

Summary of Case Studies for Rural Road Standards

Staff found more than a dozen jurisdictions in California and other states that have adopted rural roads standards. The matrix posted on the project website lists each jurisdiction and identifies which key issues are addressed in the corresponding documents. This paper summarizes the research from these corresponding documents and provides a brief summary of the findings. This research will be used to help formulate standards for the City of Elk Grove Rural Road Standards. The summary below also highlights specific jurisdictions that appear to have addressed a particular issue in a manner that might suit the needs of rural Elk Grove area.

Reference to Rural Character

Most of the jurisdictions that have adopted rural road standards make reference to the preservation of rural character as the primary purpose for establishing unique standards. Several of the case studies reference a separate plan to identify the characteristic of the specific area. Of particular note is Clallam County Washington, where the purpose statement and overall intent refer to the predominance of the visual aesthetics of agriculture land. Another example is the City of Norco (Riverside County), where the City is known as "Horse Town, USA".

Lane width (minimum in feet)

All the jurisdictions researched address lane width for rural roads. The average lane width for rural local, connector, and arterial roads range from 10 to 12 feet per lane. Most of the documents include a cross section to explain the road design.

Phasing of Roadway Expansion

Most of the jurisdictions researched include a brief mention of roadway expansion. Expansion includes road widening for travel lanes and to add other features such as paths, bike lanes, and landscaping. Several documents mentioned the effort to work within existing right of way for additional of certain features.

Speed Limit (Maximum or range)

The jurisdictions researched address the speed limits for rural roads (mostly connectors and arterials) with speed limits ranging between 25 and 50 miles per hour. Most jurisdictions do not reference method for determining speed limits, but recognize that the long stretches of uninterrupted roadways are a formula for increased speed.

Sidewalks

Some of the research contains information regarding sidewalks in rural areas. If sidewalks are addressed, the discussion often includes a reference to compliance with ADA (American's with Disabilities Act) standards. Calaveras County has many examples of designs that incorporate sidewalks within the right-of-way.

Alternative Path/Trail

Several documents address trails improve mobility for non-motorists and to provide alternate modes of travel. San Martin Community Design Plan (Santa Clara County) includes several design standards for paths/trails. City of Norco includes special standards for equestrian trails.

Bike Lane Width (Feet)

The majority of the jurisdictions include standards for on-street bike lanes with an average width between 3 and 5 feet. The County of Multnomah (Oregon) has good information about bike lane standards and purposes.

Special Intersection Design

Most of the rural road standards documents included technical information about intersection improvements (e.g., minimum turning radius for larger vehicles). Ventura County standards include helpful intersection cross sections for a 4-lane intersection.

Street Lighting-Rural Design

Most jurisdictions include lighting standards for safety purposes and mention the importance of maintaining the rural character. Several jurisdictions also address light and glare impacts of the light fixtures.

Special Median Design

Although most of the jurisdictions mention median standards, they are generic standards for urban and rural areas. Medians are described as an improvement that decreases traffic speed and improves volume capacity by limiting turning movements. Yuba County has good details on the median design.

Driveway Design/Separation

Most jurisdictions include standards for driveway access and separation. Some include cross sections for how the driveway will connect with the right-of-way. Yuba County has special provisions and cross sections for driveway access in rural areas.

Traffic Calming

Traffic congestion and high speeds on rural roads is an issue identified in many jurisdictions. Many jurisdictions use bulb-outs and raise bumps to slow down traffic as part of the road standards. Multnomah County (Oregon) recommends curb extensions and speed bumps when certain conditions apply. Asheville (North Carolina) standards also include traffic calming policies.

Bus Turnouts – Special Design

Few of the jurisdictions mentioned the creation of adding bus turnouts (or bus pullouts) to the road standards. Calaveras County and Multnomah County (Oregon) include cross sections for bus turnouts in rural areas.

Special Rules for Deviation in Alignment

Most of the jurisdictions have general standards and sections dealing with horizontal and vertical clearance, but do not address alignment deviations through street standards. San Martin Community Design Plan (Santa Clara County) has special tree preservation provisions.

Require Natural Landscape

Most of the rural road standards researched include requirements for natural landscape to maintain the rural character. Several jurisdictions also include standards regarding new road layout so that curve alignment works with the natural topography and landscape of the area.

Noise Mitigation Options

Noise mitigation is not specifically addressed in most of the the rural road standards researched. Rice County (Minnesota) does have standards for height and width of earthen berms in the rural area.

Special Turning Radius for Agricultural Vehicles/Equipment

Most of the jurisdictions researched includes special standards for increased turning radius at key locations for larger agricultural equipment. The City of Norco includes detailed standards and cross sections on the turning radius.

Drainage/Ditch Design/Maintenance

Most of the jurisdictions have a separate section in the street standards for drainage, ditch design, and ditch maintenance. This section provides important information regarding the runoff landscape maintenance, as well as standards for improvements and materials for both open ditches and covered culverts. Snohomish County (Washington) has good details on drainage systems including potential design features. Yuba County and San Martin Community Design Plan both have good cross sections for natural drainage improvements.

Special Agricultural Signage

Most of the street standards researched include standard street signage. San Martin Community Design Plan includes special signage for the rural areas.

Equestrian Crossings

Only a few jurisdictions adopted the standards of equestrian crossings as part of their improvement plans. San Martin Community Design Plan provides design and information regarding how to accommodate crossings for equestrian riders as well as other non-motorists. City of Norco also has special signage and standards for equestrians facilities.