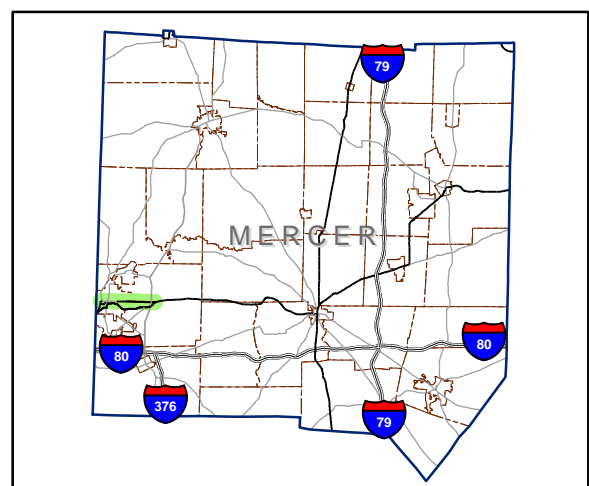
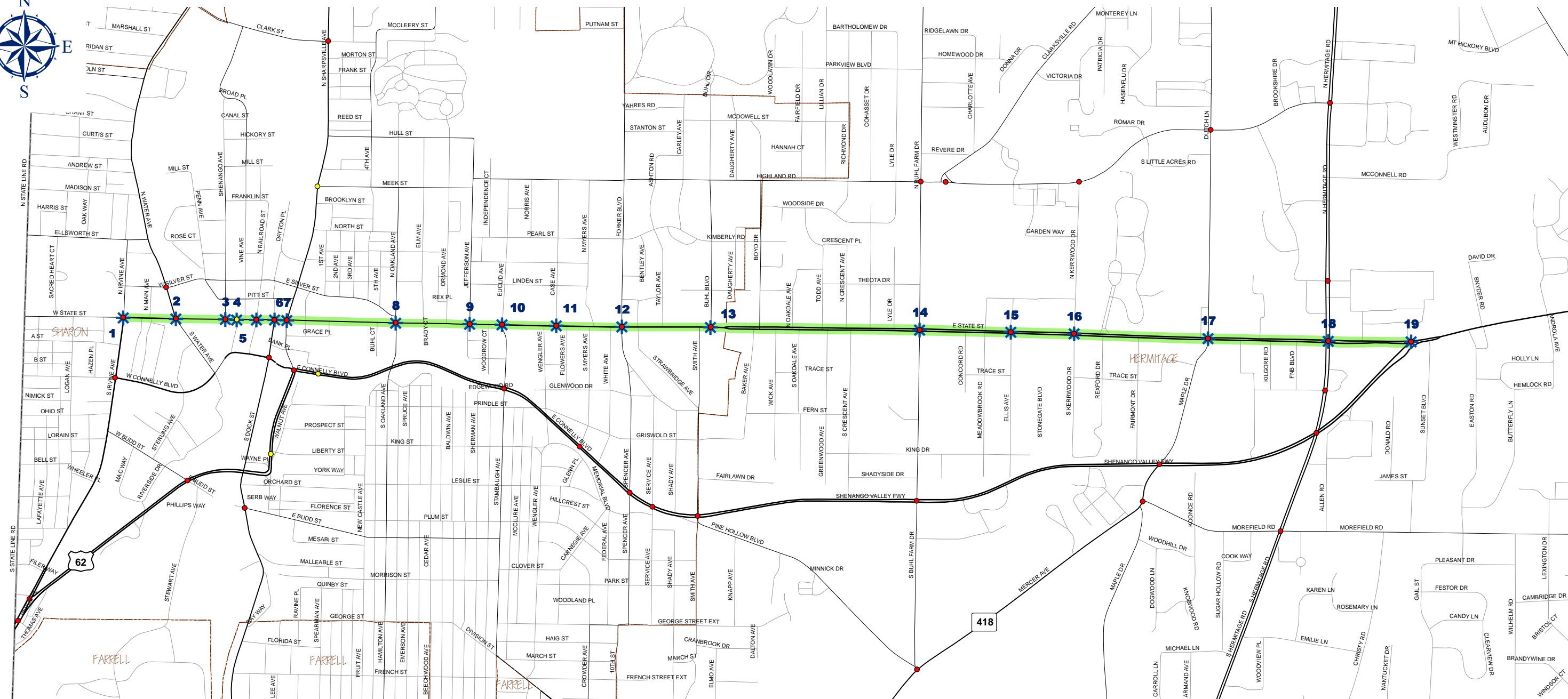




PERFORMANCE MONITORING DETAILS

CMP Corridor #305

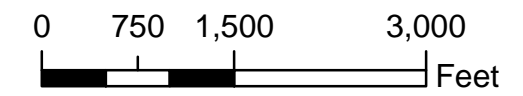
- Corridor / Node Map
- Field Reconnaissance Worksheet
- Travel Time Summary (Corridor Overview)
- Travel Time Summary (Average Data / Direction 1 at Peak)
- Travel Time Summary (Average Data / Direction 2 at Peak)



Detail 1 - County Location (N.T.S.)

- LEGEND**
- Interstate
 - US Route
 - PA Route
 - Other State Route
 - Local Road
 - Municipal Boundary
 - Traffic Signal
 - Traffic Beacon
 - CMP Monitoring Corridor

- Corridor Nodes, SR 308 @:**
- * 1, Irvine Ave
 - * 2, PA 718, Water Ave
 - * 3, Shenango Ave
 - * 4, Chestnut Ave
 - * 5, Railroad St
 - * 6, PA 60, Dock St
 - * 7, PA 518, Sharpsville Ave
 - * 8, Oakland Ave
 - * 9, Jefferson Ave
 - * 10, PA 518, Stambaugh Ave
 - * 11, Case Ave
 - * 12, Forker Blvd, Spencer Ave
 - * 13, Buhl Blvd
 - * 14, Buhl Farm Dr (SR 3025)
 - * 15, Ellis Ave
 - * 16, Kerrwood Dr
 - * 17, Maple Dr / Dutch Ln (SR 3035)
 - * 18, PA 18, Hermitage Rd
 - * 19, US 62, Shenango Valley Fwy



Mercer County CMP

SR 308 (E State St)
CMP Corridor / Node Map



SECTION 1: ROUTE IDENTIFICATION

A	CMP Identification #:	#305
B	Route (General Area):	SR 3008, E State St (Sharon to Hermitage)
C	Specific Limit 1 (South / West):	Irvine Ave (City of Sharon)
D	Specific Limit 2 (North / East):	US 62 (City of Hermitage)
E	Affected Municipalities:	Sharon, Hermitage
F	Total Corridor Length (Miles):	3.6 Miles
G	Federal Functional Class:	Other Principal Arterial Highways
H	PennDOT Traffic Pattern Group:	TPG 3 (Urban - Other Principal Arterials)
I	Typical # of Travel Lanes:	2-lane (1 EB + 1 WB) through Sharon; 5-lane (2 EB + 2 WB + turn lanes) through Hermitage
J	Typical Posted Speed Limit(s):	25 mph through Sharon; 35 mph through Hermitage

SECTION 2: SPECIAL USES OR CONSIDERATIONS

A	Transit	<input checked="" type="checkbox"/>	SVSS Northern, Southern, and Central Routes
B	Pedestrian / Bicycle	<input checked="" type="checkbox"/>	Downtown pedestrian traffic / on-street parking; Significant school-related pedestrian traffic
C	Heavy Freight (Truck / Rail)	<input checked="" type="checkbox"/>	Local commercial deliveries, as well as heavy trucks crossing State Street for industry around Sharon
D	Emergency Detour	<input type="checkbox"/>	
E	Tourism / Recreation / Special Events	<input checked="" type="checkbox"/>	Buhl Mansion, Daffin's Candy Store, other local business access
F	Community Concerns	<input type="checkbox"/>	
G	Growth Corridor	<input type="checkbox"/>	
H	Other: Educational	<input checked="" type="checkbox"/>	School-zone and intense pedestrian traffic for Case Avenue Elementary School and Sharon MS/HS
I	Other: Health	<input checked="" type="checkbox"/>	Access to Sharon Regional Health System and multiple other healthcare facilities



SECTION 3: ISSUES OR CONCERNS (RECURRING CONGESTION)

A	Roadway Capacity	<input type="checkbox"/>	
B	Roadway Bottlenecks	<input checked="" type="checkbox"/>	5-Lane to 2-Lane junction at Buhl Blvd; closely-spaced signals through Sharon
C	Signalized Intersection Operations	<input checked="" type="checkbox"/>	19 total signals in corridor; closely-spaced signals through Sharon
D	Unsignalized Intersection Operations	<input type="checkbox"/>	
E	Access or Access Control	<input checked="" type="checkbox"/>	Numerous commercial / retail driveway cuts along corridor
F	Existing or Future Development	<input checked="" type="checkbox"/>	Heavy commercial / retail development
G	Other: Educational	<input checked="" type="checkbox"/>	Intense periods of school pedestrian traffic, crossing guard activities, and related congestion
H	Other: Health	<input checked="" type="checkbox"/>	Pedestrian / parking access on opposite sides of street from Sharon Regional Health System

SECTION 4: ISSUES OR CONCERNS (NON-RECURRING CONGESTION)

A	Crashes and Related Delays	<input type="checkbox"/>	
B	Incident Management	<input type="checkbox"/>	
C	Special Events	<input type="checkbox"/>	
D	Construction Activities	<input type="checkbox"/>	
E	Weather or Environmental Factors	<input type="checkbox"/>	
F	Other:	<input type="checkbox"/>	
G	Other:	<input type="checkbox"/>	

SECTION 5: ISSUES OR CONCERNS (SAFETY-RELATED OR ISOLATED "HOT-SPOTS")

A	Other: School-Related Pedestrians	<input checked="" type="checkbox"/>	Intense periods of school pedestrian traffic, crossing guard activities, and related congestion
B	Other: Isolated Left-Turn Issues	<input checked="" type="checkbox"/>	Signalized left-turn complaints cited for nodes 10 (Stambaugh) and 16 (Kerrwood)
C	Other:	<input type="checkbox"/>	



SECTION 6: SEGMENT INVENTORY

Segment Breakpoints			Segment Data					Multimodal Uses				Adjacent Land Uses						Land Use Context ¹	Transportation Context ²		
ID	Intersection / Location	Type of Control	Length (Mi)	Speed Limit (MPH)	# Lanes ↓	# Lanes ↑	Turn Lane(s)	Parking	Transit	% Sidewalk ↓	% Sidewalk ↑	Residential	Commercial	Industrial	Educational	Religious	Health / EMS			Government	
1	Irvine Ave	Pretimed																			
			0.1	25	1	1	☒	☒	☐	100%	100%	☒	☒	☐	☐	☒	☐	☐		6	3
2	PA 718, Water Ave	Semi-Act																			
			0.1	25	1	1	☒	☒	☐	100%	100%	☒	☒	☐	☐	☐	☐	☐		6	3
3	Shenango Ave	Pretimed																			
			0.03	25	1	1	☒	☒	☐	100%	100%	☐	☒	☐	☐	☐	☐	☐		6	3
4	Chestnut Ave	Beacon																			
			0.1	25	1	1	☒	☒	☐	100%	100%	☐	☒	☐	☐	☐	☐	☐		6	3
5	Railroad St	Pretimed																			
			0.1	25	1	1	☒	☒	☐	100%	100%	☒	☒	☐	☐	☐	☐	☐		6	3
6	PA 60, Dock St	Pretimed																			
			0.04	25	1	1	☒	☒	☐	100%	100%	☒	☒	☐	☐	☐	☐	☐		6	3
7	PA 518, Sharpsville Ave	Pretimed																			

¹ Land Use Context: 1 (Rural Places), 2 (Suburban Neighborhood), 3 (Suburban Corridor), 4 (Suburban Center), 5 (Town / Village Neighborhood), 6 (Town Center), 7 (Urban Core)

² Transportation Context: 1 (Interstate), 2 (Regional Arterial), 3 (Community Arterial), 4 (Community Collector), 5 (Neighborhood Collector), 6 (Local Road / Street)



SECTION 6: SEGMENT INVENTORY (CONTINUED)

Segment Breakpoints			Segment Data					Multimodal Uses				Adjacent Land Uses						Land Use Context ¹	Transportation Context ²			
ID	Intersection / Location	Type of Control	Length (Mi)	Speed Limit (MPH)	# Lanes ↓	# Lanes ↑	Turn Lane(s)	Parking	Transit	% Sidewalk ↓	% Sidewalk ↑	Residential	Commercial	Industrial	Educational	Religious	Health / EMS			Government		
7	PA 518, Sharpville Ave	Pretimed																				
			0.3	25	1	1	☒	☐	☐	100%	100%	☒	☒	☐	☐	☒	☐	☐			6	3
8	Oakland Ave	Semi-Act																				
			0.2	25	1	1	☒	☐	☐	100%	100%	☒	☒	☐	☐	☒	☒	☐			4	3
9	Jefferson Ave	Semi-Act																				
			0.1	25	1	1	☒	☐	☐	100%	100%	☐	☒	☐	☐	☐	☒	☐			4	3
10	PA 518, Stambaugh Ave	Semi-Act																				
			0.1	25	1	1	☒	☐	☐	100%	100%	☐	☒	☐	☐	☐	☐	☐			4	3
11	Case Ave	Semi-Act																				
			0.2	25	1	1	☒	☐	☐	100%	100%	☐	☒	☐	☒	☒	☐	☐			4	3
12	Forker Blvd / Spencer Ave	Semi-Act																				
			0.2	25	1	1	☒	☐	☐	100%	100%	☒	☒	☐	☐	☐	☐	☐			4	3
13	Buhl Blvd	Semi-Act																				

¹ Land Use Context: 1 (Rural Places), 2 (Suburban Neighborhood), 3 (Suburban Corridor), 4 (Suburban Center), 5 (Town / Village Neighborhood), 6 (Town Center), 7 (Urban Core)

² Transportation Context: 1 (Interstate), 2 (Regional Arterial), 3 (Community Arterial), 4 (Community Collector), 5 (Neighborhood Collector), 6 (Local Road / Street)



SECTION 6: SEGMENT INVENTORY (CONTINUED)

Segment Breakpoints			Segment Data					Multimodal Uses				Adjacent Land Uses						Land Use Context ¹	Transportation Context ²		
ID	Intersection / Location	Type of Control	Length (Mi)	Speed Limit (MPH)	# Lanes ↓	# Lanes ↑	Turn Lane(s)	Parking	Transit	% Sidewalk ↓	% Sidewalk ↑	Residential	Commercial	Industrial	Educational	Religious	Health / EMS			Government	
13	Buhl Blvd	Semi-Act																			
			0.6	35	2	2	☒	☐	☐	25%	25%	☒	☒	☐	☐	☐	☐	☐	☐	4	3
14	Buhl Farm Dr (SR 3025)	Actuated																			
			0.3	35	2	2	☒	☐	☐	0%	25%	☐	☒	☐	☐	☐	☐	☐	3	3	
15	Ellis Ave	Semi-Act																			
			0.2	35	2	2	☒	☐	☐	25%	0%	☐	☒	☐	☐	☐	☐	☐	3	3	
16	Kerrwood Dr	Semi-Act																			
			0.4	35	2	2	☒	☐	☐	25%	25%	☒	☒	☐	☐	☒	☐	☐	3	3	
17	Maple Dr / Dutch Ln (SR 3035)	Semi-Act																			
			0.3	35	2	2	☒	☐	☐	25%	25%	☐	☒	☐	☐	☐	☐	☐	3	3	
18	PA 18, Hermitage Rd	Actuated																			
			0.2	35	1	1	☒	☐	☐	0%	0%	☐	☒	☐	☐	☐	☐	☐	3	3	
19	US 62, Shenango Valley Fwy	Actuated																			

¹ Land Use Context: 1 (Rural Places), 2 (Suburban Neighborhood), 3 (Suburban Corridor), 4 (Suburban Center), 5 (Town / Village Neighborhood), 6 (Town Center), 7 (Urban Core)

² Transportation Context: 1 (Interstate), 2 (Regional Arterial), 3 (Community Arterial), 4 (Community Collector), 5 (Neighborhood Collector), 6 (Local Road / Street)



SECTION 6: SEGMENT INVENTORY (CONTINUED)

Segment Breakpoints			Segment Data					Multimodal Uses				Adjacent Land Uses						Land Use Context ¹	Transportation Context ²			
ID	Intersection / Location	Type of Control	Length (Mi)	Speed Limit (MPH)	# Lanes ←	# Lanes →	Turn Lane(s)	Parking	Transit	% Sidewalk ←	% Sidewalk →	Residential	Commercial	Industrial	Educational	Religious	Health / EMS			Government		
		--																				
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	--	--	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	--	--	
		--																				
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	--	--	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	--	--	
		--																				
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	--	--	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	--	--	
		--																				
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	--	--	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	--	--	
		--																				
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	--	--	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	--	--	
		--																				

¹ Land Use Context: 1 (Rural Places), 2 (Suburban Neighborhood), 3 (Suburban Corridor), 4 (Suburban Center), 5 (Town / Village Neighborhood), 6 (Town Center), 7 (Urban Core)

² Transportation Context: 1 (Interstate), 2 (Regional Arterial), 3 (Community Arterial), 4 (Community Collector), 5 (Neighborhood Collector), 6 (Local Road / Street)



SECTION 7: ADDITIONAL FIELD OBSERVATIONS, COMMENTS, OR CONCERNS

Where applicable, reference notes by segment (1-2, 2-1, etc.):

- Heavy commercial area.
- Free-flow speeds probably no more than 5 mph above the posted speed limit.
- Multiple lane shifts through downtown Sharon to accommodate pocket turn lanes at each closely-spaced intersection, plus on-street parking.
- Some side street congestion observed at Node #14 (Buhl Farm Dr) and Node #16 (Kerrwood Dr).
- Older signal equipment near Sharon Regional Health System; signal displays difficult to see (dim/darkened lenses)
- Midblock pedestrian crossings near Sharon Regional Health System; parking lots across from hospital.
- Rough pavement conditions and multiple railroad crossings contribute to potential delays through downtown Sharon.
- Heavily-utilized on-street parking in vicinity of downtown Sharon.
- Signal progression / coordination through Sharon was either not apparent or inconsistent (i.e., sometimes coordinated; other times not).
- Some ADA / state-of-disrepair issues with many sidewalk segments throughout corridor.
- Mostly continuous sidewalk through Sharon; discontinuous sidewalk sections begin east of Buhl Blvd and throughout the 5-lane portions of the corridor.
- Multiple driveway cuts / unsignalized commercial access throughout the corridor.
- Potential delays behind SVSS transit vehicles observed stopping through downtown Sharon.



SECTION 7: ADDITIONAL FIELD OBSERVATIONS, COMMENTS, OR CONCERNS (CONTINUED)

Where applicable, reference notes by segment (1-2, 2-1, etc.):

- Heavy school-related congestion near Case Avenue Elementary and Sharon MS/HS between approximately 2:45-3:15 PM. Significant crossing guard presence and pedestrian-related stoppages, delays, etc. Some students were also observed crossing midblock between crossing-guard sites.
- Signalized left-turn issues (excessive delay, no protected phase, etc.) were cited for Nodes 10 (PA 518 / Stambaugh Ave) and 16 (Kerrwood Dr).
- Potential multi-cycle failures along State Street approaching / crossing PA 18 during later peak periods of 3:30 to 4:30 PM.



SECTION 8: PHOTO LOG (CORRIDOR "TYPICAL" SEGMENTS, CRITICAL INTERSECTIONS, "HOT-SPOT" CONCERNS, ETC.)

Photo # / Description:
EB approach to #1 (Irvine Ave)



Photo # / Description:
EB approach to #2 (Water Ave)



Photo # / Description:
Segment 2-3 (EB) across Shenango River



Photo # / Description:
EB approach to #3 (Shenango Ave)



Photo # / Description:
EB approach to #5 (Railroad St)



Photo # / Description:
Segment 8-9 (EB) near Sharon Hospital





SECTION 8: PHOTO LOG (CONTINUED)

Photo # / Description:

EB approach to #10 (PA 518, Stambaugh Ave)



Photo # / Description:

PM school congestion at #11 (Case Ave)



Photo # / Description:

Segment 11-12 (EB) near Sharon MS/HS



Photo # / Description:

EB approach to #16 (Kerrwood Dr)



Photo # / Description:

View east prior to #17 (Maple Dr / Dutch Ln)



Photo # / Description:

Segment 18-19 (EB) between PA 18 & US 62





CONGESTION MANAGEMENT PROCESSES
Travel Time Summary (Corridor Overview)

Corridor: #305 / SR 3008 (E State St, Sharon to Hermitage)
Direction: Both
Scenario: Fall / Winter 2009

Corridor Summary by Peak / by Direction:

Corridor Description				Travel Time & Delay					Speed & Stops		
Roadway	Direction	Length	Running Time	Travel Time	Delay	Delay Rate	Delay Ratio	Total Delay	Avg Speed	Stops	Stop Rate
	(Peak)	(Miles)	(Min)	(Min)	(Min)	(Min / Mile)	(%)	(veh-hr)	(mph)	(#)	(# / Mile)
SR 3008 / E State St	EB (AM)	3.6	6.2	9.6	3.4	1.0	36%	30	22	5.3	1.5
	EB (Midday)	3.6	6.2	11.4	5.2	1.4	46%	44	19	8.5	2.4
	EB (PM)	3.6	6.2	14.9	8.7	2.4	58%	102	15	11.3	3.2
SR 3008 / E State St	WB (AM)	3.6	6.1	10.5	4.4	1.2	42%	45	20	7.3	2.0
	WB (Midday)	3.6	6.1	11.6	5.5	1.5	47%	48	19	9.5	2.6
	WB (PM)	3.6	6.1	11.2	5.1	1.4	46%	52	19	7.5	2.1

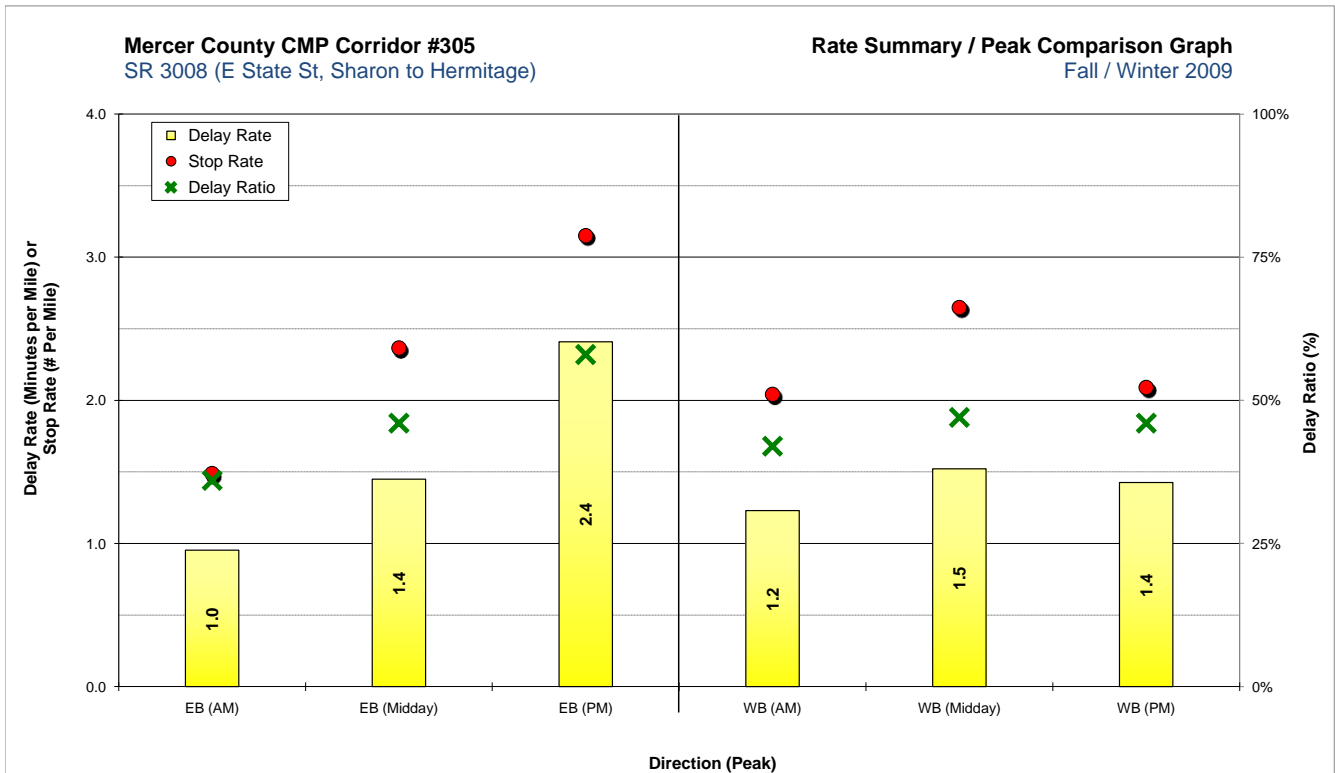
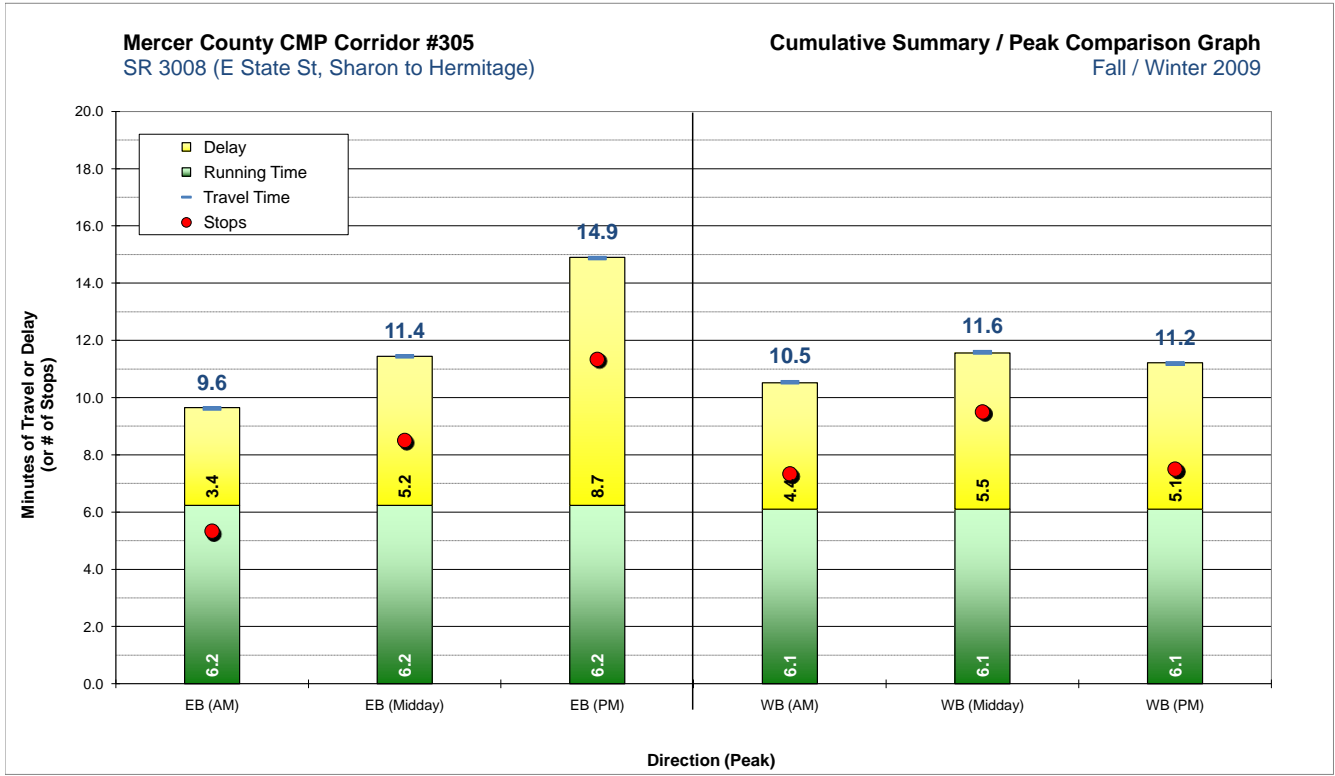
Bi-Directional Segment Summary for "Typical" Peak Period:

"Typical" Peak Period = Weekday PM Peak w/ "school dismissal" emphasis

Segment ADT Estimates = 3,700 to 20,200 (veh / day; bi-directional total)

Segment Peak Hour Volume Estimates = 410 to 2,020 (veh / hr; bi-directional total)

Segment Description				Travel Time & Delay					Speed & Stops		
GIS Segment ID	Limit 1	Limit 2	Length	Travel Time	Delay	Delay Rate	Delay Ratio	Total Delay	Avg Speed	Posted Speed	Stops
			(Min)	(Min)	(Min)	(Min / Mile)	(%)	(veh-hr)	(mph)	(mph)	(#)
305,001,002	Irvine	Water	0.15	1.3	1.0	6.6	77%	4	7	25	1.0
305,002,003	Water	Shenango	0.14	0.6	0.3	2.1	51%	2	16	25	0.5
305,003,004	Shenango	Chestnut	0.03	0.1	0.0	1.0	33%	0	20	25	0.0
305,004,005	Chestnut	Railroad	0.06	0.5	0.4	7.1	78%	2	7	25	1.0
305,005,006	Railroad	Dock	0.05	0.3	0.2	4.4	69%	1	15	25	0.5
305,006,007	Dock	Sharpsville	0.04	0.2	0.2	4.8	72%	2	17	25	0.3
305,007,008	Sharpsville	Oakland	0.31	0.8	0.2	0.6	22%	4	24	25	0.5
305,008,009	Oakland	Jefferson	0.21	1.1	0.7	3.6	64%	12	11	25	1.0
305,009,010	Jefferson	Stambaugh	0.10	0.7	0.6	5.7	74%	10	8	25	1.0
305,010,011	Stambaugh	Case	0.15	0.8	0.5	3.5	63%	10	13	25	1.3
305,011,012	Case	Forker	0.19	2.0	1.7	9.0	82%	21	8	25	1.3
305,012,013	Forker	Buhl	0.25	0.7	0.2	0.9	30%	4	21	25	0.3
305,013,014	Buhl	Buhl Farm	0.58	1.2	0.3	0.6	27%	6	30	35	0.5
305,014,015	Buhl Farm	Ellis	0.26	0.8	0.4	1.7	54%	11	19	35	1.0
305,015,016	Ellis	Kerrwood	0.18	0.6	0.3	1.8	55%	11	20	35	0.7
305,016,017	Kerrwood	Maple	0.37	0.8	0.3	0.8	34%	9	27	35	0.5
305,017,018	Maple	PA 18	0.34	2.2	1.7	5.0	77%	31	11	35	1.7
305,018,019	PA 18	US 62	0.23	1.6	1.3	5.5	80%	15	9	35	1.0
Corridor Summary	Irvine	US 62	3.6	14.9	8.7	2.4	58%	154	15	35	11.3





CONGESTION MANAGEMENT PROCESSES

Travel Time Summary (Average Data)

Corridor: #305 / SR 3008 (E State St, Sharon to Hermitage)
Direction: EB
Scenario: Weekday PM Peak, Fall / Winter 2009

Notes / Definitions / Abbreviations

- * Units vary as indicated in tables below
- * Summary Table 1 indicates feet, seconds
- * Summary Table 2 indicates miles, minutes

- * BLUE = Input Data via manual direct entry
- * RED = Input Data via formula or worksheet reference updates
- * BLACK = Data automatically calculated

NID = Node ID Number
Dir = Direction of Travel
TT_{avg} = Average Field-measured Travel Time (from Previous Node)
CTT_{avg} = Average Field-measured Travel Time (Cumulative)
TL = Travel Length (from Previous Node)
CTL = Travel Length (Cumulative)
Delay = Travel Delay (from Previous Node) = TT - RT_{DS}
CD = Travel Delay (Cumulative)
DPM = Equivalent Travel Delay Rate per Mile (from Previous Node)
CDPM = Equivalent Travel Delay Rate per Mile (Cumulative)
RT_{PLS} = "No Stop" Running Time @ Posted Speed (from Previous Node)
CRT_{PLS} = "No Stop" Running Time @ Posted Speed (Cumulative)
RT_{DS} = "No Stop" Running Time @ Design Speed (from Previous Node)
CRT_{DS} = "No Stop" Running Time @ Design Speed (Cumulative)
AS = Actual Average Speed (from Previous Node)
CAS = Actual Average Speed (Cumulative)
DS = Design Speed (or assumed Free-Flow Speed)
PLS = Posted Speed Limit
Stops = Number of Stops below 5 mph (from Previous Node)
Cstops = Number of Stops below 5 mph (Cumulative)

Summary Table: Average Travel Time Data / Calculations (feet, seconds, mph)

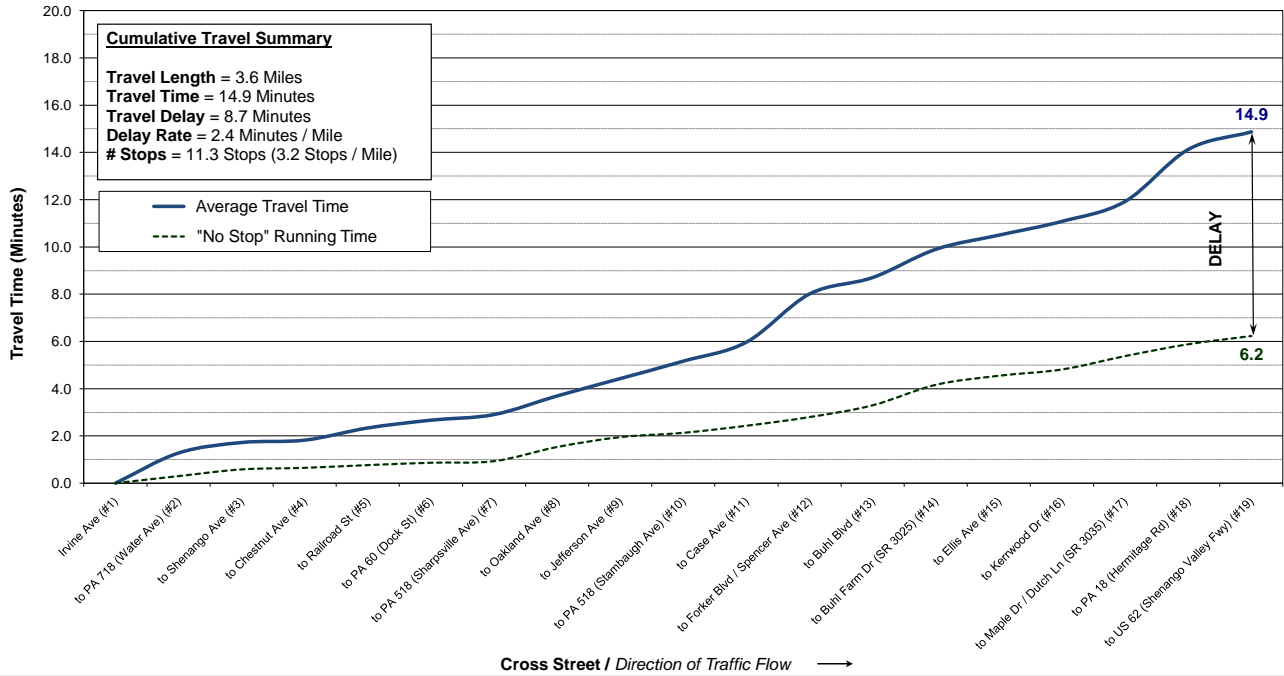
Intersection / Link Data			Travel Time (sec)		Travel Length (feet)		Travel Delay (sec)		Delay Rate (sec / mile)		Running Time (sec @ DS)		Running Time (sec @ PLS)		Travel Speeds (mph)		Speed Limits (mph)		Stops (# of)	
Node	NID	Dir	TT _{avg}	CTT _{avg}	TL	CTL	Delay	CD	DPM	CDPM	RT _{DS}	CRT _{DS}	RT _{PLS}	CRT _{PLS}	AS	CAS	DS	PLS	Stops	CStops
Irvine Ave (#1)	1	EB	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	0	0
to PA 718 (Water Ave) (#2)	2	EB	77	77	784	784	59	59	397	397	18	18	21	21	7	7	30	25	1	1
to Shenango Ave (#3)	3	EB	27	103	721	1,505	10	69	76	243	17	35	20	41	19	10	30	25	0	1
to Chestnut Ave (#4)	4	EB	6	109	174	1,679	2	71	61	224	4	39	5	46	20	11	30	25	0	1
to Railroad St (#5)	5	EB	31	140	302	1,981	24	96	425	255	7	46	8	54	7	10	30	25	1	2
to PA 60 (Dock St) (#6)	6	EB	20	160	272	2,253	14	109	265	256	6	52	7	61	15	10	30	25	0	3
to PA 518 (Sharpsville Ave) (#7)	7	EB	14	174	188	2,441	10	120	291	259	4	56	5	67	17	10	30	25	0	3
to Oakland Ave (#8)	8	EB	47	222	1,604	4,045	10	130	34	170	36	92	44	110	24	13	30	25	0	3
to Jefferson Ave (#9)	9	EB	44	266	1,083	5,128	19	149	94	154	25	117	30	140	18	13	30	25	0	4
to PA 518 (Stambaugh Ave) (#10)	10	EB	44	310	512	5,640	33	182	341	171	11	128	14	154	8	13	30	25	1	5
to Case Ave (#11)	11	EB	48	358	782	6,422	31	213	207	175	18	146	21	175	15	12	30	25	1	6
to Forker Blvd / Spencer Ave (#12)	12	EB	122	481	977	7,399	100	313	542	224	22	168	27	202	8	11	30	25	1	7
to Buhl Blvd (#13)	13	EB	42	522	1,299	8,698	13	326	51	198	30	198	35	237	21	12	30	25	0	8
to Buhl Farm Dr (SR 3025) (#14)	14	EB	72	594	3,066	11,764	19	345	33	155	52	250	60	297	30	14	40	35	0	8
to Ellis Ave (#15)	15	EB	36	630	1,346	13,110	13	358	51	144	23	273	26	323	27	14	40	35	0	8
to Kerwood Dr (#16)	16	EB	35	665	931	14,041	19	377	108	142	16	289	18	341	20	15	40	35	1	9
to Maple Dr / Dutch Ln (SR 3035) (#17)	17	EB	51	716	1,972	16,013	17	394	46	130	34	323	38	380	27	15	40	35	0	9
to PA 18 (Hermitage Rd) (#18)	18	EB	132	848	1,789	17,802	102	496	300	147	30	353	35	415	11	14	40	35	2	11
to US 62 (Shenango Valley Fwy) (#19)	19	EB	45	892	1,195	18,996	24	520	106	145	21	374	23	438	24	15	40	35	0	11
Corridor Average			892		18,996		520		145		374		438		14.5		Varies		11.3	

Summary Table: Average Travel Time Data / Calculations (miles, minutes, mph)

Intersection / Link Data			Travel Time (min)		Travel Length (mile)		Travel Delay (min)		Delay Rate (min / mile)		Running Time (min @ DS)		Running Time (min @ PLS)		Travel Speeds (mph)		Speed Limits (mph)		Stops (# of)	
Node	NID	Dir	TT _{avg}	CTT _{avg}	TL	CTL	Delay	CD	DPM	CDPM	RT	CRT	RT _{PLS}	CRT _{PLS}	AS	CAS	DS	PLS	Stops	CStops
Irvine Ave (#1)	1	EB	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
to PA 718 (Water Ave) (#2)	2	EB	1.3	1.3	0.1	0.1	1.0	1.0	6.6	6.6	0.3	0.3	0.4	0.4	7	7	30	25	1	1
to Shenango Ave (#3)	3	EB	0.4	1.7	0.1	0.3	0.2	1.2	1.3	4.1	0.3	0.6	0.3	0.7	19	10	30	25	0	1
to Chestnut Ave (#4)	4	EB	0.1	1.8	0.0	0.3	0.0	1.2	1.0	3.7	0.1	0.7	0.1	0.8	20	11	30	25	0	1
to Railroad St (#5)	5	EB	0.5	2.3	0.1	0.4	0.4	1.6	7.1	4.2	0.1	0.8	0.1	0.9	7	10	30	25	1	2
to PA 60 (Dock St) (#6)	6	EB	0.3	2.7	0.1	0.4	0.2	1.8	4.4	4.3	0.1	0.9	0.1	1.0	15	10	30	25	0	3
to PA 518 (Sharpsville Ave) (#7)	7	EB	0.2	2.9	0.0	0.5	0.2	2.0	4.8	4.3	0.1	0.9	0.1	1.1	17	10	30	25	0	3
to Oakland Ave (#8)	8	EB	0.8	3.7	0.3	0.8	0.2	2.2	0.6	2.8	0.6	1.5	0.7	1.8	24	13	30	25	0	3
to Jefferson Ave (#9)	9	EB	0.7	4.4	0.2	1.0	0.3	2.5	1.6	2.6	0.4	2.0	0.5	2.3	18	13	30	25	0	4
to PA 518 (Stambaugh Ave) (#10)	10	EB	0.7	5.2	0.1	1.1	0.6	3.0	5.7	2.8	0.2	2.1	0.2	2.6	8	13	30	25	1	5
to Case Ave (#11)	11	EB	0.8	6.0	0.1	1.2	0.5	3.6	3.5	2.9	0.3	2.4	0.4	2.9	15	12	30	25	1	6
to Forker Blvd / Spencer Ave (#12)	12	EB	2.0	8.0	0.2	1.4	1.7	5.2	9.0	3.7	0.4	2.8	0.4	3.4	8	11	30	25	1	7
to Buhl Blvd (#13)	13	EB	0.7	8.7	0.2	1.6	0.2	5.4	0.9	3.3	0.5	3.3	0.6	4.0	21	12	30	25	0	8
to Buhl Farm Dr (SR 3025) (#14)	14	EB	1.2	9.9	0.6	2.2	0.3	5.8	0.6	2.6	0.9	4.2	1.0	4.9	30	14	40	35	0	8
to Ellis Ave (#15)	15	EB	0.6	10.5	0.3	2.5	0.2	6.0	0.8	2.4	0.4	4.6	0.4	5.4	27	14	40	35	0	8
to Kerwood Dr (#16)	16	EB	0.6	11.1	0.2	2.7	0.3	6.3	1.8	2.4	0.3	4.8	0.3	5.7	20	15	40	35	1	9
to Maple Dr / Dutch Ln (SR 3035) (#17)	17	EB	0.8	11.9	0.4	3.0	0.3	6.6	0.8	2.2	0.6	5.4	0.6	6.3	27	15	40	35	0	9
to PA 18 (Hermitage Rd) (#18)	18	EB	2.2	14.1	0.3	3.4	1.7	8.3	5.0	2.5	0.5	5.9	0.6	6.9	11	14	40	35	2	11
to US 62 (Shenango Valley Fwy) (#19)	19	EB	0.7	14.9	0.2	3.6	0.4	8.7	1.8	2.4	0.4	6.2	0.4	7.3	24	15	40	35	0	11
Corridor Average			14.9		3.6		8.7		2.4		6.2		7.3		14.5		Varies		11.3	

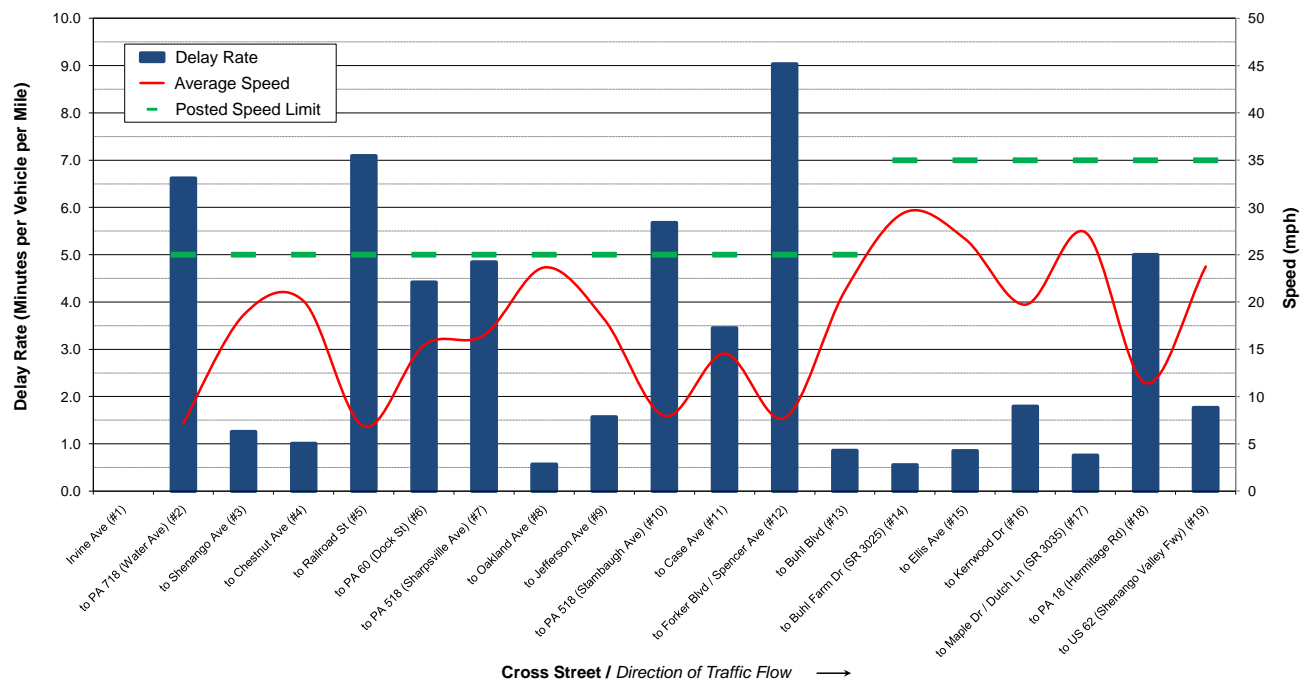
Mercer County CMP Corridor #305
 SR 3008 (E State St, Sharon to Hermitage)

Cumulative Travel Time Graph
 Fall / Winter 2009 - Weekday PM Peak (EB)



Mercer County CMP Corridor #305
 SR 3008 (E State St, Sharon to Hermitage)

Segment Speed & Delay Graph
 Fall / Winter 2009 - Weekday PM Peak (EB)





CONGESTION MANAGEMENT PROCESSES

Travel Time Summary (Average Data)

Corridor: #305 / SR 3008 (E State St, Sharon to Hermitage)
 Direction: WB
 Scenario: Weekday PM Peak, Fall / Winter 2009

Notes / Definitions / Abbreviations

- * Units vary as indicated in tables below
 - * Summary Table 1 indicates feet, seconds
 - * Summary Table 2 indicates miles, minutes
 - * BLUE = Input Data via manual direct entry
 - * RED = Input Data via formula or worksheet reference updates
 - * BLACK = Data automatically calculated
- NID** = Node ID Number
Dir = Direction of Travel
TT_{avg} = Average Field-measured Travel Time (from Previous Node)
CTT_{avg} = Average Field-measured Travel Time (Cumulative)
TL = Travel Length (from Previous Node)
CTL = Travel Length (Cumulative)
Delay = Travel Delay (from Previous Node) = TT - RT_{DS}
CD = Travel Delay (Cumulative)
DPM = Equivalent Travel Delay Rate per Mile (from Previous Node)
CDPM = Equivalent Travel Delay Rate per Mile (Cumulative)
- RT_{PLS}** = "No Stop" Running Time @ Posted Speed (from Previous Node)
CRT_{PLS} = "No Stop" Running Time @ Posted Speed (Cumulative)
RT_{DS} = "No Stop" Running Time @ Design Speed (from Previous Node)
CRT_{DS} = "No Stop" Running Time @ Design Speed (Cumulative)
AS = Actual Average Speed (from Previous Node)
CAS = Actual Average Speed (Cumulative)
DS = Design Speed (or assumed Free-Flow Speed)
PLS = Posted Speed Limit
Stops = Number of Stops below 5 mph (from Previous Node)
Cstops = Number of Stops below 5 mph (Cumulative)

Summary Table: Average Travel Time Data / Calculations (feet, seconds, mph)

Intersection / Link Data			Travel Time (sec)		Travel Length (feet)		Travel Delay (sec)		Delay Rate (sec / mile)		Running Time (sec @ DS)		Running Time (sec @ PLS)		Travel Speeds (mph)		Speed Limits (mph)		Stops (# of)	
Node	NID	Dir	TT _{avg}	CTT _{avg}	TL	CTL	Delay	CD	DPM	CDPM	RT _{DS}	CRT _{DS}	RT _{PLS}	CRT _{PLS}	AS	CAS	DS	PLS	Stops	CStops
US 62 (Shenango Valley Fwy) (#19)	19	WB	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	0	0
to PA 18 (Hermitage Rd) (#18)	18	WB	98	98	1,241	1,241	78	78	332	332	21	21	24	24	9	9	40	35	1	1
to Maple Dr / Dutch Ln (SR 3035) (#17)	17	WB	38	136	1,748	2,989	8	86	23	151	30	51	34	58	32	15	40	35	0	1
to Kerrwood Dr (#16)	16	WB	48	184	1,967	4,955	14	100	38	106	34	85	38	97	30	18	40	35	1	2
to Ellis Ave (#15)	15	WB	36	219	936	5,891	20	119	110	107	16	101	18	115	20	18	40	35	1	2
to Buhl Farm Dr (SR 3025) (#14)	14	WB	50	269	1,350	7,241	27	146	104	106	23	124	26	141	19	18	40	35	1	3
to Buhl Blvd (#13)	13	WB	67	336	3,065	10,306	15	161	26	82	52	176	60	201	31	21	40	35	1	4
to Forker Blvd / Spencer Ave (#12)	12	WB	31	366	1,300	11,605	9	169	35	77	22	198	25	226	29	22	40	35	0	4
to Case Ave (#11)	11	WB	30	396	964	12,569	8	177	41	74	22	220	26	252	23	22	30	25	0	4
to PA 518 (Stambaugh Ave) (#10)	10	WB	41	436	780	13,349	23	199	152	79	18	238	21	274	13	21	30	25	1	5
to Jefferson Ave (#9)	9	WB	23	459	491	13,840	12	211	129	81	11	249	13	287	15	21	30	25	0	5
to Oakland Ave (#8)	8	WB	68	527	1,072	14,912	44	255	214	90	25	274	29	316	11	19	30	25	1	6
to PA 518 (Sharpville Ave) (#7)	7	WB	46	573	1,616	16,528	10	265	33	84	36	310	44	360	24	20	30	25	1	6
to PA 60 (Dock St) (#6)	6	WB	6	579	186	16,714	2	266	43	84	4	314	5	365	22	20	30	25	0	6
to Railroad St (#5)	5	WB	13	592	254	16,968	7	273	146	85	6	320	7	372	16	20	30	25	1	7
to Chestnut Ave (#4)	4	WB	11	603	312	17,279	4	277	68	85	7	327	8	381	19	20	30	25	0	7
to Shenango Ave (#3)	3	WB	6	608	174	17,453	1	278	30	84	4	331	5	386	23	20	30	25	0	7
to PA 718 (Water Ave) (#2)	2	WB	34	642	724	18,177	17	295	124	86	17	348	20	405	16	19	30	25	1	7
to Irvine Ave (#1)	1	WB	30	672	772	18,949	12	307	82	86	18	366	21	426	18	19	30	25	1	8
Corridor Average			672		18,949		307		86		366		426		19.2		Varies		7.5	

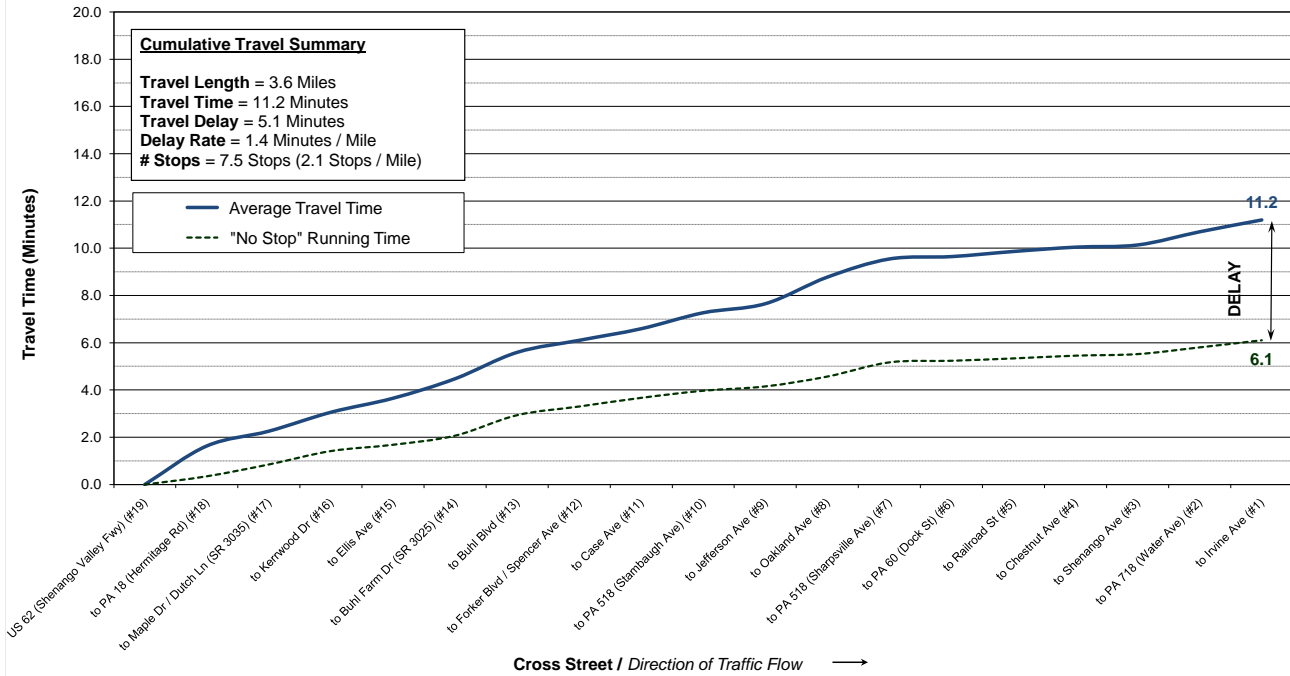
Summary Table: Average Travel Time Data / Calculations (miles, minutes, mph)

Intersection / Link Data			Travel Time (min)		Travel Length (mile)		Travel Delay (min)		Delay Rate (min / mile)		Running Time (min @ DS)		Running Time (min @ PLS)		Travel Speeds (mph)		Speed Limits (mph)		Stops (# of)	
Node	NID	Dir	TT _{avg}	CTT _{avg}	TL	CTL	Delay	CD	DPM	CDPM	RT	CRT	RT _{PLS}	CRT _{PLS}	AS	CAS	DS	PLS	Stops	CStops
US 62 (Shenango Valley Fwy) (#19)	19	WB	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
to PA 18 (Hermitage Rd) (#18)	18	WB	1.6	1.6	0.2	0.2	1.3	1.3	5.5	5.5	0.4	0.4	0.4	0.4	9	9	40	35	1	1
to Maple Dr / Dutch Ln (SR 3035) (#17)	17	WB	0.6	2.3	0.3	0.6	0.1	1.4	0.4	2.5	0.5	0.9	0.6	1.0	32	15	40	35	0	1
to Kerrwood Dr (#16)	16	WB	0.8	3.1	0.4	0.9	0.2	1.7	0.6	1.8	0.6	1.4	0.6	1.6	30	18	40	35	1	2
to Ellis Ave (#15)	15	WB	0.6	3.7	0.2	1.1	0.3	2.0	1.8	1.8	0.3	1.7	0.3	1.9	20	18	40	35	1	2
to Buhl Farm Dr (SR 3025) (#14)	14	WB	0.8	4.5	0.3	1.4	0.4	2.4	1.7	1.8	0.4	2.1	0.4	2.4	19	18	40	35	1	3
to Buhl Blvd (#13)	13	WB	1.1	5.6	0.6	2.0	0.3	2.7	0.4	1.4	0.9	2.9	1.0	3.3	31	21	40	35	1	4
to Forker Blvd / Spencer Ave (#12)	12	WB	0.5	6.1	0.2	2.2	0.1	2.8	0.6	1.3	0.4	3.3	0.4	3.8	29	22	40	35	0	4
to Case Ave (#11)	11	WB	0.5	6.6	0.2	2.4	0.1	2.9	0.7	1.2	0.4	3.7	0.4	4.2	23	22	30	25	0	4
to PA 518 (Stambaugh Ave) (#10)	10	WB	0.7	7.3	0.1	2.5	0.4	3.3	2.5	1.3	0.3	4.0	0.4	4.6	13	21	30	25	1	5
to Jefferson Ave (#9)	9	WB	0.4	7.7	0.1	2.6	0.2	3.5	2.2	1.3	0.2	4.2	0.2	4.8	15	21	30	25	0	5
to Oakland Ave (#8)	8	WB	1.1	8.8	0.2	2.8	0.7	4.2	3.6	1.5	0.4	4.6	0.5	5.3	11	19	30	25	1	6
to PA 518 (Sharpville Ave) (#7)	7	WB	0.8	9.5	0.3	3.1	0.2	4.4	0.5	1.4	0.6	5.2	0.7	6.0	24	20	30	25	1	6
to PA 60 (Dock St) (#6)	6	WB	0.1	9.6	0.0	3.2	0.0	4.4	0.7	1.4	0.1	5.2	0.1	6.1	22	20	30	25	0	6
to Railroad St (#5)	5	WB	0.2	9.9	0.0	3.2	0.1	4.6	2.4	1.4	0.1	5.3	0.1	6.2	16	20	30	25	1	7
to Chestnut Ave (#4)	4	WB	0.2	10.0	0.1	3.3	0.1	4.6	1.1	1.4	0.1	5.5	0.1	6.3	19	20	30	25	0	7
to Shenango Ave (#3)	3	WB	0.1	10.1	0.0	3.3	0.0	4.6	0.5	1.4	0.1	5.5	0.1	6.4	23	20	30	25	0	7
to PA 718 (Water Ave) (#2)	2	WB	0.6	10.7	0.1	3.4	0.3	4.9	2.1	1.4	0.3	5.8	0.3	6.8	16	19	30	25	1	7
to Irvine Ave (#1)	1	WB	0.5	11.2	0.1	3.6	0.2	5.1	1.4	1.4	0.3	6.1	0.4	7.1	18	19	30	25	1	8
Corridor Average			11.2		3.6		5.1		1.4		6.1		7.1		19.2		Varies		7.5	

2.1 (stops/mi)

Mercer County CMP Corridor #305
 SR 3008 (E State St, Sharon to Hermitage)

Cumulative Travel Time Graph
 Fall / Winter 2009 - Weekday PM Peak (WB)



Mercer County CMP Corridor #305
 SR 3008 (E State St, Sharon to Hermitage)

Segment Speed & Delay Graph
 Fall / Winter 2009 - Weekday PM Peak (WB)

