Lane Reversals and Hurricane Evacuation

Virginia’s In-Season Review of Evacuation Plans and Next Steps for Southside Lane Reversal

Presented to HRTO
By Robert B. Case, PE, PhD
October 14, 2014
Virginia’s In-Season Review

• May 24, 2014: Governor McAuliffe¹:

  — “we could not evacuate if we had a major catastrophe”

  — appointed Secretary of Public Safety Brian Moran and Secretary of Transportation Aubrey Layne to oversee in-season review of hurricane plans

¹ 05-24-14 article in the Daily Press
Lane Reversal Threatened

• July 21 WVEC reported that VDEM:
  – “is second-guessing a plan that would reverse lanes on Interstate 64” and “officials could follow other states like North Carolina and Florida where the plan has been thrown out.”

• HRTPO Staff iterated the merits of reversal:
  – July 1: Camp Pendleton (preparedness workshop)
  – July 18: Newport News (in-season evacuation committee)
  – July 30: Virginia EOC (Witt O’Brien’s interview)
  – Aug. 5: VMASC (validation exercise)

• HRTO indicated support for reversal during its Aug. 12 mtg.
VDEM In-Season Review

• Report released Sept. 4 (attached to HRTO agenda)
• **State retained lane-reversal in its plans**
• “**Key Findings**” of interest to HRTO
  – Evacuation
    • “Lane reversal should **remain a tool of last resort**, but renewed emphasis should be placed on developing focused evacuation **areas for the most vulnerable citizens**, increasing **regional shelter capability**, and communicating preparedness to the public.”
    • “**Future road networks should include considerations for improving the capacity** and options for evacuating citizens from the area.”
VDEM In-Season Review

• Other “Key Findings” concerned:
  – Situational Awareness and State-Local Coordination
  – Sheltering
  – Citizens Needing Assistance
  – Public Information
WebEOC and Emergency List
Aug. 12: WebEOC and Emergency List

• August 12th HRTO meeting
  – WebEOC
    • Jackie Kassel (Newport News) led a discussion about using WebEOC software for communication between TOCs.
    • A WebEOC presentation is planned for the December 9 HRTO meeting.
  – Emergency List
    • Rob Case (HRTPO) agreed to prepare a list of operators names and phone numbers to be used by HRTO members in an emergency.
    • HRTPO staff transmitted that list on September 22, and re-transmitted it [with corrections] on October 1.
168/64/58 Southside Reversal
Need for Southside Reversal

- **May 2008:** VEM/USACE/FEMA publish *Virginia Hurricane Evacuation Study* (VHES)
  - Showing 36 hour clearance time for Suffolk Bypass (2)

- **2008:** “VDOT, VDEM and Cities of Chesapeake and Suffolk began to explore ways to alleviate evacuation traffic queues in the Bowers Hill area” (1)

(1) VDOT slides presented to HRTPO Board, 12-15-11, pg. 3
(2) 35.8 hours, VHES, pg. 3-21 (Cat. 3 w/ I-64 Reversal, High Seasonal Occupancy, Heavy Background Traffic, Medium Response)
HRTO and HRTPO Actions

• **04-20-10**: HRTO voted to:
  – support VDOT’s then-current study of US 58 reversal
  – recommend that US 58 be reversed during evacuations

• **04-21-11**: HRTPO allocated $1,000,000 of RSTP funds to US 58 Reversal.
VDOT and RCPT Findings

• **12-15-11**: Stephany Hanshaw (VDOT) presented slides to HRTPO Board, highlighting:
  – Option #2: 168/64/58 Southside Reversal (w/ 19 hr. savings)

• **June 2013**: Regional Catastrophic Planning Team (RCPT) Ph. 3 *Final Technical Memorandum* (1):
  – “The US 58/Bowers Hill reversal must be planned for and made operational as soon as functionally and fiscally possible by the state”

(1) *Phase 3 Planning Support to VMASC and the HR RCPT*, Atkins, June 2013, pg. 21.
HRTPO Analysis

- Mar. 2014: HRTPO published “Prioritizing Highway Projects for Improvement of Evacuation”:
  - estimating that the 168/64/58 Southside Reversal would save 580,000 vehicle hours of delay during evacuation (p. 11)
  - finding the 168/64/58 Southside Reversal “highly cost effective” ($17 per hour saved, pp. 13,14)
  - recommending that the HRTPO Board and VDOT consider funding the 168/64/58 Southside Reversal project
This Summer

• June 10, 2014 HRTO meeting
  – HRTO approved a motion requesting VDOT briefings (on Southside Reversal and in-season review) at the next HRTPO and TTAC meetings.
  – Robert Lewis (Suffolk) and Earl Sorey (Chesapeake) indicated that they have requested VDOT presentations to their councils and need that before moving forward.

• At June 19, 2014 HRTPO meeting
  – James Utterback (VDOT) presented the state’s intentions for in-season review (no mention of Southside Reversal).
Staff Analysis
Southside Lane Reversal- Cons

• Requires large staff
  – TAMs contractors, VDOT, Va State Police, Va National Guard

• Prevents traffic flowing in opposite direction

• Construction Cost
  – $10m for 168/64/58 Southside Reversal

1 “Hurricane Lane Reversal Plan”, VDOT, May 2013, pg. 20
Southside Lane Reversal- Pros

• 168/64/58 Southside Reversal
  – Reduces clearance time from 48 hours to 29 hours, saving 19 hours\(^1\)

\(^1\) “Assessment of VDOT Bowers Hill Improvement Alternatives to Ease Evacuation”, Atkins, Oct. 2011, App. A
Next Steps

• Desire of the Subcommittee?