



Ohio Department of Transportation

SPEED ZONE WARRANT SHEET



Rev. 1/16/15 (revision is on sheet 4)

Complete all Green Shaded areas.

Road Name:	SR 741	Road No.:	741	Date:	3/31/2015
County:	Warren	Township/City/Village:	Mason		
Begin Study At:	Kings Mills/ Parkside Rd	ODOT SLM:	1	End Study At:	Cox-Smith Rd
Length:	0.25 miles	Average Daily Traffic (ADT):	12493	Existing Speed Limit:	50
		ODOT SLM:	1.25		

[For further guidance in completing this form, see the Traffic Engineering Manual, section 1203.](#)

No. of Houses or Farms	(Hold Cursor Here for More Info)	0	Must have direct access to the roadway being studied.
No. of Small Businesses, Apts./Condos	(Hold Cursor Here for More Info)	0	Must have direct access to the roadway being studied.
No. of Medium Businesses, Apts./Condos	(Hold Cursor Here for More Info)	3	Must have direct access to the roadway being studied.
No. of Major Businesses, Apts./Condos	(Hold Cursor Here for More Info)	0	Must have direct access to the roadway being studied.
No. of Minor Street Intersections	(Hold Cursor Here for More Info)	0	Subdivision, Residential, or Other streets that mainly serve the residents of that street.
No. of Major Street Intersections	(Hold Cursor Here for More Info)	0	Streets which serve both the residents and commuters of the area.
No. of Signalized Intersections	(Hold Cursor Here for More Info)	0	Do not include intersections at the beginning or end of the section.
Lane Width	(Round down to nearest foot)	11	Average lane width of through traffic lanes.
Shoulder Width	(Round down to nearest foot)	6	General width of paved and/or non-paved shoulder throughout the section.
Crashes	(Latest three years of data)	14	Only include crashes within the section, excluding animal and side street crashes.
85%tile Speed of Traffic		45.675	Average of the 85% speed at all locations where speed samples were taken.
10-mph Pace Speed of Traffic	35 to	44	Average of the Pace speed at all locations where speed samples were taken.
Roadway Characteristics	(Enter letter and number or use Drop Down Box)	B1	Hold cursor over alphabetic value below to view description then enter letter and number.

Roadway Characteristics Examples	C	B3	B2	B1	A3	A2	A1
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To View [Calculation Sheet](#) or Examples of [Characteristics](#) and [Crashes to Include](#), use Buttons to Right.

	Calculation Sheet	Characteristics	Crashes to Include
Calculated Speed	44	MPH	
Requested Speed Limit	45	MPH	Approved Speed Limit
			MPH
Test Runs*	<input style="width: 80px;" type="text"/>		

* Completed by ODOT for comparison or verification of calculated speed.

Study by: Andrea Harth-TEC Engineering Include the related Resolution(s) when submitting this form.

Additional considerations and comments:

Request is to extend the 45 mph speed limit currently on SR 741/Kings Mills to Cox Smith Road. An additional speed check was done just north of Cox Smith to check free flow speed. This is not used in the above calculation, but can be found in the "85th Percentile Speed" tab of this worksheet

There are three accesses leading to the Kroger shopping center (counted as 1 large, 2 medium businesses). The intersections of Parkside and Cox Smith were not included as they are at the end of the speed zone

SR 741 Speed Zone

Appendix

Daily Northbound Speeds (MPH)

Study Date: Monday, 03/23/2015

Unit ID:

Location: 322

Posted Speed: 50

Comments: SR 741 500' North of Parkside

	5-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-99	Total
21:00 - 21:59	0	2	6	3	8	24	50	34	7	1	0	0	0	0	0	135
Totals	0	2	6	3	8	24	50	34	7	1	0	0	0	0	0	135
Percent of Total	0.0	1.5	4.4	2.2	5.9	17.8	37.0	25.2	5.2	0.7	0.0	0.0	0.0	0.0	0.0	100
Percent of AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100
Percent of PM	0.0	1.5	4.4	2.2	5.9	17.8	37.0	25.2	5.2	0.7	0.0	0.0	0.0	0.0	0.0	100

Standard Deviation:	7.5 MPH	Ten Mile Pace:	40 to 49 MPH	85th Percentile:	48.1 MPH
Mean Speed:	41.3 MPH	Percent in Ten Mile Pace:	62.2%	15th Percentile:	35.2 MPH
Median Speed:	42.4 MPH			90th Percentile:	49.1 MPH
Modal Speed:	42.5 MPH			95th Percentile:	50.5 MPH

Daily Southbound Speeds (MPH)

Study Date: Monday, 03/23/2015

Unit ID:

Location: 322

Posted Speed: 50

Comments: SR 741 500' North of Parkside

	5-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-99	Total
21:00 - 21:59	0	1	5	0	9	21	60	21	3	0	0	0	0	0	0	120
Totals	0	1	5	0	9	21	60	21	3	0	0	0	0	0	0	120
Percent of Total	0.0	0.8	4.2	0.0	7.5	17.5	50.0	17.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	100
Percent of AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100
Percent of PM	0.0	0.8	4.2	0.0	7.5	17.5	50.0	17.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	100

Standard Deviation:	6.3 MPH	Ten Mile Pace:	35 to 44 MPH	85th Percentile:	46.3 MPH
Mean Speed:	40.9 MPH	Percent in Ten Mile Pace:	67.5%	15th Percentile:	35.6 MPH
Median Speed:	42.0 MPH			90th Percentile:	47.7 MPH
Modal Speed:	42.5 MPH			95th Percentile:	49.2 MPH

Daily Northbound Speeds (MPH)

Study Date: Monday, 03/23/2015

Unit ID:

Location: 322

Posted Speed: 50

Comments: South of Cox Smith

	5-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-99	Total
21:00 - 21:59	0	2	6	3	8	24	50	34	7	1	0	0	0	0	0	135
Totals	0	2	6	3	8	24	50	34	7	1	0	0	0	0	0	135
Percent of Total	0.0	1.5	4.4	2.2	5.9	17.8	37.0	25.2	5.2	0.7	0.0	0.0	0.0	0.0	0.0	100
Percent of AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100
Percent of PM	0.0	1.5	4.4	2.2	5.9	17.8	37.0	25.2	5.2	0.7	0.0	0.0	0.0	0.0	0.0	100

Standard Deviation:	7.5 MPH	Ten Mile Pace:	40 to 49 MPH	85th Percentile:	48.1 MPH
Mean Speed:	41.3 MPH	Percent in Ten Mile Pace:	62.2%	15th Percentile:	35.2 MPH
Median Speed:	42.4 MPH			90th Percentile:	49.1 MPH
Modal Speed:	42.5 MPH			95th Percentile:	50.5 MPH

Daily Southbound Speeds (MPH)

Study Date: Monday, 03/23/2015

Unit ID:

Location: 322

Posted Speed: 50

Comments: South of Cox Smith

	5-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-99	Total
21:00 - 21:59	0	1	5	0	9	21	60	21	3	0	0	0	0	0	0	120
Totals	0	1	5	0	9	21	60	21	3	0	0	0	0	0	0	120
Percent of Total	0.0	0.8	4.2	0.0	7.5	17.5	50.0	17.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	100
Percent of AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100
Percent of PM	0.0	0.8	4.2	0.0	7.5	17.5	50.0	17.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	100

Standard Deviation:	6.3 MPH	Ten Mile Pace:	35 to 44 MPH	85th Percentile:	46.3 MPH
Mean Speed:	40.9 MPH	Percent in Ten Mile Pace:	67.5%	15th Percentile:	35.6 MPH
Median Speed:	42.0 MPH			90th Percentile:	47.7 MPH
Modal Speed:	42.5 MPH			95th Percentile:	49.2 MPH

Daily Southbound Speeds (MPH)

Study Date: Monday, 03/23/2015

Unit ID:

Location: 323

Posted Speed: 50

Comments: North of Cox Smith

	5-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-99	Total
21:00 - 21:59	0	0	2	1	1	18	47	20	2	0	0	0	0	0	0	91
Totals	0	0	2	1	1	18	47	20	2	0	0	0	0	0	0	91
Percent of Total	0.0	0.0	2.2	1.1	1.1	19.8	51.6	22.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	100
Percent of AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100
Percent of PM	0.0	0.0	2.2	1.1	1.1	19.8	51.6	22.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	100

Standard Deviation:	5.2 MPH	Ten Mile Pace: 40 to 49 MPH	85th Percentile: 47.0 MPH
Mean Speed:	42.1 MPH	Percent in Ten Mile Pace: 73.6%	15th Percentile: 37.5 MPH
Median Speed:	42.4 MPH		90th Percentile: 48.1 MPH
Modal Speed:	42.5 MPH		95th Percentile: 49.2 MPH

Daily Northbound Speeds (MPH)

Study Date: Monday, 03/23/2015

Unit ID:

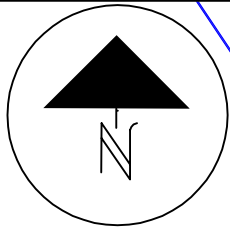
Location: 323

Posted Speed: 50

Comments: North of Cox Smith

	5-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-99	Total
21:00 - 21:59	0	2	1	0	4	18	59	24	3	0	0	0	0	0	0	111
Totals	0	2	1	0	4	18	59	24	3	0	0	0	0	0	0	111
Percent of Total	0.0	1.8	0.9	0.0	3.6	16.2	53.2	21.6	2.7	0.0	0.0	0.0	0.0	0.0	0.0	100
Percent of AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100
Percent of PM	0.0	1.8	0.9	0.0	3.6	16.2	53.2	21.6	2.7	0.0	0.0	0.0	0.0	0.0	0.0	100

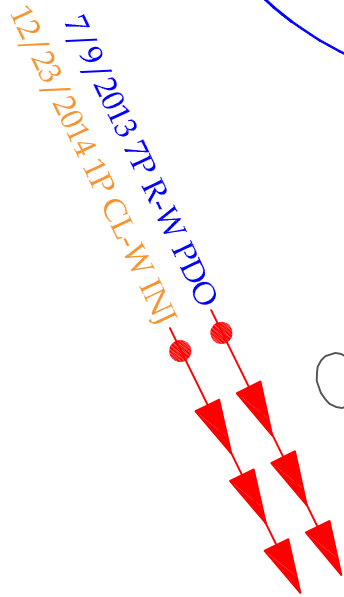
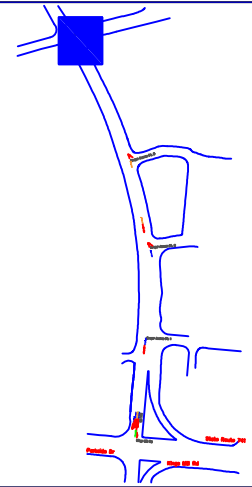
Standard Deviation:	5.7 MPH	Ten Mile Pace:	40 to 49 MPH	85th Percentile:	47.1 MPH
Mean Speed:	42.0 MPH	Percent in Ten Mile Pace:	74.8%	15th Percentile:	37.5 MPH
Median Speed:	42.5 MPH			90th Percentile:	48.2 MPH
Modal Speed:	42.5 MPH			95th Percentile:	49.4 MPH



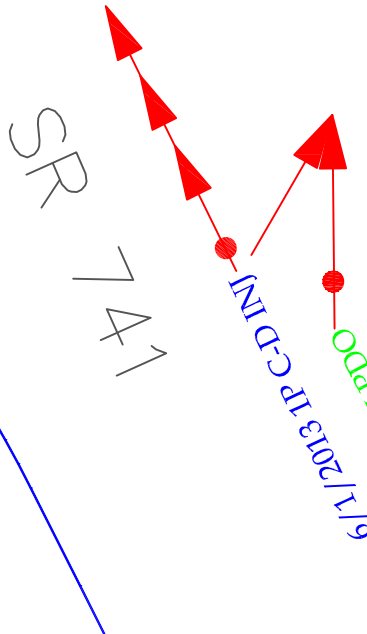
NOTES

GREEN -- 2012
 BLUE -- 2013
 ORANGE -- 2014

Not to Scale



Cox Smith Rd



ACCIDENT SUMMARY

Property Damage Accidents	2
Vehicular Injury Accidents	2
Pedestrian Injury Accidents	0
Vehicular Fatal Accidents	0
Pedestrian Fatal Accidents	0
TOTAL ACCIDENTS	4

LEGEND

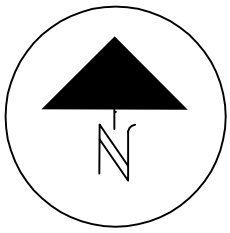
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 D=DRY W=WET I=ICE M = MUD/DIRT/OIL U=UNKNOWN

SYMBOLS	TYPES OF COLLISIONS
MOVING VEHICLE	REAR END
BACKING VEHICLE	HEAD ON
PEDESTRIAN	SIDESWIPE
FIXED OBJECT	PARKED VEHICLE
ANIMAL CRASH	ANGLE
AT FAULT	LEFT TURN

Collision Diagram



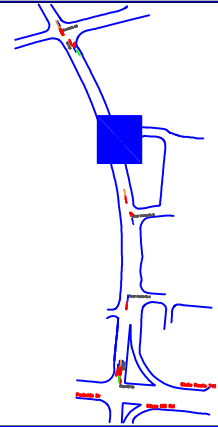
SR 741 at
 Cox-Smith Road
 City of Mason, Ohio
 January 2012 – December 2014



NOTES

GREEN -- 2012
 BLUE -- 2013
 ORANGE -- 2014

Not to Scale



7/17/2014 2P C-D INJ

Kroger Access Pt. 3

ACCIDENT SUMMARY

Property Damage Accidents	0
Vehicular Injury Accidents	1
Pedestrian Injury Accidents	0
Vehicular Fatal Accidents	0
Pedestrian Fatal Accidents	0
TOTAL ACCIDENTS	1

LEGEND

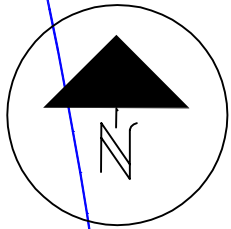
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 D=DRY W=WET I=ICE M = MUD/DIRT/OIL U=UNKNOWN

SYMBOLS	TYPES OF COLLISIONS
MOVING VEHICLE	REAR END
BACKING VEHICLE	HEAD ON
PEDESTRIAN	SIDESWIPE
FIXED OBJECT	PARKED VEHICLE
ANIMAL CRASH	ANGLE
AT FAULT	LEFT TURN

Collision Diagram



SR 741 at
 Cox-Smith Road
 City of Mason, Ohio
 January 2012 – December 2014



4/30/2014 7A R-W PDO

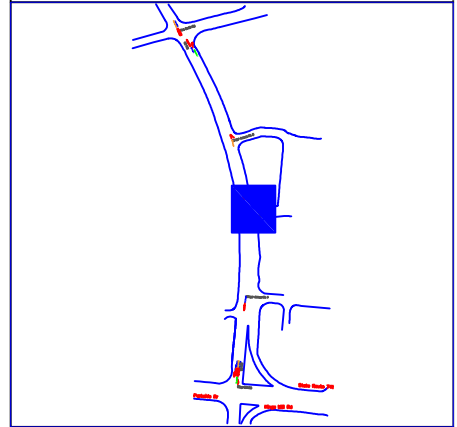
7/18/2013 7P C-D PDO

Kroger Access Pt. 2

NOTES

GREEN -- 2012
 BLUE -- 2013
 ORANGE -- 2014

Not to Scale



ACCIDENT SUMMARY

Property Damage Accidents	2
Vehicular Injury Accidents	0
Pedestrian Injury Accidents	0
Vehicular Fatal Accidents	0
Pedestrian Fatal Accidents	0
TOTAL ACCIDENTS	2

LEGEND

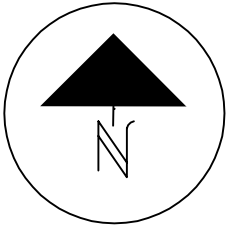
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 D=DRY W=WET I=ICE M=MUD/DIRT/OIL U=UNKNOWN

SYMBOLS	TYPES OF COLLISIONS
MOVING VEHICLE	REAR END
BACKING VEHICLE	HEAD ON
PEDESTRIAN	SIDESWIPE
FIXED OBJECT	PARKED VEHICLE
ANIMAL CRASH	ANGLE
AT FAULT	LEFT TURN

Collision Diagram



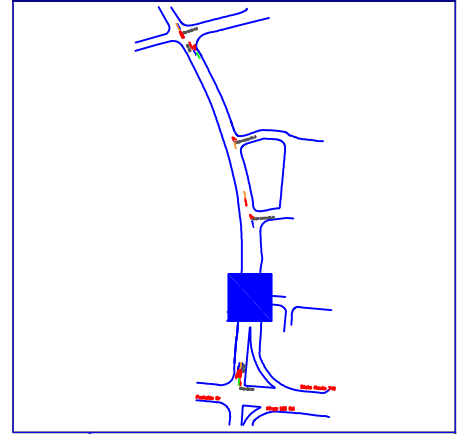
SR 741 at
 Cox-Smith Road
 City of Mason, Ohio
 January 2012 – December 2014



NOTES

GREEN -- 2012
 BLUE -- 2013
 ORANGE -- 2014

Not to Scale



Kroger Access Pt. 1

5/19/2013 10A CL-D PDO

ACCIDENT SUMMARY

Property Damage Accidents	0
Vehicular Injury Accidents	1
Pedestrian Injury Accidents	0
Vehicular Fatal Accidents	0
Pedestrian Fatal Accidents	0
TOTAL ACCIDENTS	1

LEGEND

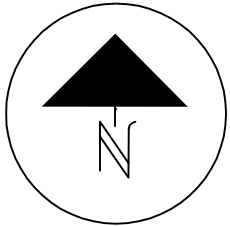
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 D=DRY W=WET I=ICE M = MUD/DIRT/OIL U=UNKNOWN

SYMBOLS	TYPES OF COLLISIONS
MOVING VEHICLE	REAR END
BACKING VEHICLE	HEAD ON
PEDESTRIAN	SIDESWIPE
FIXED OBJECT	PARKED VEHICLE
ANIMAL CRASH	ANGLE
AT FAULT	LEFT TURN

Collision Diagram



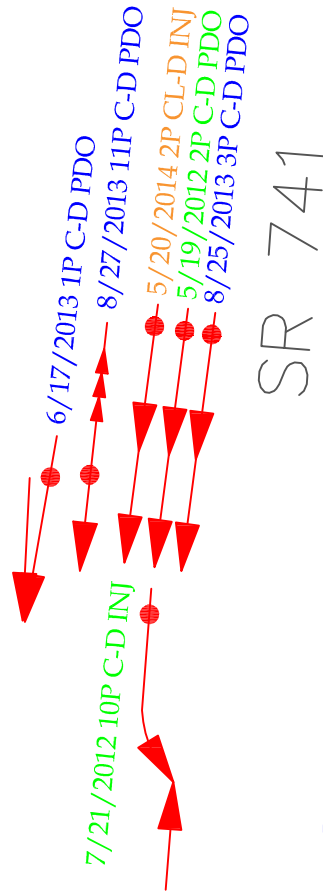
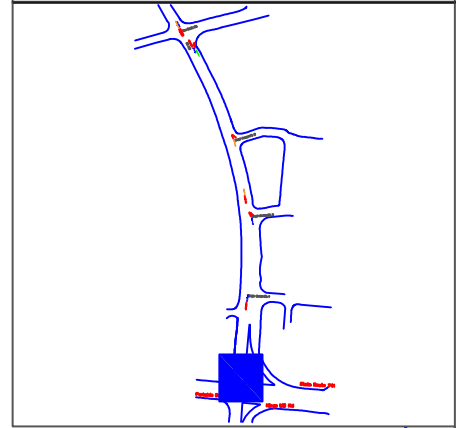
SR 741 at
 Cox-Smith Road
 City of Mason, Ohio
 January 2012 – December 2014



NOTES

GREEN -- 2012
 BLUE -- 2013
 ORANGE -- 2014

Not to Scale



Kings Mill Rd

ACCIDENT SUMMARY

Property Damage Accidents	4
Vehicular Injury Accidents	2
Pedestrian Injury Accidents	0
Vehicular Fatal Accidents	0
Pedestrian Fatal Accidents	0
TOTAL ACCIDENTS	6

LEGEND

C=CLEAR CL=CLOUDY R=RAIN S=SNOW/ICE
 D=DRY W=WET I=ICE M=MUD/DIRT/OIL U=UNKNOWN

SYMBOLS	TYPES OF COLLISIONS
MOVING VEHICLE	REAR END
BACKING VEHICLE	HEAD ON
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FIXED OBJECT	PARKED VEHICLE
ANIMAL CRASH	ANGLE
AT FAULT	LEFT TURN

Collision Diagram



SR 741 at
 Cox-Smith Road
 City of Mason, Ohio
 January 2012 – December 2014