CR 415/Tomoka Farms Rd at Pioneer Trail

River to Sea Board Meeting
October 23, 2019
Agenda

• Overview of Existing Conditions

• Signal vs Roundabout Comparison

• Overview of Short Term Recommendations

• Overview of Long Term Recommendations

• Next Steps

SR 44 & Grand Ave, DeLand
Existing Conditions

- Speed Limits
- Traffic Counts
  - 2018 AADT
  - Peak Hour
## Crash Summary

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<td>Total Crashes</td>
<td>3</td>
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<td>8</td>
<td>7</td>
<td>6</td>
<td>15</td>
<td>42</td>
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<td>Injured</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>4</td>
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<td>17</td>
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<td>Fatalities</td>
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<tr>
<td>Left-Turn or Angle</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>7</td>
<td>17</td>
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<td>17</td>
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<tr>
<td>Ran Stop Sign</td>
<td>1</td>
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<td>3</td>
<td>4</td>
<td>5</td>
<td>13</td>
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• Crash Statistics
  • 88% during dry conditions
  • 86% daytime / 12% nighttime / 2% dawn

• 40% are angle or left-turn crashes (17 of 42 crashes)
• Nearly 1/3 of crashes involved “RUNNING STOP SIGN”
Traffic Signal Warranted:

1A – Minimum Vehicle Volume
1B – Interruption Continuous Flow
2 - Four Hour Vehicle Volume
7 - Crash Experience
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Vehicle Conflict Points: REDUCED

Crossing conflicts eliminated at roundabout

TRAFFIC SIGNAL

Merging
Diverging
Crossing

ROUNDABOUT

NCHRP Report 672, Exhibit 5-2
Severity of Conflicts: REDUCED

• Severity is related to relative velocities of conflicting streams
Roundabouts in Rural Environments

• Proven safety benefits at rural intersections
• Proven truck accommodation
• Proven compatibility with high speed roadways
  • Additional considerations to transition speeds
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**SHORT-TERM IMPROVEMENTS** (pg 12A-31)

**Completed:**
1. Trimmed tree branches on WB approach.
2. Installed additional STOP signs on SB & EB approach.
3. Installed Red Reflective Strips to STOP sign posts.

**Outstanding items:**
4. Install High Intensity Leading Edge LED STOP SIGNs on all 4 approaches.
   (Ordered/Awaiting Delivery)
5. Install Gore Striping adjacent to Cabbage Patch.

**Additional Safety Work Completed:**
- Checked & Cleaned Overhead Flashing LED Red Signals.
- Refreshed Pavement Markings (ie., Stop Bar & “STOP” pavement legend.
- Installed Rumble Strips on all 4 approaches.
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SR 44 & Grand Ave, DeLand
Long Term Recommendation: Traffic Signal
TOTAL Costs - ~ $1,772,000
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Traffic Signal 
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Long Term Recommendation: Roundabout
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Next Steps

Volusia County Seeking:

- Funding to Implement Long Term Recommendation.
- Potential Funding Sources:
  - FDOT Safety Funds (will not pay for off-system ROW)
  - State Appropriation
  - River to Sea TPO (XU Funds)
- Resolutions &/or Letters of Local Support