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## 1340.01 General

For the purpose of this chapter, and to remain consistent with WSDOT’s *Standard Plans* and AASHTO terminology, the terms “access” and “approach” will be referred to as “driveway.” An access on a managed access highway is defined as an “access connection,” while an access on a limited access highway is defined as an “approach.”



Driveways are as much about access as they are about driveway design. This chapter describes the pertinent access criteria along with the design guidelines, including two design templates based on design vehicle, sidewalks, and sight distance criteria, for driveway connections on the state highway system. WSDOT controls driveways on all limited access state highways, and regulates driveways on all managed access state highways outside the incorporated limits of a city or town. [RCW 47.50.030](#) states that cities and towns, regardless of population size, are the permitting authority for managed access state highways within their respective incorporated city and town limits. The RCW also requires those cities and towns to adopt standards for access permitting on managed access state highways that meet or exceed WSDOT standards, provided those adopted standards are consistent with WSDOT standards.

## 1340.02 Access Control

Limited access highways are roadways to which WSDOT has acquired the access rights from abutting property owners. Driveways, if they have been allowed, are documented and recorded in the deed and right-of-way limited access plan. Chapter 530 describes the three levels of limited access highways: full, partial, and modified. Any change to the number, type, and use of a limited access driveway must be approved by Headquarters through the process outlined in Chapter 530 and Chapter 550. A general permit is required to allow any new construction or repairs for a deeded road approach on a limited access highway. Access connection permits are not issued on limited access highways.

Any state highway that is not a limited access highway is a managed access highway. Chapter 540 describes the five classes of managed access highways: Class 1 (most restrictive) to Class 5 (least restrictive). In addition to the five access control classes, there are also corner clearance criteria that must be used for access connections near intersections (see Section 540.04 and Exhibit 540-2). An access connection permit is required to allow the use, operation, and maintenance of a driveway connection on a managed access highway, outside incorporated cities, where WSDOT is the access permitting authority. Check with Development Services to ascertain where WSDOT has permitting authority (such as tribal lands or National Parks).

When evaluating access connections or approaches on a project, review existing driveways for possible alterations, relocations, consolidations, or closures. The first step in that process is to determine the legality of each driveway. The region Development Services Office can provide a list of the permitted driveway connections on a managed access highway, noting that, per [RCW 47.50.080](#), Permit removal, "Unpermitted connections to the state highway system in existence on July 1, 1990, shall not require the issuance of a permit and may continue to provide access to the state highway system, unless the permitting authority determines that such a connection does not meet minimum acceptable standards of highway safety." As a result, driveway connections on a managed access state highway can be considered to be permitted, grandfathered, or unpermitted as described below:

- *Permitted* driveways hold a valid permit and shall remain valid until modified or revoked.
- *Grandfathered* driveways that were in existence and in active use consistent with the type of connection on July 1, 1990, may continue to provide connection to the state highway system. The term "Grandfathered" driveway, or connection, is not a term defined in statute or rule. It is a commonly used term to define legal connections to managed access state highways, in place prior to July 1, 1990. They do not require the issuance of a new permit and may continue to provide access to the state highway system, unless the permitting authority determines that such a connection does not meet minimum acceptable standards of highway safety.
- *Unpermitted* driveways are not allowed. The permitting authority may initiate action to close the unpermitted driveway in compliance with the applicable chapters of [47.50 RCW](#) and [468-51](#) and [468-52 WAC](#). These are driveways that do not have a permit and were constructed after July 1, 1990.

If a WSDOT project proposes to alter, relocate, consolidate, or close a driveway—regardless of whether the driveway is permitted, grandfathered, or unpermitted—it is required that a new access connection permit be issued for any driveways that are to remain. If a driveway is to be removed, formal notification to the property owner will be provided as specified in [WAC 468-51-040](#). Unless determined otherwise, the affected property owners of driveways that will be altered, relocated, consolidated, or closed will not have the right of an Adjudicative Hearing. Additional information regarding this process can be obtained by contacting your region’s Development Services Office.

On limited access highways, both the region Development Services and Real Estate Services offices may provide assistance to determine the legality of an existing driveway. Federal Highway Administration approval is required for driveway modifications on Interstate facilities.

### 1340.03 Driveway Design

The design of a driveway is based on the usage, design vehicle, and traffic volumes anticipated for the driveway. Generally, the driveway should be designed to accommodate the largest vehicle that will regularly use the driveway. For example, a residential driveway connection will typically have smaller radii and a narrower access width than a higher-volume commercial driveway.

The turning path width of the design vehicle determines the detailed foot print of the driveway in order for the design vehicle to stay in the lane and not intrude into other traffic lanes. Justification is required to “accommodate the design vehicle”, whereby the design vehicle is within the paved surface but allowed to intrude into other traffic lanes. See section 1310.02(5) for additional information pertaining to accommodating vs. designing for design vehicles.

However, if the property owner regularly has larger-wheelbase vehicles using the driveway, such as a home-based work vehicle, recreational vehicle, or truck and boat trailer combination, then a larger driveway may be appropriate.

Conversely, some driveways, such as a rural locked and gated utility, farm, or logging access that larger vehicles sometimes use, may be better served with a smaller and narrower access. This is based on infrequent use and to prevent unauthorized use or dumping of debris on or near the driveway. Other design considerations are:

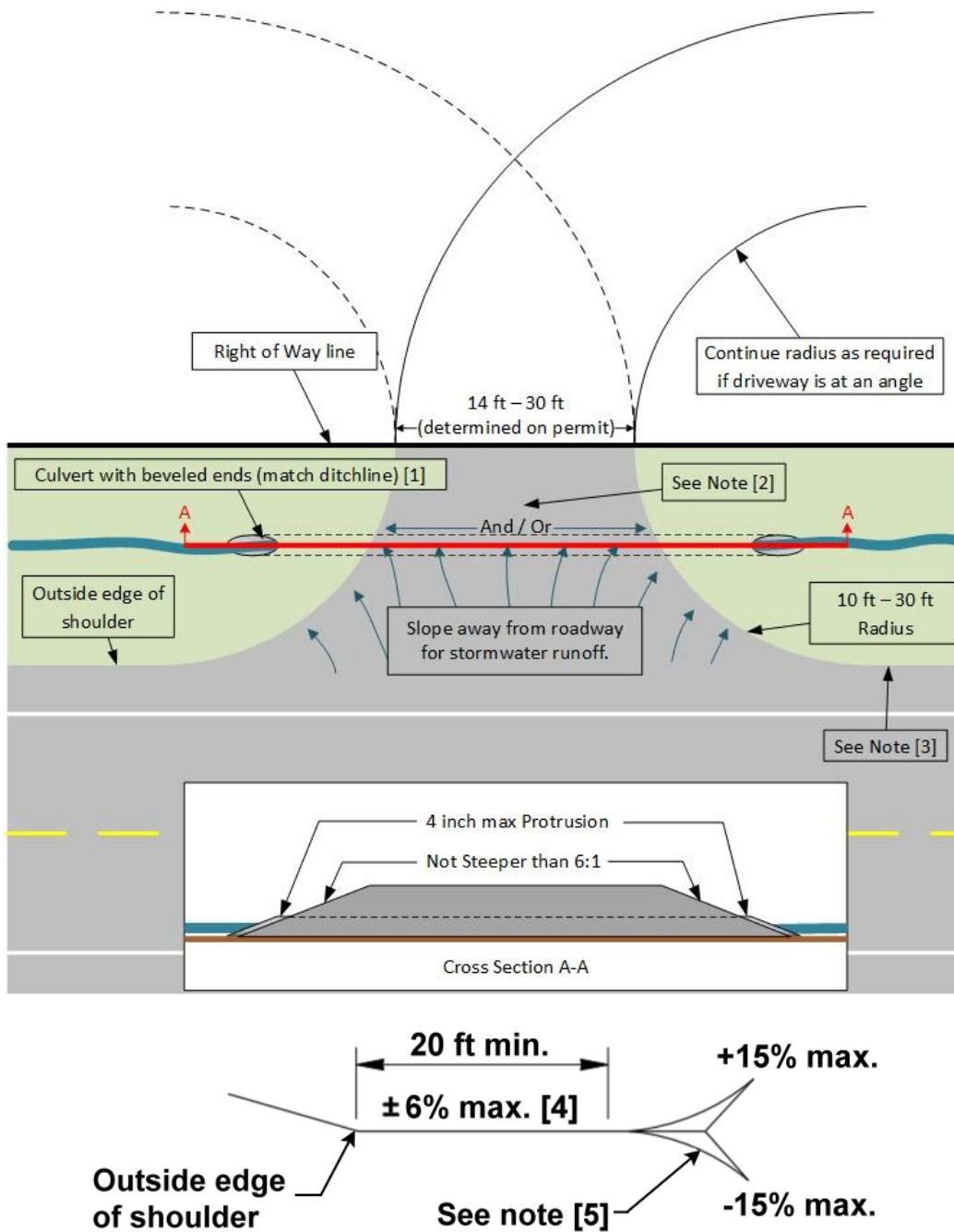
- Prevent stormwater from flowing onto the roadway from the driveway.
- Properly size culverts under the driveway to adequately accommodate the conveyance of stormwater in the roadway ditches and swales.
- Provide driveway sight distance.
- Accommodate for mailbox placement.
- Ensure surfacing materials and depths are appropriate.
- Generally, extend paving to the right of way line depending on the location/purpose of the driveway. The desirable intersection angle of the driveway is 90°, with 60° to 120° allowed.
- Where driveways intersect sidewalks, bike lanes, shared-use paths, or trails especially near schools, consider narrowing the driveway and/or reducing the radii to the minimum required by the design vehicle. Narrower driveway width and/or smaller driveway radii can reduce exposure and speed differentials between vehicles entering / exiting the driveway and pedestrians or bicycles.

### **1340.03(1) Design Templates**

There are two driveway design templates for use where there is no adjacent sidewalk. When a driveway connection has or will have adjacent sidewalk, see [Section 1340.04](#). In both template designs, the sideslopes of the driveway shall not be steeper than 6H:1V. These templates may be used on both limited access and managed access state highways. If an Interstate limited access driveway is allowed, it must be gated. Use the design template dimensions that will accommodate the intended use of the driveway and will not adversely affect the operations of the traveled way of the state highway. See Chapter 530 and Chapter 550 for documentation requirements for access approaches to limited access facilities. Design driveways with as small a foot print as possible while accommodating the design vehicle specific to that driveway. Use turn simulation software (such as AutoTURN<sup>®</sup>) to verify the driveway design will accommodate the largest vehicle that will regularly use the driveway. Considering the context of use, Exhibit 1340-1 is generally used for private, special use, and low volume commercial driveways with design vehicles of SU-30, BUS, and smaller. Exhibit 1340-2 is generally used for low volume commercial and special use driveways with design vehicles of SU-30, BUS, and larger.

Driveways to developments with greater than 1,500 (estimated) average daily trips both entering and exiting the development (shopping malls, housing developments, commercial complexes, etc.) should be designed as an intersection leg (see Chapter 1310).

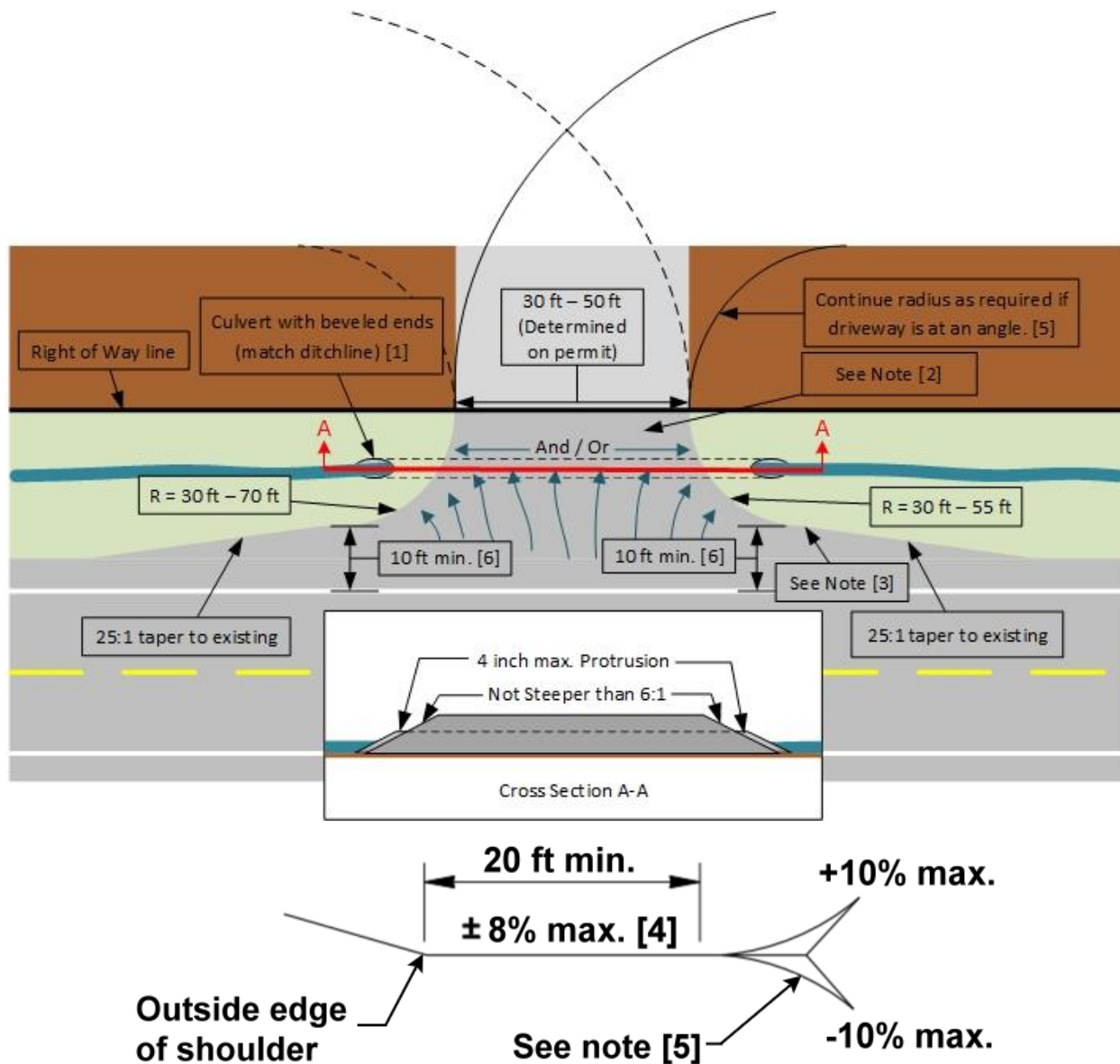
Exhibit 1340-1 Driveway Design Template SU-30 and Smaller



Notes:

- [1] Culvert pipe with beveled end treatment (see Chapter 1600). See Hydraulics Manual, Road Approach and Driveway Culverts for details.
- [2] When the travel lanes are bituminous, a similar surface may be used on the approaches.
- [3] For mailbox location and type, see Section 1340.07 and Chapter 1600.
- [4] Not to exceed  $\pm 8\%$  maximum algebraic difference from shoulder slope.
- [5] Vertical alignment not to exceed a  $3/4$ -inch hump or a 2-inch depression in a 10-foot chord

Exhibit 1340-2 Driveway Design Template SU-30 and Larger



Notes:

- [1] Culvert pipe with beveled end treatment (see Chapter 1600). See Hydraulics Manual, "Private Road Approach and Driveway Culverts" for details.
- [2] When the travel lanes are bituminous, a similar surface may be used on the approaches.
- [3] For mailbox location and type, see Section 1340.07, Chapter 1600.
- [4] Not to exceed  $\pm 8\%$  maximum algebraic difference from shoulder slope.
- [5] Vertical alignment not to exceed a  $3\frac{1}{4}$ -inch hump or a 2-inch depression in a 10-foot chord.
- [6] Check turning template of driveway design vehicle

### 1340.03(2) Sidewalks

Driveways adjacent to sidewalks shall be designed and constructed in accordance with this chapter and Standard Plan F-80.10. Driveway width will be as stated on the access permit. The sidewalk shall be designed and constructed in accordance with Chapter 1510 and Section F of the *Standard Plans*.

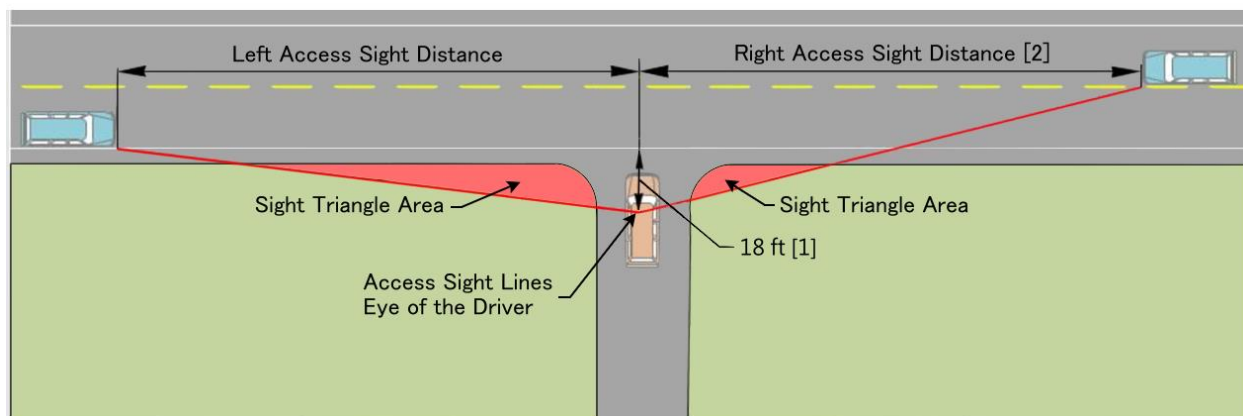
### 1340.03(3) Sight Distance

A driver on the highway needs to see far enough ahead to understand, react, and take actions appropriate for the conditions, such as a vehicle entering or leaving the highway at a driveway. In addition, drivers entering the highway from a driveway need to see enough of the highway, left and/or right, so they can enter the highway in a reasonably safe manner.

Design and locate driveways such that the sight distances, based on an eye height of 3.5 feet and an object height of 3.5 feet, meet or exceed the distances shown in Exhibit 1340-3; these distances may require an approaching vehicle to reduce speed or stop to prevent a collision. In addition, provide decision sight distance for through traffic at all utility and special-use driveways on facilities with limited access control (see Chapter 1260). The sight triangle areas created by the sight lines should be clear of sight obstructions that might block or affect a driver's view of potentially conflicting vehicles. See Exhibit 1340-3.

Use intersection sight distance (see Section 1310.05) for road approaches with greater than 1,500 (estimated) average daily trips both entering and exiting the development at full build out.

**Exhibit 1340-3 Driveway Sight Distance**



Mainline Posted Speed (mph)	25	30	35	40	45	50	55	60	65	70
Driveway Sight Distance (ft) Eye and object height 3.5 ft.	155	200	250	305	360	425	495	570	645	730

**Notes:**

- [1] Measured from the edge of traveled way to the driver's eye. If the desirable 18-foot setback cannot be achieved, obtain as much as practicable, down to a 10-foot minimum.
- [2] Not required for driveways that are restricted by raised channelization to be right in and right out only.

### 1340.03(4) Stormwater and Drainage

Slope driveways away from the highway to prevent stormwater and other debris from flowing onto the highway traveled lanes and shoulders. Use of curbs, catch basins, or other measures may be needed to divert stormwater where it is not feasible to slope the driveway away from the highway. Locate catch basins outside of the vehicular paths of the driveway.



Install beveled end culverts sized in accordance with the *Hydraulics Manual* if the driveway traverses an existing ditch or swale in the state highway right of way. Contact either the Region Hydraulic Engineer or the applicable Region Maintenance Office for assistance. Consider placing quarry spalls at each end of the open culvert to prevent erosion.

Profile the road approach as shown in Exhibits 1340-1 or 1340-2 while ensuring that roadway runoff is not a problem. Locate culverts as far from the traveled way as possible. In Exhibits 1340-1 and 1340-2, roadway runoff can be a concern if the grade from the edge of shoulder to the right of way line and the slope parallel to the mainline is a flat or minus grade. If needed, a curb may be placed and if needed, a catch basin can also be placed as shown in Exhibit 1340-2. When considering a curb, see Chapter 1239 as allowable curb locations, heights, and offset distances can vary based on mainline speed. Construct road approaches and related areas such that they do not impair drainage within the right of way or alter the stability of the roadway subgrade.



### **1340.03(5) Mailboxes**

Refer to Chapter 1600, Roadside Safety, Mailboxes, for guidance regarding the placement of mailboxes.

[Standard Plans, Mailbox Support Types, H-70.10-01, H-70.20-01, and H-70.30-02](#)

### **1340.04 Documentation**

Refer to Chapter 300 for design documentation requirements.

### **1340.05 References**

#### **1340.05(1) State Laws and Codes**

[Revised Code of Washington \(RCW\) 47.32.150](#), Approach roads, other appurtenances – Permit

[RCW 47.32.160](#), Approach roads, other appurtenances – Rules – Construction, maintenance of approach roads

[RCW 47.32.170](#), Approach roads, other appurtenances – Removal of installations from right-of-way for default

[Chapter 47.50 RCW](#), Highway access management

[Chapter 47.52 RCW](#), Limited access facilities

[Chapter 468-51 Washington Administrative Code \(WAC\)](#), Highway access management access permits – Administrative process

[Chapter 468-52 WAC](#), Highway access management – Access control classification system and standards

[Chapter 468-58 WAC](#), Limited access highways

#### **1340.05(2) Design Guidance**

[Right of Way Manual](#), M 26-01, WSDOT

[Standard Plans for Road, Bridge, and Municipal Construction \(Standard Plans\)](#), M 21-01, WSDOT

[Development Services Manual](#), M 3007, WSDOT

Limited Access and Managed Access Master Plan, WSDOT

<https://www.wsdot.wa.gov/design/accessandhearings/>

