Traffic Updates

• Topics
  • WZ Safety
  • Peak Hours
  • Flagging
Safety

- Importance of Safety
  - Highway Workers
  - Road Users
Safety

• Highway Workers
  • Construction is dangerous work
    • Be Alert
Safety

- **Motorists**
  - May not be familiar with project
Safety

• Distracted Drivers and Seatbelt Use
Safety

• Approaches to Improve Safety

  • Night work / Lane closures
  • Advance warning / queue detection
  • Digital speed limit signs
  • Positive guidance
Safety

• Evaluate Lane Closures
  • Reduces capacity and may lead to queues
Safety

• Determining Peak Hours
  • Spreadsheet (Univ of Illinois)
  • Analysis of Average Hourly Volumes at Location
  • Dependent on volumes, % trucks, and work intensity
  • Estimates capacity, queue, speed, and delay cost

<table>
<thead>
<tr>
<th>Start of Interval</th>
<th>End of Interval</th>
<th>Percentage of single-unit trucks (%)</th>
<th>Percentage of combination trucks (%)</th>
<th>Percentage of recreational vehicles (%)</th>
<th>Expected traffic volume during the interval (veh)</th>
<th>Heavy vehicle adjustment factor</th>
<th>Adjusted volume (pc/h)</th>
<th>Capacity (pc/hpl)</th>
<th>Back-of-queue (ft)</th>
<th>Distance queue occupied (ft)</th>
<th>Average speed in queue (mph)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 PM</td>
<td>10:00 PM</td>
<td>2.2</td>
<td>13.4</td>
<td>0.1</td>
<td>1,065</td>
<td>0.86</td>
<td>1,232</td>
<td>1,004</td>
<td>3,400</td>
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<td>3,400</td>
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<tr>
<td>10:00 PM</td>
<td>11:00 PM</td>
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<td>13.4</td>
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<td>0.86</td>
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<tr>
<td>11:00 PM</td>
<td>12:00 AM</td>
<td>2.2</td>
<td>13.4</td>
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<td>1,004</td>
<td>1,200</td>
<td>1,200</td>
<td>1,200</td>
</tr>
</tbody>
</table>
Safety

• Night Work / Lower Traffic Volumes
  • Intent is to improve safety of workers and road users.
    • Reduce Queues.
    • Reduce Delays.
    • Reduce chances of accidents occurring.
Safety

• Queue Detection System
  • Projects on I-80 with lane closures.
  • Technology to notify drivers of stopped traffic.
  • Intent is to reduce rear-end crashes by providing advance notice to motorists.
Safety

• Digital Speed Limit Signs
  • Spec currently under review.
  • Implement on projects this year.
    • DSL Spec and Typical will be included on I-80 projects with short term work.
Safety

• Digital Speed Limit Signs
  • Use with short term work.
    • Day to day
    • Night work
    • Bridge work

• Not intended for long term reconstruction projects.
Safety

• Digital Speed Limit Signs
  • WZ Speed Limit Policy
    Speed reductions should only be in effect for the limits of the work zone condition, not the entire work zone.
  • Reduce speed limit when lane closure exists.
  • Remotely change speed limit.
    • Post correct speed limit when the work is done for the day.
Safety

• Positive Guidance
  • Reduces Driver Confusion
  • Helps guide drivers through work zone
Safety

• Positive Guidance
  • Reduces Driver Confusion
  • Helps guide drivers through work zone
Flagging

• Safety
  • Responsible for public safety
  • Training
  • Wear high-visibility safety apparel
  • Alert and facing traffic
Flagging

• Training
  • LTAP
    • Individual training on website
    • Classroom setting
  • Responsible for public safety
Flagging

- High-Visibility Safety Apparel
  - Minimum ANSI Class 2 vest and orange or yellow/green hat (Std 920).
  - Tank Tops, Shorts, and Sandals Shall Not Be Worn
Flagging

- Alert and Facing Traffic
  - Responsible for safety
Flagging

• Alert and Facing Traffic
  • Flagger’s Safety

*Caution – Never turn your back on traffic.*

- Remain in this position with the “STOP” sign facing traffic until you can permit travel through the work area.
Flagging

• Stop/Slow Paddle Requirements
  • Shall be octagonal shape
  • Min 18” Wide w/ 6” Letters
Flagging

- Stop/Slow Paddle Requirements
  - Condition of paddle
Flagging

- Stop/Slow Paddle Requirements
  - Min 5’ to Bottom of Sign
Flagging

• Stop/Slow Paddle Requirements
  • Must hold paddle and remain in position
AFAD

- Automated Flagger Assistance Device
  - Option to improve safety
AFAD

• Two Types of AFADs in MUTCD
  • STOP/SLOW
  • Red/Yellow Lens
AFAD

• **STOP/SLOW**
  • WAIT ON STOP
  • Cones on centerline
AFAD

• Red/Yellow Lens
  • STOP HERE ON RED
  • Cones on centerline
AFAD

• Lexington North
  • AFAD visible to motorists
  • Eliminates requirement to hold paddle
  • Flagger prevents red light running

WHAT RED LIGHT?
AFAD

- Lexington North Pictures
AFAD

- Lexington North Pictures
AFAD

• Lexington North Pictures
AFAD

• Lexington North Pictures
AFAD

- Lexington North Pictures
AFAD

• Two Flaggers Shall Be Used Unless
  • Flagger has clear view of both AFADs and approaching traffic in both directions.
    • Examples: bridges, culverts, guardrail, haul roads
AFAD

• **General Information**
  • Same Pay Item as Flagger.
    • Don’t pay extra to use AFAD.
  • Traffic will review requests to use AFADs.
    • Meets MUTCD requirements
    • Maximum distance between AFADs
    • Traffic volumes
STAY SAFE!

I'm an emotionally compromised teenage girl

BUCKLE UP
PHONE DOWN