LRS Maintenance and Asset Management Systems

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Linear Referencing

- Right-of-Way
- Guardrail
- Traffic Volume
- Project Location
- Accident
- Signage
- Ramp Entrance
- Shoulder
- Lighting
- Mile Marker
- Striping
- Bridge
- Median
- Pavement
Keeping the right perspective on LRS
Keeping the right perspective on LRS

Asset Management

- Safety
- Congestion
- Driver experience

LRS
Evolution of LRS & Event Location Maintenance

• Current Method in many DOTs
  – Integration by memo
  – Each group makes its own Event changes
Evolution of LRS & Event Location Maintenance

- Single-source LRS
  - Automated updates to the entire organization
Single-source LRS

• Great force multiplier!
  – 1 LRS edit generates many Asset edits

• Double-edged sword
  – 1 LRS error can generate many Asset errors
3 Thoughts on LRS Maintenance

LRS editing with Assets in mind

Unambiguous LRS

Involve biz owners in LRS QC
LRS Editing with Assets in Mind

• 2 ways to do this edit
  – Replace the entire route
  – Do 2 realignments
LRS Editing with Assets in Mind

1) Replace the entire route
   - Event effect: retire all events

~7 miles
LRS Editing with Assets in Mind

2) Do 2 realignments
   - Event effect: retire only affected events

~7 miles
Importance of an Unambiguous LRS

• Correcting non-ambiguous locations is OK

Event Effect:
Adjust events from 15 to 19 to 14 to 18
Importance of an Unambiguous LRS

- Correcting ambiguous locations can corrupt event data

Event Effect: Adjust events from 12 to 16 to 14 to 18
Importance of an Unambiguous LRS

- One approach:
  - Real-time QC, ambiguous edits are not allowed
Involve Business Owners in LRS QC

• Test Mode Option
  – Allows business units to preview results
  – Can review reports of Event locations before & proposed
  – Allows LRS to be reworked if necessary
  – Standard operating procedure in Idaho
Involve Business Owners in LRS QC

1. Single-source LRS
   - LRS Editing
   - LRS QC
   - Pass LRS standards?
     - Yes
     - No

2. Asset Mgmt. System
   - Run Test Interface
   - Acceptable results?
     - Yes
     - No
   - Run Full Interface

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If the answer to the question "Pass LRS standards?" is No, the process should be revisited or updated accordingly. If the answer is Yes, the process moves to the next step. If the answer to the question "Acceptable results?" is No, the process is stopped or updated. If the answer is Yes, the process moves to the next step.
Summary

• LRS is in service of Asset Management
• Single-source LRS is a double-edged sword
• Edit the LRS with your Assets in mind
• Disallow ambiguous LRS because event locations can be corrupted
• Involve Business owners in LRS QC
Thank You.

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