

To assure that entrances are designed to provide for safe and efficient movements, it is necessary to pay attention to critical dimensions and design features listed below.

- Radius of curved approach/exit of entrance.
- Flare size of angled approach/exit of entrance.
- Entrance Distance or spacing between entrances.
- Corner Clearance measured from a major intersection.
- Angle of entrance.
- Sight distance length of roadway visible to the driver required for vehicles to make safe movements.
- Entrance location in relation to other traffic features such as intersections, neighboring entrances, and median openings.
- Entrance throat distance needed into site to transition vehicles to the internal circulation system of the site.
- Right turn lanes to separate through and turning traffic on roadways to facilitate right turns into the entrance.

Entrance Pavement: The type and depth of the pavement shall be clearly indicated on the plans and/or permit application. The pavement of commercial entrances, turn lanes and tapers shall be of asphalt, concrete, or pavers that is of a construction comparable to the pavement of the adjacent roadway.

Entrance Grade*: The vertical alignment of all access locations should be designed to minimize vehicle bounce and prevent high-centering of vehicles with a maximum clearance of 4 inches. The maximum grade for an entrance should be 8% for all commercial entrances.

Steeper access entrances require District Administrators approval. A level area (maximum 2% grade) 20 feet in length should be provided at each access to ensure proper sight distance from the access. The level area is measured from the highway edge of pavement or from the back of sidewalk, whichever is appropriate based on site-specific conditions.

Entrance Cuts: The maximum vertical curve, crest or sag, shall have a maximum 4-inch vertical offset over a 10-foot chord length. A standard vertical curve should be designed for all entrance profiles that exceed 3.3%.

Entrance Drainage: Drainage shall be considered in the design of entrance grades. Roadways and curb-and-gutter sections that convey storm water runoff within the roadway prism should be designed in accordance with department standards. Site runoff into state right-of-way should be minimized.

Width * - All commercial entrances shall have a width sufficient for the particular land use and anticipated traffic flow with a minimum width of 16 feet for a one-way drive and 30 feet for a two-way drive. A two-way commercial entrance on a local street shall have a minimum width of 24 feet. The maximum width should be 20 feet for a one-way drive and 40 feet for a two-way drive.

* Rev. 1/11