

Processes to Improve Work Zone Progression

99th Annual Purdue Road School

Pat McCarty

March 5, 2013



WORK ZONE PROGRESSION

Interstate Work Zones

- **New Interstate Highway Congestion Policy**
- **Capacity Studies**
- **New Devices**



INTERSTATE HIGHWAYS CONGESTION POLICY

I. Policy Section

- Prohibits operations on an Interstate Route which:
 - ❖ Restrict lanes
 - ❖ Cause congestion
 - ❖ Except as noted within



INTERSTATE HIGHWAYS CONGESTION POLICY

II. Purpose

Purpose is to comply with Federal Code

III. Administered by:

**Administered and maintained by
INDOT's Traffic Management Division**

IV. Terms/Acronyms/Definitions

**List of the Terms, Definitions and
Acronyms used in the policy**



INTERSTATE HIGHWAYS CONGESTION POLICY

V. APPLICATION OF THE POLICY

- **Contains ten parts which describe:**
 - ❖ **Who must follow the policy**
 - ❖ **When it applies and when it doesn't**
 - ❖ **Where it applies**
 - ❖ **How to seek an exception**
 - ❖ **What data collection is required**



INTERSTATE HIGHWAYS CONGESTION POLICY

VI. Pre-Reporting Requirements

- Any closures must be reported to the TMC
- The report is to include:
 - ❖ Closure information
 - ❖ Contact Information



INTERSTATE HIGHWAYS CONGESTION POLICY

VII. Policy Approval

- **Replaces all prior policies**
- **Grandfathers Existing Waivers**
- **Effective dates:**
January 31, 2013 for INDOT Maintenance, permits...
RFC date on or after April 1, 2013



INTERSTATE HIGHWAYS CONGESTION POLICY

Appendix A

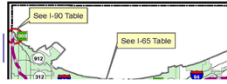
- **Emergency Repairs**
 - ❖ **Suggested use**
 - ❖ **Reporting requirements**
- **Urgent Repairs**
 - ❖ **Suggested use**
 - ❖ **Queue development**
 - ❖ **Reporting requirements**
 - ❖ **Prevention of future urgent repairs**



INTERSTATE HIGHWAYS CONGESTION POLICY



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I-69

Section	Start Exit	End Exit	2009 Schedule	Length (mi)
I 465 to 116 th St	0	5	Nighttime Only	5
116 th St to SR 38	5	19	Executive Approval	14
SR 38 to SR 18	19	64	Nighttime Only	45
SR 18 to			Anytime	22
US 224 to			Weekend or Night-time Only	16
US 24 to			Weekday or Night-time Only	14
SR 1 to S				24
SR 4 to t			Night-time	
Michigan			Executive Approval	18
			Minimum 3 lanes / Direction	



INTERSTATE HIGHWAYS CONGESTION POLICY

Appendix C

- **Policy Exceptions**
 - ❖ Approval requirements
 - ❖ Who is responsible to seek an exception
 - ❖ What requires an exception
 - ❖ How to request one



INTERSTATE HIGHWAYS CONGESTION POLICY

Appendix D

Speed of Pilot Vehicle	20 Minute	
	45 MPH	50 MPH
10	5.2	5


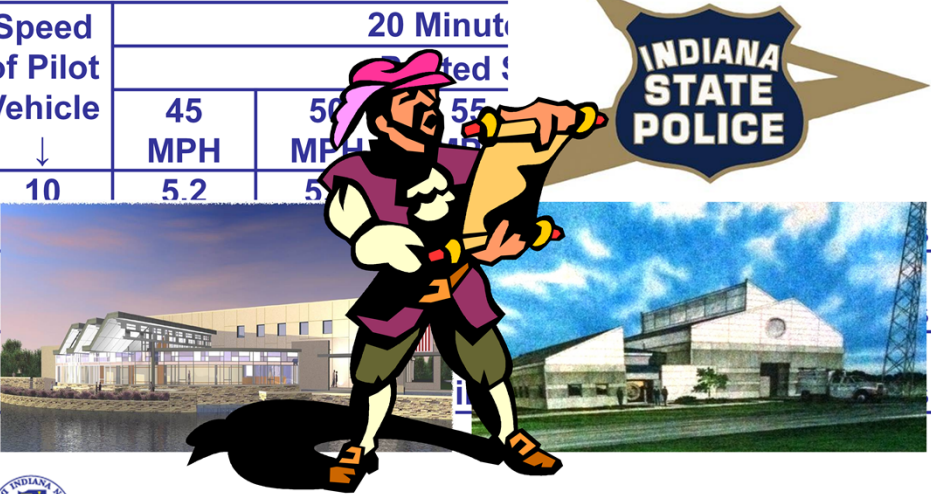
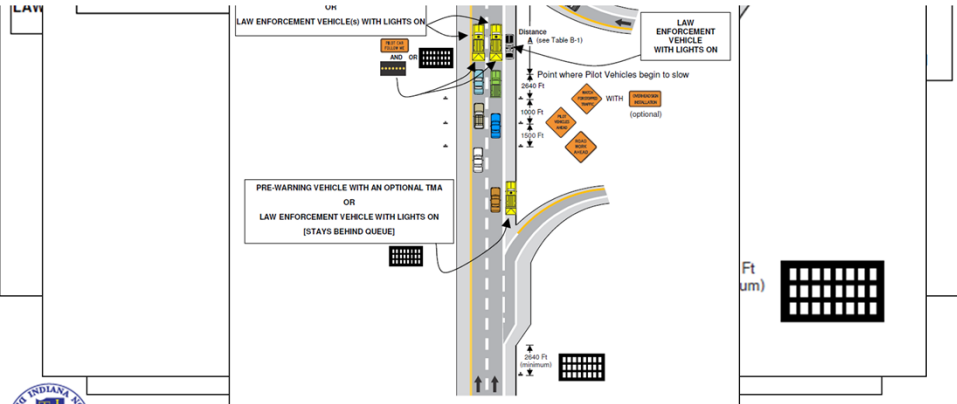


Figure D-1, Rolling Slowdowns:



Appendix D

- Rolling Slowdowns
 - Diagram (Figure D-1)



INDOT
WORK ZONE QUEUE & DELAY REPORT FORM

Contract No: _____
Route & Project Limits/Location: _____
County: _____ District: _____
Occasion: _____
(see note 1)

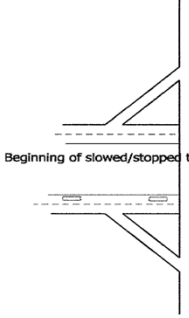
Date: ____/____/____
Measurement 1:
Direction of Travel: _____ Time: ____:____ am/pm
Location of Queue *(see note 2)*: _____
Queue Length: _____ miles Delay: _____ minutes
Measurement 2:
Direction of Travel: _____ Time: ____:____ am/pm
Location of Queue *(see note 2)*: _____
Queue Length: _____ miles Delay: _____ minutes
Comments: _____

Signed, _____
Project Engineer/Supervisor Report Date _____

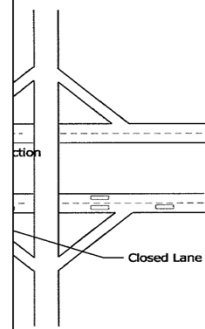
NOTES:
1. Occasion refers to the event (e.g. start of construction, phase change, location change) that is prompting the measurements.
2. Location of Queue refers to the location that the queue begins, for instance "the left lane merge taper for the crossover at station 123+50"
cc: District Traffic Engineer
Work Zone Safety Section, Indianapolis TMC (fax to 317-898-0897)
Project File

Form Date 02/2012

Queue



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CAPACITY STUDIES

Work Zone Capacity

Table C-2: Suggested Working Hour Capacities

Work Zone Type	Lanes Maintained	Effective Lane Width		
		> or = 11'	10' to 10.5'	9' to 9.5'
Short Term	1 or more	1600	1450	1375
Long Term, traffic not crossed over	1	1750	1590	1510
Long Term, traffic crossed over	1	1550	1410	1330
Long Term, either traffic crossed or not crossed over	2 or more	1750	1590	1510



CAPACITY STUDIES

Work Zone Capacity

- **Data Collection Project**
- **Purpose**
- **Methodology**
- **Sites selected**



CAPACITY STUDIES

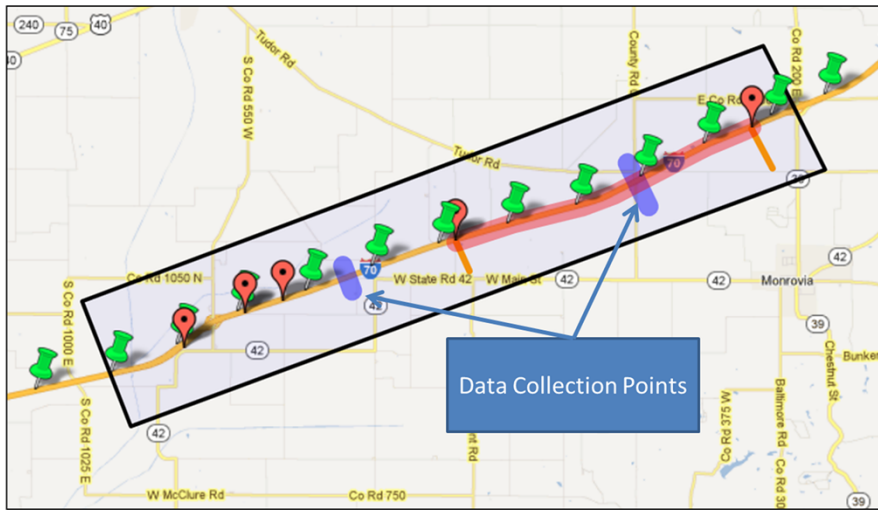
Work Zone Capacity



Double lane count at about 1.25 miles S. of arrow board. N. of ramp from Marion Center Road. About MP 14.

- Single lane count just past end of taper and before exit to Tillman Road About MP 15.4
- 4 time lapse cameras. 2 facing N. and 2 facing S. (for redundancy) mounted on fence posts on each side of Wayne Trace at the top of the slope.

CAPACITY STUDIES



Map of approximate location of data collection points on I-70

NEW DEVICE STUDIES

Sequential Lights

- What are they
- Why use them
- Pilot projects



WORK ZONE PROGRESSION

Questions?????



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Are there any questions?