed		
	Off peak day speed		
	Off peak night speed		
	% (# of hours) of day in AM peak		
	% (# of hours) of day in PM peak		
	% (# of hours) of day in off peak daytime		
	% (# of hours) of day in off peak nighttime		

Analysis Years and Cases - Local CO:	Existing Year		
	Local CO is based on peak hour data.	Project Completion Year	
		20-year Projection Year	
1 Ranking of intersections affected by the project by LOS/delay and total entering volume for project completion year and 20-year projection for Build cases only.			
		By Intersection	
		LOS	Delay
		Total Volume	
		Build Project Completion Year	
		Build 20 year Project	
2 For selected intersections (from ranking), synchro sheets showing:			
	Lane configurations		
	Type of Signal (pre-timed, actuated, or semi-actuated)		
	Saturated flow (permitted and protected as appropriate)		
	Traffic volumes by lane (each link) (veh/hr)		
	Total cycle length (s)		
	Effective green time		
	Yellow time (s)		
	Average red time length (each approach) (s)		
	Signal cycle timing for each movement		
	Clearance lost time (s)		
3 Free flow speeds for links at the selected intersections (mi/hr)			
4 Arrival type for links at the selected intersections (1 to 5 for best to worst progression)			
Analysis Years and Qualitative Data - Local PM10 or PM2.5:	Project Completion Year		
	20-year Projection Year		
	Existing AADT		
	Project completion year No Build AADT		<i>if available</i>
	Project completion year Build AADT		<i>if available</i>
	Design year No Build AADT		
	Design year Build AADT		
1 If a PM10 or PM2.5 analysis is required			
	Use highest ADT on links in project limits		
	Design speed if available		
	Posted speed		
	% of diesel vehicles		

Contact ODOT Air Quality Specialist if a PM10 or PM2.5 quantitative analysis is needed. An interagency consultation is needed to approve methodology.

FHWA Categorical CO Analysis

Traffic data needed for project completion year and design year	Completion Year	Design Year
Angle of cross streets for intersection (90 degrees)	_____	_____
Maximum grade for intersection (less than 2%)	_____	_____
Number of through lanes (less than or equal to 4)	_____	_____
Number of left turn lanes for each approach (less than or equal to 2)	_____	_____
Peak hour average speed for each approach	_____	_____
Maximum approach volume for each approach	_____	_____
Level of service (A,B,C, D, E)	_____	_____
Heavy duty diesel trucks percentage (greater than or equal to 5)	_____	_____

Traffic Data Requirements for Full Noise Study

Project: _____

Route: _____

County: _____

Key: _____

Analysis Years: Existing year (_____) Design Year (_____)

Data is needed for three scenarios: Existing conditions, Design Year No-Build, and Design Year Build

A. For each scenario, the following should be provided for all roadway links within the construction limits of the projects, plus 500 feet on either side of the project as well as any major cross streets.

1. Peak hour volumes
2. Speed associated with peak hour volumes
3. Peak truck hour volumes
4. Speed associated with peak truck hour volumes
5. If speeds for items 2 and 4 are less than the posted speed, provide the volume associated with operations at the posted speed (LOS C/D volumes may be appropriate for this)
6. For the volumes in items 1, 3, and 5, provide percentages or specific quantities for each Traffic Noise Model Vehicle Type in either simplified or detailed format as shown below (if speeds vary by vehicle type, specify speeds for each type)

B. Also for each scenario, provide a turning movement diagram for each intersection in the project area

1. For links beginning at a traffic signal, provide percentage of vehicles departing the intersection that would be expected to have come to a stop

Simplified Vehicle Mix Breakdown		Detailed Vehicle Mix Breakdown	
Traffic Noise Model Vehicle Type	FHWA Vehicle Category Classification	Traffic Noise Model Vehicle Type	FHWA Vehicle Category Classification
Automobile	Classes 1-3	Automobile	Classes 2-3
Medium Truck	Classes 4-5	Medium Truck	Class 5
Heavy Truck	Classes 6-13	Heavy Truck	Classes 6-13
		Bus	Class 4
		Motorcycle	Class 1

Traffic Data Requirements for Screening Noise Study

Project: _____

Route: _____

County: _____

Key: _____

Analysis Years: Existing year (_____) Design Year (_____)

Data is needed for three scenarios: Existing conditions, Design Year No-Build, and Design Year Build

A. For each scenario, the following should be provided for the specified roadway(s) in the project area _____.

1. Peak hour volumes
2. Posted speed
3. Provide percentages or specific quantities for each Traffic Noise Model Vehicle Type in either simplified or detailed format as shown below (if speeds vary by vehicle type, specify speeds for each type)

B. Also for each scenario, provide a turning movement diagram for each intersection in the project area

Simplified Vehicle Mix Breakdown		Detailed Vehicle Mix Breakdown	
Traffic Noise Model Vehicle Type	FHWA Vehicle Category Classification	Traffic Noise Model Vehicle Type	FHWA Vehicle Category Classification
Automobile	Classes 1-3	Automobile	Classes 2-3
Medium Truck	Classes 4-5	Medium Truck	Class 5
Heavy Truck	Classes 6-13	Heavy Truck	Classes 6-13
		Bus	Class 4
		Motorcycle	Class 1