



# Josephine County, Oregon

Board of Commissioners: Simon Hare, Harold Haugen, Don Reedy

## PUBLIC WORKS

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## MEMO

TO: David Wechner, Planning Director  
FROM: Robert Brandes, Public Works Director  
DATE: September 6, 2012  
RE: Private Road Standards

Dave –

As you know, Public Works has tried to maintain a very clear distinction between our support of the adopted public road standards, and a number of recently proposed methodologies for developing private road standards. In addition to the comments below from our two engineers, Chuck DeJanvier and Neil Burgess, I would like to offer my ‘non-engineer’ assessment of the situation and offer some ideas for moving forward.

I understand the need for some type of private road standards (PRS), and realize some members of the local planning committees are frustrated with the lack of a clear way to move PRS forward. The difficult spot we find ourselves in as a Public Works Department is being asked to analyze the needs of the fire response providers. The State Fire Code makes it very clear what standards they believe necessary to protect the public interest. Public Works’ position remains clear: we support the fire standards as detailed by the State Fire Code. On design standards where the State Fire Code is silent, such as ‘Stopping Sight Distance’, then American Association of State Highway and Transportation Officials (AASHTO) standards should apply.

The other question that has been wrestled with since the beginnings of the Land Development Advisory Committee (LDAC) is: Where do we codify private road standards? As Chuck mentions below, Public Works would not support placement of private road standards (that are less than AASHTO and/or fire code) in our Design Manual. I completely agree with this position and would argue strongly against this tact.

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ROADS BRIDGES DRAINAGE ENGINEERING SOLID WASTE FLEET

Fortunately, at least two other options remain for 'finding a home' for the PRS. The PRS could potentially be adopted into the Rural Land Development Code. This move is not a perfect fit, but it gets what are potentially substandard road designs out from under the implied purview of Public Works staff. A second option is the idea of adopting the PRS as a separate document. I believe the County Commissioners would have the authority to adopt such a document. We would also use the further acknowledgement that the standards would be adopted into the next Transportation System Plan (TSP). Public Works is already looking at beginning the process of a TSP updated within the next 6~12 months. The 'stand-alone' document would then just bridge the gap until the new TSP is finalized.

I hope this input provides the Commission with additional insight and a greater understanding of Public Works' stance regarding private road standards.



#### **Comments from Chuck DeJanvier, County Engineer**

The lane surfacing of gravel creates issues with the stopping sight distance. Stopping sight distance (SSD) is calculated in AASHTO using the friction force of AC. With level ground, the AASHTO SSD is 155' at 25 MPH. With a 9% downgrade it is 173', so there is definitely a shortage of SSD for a 15% gravel road.

For ease of reading we don't use the Degree of Curve anymore. 57 degrees is about 105' radii and 40 degree is about 146' radii. Designers always use the minimum and never the recommended, so for review delete out the 146' radii and the 175' SSD.

On page 3-5 of the adopted TSP, it talks about how the private road system was not included in the street system inventory. I am not sure what the impact to that document will be to add in the private road system. My recommendation would be to look at including it during the next update to the TSP as it was adopted 8 years ago, I presume we will be updating it in the next few years.

The stopping sight distance is probably the biggest safety issue, and I am not willing to put my stamp on standards below AASHTO guidelines.

#### **Comments from Neil Burgess, Public Works Civil Engineer:**

Private Roads are subject to the standards and specifications set forth in a uniform fire code adopted by the State Fire Marshal. ORS 368.039 requires consultation with the local firefighting agency before establishing standards that supersede standards in fire codes.

From a public safety and operational perspective, private roads should also adhere to American Association of State Highway and Transportation Officials (AASHTO) policies and guidelines for geometric design of streets and local roads in addition to the fire code.

Fire apparatus access roads are 20 to 26 feet in width, maximum grade of 10%, and turnarounds are required for access roads greater than 150 feet per the 2010 Oregon Fire Code with authority given to the *fire code official* to modify dimensions. AASHTO standards for very low-volume local roads in rural areas set roadway widths from 18 to 26 feet.

My advice to Planning would be to set standards for width only (but not less than fire code) as to establish land use, then refer to the current fire code and AASHTO standards for all other design criteria.

CC: Chuck DeJaniver, County Engineer  
Neil Burgess, Civil Engineer