ODOT Speed Zones

Keizer Transportation Safety Committee
August 2019
How are speeds set in Oregon?

Statutory versus designated speeds

15 MPH  20 MPH  25 MPH

Need investigation to determine

55 MPH  65 MPH  70 MPH

*Designated may be any speed or if roadway does not meet statutory requirements
Designated Speeds
Requirements of the statutes

Requires engineering investigation

Investigation concludes current posted speed unsafe
Speed Zone Investigation

Collected, compiled, analyzed:
- Roadside character
- Traffic mix & volume
- Crash data
- Roadway widths
- Travel speeds
Current speed setting practices

• Relies on 85th percentile speeds
• Number of crashes, geometry and context
• More flexibility in urban areas
• Post speeds typically below 85th percentile
• Operating speeds typically 5 to 7 mph over posted...
National speed setting practices

Similar to Oregon Practices-
- 85th percentile
- Other factors considered
- Rural roads versus urban roads
Recent and current efforts

Research and Surveys
- NC HRP 17-76/855
- NTSB Report
- TTI and AAA Survey
- MUTCD Proposed Changes
Options for setting speeds

Context NCHRP Report 855
NC HRP 855—Road user priority based on expanded FCS (Figure 2)

<table>
<thead>
<tr>
<th>Context → Roadway ↓</th>
<th>Rural</th>
<th>Rural Town</th>
<th>Suburban</th>
<th>Urban</th>
<th>Urban Core</th>
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</thead>
<tbody>
<tr>
<td>Principal Arterial</td>
<td>🚗 🚵️‍♂️ ⚒️</td>
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User Priority:
High 🚗 🚵️‍♂️ ⚒️
Medium 🚗 🚵️‍♂️ ⚒️
Low 🚗 🚵️‍♂️ ⚒️
Establishing target speeds based on NCHRP Report 855

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Target Speed:
Low < 30 mph
Medium 30—45 mph
High > 45 mph
Using NCHRP 855 to develop national guidance for setting speed limits

• NCHRP 17-76 will build upon NCHRP 855:
  – Factors that influence operating speed
  – Guidance for establishing speeds on all roadways
• Final report due in 2019
NCHRP 17-76 recognizes recent trends & research activity

NACTO
“State rules or laws that set speed limits at the 85th percentile speed should be repealed”

NTSB report
Remove guidance in the MUTCD that recommends speed limits should be within 5 mph of the 85th percentile speed
How NCHRP 17-76 is developing guidance

- Build guidance based upon the relationships between
  - Speed,
  - Crashes, and
  - Roadway characteristics
  - Context
  - Vulnerable users
- Build data from two major cities

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Target Speed:
- Low < 30 mph
- Medium 30—45 mph
- High > 45 mph

Austin, TX
Ann Arbor, MI
Oregon options

Transition to context based approach for setting speeds

- NCHRP 855 – Context and Project 17-76 – Speed Setting Guidance
- Expand Portland Pilot to other jurisdictions
- Add flexibility, especially in urban areas
Other considerations

- Publish guidance on setting design speeds
- Clarify best practices for designs
- Clarify what elements influence operating speeds
- Clarify responsibility in designing roadways
- Provide assistance to small agencies
- Provide outreach on the process
How should we approach changing the way we set speeds?

- Sought OTC permission
- Form advisory group to recommend potential changes
  - Look at Portland Pilot
  - Look at NCHRP 17-76
- Bring in national experts for advice
- Rulemaking process
Timelines

Develop Draft Rule
Feb - June 2019

Rulemaking Process
Sept 2019 - Mar 2020

OTC
Mid 2020?

- Feb 2019 Advisory Group
- Sept 2019 National Experts
- Sept 2019 Draft Rule
- Sept 2019 Rule Process
- Oct 2019 File w/ SOS
- Dec 2019 Public Meetings
- Early 2020 Approval
## Proposed Target Posted Speeds

<table>
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<tr>
<th>Context &gt;</th>
<th>Urban Core/CBD</th>
<th>Urban Mix</th>
<th>Suburban Commercial and Residential</th>
<th>Suburban Fringe</th>
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Speed must meet one of the following:
- Within 5 mph of 50th percentile speed
- Within the pace limits

Speed can vary 10 mph below 50th if:
- Bicycle crash risk score (high use?)
- More than one F&A in 3 yrs
- Less than 50% of P or B facilities
- With STRE approval:
  - Funded Plan for improvements
## Proposed Target Posted Speeds

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<tr>
<th>Context &gt; Roadway</th>
<th>Rural Highways</th>
<th>Rural Communities</th>
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<tr>
<td>State Highways</td>
<td>50-65</td>
<td>25-45 mph</td>
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<td></td>
<td>Stat 55 or 65</td>
<td></td>
</tr>
<tr>
<td>County Roads (and other)</td>
<td>45-55</td>
<td>25-45 mph</td>
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State Highways is within 5 mph of 85\textsuperscript{th} or County Road is within 5 mph of 50\textsuperscript{th}

- 10 mph if crash rate exceeds statewide F&A by 50%
- 10 mph if local functional class
- 15 mph if passing through developed land uses area

Rural Communities (unincorporated communities) is:

- within 5 mph of 50\textsuperscript{th} percentile speed or
- within pace limits and

*Typically less than ½ mile segment (if longer than 1 mile may treat as urban)
*Provide Transition speed zone if change is more than 20 mph
Questions?