

# Seven Design Sins of Edge Lane Roads

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## 1. Wide Center Lanes

Wide lanes elicit higher speeds from drivers, narrow lanes slow them down. FHWA guidance ignores lessons learned in other countries and encourages wide center lanes. Additionally, there are center lane widths that create ambiguity in drivers' minds about whether they can pass a car without using the edge lanes resulting in last minute maneuvers. Keep center lanes narrow.

## 2. Narrow Edge Lanes

With ELRs, the entire roadway remains available to drivers so wide edge lanes takes nothing away from drivers. The intent of ELRs is to support vulnerable road users; edge lanes should be wide enough to support two people riding or walking side by side, e.g. 6-7' wide.

## 3. Door Zone Edge Lanes

Unless your road is extremely narrow, buffers should be used between the edge lanes and parking lanes. Not only does a buffer prevent dooring but it creates a place for items that often end up in the edge lanes, e.g. folks accessing cars, garbage cans, yard debris, etc. If narrowness precludes buffers, then removal of, or checkerboard, parking should be considered.

## 4. Poor Pavement at Edges

Most asphalt, low-volume roads exhibit poor pavement quality at the edges. An ELR on roads like this ensures that bicyclists will use the center lane. To ensure separation of vulnerable road users and motorists, provide good surfaces in the edge lanes.

## 5. Use of Incorrect Sight Distance Criterion

Passing Sight Distance (PSD) is the criterion set by the FHWA for ELRs and AASHTO copied it for their Bike Guide. PSD is incorrect for ELRs and precludes some ELRs by being too conservative. A better criteria is found in AASHTO's Low Volume Roads Guide which recommends twice the stopping sight distance for one lane, two way roads. ELR-specific sight distances can be found in ["Sight Distance for Edge Lane Roads" in the August 2021 ITE Journal](#).

## 6. Worrying About ELR Signs

Many successful ELRs and some of the busiest ELRs in the U.S. have no ELR-specific signs. A W6-3 sign (two way traffic) supplies the key information for drivers if well-used parking lanes or a bit of centerline at an intersection are not present to convey the bidirectional nature of the road. Some agencies deploy temporary, large format signs to educate local drivers on expected behavior but remove them 2-3 months after installation.

## 7. No Edge Lane Pavement Markings

This treatment is new to many folks. Use of bicyclist or pedestrian markings in the edge lanes help new users understand the behavior expected on the treatment.