

- 460.01 Introduction
- 460.02 Applicable Statutes and Regulations
- 460.03 Policy Guidance
- 460.04 Interagency Agreements
- 460.05 Technical Guidance
- 460.06 Permits and Approvals
- 460.07 Non-Road Project Requirements
- 460.08 Exhibits

### Key to Icon

 Web site.\*

### 460.01 Introduction

This chapter addresses potential impacts of WSDOT projects on transportation. As defined by SEPA, this element of the built environment includes the movement or circulation of people and goods, specifically transportation systems; vehicular traffic, traffic hazards, and parking; and waterborne, rail, and air traffic. In addition, FHWA guidance highlights bicycle and pedestrian travel considerations.

Presumably WSDOT projects are designed to improve transportation systems, including multiple modes of travel, so transportation impacts are typically not significant. However, they need to be considered, and if necessary mitigated, especially construction impacts.

Highway projects can affect transportation in many ways, including conflicts between local traffic and added regional or sub-regional traffic at new or revised access points, increased SOV and HOV volumes, increased safety hazards for bicycles and pedestrians, and increased congestion or interrupted access during construction. This chapter primarily deals with the impacts of highway projects. Ferry, rail, and aviation projects could have similar impacts, such as traffic congestion and safety hazards, especially during construction.

#### (1) **Summary of Requirements**

SEPA requires consideration of project impacts on transportation as part of the built environment. FHWA policy and guidance includes accommodating bicycles and pedestrians. If parking will be impacted, local jurisdictions' off-street parking regulations may apply. Specific requirements apply to projects affecting ferry facilities, railroads, or airports. See **Section 458.05** for guidance on related socio-economic or environmental justice impacts.

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\*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

## (2) **Abbreviations and Acronyms**

Abbreviations and acronyms used in this chapter are listed below. Others are found in the general list in **Appendix A**.

ADA	Americans with Disabilities Act
EPF	Essential Public Facility
FAA	Federal Aviation Administration
GMA	Growth Management Act
HOV	High Occupancy Vehicle
RPZ	Runway Protection Zone
SOV	Single Occupancy Vehicle
USDOJ	U.S. Department of Justice

## (3) **Glossary**

See **Appendix B** for a general glossary of terms used in the EPM.

**Essential Public Facilities** – Public facilities that are typically difficult to site, including airports, state or regional transportation facilities and services of statewide significance as defined in RCW 47.06.140 (including improvements to such facilities and services identified in the statewide multi-modal plan), and other public facilities that are typically difficult to site.

**Level of Service (LOS)** – An established minimum capacity of public facilities or services that must be provided per unit of demand or other appropriate measure of need. [WAC 365-195-210] For transportation facilities and services, level of service may be measured at an intersection, road segment, traffic corridor or zone, and may be based on traffic volume compared to facility capacity, travel time, or multiple variables (e.g., distance traveled, road conditions, or safety hazards).

**Transportation Facilities and Services of Statewide Significance** – Defined in RCW 47.06.140 to include the interstate highway system, interregional state principal arterials including ferry connections that serve statewide travel, intercity passenger rail services, intercity high-speed ground transportation, major passenger intermodal terminals excluding all airport facilities and services, the freight railroad system, the Columbia/Snake navigable river system, marine port facilities and services that are related solely to marine activities affecting international and interstate trade, and high-capacity transportation systems serving regions as defined in RCW 81.104.015.

## **460.02 Applicable Statutes and Regulations**

This section lists the primary statutes and regulations applicable to transportation issues. See **Appendix D** for a list of statutes referenced in the EPM. Permits and approvals required pursuant to these statutes are listed in **Section 460.06**.

**(1) Federal****(a) National Environmental Policy Act**

The National Environmental Policy Act (NEPA), 42 USC 4321 et seq., requires that all major actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations such as impacts on transportation are given due weight in decision-making.

Federal implementing regulations are at 40 CFR 1500-1508 (CEQ) and 23 CFR 771 (FHWA). In addition, 23 CFR 652 specifically requires that federally aided projects include an analysis of any impacts on bicycle and pedestrian traffic. For details on NEPA procedures, see EPM **Chapter 410**, **Chapter 411**, and **Chapter 412**.

**(b) River and Harbors Act**

Under Section 10 of the Rivers and Harbors Act of 1899 and implementing regulations, U.S. Army Corps of Engineers approval is required prior to any construction, excavation, or deposition of materials in, over, or under navigable waters of the United States, or any work which would affect the course, location, condition or capacity of such waters. The purpose of this section of the act is to prevent obstruction to navigation. The Section 10 statute (33 USC 403) is available online at:

☞ [http://www4.law.cornell.edu/uscode/html/uscode33/uscode\\_sup\\_01\\_33\\_10\\_9\\_20\\_I.html](http://www4.law.cornell.edu/uscode/html/uscode33/uscode_sup_01_33_10_9_20_I.html)

**(c) General Bridge Act**

Under the General Bridge Act of 1946 (33 USC Section 525, formerly Section 9 of the Rivers and Harbors Act) and implementing regulations, U.S. Coast Guard approval is required to construct a new bridge or reconstruct or modify an existing bridge over navigable waters of the United States. The purpose of the act is to preserve the public right of navigation and prevent interference with interstate and foreign commerce. Regulations (33 CFR Parts 114-115) are online at:

☞ <http://cfr.law.cornell.edu/cfr/cfr.php?title=33&type=part&value=114>

**(d) Americans with Disabilities Act**

The Americans with Disabilities Act (ADA), Public Law 101-336, enacted July 26, 1990, prohibits discrimination and ensures equal opportunity for persons with disabilities in employment, state and local government services, public accommodations, commercial facilities, and transportation. The ADA requires public transit agencies to provide any person with disabilities living within  $\frac{3}{4}$  of a mile of a bus route a ride from their home to the bus stop. It also mandates the establishment of TDD/telephone relay services.

Public transportation services are not covered by regulations for Title II, subtitle A, which prohibits discrimination on the basis of disability in all services, programs, and activities provided to the public by state and local governments (Federal Register, July 26, 1991).

Regulations for Title III, CFR, July 1, 1994, which prohibits discrimination on the basis of disability in public places, includes standards for accessible design, including minimum standards for ensuring accessibility when designing and constructing a new facility or altering an existing facility (Appendix A to Part 36).

The text of the statute and implementing regulations are accessible via the U.S. Department of Justice (USDOJ) Web site at:

☞ <http://www.ada.gov/publicat.htm>

#### (e) **National Trails System Act**

The National Trails System Act (16 USC 1241-1251) was established in 1968 to provide for recreation, public access, enjoyment, and appreciation of the “open-air,” outdoor areas and historic resources of the nation.” It also requires federal agencies, including the USDOT, having jurisdiction or control over or information concerning the use, abandonment, or disposition of roadways, utility rights-of-way, or other properties suitable for the purpose of improving or expanding the national trails system to cooperate with the Secretary of the Interior and the Secretary of Agriculture to assure that such properties may be made available for such use. The Act is available at:

☞ <http://www4.law.cornell.edu/uscode/16/ch27.html>

#### (f) **FHWA Regulations**

FHWA regulations covering federally aided projects include the following policy (in 23 CFR 652) on accommodation of bicycles and pedestrians: “The safe accommodation of pedestrians and bicyclists should be given full consideration during the development of Federal-aid highway projects, and during the construction of such projects. The special needs of the elderly and the handicapped shall be considered in all Federal-aid projects that include pedestrian facilities. Where current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort shall be made to minimize the detrimental effects on all highway users who share the facility. On highways without full control of access where a bridge deck is being replaced or rehabilitated, and where bicycles are permitted to operate at each end, the bridge shall be reconstructed so that bicycles can be safely accommodated when it can be done at a reasonable cost. Consultation with local groups of organized bicyclists is to be encouraged in the development of bicycle projects.”

See 23 CFR 652.11 for planning considerations and 23 CFR 652.13 for design and construction criteria. The rules are available on the FHWA Web site at:

<http://www.fhwa.dot.gov/legsregs/directives/fapg/cfr0652.htm>

**(g) FAA Regulations**

FAA Regulations, Part 77 (January 1975), include guidance relevant to design of road projects affecting navigable airspace. See **Section 520.13** and WSDOT *Design Manual* (M-22-01), **Chapter 210**, for public notice requirements.

**(2) State**

**(a) State Environmental Policy Act (SEPA)**

The State Environmental Policy Act (SEPA), requires that all major actions sponsored, funded, permitted, or approved by state and/or local agencies undergo planning to ensure environmental considerations such as impacts on transportation are given due weight in decision-making. State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT), and WAC 197-11-444 lists transportation as an element of the built environment that includes transportation systems, vehicular traffic, waterborne, rail, and air traffic, parking, movement/circulation of people or goods, and traffic hazards.. For details on SEPA procedures and other state statutes addressing these aspects of the transportation element, see **Chapter 410**, **Chapter 411**, and **Chapter 412** and the following, respectively:

**(b) Transportation Systems**

**Public Transportation** – In 2005, the Washington State Legislature passed Substitute House Bill 2124, which increased the state role in public transportation. The law calls on the state to maximize opportunities to improve efficiencies in transportation corridors through public transportation. Specifically, the law requires the state to include transit and transportation demand management strategies in route development, and corridor, plan standards, and budget proposals.

**(c) Vehicular Traffic**

**Essential Public Facilities** – Under the Growth Management Act (GMA) (Chapter 36.70A RCW), a thorough public review is required prior to siting Essential Public Facilities (EPFs), such as state or regional transportation facilities. No local comprehensive plan or development regulation may preclude the siting of essential public facilities, but they can impose conditions on the project.

**Transportation Facilities and Services of Statewide Significance –**

RCW 47.06.140 requires WSDOT to plan for improvements to transportation facilities and services of statewide significance in the statewide multimodal plan, in cooperation with regional transportation planning organizations, counties, cities, transit agencies, public ports, private railroad operators, and private transportation providers.

**City Streets as Part of State Highways** – RCW 47.24 identifies design and environmental considerations for city streets that cross or are considered part of a state highway.

**Design Standards** – WAC 468-18-040 regulates design standards for rearranged county roads, frontage roads, access roads, intersections, ramps and crossings, including realignments as part of a road project.

**(d) Bicycle/Pedestrian Traffic**

RCW 47.30 requires WSDOT and local agencies to spend transportation funding on paths and trails.

**(e) Aviation**

**General Aviation Airports - Siting of Incompatible Uses** – RCW 36.70.547 indicates that counties, cities, and towns shall (through their comprehensive plan and development regulations) discourage the siting of incompatible uses adjacent to general aviation airports.

**(f) Rail**

**WDNR Easements** – RCW 47.12.026 grants WSDOT authority to obtain an easement at no charge for waters in Washington State Department of Natural Resources (WDNR) jurisdiction that are required to relocate the operating tracks of any railroad that will be displaced by the acquisition of such railroad property for state highway purposes.

**(3) Local**

If a project provides parking, the local jurisdiction's zoning, road standards, off-street parking regulations, and essential public facilities (EPFs) standards will apply. If a parking facility is being removed or replaced as a result of the road project, the local regulations also must be considered. Early coordination with local jurisdictions on any parking area that will need to be replaced or reconstructed is recommended.

**460.03 Policy Guidance****(1) Federal Policies – Bicycles and Pedestrians**

The USDOT Policy Statement on Integrating Bicycling and Walking into Transportation Infrastructure was drafted in response to Section 1202(b) of the Transportation Equity Act for the 21st Century (TEA-21):

1. Bicycle and pedestrian ways shall be established in new construction and reconstruction projects in all urbanized areas unless one or more of three conditions are met:
  - Bicyclists and pedestrians are prohibited by law from using the roadway. In this instance a greater effort may be necessary to accommodate bicyclists and pedestrians elsewhere within the right of way or within the same transportation corridor.
  - The cost of establishing bikeways or walkways would be excessively disproportionate to the need or probable use. Excessively disproportionate is defined as exceeding 20 per cent of the cost of the larger transportation project.
  - Where sparsity of population and other factors indicate an absence of need.
2. In rural areas, paved shoulders should be included in all new construction and reconstruction projects on roadways used by more than 1,000 vehicles per day.

#### 460.04 Interagency Agreements

None. See **Appendix E** for a guide to all interagency agreements referenced in the EPM. |

#### 460.05 Technical Guidance

##### (1) **WSDOT Guidance**

WSDOT has no Discipline Report checklist for analyzing transportation impacts; however, bicycle and pedestrian facility impacts are covered in the Social Elements Discipline Report (see template, Exhibit 458-2), and traffic impacts are included in the Economic Elements Discipline Report (see template, Exhibit 458-4, and checklist, Exhibit 458-5). General guidance for various types of transportation impacts is provided in this section. |

Useful information may be obtained from the WSDOT GIS Workbench, a GIS interface for internal WSDOT use only that has numerous layers of environmental or natural resource management data. WSDOT works with federal, state, and local agencies to maintain a collection of the best available data for statewide environmental analysis. Available data sets relevant to vehicle traffic include state highways by WSDOT region, public park-and-ride lots, rest areas, ferry routes, railroads, and abandoned railroads. For information on how to access the GIS Workbench, see:

 <http://www.wsdot.wa.gov/Environment/GIS/workbench.htm>

For a list of current data sets, see the WSDOT Web site at:

 <http://www.wsdot.wa.gov/mapsdata/geodatacatalog/default.htm>

## (2) **Transportation Systems**

The impacts of WSDOT construction projects on other transportation systems, such as but not limited to public transit operations, need to be addressed for both the construction period and long-term operations. In 2005, the Washington State Legislature adopted SHB 2124 increasing the state role in public transportation specifically to increase efficiency of the roadways and highways through public transportation. The law requires route development plans and corridor plans and corresponding budgets to maximize efficiencies through improved integration of public transportation and transportation demand management strategies. RCW 47.05.035 requires that the department use transportation demand modeling tools to evaluate investments based on the best mode or improvement, or mix of modes and improvements, to meet current and future long-term demand.

Project managers are advised to use transportation demand modeling to determine any changes in demand that would affect the other transportation systems and to, in conjunction with the other transportation system providers, determine the best approach to mitigate any adverse impacts. In addition, the changes in operations of any transportation systems should be modeled in a simulation tool using the changes in travel demand to determine any detrimental impacts of the operations and how those operations can be improved for the benefit of all modes.

## (3) **Vehicular Traffic**

WAC 197-11-444 requires an analysis of vehicular traffic impacts, which may occur at intersection/access points. The analysis may need to cover volumes of exiting and entering vehicular traffic from surface streets, transit components/lanes, bicycle and pedestrian accommodations, access for disabled people, and traffic control devices.

Project managers are advised to review the impacts of the proposed project on adjacent surface streets to make sure the system can adequately and safely collect and distribute any new traffic loads resulting from new or revised access. Potential impacts on the following should be identified and documented, along with mitigation for significant impacts:

- Any new congestion points; congestion points that would be eliminated or reduced.
- Corridor efficiencies through improved integration and maximized opportunities for public transportation as required by SHB 2124.
- Traffic detours or diversions.
- Safety hazard (accident frequency related to trip volume).
- Transit routes.
- Ramp metering and queuing impacts (interstate highways).

- Surface street conditions that would affect traffic entering or exiting traffic (interstate highways).

WSDOT's *Design Manual* (M 22-01) is the primary reference for safety and vehicular traffic issues. See particularly sections on sight distance, roadside safety, traffic barriers, impact attenuation systems, construction work zone traffic control strategies, and safety rest areas. Additional guidance for early design and identification of potential adverse environmental impacts can be found in:

- WSDOT *Roadside Manual* (M 25-30).
- WSDOT *Roadside Classification Plan* (M 25-31).
- WSDOT *HOV Direct Access Design Guide* (Draft) (M 22-98).
- *A Guide for Transportation Landscape and Environmental Design*, American Association of State Highway and Transportation Officials, 1991.
- *Procedure for Analysis and Design of Weaving Sections – A User's Guide*. Jack E. Leisch, 1985.

#### **(4) Parking**

Parking issues may include impacts to public or private parking adjacent to the highway right-of-way, and interim impacts such as construction parking, staging, and access. Local jurisdictions, especially those under GMA mandates, take the issue of parking seriously. They should be consulted early in project development to identify possible impacts, particularly if significant parking would be eliminated by a highway project and there is not adequate space for replacement parking. Parking impacts affecting local businesses and/or low-income or minority populations should be addressed as social and economic and environmental justice impacts (see **Chapter 458**).

#### **(5) Bicycles and Pedestrians**

##### **(a) FHWA**

FHWA Technical Advisory T 6640.8A (October 1987) gives the following guidelines for preparing environmental documents, specifically considerations relating to pedestrians and bicyclists.

Where pedestrian or bicycle facilities or indications of use are identified, the draft EIS should discuss the current and anticipated use of the facilities, potential impacts, and proposed measures, if any, to avoid or reduce adverse impacts to the facilities and their users.

In 2005, the Washington Legislature funded new pedestrian programs for Safe Routes to Schools and Safe Routes to Transit. The requirements under this provision must be considered in the preparation of environmental documents.

Where new facilities are proposed as a part of a highway project, the EIS should include sufficient information to explain the basis for providing the facilities (e.g., proposed bicycle facility is a link in the local plan or sidewalks will reduce project access impact to the community). The final EIS should identify the facilities to be included in the preferred alternative. Where the preferred alternative would sever an existing major route for non-motorized transportation traffic, the proposed project needs to provide a reasonable alternative route or demonstrate that such a route exists (23 USC 109(n)). To the fullest extent possible, this needs to be described in the final EIS. This guidance is available on the FHWA Web page at:

☞ <http://www.fhwa.dot.gov/legregs/directives/techadvs/t664008a.htm>

(b) **WSDOT *Design Manual***

See the *Design Manual* (M 22-01) for guidance, particularly the chapters addressing Bicycle Facilities and Pedestrian Facilities. Other sections include information applicable to bicycle and pedestrian facilities, including shoulders on urban roads.

(6) **Access for Persons with Disabilities**

See the Access Board's Web site at:

☞ <http://www.access-board.gov/>

USDOJ's ADA Technical Assistance Program provides up-to-date information about the ADA and how to comply with its requirements. Technical assistance materials are available on the USDOJ Web site:

☞ <http://www.usdoj.gov/crt/ada/adahom1.htm>

(7) **Waterborne, Rail, and Air Traffic**

Road projects typically have little impact on waterborne (ferries/shipping), rail, or air transportation. Potential impacts to be considered include disruption of local or regional access, particularly during construction. The following special provisions apply.

**Ferries** – When a highway project is adjacent to or may impact a ferry facility, the USCG, and potentially the U.S. Army Corps of Engineers may require an analysis of the impact as part of their “public interest review” under several different permits. See **Section 430.06** for water-related permits.

**Airports** – Any proposed highway construction or alteration in the vicinity of a public or military airport will require early coordination with WSDOT's Aviation Planning Division. Potential issues range from FAA height requirements, runway protection zones (RPZs), general clear zone requirements, and approved landscape/vegetation near the designated clear zones and access.

Federal statutes require that reconstruction or relocation of any federally funded highway located within a 3.2 kilometer radius of an airport facility must be coordinated with FAA to ensure that airway-highway clearances are adequate for the safe movement of air and highway traffic (23 USC 318 and 23 CFR 620 Subpart A, Highway Improvements in the Vicinity of Airports). See **Section 520.13** for FAA public notice requirements.

**Railroads** – WSDOT’s *Design Manual (M 22-01)* includes several standards applicable when a highway project crosses a railroad at grade or at a different elevation.

## 460.06 Permits and Approvals

Permits relating to Transportation are addressed in the following sections:

### *Federal*

- **Section 520.03** – Section 10 Permit
- **Section 520.04** – Section 9 Permit
- **Section 520.13** – Other Federal Approvals (Notification of Work Affecting Navigable Airspace)

### *Local*

- **Section 550.10** – Other Local Approvals (Detour and Haul Road Agreements)

There are no direct permits related to impacts upon waterborne, rail, or air traffic. However, it is advisable to contact the appropriate agencies (Washington State Ferry Division, Federal Railroad Administration, or the FAA) for any potential conflicts that need to be addressed during the environmental analysis.

## 460.07 Non-Road Project Requirements

Non-road projects are generally subject to the same policies, procedures, or permits that apply to road projects. The mostly likely transportation impact of non-road projects is changes in the traffic flow and circulation around existing operational facilities. Early environmental screening should identify any parking or traffic conflicts, both short-term (during construction) and long-term (ongoing operations).

## 460.08 Exhibits

None.

