

Design Standards Requirements for City Streets in Washington State

Introduction

There are a variety of laws incorporated into the Revised Code of Washington (RCW) that lay out requirements for design of city streets in Washington State. Over the years, the evolution of those laws has not always been well coordinated, resulting in confusion about their application in various circumstances. In my current position I receive many questions about proper application of these laws. This document is an attempt to lay out the links between those laws, and to provide a basis for City Engineers decisions about the appropriate application in their design efforts.

This document does not include every RCW reference; only those that I believe are most relevant to design requirements on city streets. I do reference other sections in passing. I would recommend to any City Engineer that they become familiar with RCW Sections 35, 43 and 47, as there are bits and pieces scattered throughout that can affect how one designs a project. I have referenced them hopefully in a logical order, but not in RCW number order. In each case I have cited the RCW section in its entirety and attempted to provide a basic explanation of how it fits into the current design process.

The reader should bear in mind that these are state requirements, and do not reflect additional or different requirements that may exist under federal law when using federal funds on a city street project.

This is NOT a "legal opinion" in any sense, but simply more than 30 years of experience working under them, including 10 years as a County Engineer, many hours/days/weeks in court trying to understand them and respond properly as an expert witness, and my understanding in trying to reasonably apply them in my current position, where the responsibility resides for development of state standards as chair of the City and County Design Standards Committee, and for approval of deviations from approved state standards as they apply on local streets and roads.

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Revised Code of Washington

RCW 35.78.010

Classification of streets.

The governing body of each municipal corporation shall classify and designate city streets as follows:

Major arterials, which are defined as transportation arteries which connect the focal points of traffic interest within a city; arteries which provide communications with other communities and the outlying areas; or arteries which have relatively high traffic volume compared with other streets within the city;

Secondary arterials, which are defined as routes which serve lesser points of traffic interest within a city; provide communication with outlying districts in the same degree or serve to collect and distribute traffic from the major arterials to the local streets;

Access streets, which are defined as land service streets and are generally limited to providing access to abutting property. They are tributary to the major and secondary thoroughfares and generally discourage through traffic.

- RCW 35.78.010 provides the definitions of the arterial streets referenced in the following statutes. Each city typically classifies its streets and WSDOT manages the equivalent federal classifications that become important in application of standards on federal aid projects. "Secondary arterials" are also commonly referred to as "collectors", and "access streets" as "residential streets".*

RCW 35.78.020

State design standards -- Committee -- Membership.

There is created a state design standards committee of seven members, six of whom shall be appointed by the executive committee of the Association of Washington Cities to hold office at its pleasure and the seventh to be the state aid engineer. The members to be appointed by the executive committee of the Association of Washington Cities shall be restricted to the membership of the association or to those holding office and/or performing the function of chief engineer in any of the several municipalities in the state.

- RCW 35.78.020 sets up the City Design Standards Committee (which has, for convenience and for avoidance of duplication or conflicts, been merged with the County Design Standards Committee—RCW 43.32.010).*
- The official position of "State Aid Engineer" no longer exists within WSDOT and is currently embodied for purposes of this statute in the "Operations Engineer" in WSDOT's Highways & Local Programs Division.*

RCW 35.78.030

Committee to adopt uniform design standards.

The design standards committee shall from time to time adopt uniform design standards for major arterial and secondary arterial streets.

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- RCW 35.78.020 requires the Design Standards Committee to adopt uniform standards for application in all cities across the state on those streets classified as collector (secondary arterial) and arterial. It effectively excludes those classified as access streets (residential) from application of these standards. The reader should be aware also that there are "on system" streets (as opposed to "off system") in the federal classification system, and those may also be state highways where a WSDOT standard may apply.*
- It should be noted here that the LAG (Local Agency Guidelines) manual is written principally for guidance on projects using federal funds, and is not a requirement of state law. Since virtually every agency in the state uses it however, it becomes a convenient resource and location for other guidance such as the Design Standards. It contains not only these particular standards, but also other guidance that is based in state law as well, and is an excellent general resource.*

RCW 35.78.040

Design standards must be followed by municipalities -- Approval of deviations.

The governing body of the several municipalities shall apply the uniform design standards adopted under RCW 35.78.030 to all new construction on major arterial and secondary arterial streets and to reconstruction of old such streets as far as practicable. No deviation from the design standards as to such streets may be made without approval of the state aid engineer.

- RCW 35.78.040 simply states that cities must follow the uniform state adopted standards when constructing city arterial streets. It should be recognized that the practice of professional engineering is implicit in the use and application of these standards, and the licensing statutes in RCW 18.43, Engineers & Land Surveyors, require that the work be under the supervision of a registered and licensed professional civil engineer.*

RCW 18.43.020(5) states:

Practice of engineering: The term "practice of engineering" within the meaning and intent of this chapter shall mean any professional service or creative work requiring engineering education, training, and experience and the application of special knowledge of the mathematical, physical, and engineering sciences to such professional services or creative work as consultation, investigation, evaluation, planning, design and supervision of construction for the purpose of assuring compliance with specifications and design, in connection with any public or private utilities, structures, buildings, machines, equipment, processes, works, or projects.

- 35.78.040 also requires that when the design standards are adopted, they must then be adhered to. If the city desires not to do so, then it must obtain WSDOT approval for a situational deviation. That is the deviation process outlined in the LAG, Chapter 41, the primary location for publication of the standards adopted by the Design Standards Committee.*

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- Some confusion exists as to what "reconstruction of old such streets as far as practicable" means, and that's in part the reason that the definition of "reconstruction" in the LAG goes to the 50% guidance. Work affecting less than 50% of the roadway as stated in that guidance does not require the specific design standards application, only the 2R/3R application.*

While it can be argued that no standard is required, I would suggest that a city would be well served if above the 50% it used the standards for "new construction" since it quickly becomes difficult to tell the difference.

- In part the deviations process and definitions that we work with stem from trying to provide clear guidance to assist agencies in the tort liability arena and still have practical application of the standards. Obviously there is always room for debate on what is "practicable".*

RCW 47.52.027

Standards and rules for interstate and defense highways -- Construction, maintenance, access.

The secretary of transportation may adopt design standards, rules, and regulations relating to construction, maintenance, and control of access of the national system of interstate and defense highways within this state as it deems advisable to properly control access thereto, to preserve the traffic-carrying capacity of such highways, and to provide the maximum degree of safety to users thereof. In adopting such standards, rules, and regulations the secretary shall take into account the policies, rules, and regulations of the United States secretary of commerce and the federal highway administration relating to the construction, maintenance, and operation of the system of interstate and defense highways. The standards, rules, and regulations so adopted by the secretary shall constitute the public policy of this state and shall have the force and effect of law.

- RCW 47.52.027 makes specific reference to the "national system of interstate and defense highways", now termed by FHWA the "National Highway System", and requires that, in addition to any other standards that may exist, WSDOT adopt design standards for NHS routes. In our stewardship and working with the local agencies as partners we have always included NHS standards in our discussions with the Design Standards Committee.*

RCW 36.75.205

Street as extension of road in town of less than one thousand.

Whenever any street in any town, having a population of less than one thousand persons, forms an extension of a county road of the county in which such town is located, and where the board of county commissioners of such county and the governing body of such town, prior to the commencement of any work, have mutually agreed and each adopted a resolution setting forth the nature and scope of the work to be performed and the share of the cost or labor which each shall bear, such county may

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expend county road funds for construction, improvement, repair, or maintenance of such street.

- RCW 36.75.205 is found in the county statutes but may affect small cities, allowing the county to work on city streets that are extensions of county roads. While this statute is permissive, thus the choice of the county, when it so chooses, city design standards would still apply. Since in this case it is very likely that the city street is a classified arterial, it should be clear between the city and county that city standards will apply.*

Summary

It would be delightful if a city could simply refer to a single code reference and one set of standards. However there are several, and they are multi-layered, depending on the classification of the street and the funding sources. To summarize generally, from bottom to top in the street classifications, the requirements for the adoption and use of standards on city streets:

- Local Access Streets -- City adopted standards (at its choice, no RCW applies)*
- Collectors (Secondary Arterials) & Arterials -- Design Standards Committee adopted standards (RCW 35.78.040)*
- NHS -- NHS/WSDOT Standards (RCW 47.52.027)*

I can't presume to tell a city how to adopt its standards as that's outside our authority (deviations and managing the statewide standards is within our authority), only make a suggestion. That suggestion would be to adopt the cities basic construction standards in City Code, with reference to the State Design Standards for collectors, arterials and NHS routes. By so doing, the city won't have to change the code when those pieces outside the direct jurisdiction of the City legislative authority change.

Federally Funded Projects

When federal funds are used on a city street project, FHWA weighs in on the issue, and requires the use of state adopted standards and the requirements outlined in the LAG. We work closely with FHWA when we make modifications to the state standards to try to find an appropriate balance to achieve reasonable flexibility for the cities AND to meet the federal requirements as well. Also, other funding agencies sometimes impose additional or different standards requirements for the use of their funds.

Deviations

On federally funded projects, it is a requirement that any deviations must be submitted to the Operations Office for review and a decision. Those projects are

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checked closely to assure that appropriate standards are met. It is the City Engineer's decision, and the city's risk, on locally funded projects that are subject to state standards when a deviation is needed from WSDOT. We will respond to requests for deviations approvals and carry out our clear responsibility at that point to interpret the existing standards and make our best professional judgment in providing you an answer to that request. In doing so, we try very hard to weigh the local conditions along with good design practices to achieve maximum flexibility and provide you a tort defensible position at the same time.

Very Low Volume Standards

AASHTO, the American Association of State Highway and Transportation Officials has recently adopted a new set of "Very Low Volume Standards". There is a high interest in the possible application of these standards on city streets. While we do not yet have a complete understanding of how they would apply, it appears that when they are officially adopted they would be available only for application on collectors and lower classifications with less than 400 ADT. The Design Standards Committee is currently looking at their use at this time, and I anticipate they will be adopted within the next year in some form as a part of the State Design Standards.