

Lesson One Highway Traffic Noise Legislation, Regulations and Policies



Source: www.keyclub.org

Lesson Overview

This lesson presents information on:

- Federal regulations
- State regulations
 - Florida Department of Transportation (FDOT) regulations and guidance
 - PD&E Manual
 - Traffic Noise Modeling & Analysis Handbook
- Local regulations



Lesson 1: Highway Traffic Noise Legislation, Regulation and Policies

Federal Regulations

1. National Environmental Policy Act (NEPA) of 1969
2. Federal-Aid Highway Act of 1970
3. The highway traffic noise related aspects of each of these pieces of legislation are contained in Title 23 Code of Federal Regulations (CFR) Part 772
4. Congress passed the Noise Control Act of 1972, which put even more pressure on the Federal Highway Administration, or FHWA (*read all letters*), to address highway traffic noise.



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National Environmental Policy Act (NEPA) of 1969

- Declares a national environmental policy
 - Applies to any project that has federal dollars or federal action
- Incorporation of environmental considerations by Federal agencies
- Oversight by Council on Environmental Quality (CEQ)
- Categorical Exclusions (CE)/Environmental Assessments (EA)/Environmental Impact Statements(EIS)



Source: www.energy.gov



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Federal–Aid Highway Act of 1970

- Section 136(b) of the Federal-Aid Highway Act of 1970, Section 109(i), Title 23 U.S.C. requires the establishment of standards for highway noise levels by the Federal Highway Administration (FHWA)
- The 1st Federal legislation to address traffic noise and resulted in.....



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Title 23 Code of Federal Regulations (CFR) Part 772

- Title: “Procedures for Abatement of Highway Traffic Noise and Construction Noise”
- Simply known as “23 CFR 772”
- July 13, 2010 (latest version)



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Applicability of 23 CFR 772

- Applies to all Federal or Federal-Aid Highway Projects authorized under Title 23 United States Code (USC).
- Applies to any highway project by the Department, regardless of funding sources, including those which:
 - Require FHWA approval, regardless of funding sources
 - Are funded by Federal-Aid highway funds
 - Under Florida Statute (FS) 335.17, state-funded projects must follow the process from 23 CFR 772



More Applicability of 23 CFR 772

- The state highway agency shall develop a noise policy in conformance with 23 CFR 772, and apply it uniformly
- Applies to Type I, Type II & Type III Projects (to be defined later)



Key Elements of 23 CFR 772

- Provide procedures for noise studies and abatement measures
- Establish Noise Abatement Criteria (NAC)
- If impacts are identified, abatement measures **MUST** be **CONSIDERED**



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Key Elements of 23 CFR 772 (Continued)

- Identify feasible and reasonable noise abatement measures that are likely to be incorporated into the project
- Identify traffic noise impacts that can't be reduced or eliminated (and why)
- Consider the viewpoints of the property owners and residents that are benefited (i.e., receive a 5 dB[A] reduction) by the abatement measure (done during design phase).



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Key Elements of 23 CFR 772 (Continued)

- FHWA will NOT approve project plans and specifications unless feasible and reasonable noise abatement measures are included
 - Notably, as of 2016, Florida has received NEPA assignment, which delegates review and approval to FDOT
- Provide noise contours to local officials for land use planning in the final noise study report for PD&E
 - *Reminder – Contours do not identify impacts!*
- Third-Party funding not allowed to achieve abatement reasonableness
 - Example: If a barrier for a school is \$2,000 over the cost criteria the school can NOT provide \$2,000 to meet the cost reasonable criteria



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Even More Key Elements of 23 CFR 772

- The FHWA's Traffic Noise Model (TNM) must be used
 - TNM version 3.2 is the latest version. However, issues with the model need to be resolved.
 - FHWA is accepting projects using TNM version 2.5 or 3.2, but the FDOT is currently recommended to use TNM 2.5 until issues can be resolved.
- Identify land uses or activities that may be affected by noise from construction of the project and determine the measures that are needed to minimize construction noise



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Project Types

- 1) Type I: A highway construction project (new location or physical alteration of existing highway) which substantially changes horizontal and vertical alignment, profile or adds through lanes (adds capacity).
- 2) Type II: A federal, federal-aid, or state funded highway project for noise abatement on an existing highway (not under construction). Type II projects are commonly referred to as retrofit projects and are allowed (but not mandatory) under *23 CFR Part 772*. (Florida doesn't have a Type II program, discussed later)
- 3) Type III: A project that does not meet the classifications of a Type I or Type II



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Figure 18-2 Part 2 Ch. 18 PD&E Manual

Topic No. 650-000-001
Project Development and Environment Manual
Highway Traffic Noise

Effective: June 14, 2017

	Type I Project Activities (Noise Study Required)	Not Type I (No Noise Study Required)
1	Construction of highway on new location	
2	New or relocated interchanges	
3	Addition of new interchange ramps (add a ramp where no ramps existed). Viewed as a new location.	
4	Relocation of an interchange ramp where the edge of the outside lane on any segment of the ramp reduces the distance to the closest receptor by one-half. (See #6 for realignment of ramps)	
5	Increasing capacity to an existing on or off interchange ramp (by adding lanes) including associated merge lanes. Viewed as a new location.	
6	Lengthening an existing interchange ramp's acceleration or deceleration lane and associated merging into the mainline to a total of more than 2500 feet (from the gore to the end of the lane), or re-aligning where any segment of the ramp reduces the distance to the closest receptor by one-half.	Lengthening an existing interchange ramp's acceleration or deceleration lane and associated merging into the mainline (total length less than 2500 feet), or re-aligning where any segment of the ramp DOES NOT REDUCE the distance to the closest receptor by one-half.
7	Alteration of the horizontal alignment of an existing highway such that the edge of the outside lane reduces the distance to the closest receptor by one-half.	Alteration of the horizontal alignment of an existing highway such that the edge of the outside lanes DOES NOT REDUCE the distance to the closest receptor by one-half.
8	Alteration of the vertical alignment, or the surrounding topography, where existing shielding is removed and the line of sight between the noise source and the receptor is now direct. (Activity does not include removal of vegetation).	
9	Addition of new through-lanes that increase capacity to an existing highway. (Noise analysis required on both sides of the highway whether the lanes are all in one direction or both directions of travel.)	
10	Restriping existing pavement to add a through-lane or auxiliary lane (See #13, #14 and #15 for auxiliary lanes).	
11	Addition of new or substantially altered weight station, rest stop, ride share lot or toll plaza.	
12	Addition of ramps or new lanes serving as climbing lanes for buses and trucks.	
13	Addition of auxiliary lanes used as through lanes on local roads.	
14	Auxiliary lanes on freeways and expressways connecting two or more interchanges (continuous lanes longer than 2500 feet from gore to gore).	Auxiliary lanes on freeways and expressways connecting two closely spaced interchanges (less than 2500 feet from gore to gore) to accommodate weaving traffic.
15		Turn lanes at intersections associated with arterial highways
16		Bicycle and Pedestrian paths
17		Safety activities (23 USC §402)
18		Landscaping
19		Installation of fencing, signs, pavement marking, small passenger shelters, traffic signals, railroad warning signals (that don't disrupt traffic patterns)
20		Deployment of electronics, photonics, communications, information processing to improve safety and security
21		Re-surfacing, restoration, rehabilitation or reconstruction of an existing facility (unless there is a change in horizontal or vertical alignment per 7 & 8 above).
22		Electronic toll collection facilities that do not disrupt traffic patterns.

Figure 18-2 Type I Project Matrix

Further defines what projects are Type I Projects



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Type I, II and III Projects

Type I Project Examples:

- Construction of a highway on a new location
- Physical alteration of an existing highway, with either:
 - Substantial horizontal alteration
 - Substantial vertical alteration
- Capacity expansion (e.g.: addition of through lanes)



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Type I Project Examples (Continued)

- Addition of an auxiliary lane (except when functioning as a turn lane), including:
 - Auxiliary lanes used as through lanes on local roads
 - Auxiliary lanes on freeways connecting two or more interchanges (continuous lanes longer than 2500 feet)
- Addition or relocation of interchange lanes or ramps added to a quadrant to complete an existing partial interchange
- Increasing capacity to existing interchange ramp by adding lanes, including merge lanes



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Type I Project Examples (Continued)

- Lengthening or re-alignment of existing interchange ramp acceleration or deceleration lane and associated merging into mainline to a total of more than 2,500 ft., where any ramp segment reduces the distance to the closest receptor by one-half
- Restriping existing pavement for the purpose of adding a through-traffic lane or auxiliary lane
- The addition of a new, or substantial alteration of a weigh station, rest stop, ride-share lot or toll plaza
- Addition of ramps or new lanes serving as bus/truck climbing lanes



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Type I Projects – the “Kicker”

If any portion of a project is determined to be a Type I project under this definition, then the entire project area as defined in the environmental document is a Type I project and therefore requires a noise analysis to be performed.



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Type II Projects

A Type II project is a project for noise abatement on an existing highway (no improvements are being proposed).

- Also known as “Retrofit” projects
- Are optional
 - The development and implementation of Type II projects are not mandatory requirements of Section 109(i) of Title 23, United States Code.
- FDOT does not have a Type II program



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Type III Projects

A project that does not meet classification of a Type I or Type II project. Type III projects do not require a noise analysis.



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Type III Project Examples:

- Bicycle and pedestrian lanes/paths/facilities
- Activities included in the FDOT highway safety plan
- Landscaping (including the removal of existing vegetation)
- Installation of fencing, signs, pavement markings, small passenger shelters, traffic signals and railroad warning devices
- Deployment of electronics, photonics, communications, or information processing (ITS)
- Resurfacing/restoration/rehabilitation/reconstruction
- Placement of overhead gantries to collect tolls (as long as no disruption to existing traffic patterns)



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FHWA Noise Abatement Criteria (NAC)

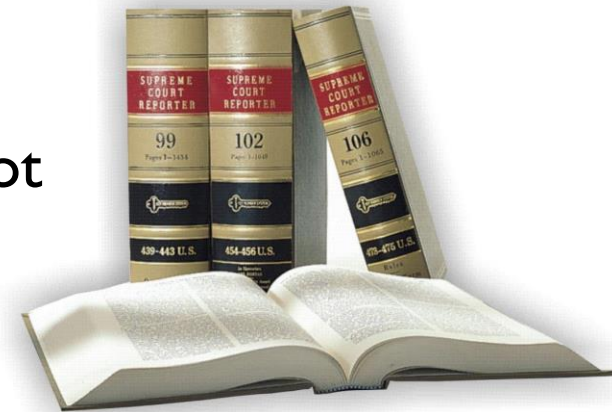
Activity Category	Activity Criteria		Evaluation Location	Activity Description
	Leq(h)	L ₁₀ (h)		
A	57	60	Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67	70	Exterior	Residential
C	67	70	Exterior	Active sports areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreational areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52	55	Interior	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E	72	75	Exterior	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or F.
F	--	--	--	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G	--	--	--	Undeveloped lands that are not permitted.



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Florida Regulations Related to Traffic Noise

- Florida Statute (F.S.)§ 335.17
 - State highway construction; means of noise abatement.
- F.S. § 335.02(4)
 - Local noise regulations/ordinances do not apply to FDOT projects
- F.S. § 479.25
 - Erection of noise-attenuation barrier blocking view of Outdoor Advertising sign
- F.S. § 339.09(1)
 - Transportation tax revenues may be used to construct and maintain noise mitigation





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FS 335.17

State Highway Construction; Means of Noise Abatement

- 1st law to address traffic noise and abatement in FL
- Applies to all projects by FDOT regardless of funding
- Follow requirements of 23 CFR 772



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FS 335.02

Application of Local Regulations

- “Regulations of any county, municipality, or special district, including any instrumentality thereof, shall not apply to existing or future transportation facilities, or appurtenances thereto, on the State Highway System.”
- Passed in 2003



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FS 479.25

Erection of noise-attenuation barrier blocking view of outdoor advertising sign

- If a FDOT noise barrier will block a lawfully erected outdoor advertising sign; FDOT must perform the following:
 - Conduct a survey of the benefited property owners
 - Have a public hearing
 - Coordinate with local government



FS 339.09(1)

Use of Transportation Tax Revenues; Restrictions

“.....Funds available to the department shall not be used for any non-transportation purpose.....The department is encouraged and permitted to use funds to construct and maintain noise mitigation facilities or walls upon request of the proper authorities.”



Local Noise Ordinances

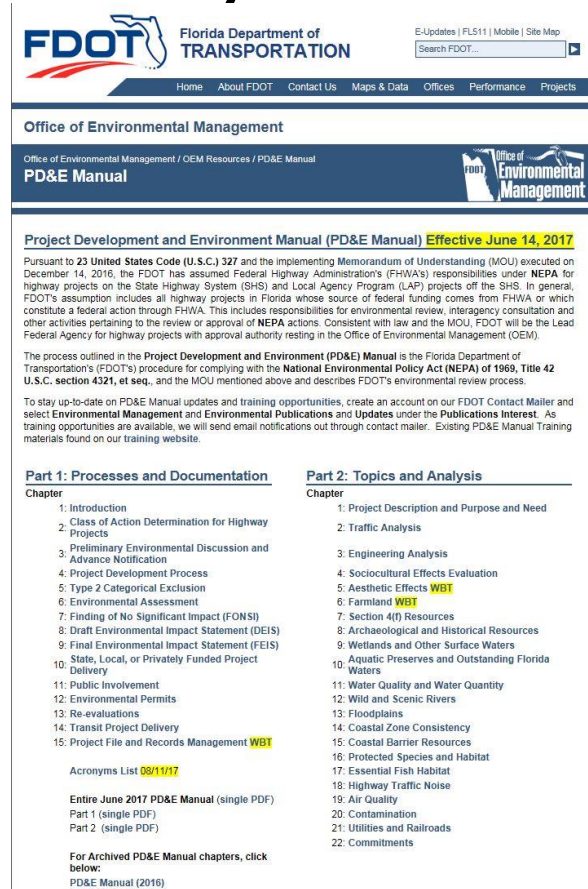
- **Local noise ordinances do not apply to FDOT projects per F.S. 335.02(4)**
 - Local ordinances vary widely in their approach to noise control
 - Frequently have boundary limits
 - Often have different criteria for day and night noise levels
 - May or may not have provisions for variances



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FDOT Noise Abatement Policy

- Part 2, Chapter 18 (Highway Traffic Noise) of the FDOT Project Development & Environment (PD&E) Manual is the FDOT noise policy, which contains procedures for the purpose of meeting the requirements of 23 CFR 772 and applicable state laws.
 - Latest: **July 1, 2020**
- FDOT has also published the *Traffic Noise Modeling and Analysis Practitioner's Handbook*, which provides guidance on noise modeling procedures.



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PD&E Manual

Project Development and Environment Manual (PD&E Manual) Effective June 14, 2017

Pursuant to 23 United States Code (U.S.C.) 327 and the implementing Memorandum of Understanding (MOU) executed on December 14, 2016, the FDOT has assumed Federal Highway Administration's (FHWA's) responsibilities under NEPA for highway projects on the State Highway System (SHS) and Local Agency Program (LAP) projects off the SHS. In general, FDOT's assumption includes all highway projects in Florida whose source of federal funding comes from FHWA or which constitute a federal action through FHWA. This includes responsibilities for environmental review, interagency consultation and other activities pertaining to the review or approval of NEPA actions. Consistent with law and the MOU, FDOT will be the Lead Federal Agency for highway projects with approval authority resting in the Office of Environmental Management (OEM).

The process outlined in the **Project Development and Environment (PD&E) Manual** is the Florida Department of Transportation's (FDOT's) procedure for complying with the **National Environmental Policy Act (NEPA) of 1969, Title 42 U.S.C. section 4321, et seq.**, and the MOU mentioned above and describes FDOT's environmental review process.

To stay up-to-date on PD&E Manual updates and training opportunities, create an account on our FDOT Contact Mailer and select **Environmental Management and Environmental Publications and Updates** under the **Publications Interest**. As training opportunities are available, we will send email notifications out through contact mailer. Existing PD&E Manual Training materials found on our training website.

<u>Part 1: Processes and Documentation</u>	<u>Part 2: Topics and Analysis</u>
Chapter	Chapter
1: Introduction	1: Project Description and Purpose and Need
2: Class of Action Determination for Highway Projects	2: Traffic Analysis
3: Preliminary Environmental Discussion and Advance Notification	3: Engineering Analysis
4: Project Development Process	4: Sociocultural Effects Evaluation
5: Type 2 Categorical Exclusion	5: Aesthetic Effects WBT
6: Environmental Assessment	6: Farmland WBT
7: Finding of No Significant Impact (FONSI)	7: Section 4(f) Resources
8: Draft Environmental Impact Statement (DEIS)	8: Archaeological and Historical Resources
9: Final Environmental Impact Statement (FEIS)	9: Wetlands and Other Surface Waters
10: State, Local, or Privately Funded Project Delivery	10: Aquatic Preserves and Outstanding Florida Waters
11: Public Involvement	11: Water Quality and Water Quality
12: Environmental Permits	12: Wild and Scenic Rivers
13: Re-evaluations	13: Floodplains
14: Transit Project Delivery	14: Coastal Zone Consistency
15: Project File and Records Management WBT	15: Coastal Barrier Resources
	16: Protected Species and Habitat
	17: Essential Fish Habitat
	18: Highway Traffic Noise
	19: Air Quality
	20: Contamination
	21: Utilities and Railroads
	22: Commitments

Acronyms List **08/11/17**

Entire June 2017 PD&E Manual (single PDF)
Part 1 (single PDF)
Part 2 (single PDF)

For Archived PD&E Manual chapters, click below:
PD&E Manual (2016)





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QUESTIONS?

If you have any questions, please feel free to send an email to OEM@dot.state.fl.us