

**CITY OF KIRKLAND**

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**PRE-APPROVED PLANS POLICY**

**Policy R-17: SPEED LIMITS**

**BACKGROUND**

The City Council asked the Transportation Commission to establish a policy for setting speed limits. Transportation Staff reviewed technical information, heard from interested citizens and considered various approaches to setting speed limits. The findings were presented at the January 3, 2006 Council meeting and modified in response to direction given by the City Council. (Ref. attached Memorandum to the Kirkland City Council from the Transportation Commission dated January 5, 2006.)

**POLICY PRINCIPLES**

1. This policy is one of the Public Works Administrative Policies and is for use on collector and arterial streets.
2. Kirkland streets are posted at one of three speed limits: 25; 30; or 35 MPH.
3. Changes to existing speed limits should generally occur in 5 MPH increments.
4. Posted speed limits are based on the 85th percentile of prevailing speeds as measured on the roadway in question. Figure 1 shows the relationship between prevailing and posted speed.
5. As shown in Figure 1, for certain prevailing speeds, more than one speed limit could be selected for posting. These prevailing speeds are shown near the striped arrows on the prevailing speed side of Figure 1. In these cases the higher posted speed should be used unless special conditions are present. Typical special conditions are shown in note 3 of Figure 1.
6. Posted speed limits should be reasonable, safe and based on engineering/traffic studies.
7. When there is a need to reduce operating speeds, traffic operational or physical changes should be considered to change the feel of the road so that drivers will tend to drive more slowly.

**IMPLEMENTING THE POLICY**

1. Speed limit evaluations should take place when specific concerns are raised rather than on a routine basis.
2. Findings of all evaluations should be reported to the Transportation Commission
3. The Transportation Commission will report their findings to Council. The City Council makes the final decisions as to whether or not a speed limit should be changed.

**GUIDELINES FOR THE EVALUATION OF REQUESTS TO CHANGE SPEED LIMITS**

Changes are made in five MPH increments between 25, 30 and 35 MPH. This results in four possible changes as shown in the shaded boxes below:

**Possible speed limit changes**

To	From		
	25 MPH	30 MPH	35 MPH
25 MPH	X	Lower by 5 MPH	Lower by 10 MPH
30 MPH	Raise by 5 MPH	X	Lower by 5 MPH
35 MPH	Raise by 10 MPH	Raise by 5 MPH	X

The policy is for use on collector and arterial streets. The speed limit on local streets is 25 MPH.

The 85th percentile speed (the speed at which 85% of the traffic is traveling at or below) is used to determine the prevailing speed. This is a simple and fact-based method for establishing a posted speed limit based on the logic that most drivers will operate at speeds that are safe and reasonable. This is the key tenet of our policy.

Further, *prevailing speeds do not change when the speed limit alone is changed* and artificially low speed limits have several negative effects. First, they may not be in keeping with RCW requirements for reasonableness. Second, complaints are received from those who think that drivers should be traveling closer to the speed limit. These complaints are extremely difficult to address without committing unreasonably high levels of enforcement personnel. Low speed limits also create frustration and complaints from drivers. Some other negative consequences include general disregard for speed limits, dangerous maneuvers by frustrated drivers –both those who wish travel faster and those who think all should follow the low speed limit– and inconsistency between speed limits on similar roadways.

The most effective way to alter the travel speed is to change the feel of the road so that drivers will tend to drive more slowly. This type of change is often difficult and expensive to accomplish. Nonetheless, locations where speeds are perceived to be too high should be considered for measures to reduce prevailing speeds. There is a wide range of such arterial traffic calming measures, but typical examples include medians, curb bulb-outs, and landscape strips between sidewalk and curbs. Land use characteristics such as building fronts which are close to the street are also useful although such changes usually take place over relatively long time periods. Once prevailing speeds are reduced, the speed limit can be lowered.

#### MEASURING THE PREVAILING SPEED

Automatic counters are used to measure speeds for several days. This typically results in thousands of data points. Peak and off-peak observations are used together to determine the 85th percentile speed.

#### DETERMINING THE SPEED LIMIT

Figure 1 shows the relationship between prevailing and posted speed. Note that it is skewed to recommend a posted speed just slightly lower than the prevailing speed. This recognizes most citizens' support for lower rather than higher speed limits.

Note that for some prevailing speeds, Figure 1 allows more than one posted speed. The decision is made by considering the prevailing speeds that are shown next to the striped arrows on the prevailing speed side of Figure 1. In these cases the higher posted speed should be used unless special conditions are present. For example, an 85th percentile speed of 31 MPH could be posted at 25 or 30 MPH. In this example, the speed limit should be posted at 30 MPH unless conditions warrant a lower speed limit. Examples of these conditions are indicated on Figure 1, but we do not intend for that list to be an exhaustive one. Staff should evaluate and consider the conditions on a consistent but case by case basis.

Flexibility is intentionally built into the policy. While this does not give a predetermined precise answer for each and every application, it makes for a policy that is better suited to a wide range of conditions.

Figure 1. Relationship between prevailing and posted Speed

