

US Route 30

From IL 136 to IL 40

Whiteside County



Traffic Analysis



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VOLKERT
& ASSOCIATES, INC.

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PROJECT LOCATION AND DESCRIPTION

The focus of this traffic analysis report is along the existing U.S. 30 corridor from IL 136 near Fulton to IL 40 in Rock Falls in Whiteside County, Illinois. The project study area analyzed is approximately 24 miles (38.4 km) in length (see Project Map **Exhibit #1**).

The existing roadway within the limits of this study area exhibits variable rural and urban typical sections. U.S. 30 is designated as a Major Arterial and Class II Truck Route. Major arterials typically operate at higher speed limits and have limited access. From the Intersection of US 30 with IL 136 east of Fulton to the City of Morrison this rural highway primarily consists of two 12 foot lanes with variable width paved shoulder, additional aggregate shoulder and open graded ditches.

Through the City of Morrison U.S. 30 operates as a minor arterial. Within the city, the roadway converts to an urban cross section with curb and gutter and sidewalks within a narrow cross-section due to building constraints, varying from two to four lanes (including right-lane turn-outs) at the primary intersections. The roadway then converts to a newly constructed three lane section between Jackson Street and Sawyer Road on the east side of Morrison. Within the city limits U.S. 30 has a speed limit between 30 and 45mph and has a high number of access points.

East of the three lane section the roadway transitions back to a two-lane rural cross section (except for a few right-lane turn-outs at various side-roads) for approximately seven miles to the intersection of U.S. 30 and Emerson Road where it transitions to include a left turn lane for east-bound traffic onto Emerson Road. From Emerson Road U.S. 30 continues south-east as a two lane section to south of Mathew Road where it transitions to a four-lane section with buried left turn lanes at the 4-way stop intersection of Moline Road and the Interstate 88 connector. Here U.S. 30 turns east, transitions back from a four to two-lane rural section, and continues toward the City of Rock Falls.

Just west of Prophetstown Road the rural two-lane section transitions from two lanes to a five-lane urban section that carries two lanes in each direction through the City of Rock Falls. This section is in good condition with storm sewers, good side-road sight distance, proper lane widths and street lighting throughout.

Along the portion of U.S. 30 being studied several signalized intersections and two four-way stops exist. There are four signalized intersections in the City of Morrison and two in the City of Rock Falls. The four-way stops are at the Moline Road/I88 connector to U.S. 30 and at the Como Road intersection.

PURPOSE OF REPORT

The purpose of this traffic analysis is to identify the current and projected traffic congestion and traffic deficiencies within the limits of the project along the existing alignment. This is completed on the existing alignment so traffic volumes can be

determined at current growth rates using the existing traffic patterns with no changes in the roadway design.

TRAFFIC DEFICIENCIES

Geometric deficiencies are present along the current alignment of U.S. 30 (as outlined in the U.S. 30 Corridor Study report). The two primary types of geometric deficiencies found were cross-section deficiencies and alignment deficiencies.

Three primary cross-section deficiencies on U.S. 30 include substandard shoulder widths (narrow shoulders), substandard taper lengths (turn lane tapers are shorter than standard length), and substandard turn lanes (lengths are shorter than standard lengths).

A portion of the deficiencies identified in the Corridor Report were corrected as part of the U.S. 30 widening project on the east side of Morrison but most of the deficiencies are still present. The partially paved by primarily aggregate or earth shoulders vary in width throughout the study area and the areas with narrow shoulders allow the roadway to avoid impacts to properties that would otherwise be impacted adjacent to the roadway. Many of the turn lane and taper length deficiencies are within the limits of Morrison's central business district. These deficiencies are due to the lack of spacing between intersections and the lack of space between the roadway and structures on adjacent properties.

Two alignment deficiency types were identified in the Corridor Report. They were side-road intersecting angle deficiencies and a vertical curve sight distance deficiency.

Four side-roads within the study area were found to have a sub-standard angle of intersection with U.S. 30. In order to have the greatest overall level of sight distance and subsequent safety at an intersection it is ideal for the two roadways to intersect at a perpendicular angle. IDOT design standards require an angle of no more than thirty degrees and recommend an intersecting angle of less than fifteen degrees. The four roads identified with substandard intersecting angles include Emerson Road, Harmony Street and Liberty Street (both of which intersect U.S. 30 at the same location), and Union Street.

The other deficiency involving a curve was identified on U.S. 30 on the west side of Morrison near Garden Plain Road. At this location those traveling in the west-bound direction have limited sight distance from a combination of the presence of a retaining wall on the right side of the roadway and the roadway curving to the right. The U.S. 30 Morrison widening study proposed a relocation of the retaining wall to achieve proper sight distance.

TRAFFIC CONGESTION

Traffic congestion is defined in terms of levels of service (LOS). As defined in the Highway Capacity Manual (2000), LOS is expressed by a scale ranging from "A" to "F".

“A” represents the best traffic condition with no backups or obstacles to traffic flow. “F” represents a total breakdown in traffic operations accompanied by extensive delays and traffic volumes that approach capacity. Definitions for LOS categories are included in **Table 1**.

TABLE 1 - Level of Service Descriptions

Level of Service	Description
A	Completely free-flow conditions. The operation of vehicles is virtually unaffected by the presence of other vehicles, and operations are constrained only by the geometric features of the highway and by driver preferences.
B	Indicative of free flow, although the presence of other vehicles begins to be noticeable. Average travel speeds are the same as in LOS A, but drivers have less freedom to maneuver.
C	Range in which the influence of traffic density on operations becomes marked. The ability to maneuver within the traffic stream is now clearly affected by the presence of other vehicles.
D	Range in which ability to maneuver is severely restricted because of traffic congestion. Travel speed begins to be reduced by increasing volumes.
E	Operation at or near capacity and is quite unstable. Vehicles are operating with the minimum spacing at which uniform flow can be maintained.
F	Breakdown condition where maneuverability and speeds may drop to zero.

Level of service is based on definitions set forth in the Highway Capacity Manual, 2000.

The minimum acceptable level of service for the design year for this project is LOS C.

Businesses, churches, farms, and residences are located along the project corridor. These community resources and residences currently have unrestricted access to the roadway. In some instances, unrestricted access can lead to reduced traffic efficiency and decreased capacity.

The 2007 traffic counts were used as existing volumes and traffic volumes were determined for year 2013 as construction year volume, year 2023 for 10 year volume and year 2033 for design year volume. Existing Average Daily Traffic (ADT) counts along U.S. 30 within the limits of the project area ranges from 4000 vehicles per day within the segment east of the intersection of Emerson Road to 10,200 vehicles per day in the segment west of the IL 78 south intersection in Morrison. **Table 2** on Page 8 shows the average daily traffic volumes for all the segments within the study area as counted in 2007 and as projected for years 2013, 2023 and 2033.

Key elements of the highway’s capacity were provided by IDOT for side-road locations, speed zones within the study area, and no-passing zone information (as shown in **Exhibit #2**). This data along with the history of traffic volumes within the segments of the roadway as shown in the attached graphs (**Exhibit #3**) and ADT and Truck Volume maps (**Exhibit #4**) were used to project the traffic demands. The projections were derived based on average growth rates from the traffic data within the segments utilizing an exponential growth rate trend line with a minimum growth rate of ½ of 1 percent. The segment projection maps are in the attached **Exhibit #5**.

The existing and projected demand is shown in **Table 2** for each segment. HCS software, based on methodology in the Federal Highway Administration's Highway Capacity Manual, was utilized to determine the Level of Service of the segments. The HCS segment analysis is included in **Exhibit #6**.

IDENTIFIED TRAFFIC NEEDS

As a result of this analysis both existing and projected Levels of Service, for many of the segments within the study area, show that there is a demand above the acceptable minimum levels (as depicted in red on **Table 3**). While traffic projections differ from projections made in the previously completed Corridor Study Report (primarily because additional demand from proposed development had not been included therein), this analysis concurs with the report in that a need for capacity improvements are present on U.S. 30. Demands will exceed the acceptable levels in segments north of Morrison for at least ten years prior to the design year. At both the present and projected years of study acceptable levels are exceeded in Morrison. And an acceptable level is exceeded in the design year from the intersection of US 30 with IL 136 (at the west end of the study area) through Morrison to Sawyer Rd and additionally a segment between Morrison and Emerson Rd. In summary, without improvements along U.S. Route 30 increased traffic demands will continue to deteriorate the roadway to a poor level of service for most of the alignment between its intersection with IL Route 136 and its intersection with the Interstate 88 connector at Moline Road by the year 2033.

The existing alignment of U.S. 30 is not ideal for designation as a Class II Truck Route due to the lack of access control, noise, and low speed limit in the City of Morrison. But the overall need within the segment, which includes large truck dependant facilities such as the Walmart Distribution Center, The Land Fill Facility, and other Industrial Developments in the corridor, require the designation as such.

CRASH INFORMATION

Traffic Accident data for the five years from the years 2002 to 2006 was compiled and used as a basis for analyzing the crashes within the study area. This data included the date, location, type, severity, lighting condition, roadway surface condition, presence of traffic control, number of injuries or fatalities, and various other factors for each crash.

The data was organized and analyzed by year, location, crash type, pavement condition, and crash severity within the area in order to discern patterns and subsequent needs to address these concerns. A total of 568 crashes were documented between 2002 and 2006 within the study area.

5% Selected Segments

An investigation of crash data maps provided by the Illinois Department of Transportation for the period from 2002 to 2006 revealed that there were two 5%

Selected Segments within the project limits. These were located at the intersection U.S. 30 with IL 136 and Frog Pond Road (at the west limits of the project study area) and at the intersection of U.S. 30 with IL 40 (at the east limits of the project study area). These two intersections had a total of ninety-one accidents over the five-year period with sixty-two injuries and one fatality.

The Intersection of U.S. 30 with IL Route 136 and Frog Pond Road is a four-legged intersection with no stop conditions on the eastbound and westbound legs of U.S. Route 30. At this location U.S. 30 has a two lane rural design with one lane in each direction and an additional right turn lane built in both the east bound and west bound directions. There are stop signs and advanced warning signs and flashers on the northbound leg of Frog Pond Rd. and on the southbound leg of IL Route 136. A total of fourteen crashes occurred during the five year study period at this location resulting in eighteen injuries and one fatality. The predominant crash types at this intersection included five angle (36%) and five turning (36%). None of the crashes (0%) occurred during wet pavement conditions. Three of the crashes (21%) occurred at night and two crashes (14%) occurred at dusk. Factors that may contribute to these crashes include a need for improved visibility or corner radii for northbound or southbound turning vehicles entering mainline U.S. 30 from the intersecting side-road, poor capacity on mainline which likely results in insufficient gaps for vehicles trying to make left turns, signing may need to be installed/improved east and west of the intersection to warn motorists of the upcoming intersection and thus, the potential for stopped or slowed vehicles. A fixed object crash at this location may also indicate a need to remove hazards from the clear-zone.

The U.S. 30 and IL 40/1st Avenue Intersection in the City of Rock Falls is a signalized intersection. At this location U.S. 30 has a typical urban design and is a four-lane highway with two lanes in each direction. It was built with both east and westbound left-turn lanes and east and westbound right-turn lanes. A total of seventy-seven crashes occurred at this location during the five-year study period resulting in a total of forty-four injuries and no fatalities. It was identified by the Illinois Department of Transportation as a High Accident Location and a safety improvement is currently funded. The predominant crash types at this intersection were found to be thirty-four rear end (44%) and thirty-three turning (43%) crashes. Twelve crashes (16%) occurred during wet pavement conditions and nineteen crashes (25%) occurred at night. Factors that may contribute to these crashes could include a need to increase turn lane length, a need to improve signal timing and/or signal interconnect timing.

Corridor Crash Summary

Of the 568 crashes analyzed during the current study period, 163 crashes (28.5%) resulted in injuries. A total of 275 injuries were reported as a result of these crashes. Crash Severity refers to the severity of the injuries resulting from the crash. The severity for each crash is assigned a letter A, B, C or K as shown in **Table 4**.

TABLE 4 – Crash Severity

Injury Type	Description
A	Crash involving one or more disabling injury. This is the most severe injury classification where there has not been a fatality.
B	Indicates a crash involving one or more serious, but no disabling injuries have occurred.
C	Indicates only minor injuries have occurred.
K	Crash in which a fatality occurs.

One “K”-severity crash (fatality) occurred during this period. A review of Illinois Traffic Crash Reports revealed that a total of forty-one “A”-severity crashes (7.2%) occurred during the current study period. The remaining 121 crashes with injuries reported were “B” and “C”-severity crashes. The other 408 non-injury crashes involved property damage only. A comparison of injuries by severity is provided in **Table 8**. A comparison of all crashes by maximum injury severity (including non-injury crashes) is also provided in **Table 9**.

A total of 568 crashes occurred during the study period from 2002 through 2006. There were 122 crashes in 2002, 103 crashes in 2003, 98 crashes in 2004, 137 in 2005, and 108 in 2006. The majority type of crashes observed along the study corridor was rear end. A total of 166 rear end crashes occurred during the five-year study period representing 29.2% of the total crashes. Turning crashes were the second highest type with 112 occurrences representing 19.7% of the total crashes. Other notable types of crashes occurring were animal, angle, and fixed object representing 15.5%, 10.9%, and 10.6% of the total respectively. The remaining crash types during the study period were sideswipe same direction(2.8%), other object (2.5%), overturned (1.9%), sideswipe opposite direction (2.1%), other non collision (1.9%), head on (1.1%), parked vehicle (0.5%), pedestrian (0.5%), unknown (0.5%), and pedal cyclist (0.2%). A break-down of crashes by type is provided in **Table 5**.

A total of sixty-seven wet pavement crashes occurred during the study period representing 11.8% of the total crashes. 433 crashes occurred during dry conditions (76.2%). The wet to dry pavement crash ratio was 0.16:1. Thirty-two crashes (5.6%) occurred during snow or ice surface conditions. The remaining thirty-six crashes (6.3%) reported did not state the surface condition. No wet pavement cluster sites exist within the limits of this project. A break-down of crashes by surface condition is provided in **Table 6**.

A break-down of crashes by light condition is provided in **Table 7**. This table shows a 358 of the 568 crashes occurred during daylight hours (63% of the total). There were a total of 176 nighttime crashes (31%). The remaining thirty-four crashes (6.0%) occurred at dawn or dusk. The night/day crash ratio for the study period is 0.50:1.

This project includes twelve major intersections. Of the major intersections, six are signalized intersections, two have a four-way stop condition, three have a two-way stop

condition and two three-legged intersections have a 1-way stop condition. Of the 568 crashes analyzed within the project limits during the study period, 242 (42.6%) occurred within 100 feet of these major intersections.

Traffic Analysis Summary

As a result of the traffic projections and the crash analysis, a clear concern can be seen in regard to the overall traffic safety along U.S. 30. The traffic demands within the corridor are either at or exceed the maximum acceptable levels for most of the section of study. The roadway designation as a Class II truck route is needed but places further concerns on safety. Almost half of the Crashes in the corridor involved either rear-end or turning type collisions suggesting traffic congestion along the roadway is the critical concern. This is supported by the fact that over forty percent of the crashes in the section were at or very near the twelve major intersections found therein. As industrial development in the corridor continues to grow, a subsequent increase in the truck volumes can greatly increase the severity of the crashes. So in conclusion, if no improvements are made to U.S. 30, safety within the corridor will continue to deteriorate as further demands are placed on the section and the traffic volumes continue to grow.

Table 2

Existing and Projected AADT Volumes

US 30

between IL 136 and IL 40 in Whiteside County

Segment Location	AADT Volumes			
	Existing 2007	Construction Year 2013	10 Year 2023	Design Year 2033
US 30 (4.02 to 6.70) (IL 136 to Millard Rd.)	6200	6,900	7,300	7,900
US 30 (6.70 to 11.18) (Millard Rd. to IL 78 North)	6000	6,900	7,600	8,400
US 30 & IL 78 (11.18 to 12.20) (IL 78 North to Heaton Rd.)	7400	8,100	8,700	9,400
US 30 & IL 78 (12.20 to 12.69) (Heaton St. to IL 78 South)	10200	10,500	11,000	11,600
US 30 (12.69 to 13.11) (IL 78 (Cherry St.) to Jackson St.)	8800	9,100	9,500	10,000
US 30 (13.11 to 13.51) (Jackson St. to Sawyer Rd.)	9000	9,400	10,700	12,200
US 30 (13.51 to 15.05) (Sawyer Rd. to Lyndon Rd.)	7800	8,000	8,400	8,900
US 30 (15.05 to 17.66) (Lyndon Rd. to Round Grove Rd.)	7100	7,300	7,700	8,100
US 30 (17.66 to 20.78) (Round Grove Rd. to Emerson Rd.)	7200	7,300	7,800	8,300
US 30 (20.78 to 22.31) (Emerson Rd. to Mathew Rd.)	4000	4,700	5,300	6,000
US 30 (22.31 to 23.03) (Mathew Rd. to Moline Rd.)	5,800	5,400	6,500	7,800
US 30 (23.03 to 24.11) (Moline Rd. to Como Rd.)	6000	6,600	7,900	9,400
US 30 (24.11 to 25.53) (Como Rd. to Riverdale Rd.)	5500	5,700	6,000	6,300
US 30 (25.53 to 26.34) (Riverdale Rd. to Prophetstown Rd.)	6500	6,800	7,100	7,500
US 30 (26.34 to 27.85) (Prophetstown Rd. to IL 40 (1st Ave.))	13400	13,900	14,700	15,400

Table 3

Existing and Projected Level of Service

Existing US 30 between IL 136 and IL 40 in Whiteside County				
Segment Location	Level of Service			
	Existing 2007	Construction Year 2013	10 Year 2023	Design Year 2033
US 30 (4.02 to 6.70) (IL 136 to Millard Rd.)	C	C	C	D
US 30 (6.70 to 11.18) (Millard Rd. to IL 78 North)	C	C	D	D
US 30 & IL 78(11.18 to 12.20) (IL 78 North to Heaton Rd.)	E	E	E	E
US 30 & IL 78 (12.20 to 12.69) (Heaton St. to IL 78 South)	E	E	E	E
US 30 (12.69 to 13.11) (IL 78 (Cherry St.) to Jackson St.)	E	E	E	E
US 30 (13.11 to 13.51) (Jackson St. to Sawyer Rd.)	E	E	E	E
US 30 (13.51 to 15.05) (Sawyer Rd. to Lyndon Rd.)	C	C	D	D
US 30 (15.05 to 17.66) (Lyndon Rd. to Round Grove Rd.)	C	C	C	C
US 30 (17.66 to 20.78) (Round Grove Rd. to Emerson Rd.)	C	C	D	D
US 30 (20.78 to 22.31) (Emerson Rd. to Mathew Rd.)	C	C	C	C
US 30 (22.31 to 23.03) (Mathew Rd. to Moline Rd.)	C	C	C	C
US 30 (23.03 to 24.11) (Moline Rd. to Como Rd.)	B	C	C	C
US 30 (24.11 to 25.53) (Como Rd. to Riverdale Rd.)	B	B	B	B
US 30 (25.53 to 26.34) (Riverdale Rd. to Prophetstown Rd.)	C	C	C	C
US 30 (26.34 to 27.85) (Prophetstown Rd. to IL 40 (1st Ave.)	A	A	A	A

Table 5

Crashes By Type							
Crash Type	Year					Total	%
	2002	2003	2004	2005	2006		
Rear End	31	28	33	46	28	166	29.2%
Turning	27	22	14	23	26	112	19.7%
Animal	17	15	16	17	23	88	15.5%
Angle	17	13	10	15	7	62	10.9%
Fixed Object	14	9	8	16	13	60	10.6%
Sideswipe Same Direction	3	4	2	4	3	16	2.8%
Other Object	0	5	3	5	1	14	2.5%
Overturned	2	1	5	2	1	11	1.9%
Sideswipe Opposite Direction	2	4	2	3	1	12	2.1%
Other Non Collision	5	1	3	1	1	11	1.9%
Headon	2	0	1	1	2	6	1.1%
Parked Car	0	0	0	2	1	3	0.5%
Pedestrian	1	0	0	1	1	3	0.5%
Unknown	1	0	1	1	0	3	0.5%
Pedicyclist	0	1	0	0	0	1	0.2%
Total	122	103	98	137	108	568	100.0%

Table 6

Crashes By Surface Condition							
Crash Type	Year					Total	%
	2002	2003	2004	2005	2006		
Dry	98	81	75	97	82	433	76.2%
Wet	11	10	11	20	15	67	11.8%
Snow/Ice/Sleet	6	5	6	11	4	32	5.6%
Not Stated	7	7	6	9	7	36	6.3%
Total	122	103	98	137	108	568	100.0%

Table7

Crashes By Light Condition							
Crash Type	Year					Total	%
	2002	2003	2004	2005	2006		
Day	82	61	62	85	68	358	63.0%
Night	28	34	27	50	37	176	31.0%
Dusk/Dawn	12	8	9	2	3	34	6.0%
Total	122	103	98	137	108	568	100.0%

Table 8

Injuries By Severity* (Excluding Non-Injury Crashes)							
Injury Severity	Year					Total	%
	2002	2003	2004	2005	2006		
"K" (fatalities)	1	0	0	0	0	1	0.4%
"A" injuries	17	15	24	17	12	85	30.9%
"B"+"C" injuries	42	32	43	36	36	189	68.7%
Total	60	47	67	53	48	275	100.0%

* Chart reflects all injuries in crash as max. injury listed or type "A" injury for others injured in crash listed with fatality.

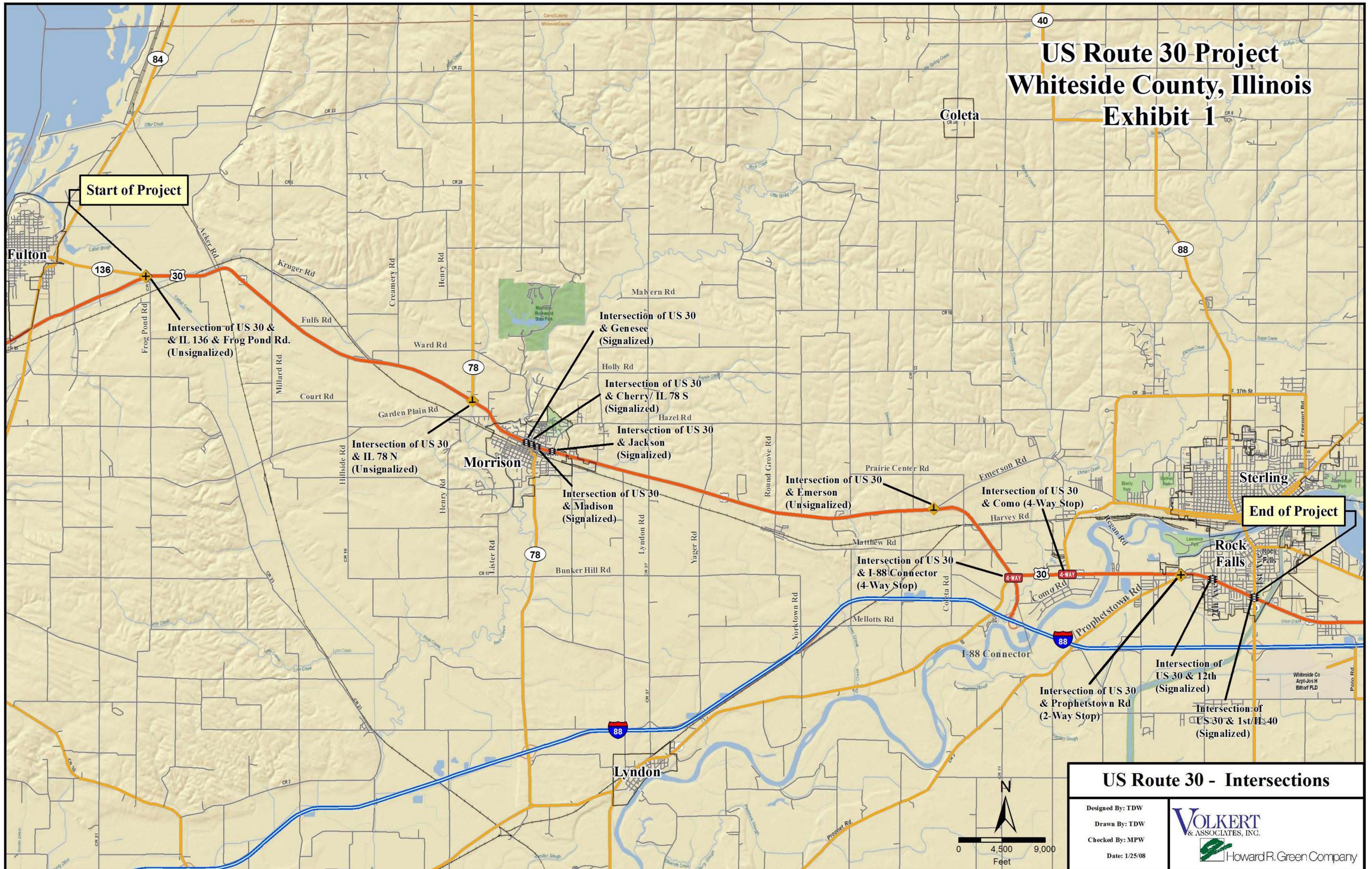
Table 9

Crashes By Maximum Injury Severity (All Crashes Included)							
Crash Type	Year					Total	%
	2002	2003	2004	2005	2006		
"K" (fatalities)	1	0	0	0	0	1	0.2%
"A" injuries	9	8	13	7	4	41	7.2%
"B"+"C" injuries	29	20	26	26	20	121	21.3%
No Injuries	83	75	59	104	84	405	71.3%
Total	122	103	98	137	108	568	100.0%

EXHIBIT 1

PROJECT LOCATION MAP

US Route 30 Project Whiteside County, Illinois Exhibit 1



US Route 30 - Intersections	
Designed By: TDW	 
Drawn By: TDW	
Checked By: MPW	
Date: 1/25/08	

EXHIBIT 2

**MILEPOST, SPEED ZONE, &
NO-PASSING ZONE DATA**

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF TRAFFIC SAFETY
SAFETY ROUTE LOG REPORT FOR 2003
WHITESIDE COUNTY (098)
1030

MUNICIPALITY	STREET	CC	CO	AC	TW	UL	CL	MILE	STR	RD	INTR	FR	ROUTE	REFERENCE	NH	C	#	T
		RT	UP	CT	SP			STA.	END						FC	T	LN	C
	CLINTON RD	1	07					000.00*						A-IOWA ST LN	13	2	02	N
	CLINTON RD	1						000.50	000.01	02				MISSISSIPPI RIVER	13	2	02	
														GATEWAY BRIDGE				
	CLINTON RD	1						000.64	000.72	02				SUNFISH SLOUGH	13	2	02	
	CLINTON RD	1						000.89	000.92	02				UNION PACIFIC RR	13	2	02	
FULTON	CLINTON RD	1						BC 000.92*							13	2	02	
2075	CLINTON RD	1						C 000.98	001.02	02				LINCOLN ST/DAKIN RD ---	13	2	02	N
														A-(LINCOLN ST)				
2075	CLINTON RD	1						C 001.07						R-TR 0016	13	2	02	0
2075	CLINTON RD	1						C 001.08						R-FAP 0309 RAMP	13	2	02	0
														L-8016				
2075	CLINTON RD	1						C 001.45										
2075	CLINTON RD	1						C 001.46						A-ILL 084	13	2	02	2
2075	CLINTON RD	1						EC 001.47										
	CLINTON RD	1						001.48						L-ELSTON RD	13	2	02	
	CLINTON RD	1						001.87						L-TR 0034	13	2	02	1
	CLINTON RD	1						002.40						A-TR 0042	13	2	02	1
	CLINTON RD	1						002.94						A-TR 0056	13	2	02	1
	LINCOLN RD	1						004.02						L-FULTON RD ---	13	2	02	1
														L-FAP 0565				
	LINCOLN RD	1						004.05										
	LINCOLN RD	1						004.62	004.63	02				CATTAIL CREEK	13	2	02	
	LINCOLN RD	1						004.81						C & NW RAILROAD	13	2	02	
	LINCOLN RD	1						004.98										
	LINCOLN RD	1						005.34						L-TR 0074	13	2	02	1
	LINCOLN RD	1						005.39						BN RR	13	2	02	
	LINCOLN RD	1						006.70						A-TR 0098	13	2	02	1
	LINCOLN RD	1						007.32										
	LINCOLN RD	1						007.34						L-(FRANKS RD)	13	2	02	1
	LINCOLN RD	1						008.51						L-TR 0081 A	13	2	02	1
	LINCOLN RD	1						008.73						R-(DEHLI RD)				
	LINCOLN RD	1						008.93	008.98	02				R-TR 0112	13	2	02	1
	LINCOLN RD	1						009.21						L-FAP 0309 FRRD	13	2	02	1
	LINCOLN RD	1												C & NW RAIL ROAD	13	2	02	
	LINCOLN RD	1												L-8409 CH 5	13	2	02	1
	LINCOLN RD	1						009.57										
	LINCOLN RD	0						011.18						L-(EADS RD)	13	2	02	1
	LINCOLN RD	0						011.51						L-TR 0126	13	2	02	1
	LINCOLN RD	0												L-ILL 078				
	LINCOLN RD	0												L-FAP 0642				
	LINCOLN RD	0												L-8006				
	LINCOLN RD	0												L-HARMONY ST				
	LINCOLN RD	0												L-SEI 0006 C				

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF TRAFFIC SAFETY
SAFETY ROUTE LOG REPORT FOR 2003
WHITESIDE COUNTY (098)
1030

MUNICIPALITY	STREET	CC	CO	AC	TW	UL	CL	MILE	STR	RD	INTR	FR	ROUTE	REFERENCE	NH	C	#	T
		RT	UP	CT	SP	UL	CL	STA	END						FC	T	LN	C
	LINCOLN RD	0	21					011.53					R-LIBERTY ST	R-TR 0593	13	2	02	1
	LINCOLN RD	0						011.63		14	80061		L-UNION ST	L-8006	13	2	02	1
	LINCOLN RD	0						011.64		14	81961		A-GARDEN PLAIN RD	A-8196 1380E CH 14	13	2	02	1
	LINCOLN RD	0						011.76	011.78	02			R-FAS 0196	L-TR 0594	13	2	02	
MORRISON	LINCOLN WAY	0					BC	011.77*					0980053	ROCK CREEK	13	2	02	
3850	LINCOLN WAY	0					C	011.84					L-CITY ST		13	2	02	1
3850	LINCOLN WAY	0					C	011.86	011.87	02			0982001	STREAM	13	2	02	
3850	LINCOLN WAY	0	15				C	011.91							13	2	02	
3850	LINCOLN WAY	0					C	011.93					L-HILLDALE DR		13	2	02	1
3850	LINCOLN WAY	0					C	012.12					L-LINCOLN W CT	L-700W LINCOLN W CT W	13	2	02	1
3850	LINCOLN WAY	0					C	012.19					L-LINCOLN W CT	N-LINCOLN W CT E	13	2	02	1
3850	LINCOLN WAY	0					C	012.20					R-HEATON ST	R-600W	13	2	02	1
3850	LINCOLN WAY	0					C	012.26					L-OLIVE ST		13	2	02	1
3850	LINCOLN WAY	0					C	012.34					R-HALL ST	R-500W	13	2	02	1
3850	LINCOLN WAY	0					C	012.41					A-GRAPE ST	A-400W	13	2	02	1
3850	LINCOLN WAY	0					C	012.48					A-ORANGE ST	A-300W	13	2	02	1
3850	LINCOLN WAY	0					C	012.56					A-BASE ST	A-200W	13	2	02	1
3850	LINCOLN WAY	0					C	012.62					A-GENESEE ST		13	2	02	1
3850	LINCOLN WAY	0					C	012.69		14	5078		R-CHERRY	R-ILL 078	13	2	02	8
	LINCOLN WAY	0					C	012.76					R-FAP 0022		13	2	02	8
3850	LINCOLN WAY	0					C	012.84					A-MADISON ST		13	2	02	1
3850	LINCOLN WAY	0					C	012.92					R-CLINTON ST	R-400E	13	2	02	1
	LINCOLN WAY	0					C						R-OAKLAND AV	N-BARTLETT	13	2	02	1
	LINCOLN WAY	0					C						R-500E		13	2	02	1
3850	LINCOLN WAY	0					C	013.11					A-JACKSON ST	A-600E	13	2	02	1
3850	LINCOLN WAY	0					C	013.47					L-SCENIC ST	L-700E	13	2	02	1
3850	LINCOLN WAY	1					C	013.51					R-SAWYER RD		13	2	02	1
3850	LINCOLN WAY	1					C	013.54					L-SYCAMORE ST		13	2	02	1
3850	LINCOLN WAY	1					EC	014.01					L-BISHOP/GROVE		13	2	02	1
	LINCOLN RD	1						014.02							13	2	02	
	LINCOLN RD	1						014.27	014.28	02				FRENCH CREEK	13	2	02	
	LINCOLN RD	1						014.54						R-(OAK RD)	13	2	02	1
	LINCOLN RD	1											R-FELDMAN RD		13	2	02	1
	LINCOLN RD	1											R-TR 0170		13	2	02	1
	LINCOLN RD	1						015.05		13			A-LYNDON RD	A-(MT CARROLL RD)	13	2	02	1
	LINCOLN RD	1						016.19					A-1700E CH 7	A-FAS 0076	13	2	02	1
	LINCOLN RD	1											A-YAGER RD	A-(LIPPENS RD)	13	2	02	1
	LINCOLN RD	1						016.75					A-1810E	A-TR 0188	13	2	02	1
	LINCOLN RD	1						017.66					L-PRAIRIE HILL RECYCL		13	2	02	1
	LINCOLN RD	1								14	81191		A-ROUND GROVE RD	A-8119 1950E	13	2	02	1
	LINCOLN RD	1	10					018.16					R-CH 0016	L-TR 0208	13	2	02	1
	LINCOLN RD	1											L-YORKTOWN RD	L-(WILLOW RD)	13	2	02	1
	LINCOLN RD	1											L-2000E	L-TR 0212	13	2	02	1
	LINCOLN RD	1						018.80					L-WHITE OAKS RD	L-TR 0667	13	2	02	1
	LINCOLN RD	1						019.06	019.08	02			0980108	DEER CREEK	13	2	02	
	LINCOLN RD	1	10					019.14					L-BLUE GOOSE RD	L-(HARDING RD)	13	2	02	1
	LINCOLN RD	1											T-2100E	L-TR 0224	13	2	02	1

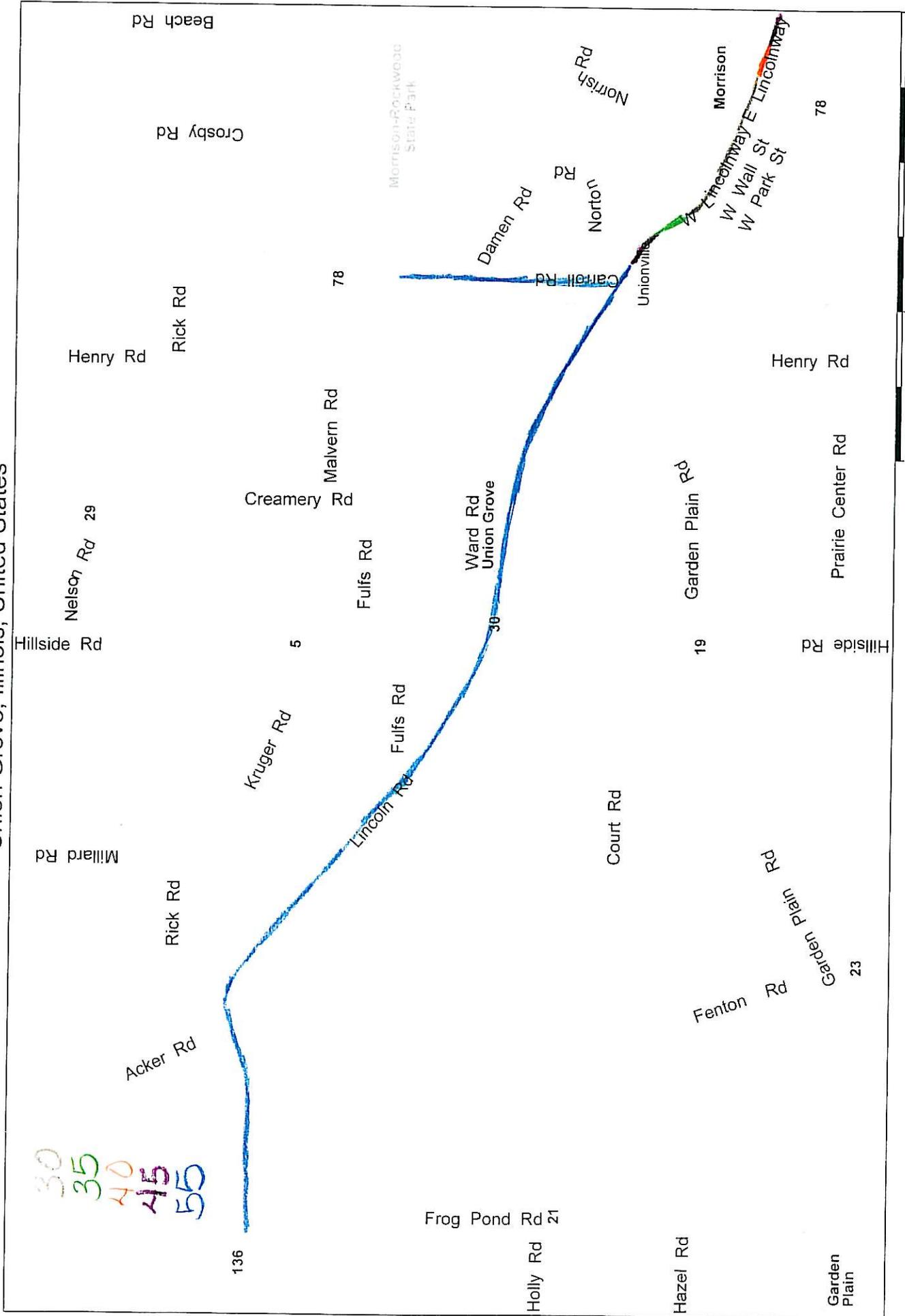
ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF TRAFFIC SAFETY
SAFETY ROUTE LOG REPORT FOR 2003
WHITESIDE COUNTY (098)
1030

MUNICIPALITY	STREET	CC	CO	AC	TW	RT	UP	CT	SP	UL	CL	MILE	STR	RD	INTR	REFERENCE	REFERENCE	NH	C	#	T
												STA	END	FR	ROUTE			13	2	02	1
	LINCOLN RD	1			1	1						020.15				R-MATZNIK RD	R-2200E	13	2	02	1
	LINCOLN RD	1			1							020.39		13		R-TR 0242	L-CH 33	13	2	02	1
	LINCOLN RD	1			1							020.78		13		L-HABBEEN RD	L-FAS 0190	13	2	02	1
	LINCOLN RD	1			1							021.40				L-PAS 0192	A-TR 0119	13	2	02	1
	LINCOLN RD	1			1							021.65	021.70	02		A-AGNEW RD	C&NW RR & TR 131	13	2	02	
	LINCOLN RD	1			1							021.80				0980099	A-TR 0131	13	2	02	1
	LINCOLN RD	1			1							022.31				A-HARVEY RD	R-TR 0131 A	13	2	02	1
	LINCOLN RD	1			1							022.78				R-AGNEW-OV'PASS RD	R-TR 0141	13	2	04	1
	ROCK FALLS RD	1			1							023.03		14	82021	R-MATHEW RD	R-TR 0141	05	2	04	4
	ROCK FALLS RD	1			1							023.22				R-MOLINE RD	A-8202				
	ROCK FALLS RD	1			1							023.28	023.28	02		H-FAP 0309	H-FAP 0309	05	2	02	
	ROCK FALLS RD	1			1							023.38	023.40	02		STREAM	STREAM	05	2	02	
	ROCK FALLS RD	1			1							023.45	023.53	02		ELKHORN CREEK	ELKHORN CREEK	05	2	02	
	ROCK FALLS RD	1			1							024.11		14	81021	0980033	ELKHORN CREEK	05	2	02	
	ROCK FALLS RD	1			1							024.35				A-8102	R-COMO RD	05	2	02	2
	ROCK FALLS RD	1			1							024.61				L-GALT RD	L-FAS 1197	05	2	02	1
	ROCK FALLS RD	1			1							024.74	024.95	02		R-SBI 0086	R-KICKAPOO LN / TR 71	05	2	02	1
	ROCK FALLS RD	1			1							025.04				R-KICKAPOO LN	R-KICKAPOO LN / TR 71	05	2	02	1
	ROCK FALLS RD	1			1							025.53				R-TR 0714	R-(INDIAN RIDGE)	05	2	02	1
	ROCK FALLS RD	1			1							025.79				R-LAWRENCE DR		05	2	02	1
	ROCK FALLS RD	1			1							026.00				R-TR 0508 A		05	2	02	1
	ROCK FALLS RD	1			1							026.03				0980034	ROCK RIVER	05	2	02	1
	ROCK FALLS RD	1			1							026.14				A-REGAN RD	A-TR 0149	05	2	02	1
	ROCK FALLS RD	1			1							026.23				R-RIVERDALE RD	N-STERLING URBAN LTS	04	6	02	1
	ROCK FALLS RD	1			1							026.34				R-TR 0282		04	6	02	1
	ROCK FALLS RD	1			1							026.43				R-HICKORY HILL RD	R-TR 0282 B	04	6	02	1
	ROCK FALLS RD	1			1							026.77				L-ANIXTER ST	L-TR 0406	04	6	02	1
	ROCK FALLS RD	0			0							026.85				R-LENORE ST	R-TR 0404	04	6	02	
	ROCK FALLS RD	0			0							026.95				L-PROPHETSTOWN RD	R-TR 0404	04	6	02	1
	ROCK FALLS RD	0			0							026.99				A-CH 3	L-TR 0406	04	6	02	
	ROCK FALLS RD	0			0							027.05				R-14 TH AVE	R-TR 0404	04	6	02	
	ROCK FALLS RD	0			0							027.14		22		R-FAU 5570	R-TR 0404	04	6	04	1
	ROCK FALLS RD	0			0							027.22				R-13TH AV	A-FAU 5561	04	6	04	1
	ROCK FALLS RD	0			0							027.22				A-12TH AVE	R-BUELL RD	04	6	04	1
	ROCK FALLS RD	0			0							027.05				R-FLOCK AV	A-FAU 5571	04	6	04	8
	ROCK FALLS RD	0			0							027.14				A-11TH AV		04	6	04	1
	ROCK FALLS RD	0			0							027.14				A-10TH AV		04	6	04	1
	ROCK FALLS RD	0			0							027.22				A-9TH AV		04	6	04	1

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF TRAFFIC SAFETY
SAFETY ROUTE LOG REPORT FOR 2003
WHITESIDE COUNTY (098)
1030

MUNICIPALITY	STREET	CC	CO	AC	TW	MILE	STR	RD	INTR	FR	ROUTE	REFERENCE	NH C #	T
4960	ROCK FALLS RD	0	03	U	C	027.31	13			R-8TH AVE	N-8TH AVE S	04 6 04 1		
4960	ROCK FALLS RD	0	U	C	027.32	13				L-8TH AVE	N-8TH AVE N	04 6 04 1		
4960	ROCK FALLS RD	0	U	C	027.38					L-7TH AV	N-7TH AV N	04 6 04 1		
4960	ROCK FALLS RD	0	U	C	027.41					R-7TH AV	N-7TH AV S	04 6 04 1		
4960	ROCK FALLS RD	0	U	C	027.48					R-6TH AV		04 6 04 1		
4960	ROCK FALLS RD	0	U	C	027.54					R-5TH AV		04 6 04 1		
4960	ROCK FALLS RD	0	U	C	027.60					R-4TH AV		04 6 04 1		
4960	ROCK FALLS RD	0	U	C	027.68					A-3RD AV		04 6 04 1		
4960	ROCK FALLS RD	0	U	C	027.77					A-2ND AV		04 6 04 1		
4960	ROCK FALLS RD	0	U	C	027.85	14	5040			A-1ST AVE	N-LINDY AVE	04 6 04 1		
										A-FAP 0646	A-ILL 040	04 6 04 8		
4960	ROCK FALLS RD	0	U	C	027.94					0980098	I&M FEEDER CANAL	04 6 02		
4960	ROCK FALLS RD	0	U	C	028.08	028.10	02					04 6 02		
4960	ROCK FALLS RD	0	U	EC	028.12							04 6 02		
	ROCK FALLS RD	0	U		028.13							04 6 02		
	ROCK FALLS RD	0	U		028.15					A-ACCESS RDS		04 6 02 0		
	ROCK FALLS RD	0	U		028.34					L-NEW HIGH ST	L-TR 0574 A	04 6 02 1		
	ROCK FALLS RD	0	U	BC	028.40							04 6 02		
	ROCK FALLS RD	0	U	C	028.65	13				L-EMMONS AVE	L-(INDUSTRIAL RD)	04 6 02 1		
										L-2975E	L-FAU 5584	04 6 02 1		
	ROCK FALLS RD	0	U	EC	028.74							04 6 02		
	ROCK FALLS RD	0	U		028.75							04 6 02		
	ROCK FALLS RD	0	U		029.19	13				A-MC NIEL RD	R-TR 0310 D	04 6 02 1		
										L-FAU 5587				
	ROCK FALLS RD	0	U		029.34					R-KAUFFMAN ST	R-TR 0599	04 6 02 1		
	ROCK FALLS RD	0	U		029.41					R-YEOWARD ST.	R-TR 0600	04 6 02 1		
	ROCK FALLS RD	0	U		029.47					R-WALNUT ST	R-TR 0600 A	04 6 02 1		
	ROCK FALLS RD	0	U		029.55					R-PINE ST	R-TR 0600 B	04 6 02 1		
	ROCK FALLS RD	0	U		029.61					L-MAPLE LN	L-TR 0600 D	04 6 02 1		
	ROCK FALLS RD	0	U		029.62					R-SPRUCE ST	R-TR 0600 C	04 6 02 1		
	ROCK FALLS RD	0	U		029.94							05 2 02 N		
	ROCK FALLS RD	1	U		029.98							05 2 02		
	ROCK FALLS RD	1	U		030.36					L-MELVIN RD	L-CH 0031	05 2 02 1		
	ROCK FALLS RD	1	U		030.48	18	9088B			L-I88WB TO US30	R-US30 TO I88WB	05 2 02 1		
										A-9088	R-FAI 0088 RAMP			
	ROCK FALLS RD	1	U		030.61	030.67	02	9088		L-FAI 0088 RAMP	I-88	05 2 02		
	ROCK FALLS RD	1	U		030.78	18	9088E			L-US30 TO I88E	R-I88EB TO US30	04 2 02 1		
										A-9088	R-FAI 0088 RAMP			
					030.93*					L-FAI 0088 RAMP				
										WHITESIDE / LEE CO LINE				
										R-CH 0034				

Union Grove, Illinois, United States



	8.25	8.35	0.1			0	
	8.98	9.85	0.87	8.82	9.62	0.8	
	10.21	10.36	0.15	10.06	10.18	0.12	
12.27			0			0	
			34.41			35.66	MCHENRY COUNTY LINE
0			0			0	70.07 MILES
1.12	0.57	1.11	0.54	0.38	1.11	0.73	FALCONER ROAD
			0			0	WELDON ROAD
13.14			0			0	TOTAL 1.27 MILE
			0			0	LYFORD ROAD
	13.21	13.38	0.17			0	
14.16	13.78	0.08	0.46	13.58	14.07	0.49	BOONE COUNTY LINE
	0.31	0.56	0.25	0.16	0.4	0.24	
	0.93	1.18	0.25	0.74	1.15	0.41	
	1.58	2.39	0.81	1.4	2.23	0.83	
	3.35	3.81	0.46	3.09	3.81	0.72	
4.78			0			0	IL 76 W. JCT.
5.86			0			0	IL 76 E. JCT.
6.75			0			0	GENOA ROAD

NO PASSING ZONES

ROUTE: US BUS 20

BEGINNING: (WEST TO EAST) AT LYFORD ROAD

WB NPZ

EB NPZ

LEFT SIDE

RIGHT SIDE

MILE	BEGIN	END	TOTAL	BEGIN	END	TOTAL	REMARKS
	6.81	7.51	0.7	6.92	7.32	0.4	
	7.74	8.03	0.29	7.55	7.81	0.26	
	8.48	8.57	0.09	8.3	8.57	0.27	
8.69			0			0	US 20
			3.48			3.62	7.10 MILES
0	0	1.04	1.04	0	1.04	1.04	IOWA STATE LINE
	1.15	1.39	0.24	1.15	1.39	0.24	
1.46			0			0	IL 84
	1.53	1.69	0.16			0	
↓	5.34	5.82	0.48	5.25	5.76	0.51	
	6.19	6.3	0.11	6	1.11	4.89	
	8.97	9.25	0.28	8.74	9.05	0.31	
	9.8	9.95	0.15	9.63	9.85	0.22	
	10.96	11.35	0.39	10.78	10.96	0.18	
	11.5	11.82	0.32	11.12	11.69	0.57	
	11.98	12.21	0.23	11.89	12.03	0.14	
12.69			0			0	IL 78 E JCT.
	13.01	13.16	0.15	12.9	13.05	0.15	
	13.28	13.42	0.14	13.17	13.28	0.11	
	13.65	14.07	0.42	13.49	13.89	0.4	
	17.65	17.85	0.2	17.51	17.68	0.17	
	18.35	18.45	0.1	18.14	18.26	0.12	
	18.84	19.05	0.21	18.69	18.86	0.17	
	19.3	19.74	0.44	19.11	19.26	0.15	
			0	19.46	19.74	0.28	
	20.78	20.95	0.17	20.61	20.81	0.2	
	21.54	22.35	0.81	21.33	22.03	0.7	
23.03			0	22.62	22.78	0.16	IL 5, MOLIN ROAD

WB NPZ

EB NPZ

26.35	23.19	23.27	0.08	26.04	26.2	0	PROPHETSTOWN ROAD-26.34
	27.96	28.24	0.28	27.96	28.13	0.16	
	29.85	29.95	0.1	29.75	29.85	0.1	IL 40 = 27.85
			0	30.16	30.37	0.21	
30.95	30.92	0.17	0.2			0	LEE COUNTY LINE
	30.92	0.17	30.75			0	
	0.85	1.12	0.27	0.65	0.94	0.29	
8.99			0	8.71	8.81	0.1	IL 26
	9.15	9.26	0.11			0	
	10.45	10.55	0.1	10.25	10.37	0.12	
15.66			0	15.36	15.47	0.11	US 30
	15.82	15.92	0.1			0	
16.95	17.25	17.35	0.1	16.92	17.14	0.22	LEE CENTER SPUR
	17.8	17.97	0.17	17.64	17.9	0.26	
	18.6	18.75	0.15	18.4	18.99	0.59	
19.42	19.02	19.15	0.13			0	PINE HILL ROAD
	19.84	20.18	0.34	19.65	19.84	0.19	
	21.79	21.99	0.2	21.72	21.93	0.21	
28.31			0	28.31	28.59	0.28	IL 251
	29.52	29.65	0.13	29.29	29.44	0.15	
	29.89	30.89	1	29.68	30.55	0.87	
32.15			0	31.77	31.87	0.1	US 51
	32.41	32.7	0.29	32.41	32.63	0.22	

NO PASSING ZONES

ROUTE: US 30

BEGINNING: (WEST TO EAST) AT IOWA STATE LINE

LEFT SIDE

RIGHT SIDE

MILE	BEGIN	END	TOTAL	BEGIN	END	TOTAL	REMARKS
	34.29	34.45	0.16	34.1	34.27	0.17	
	35.3	35.44	0.14	35.11	35.24	0.13	
35.66	35.63	0.11	0.14	35.46	0.02	0.22	DEKALB COUNTY LINE
	0.38	0.5	0.12	0.18	0.48	0.3	
	2.11	2.39	0.28	1.95	2.2	0.25	
5.06	4.08	5.23	1.15	3.97	5.07	1.1	UNIVERSITY ROAD
	6.01	6.13	0.12	5.86	6.01	0.15	
9.89			0			0	IL 23
15.16	14.95	15.21	0.26	14.77	15.21	0.44	
	16.44	16.6	0.16	16.25	16.41	0.16	
17.8			0			0	KANE COUNTY LINE
			12.78			18.4	31.18 MILES
0			0			0	KNOX COUNTY LINE
	4.25	4.36	0.11	4.1	4.2	0.1	
	5.54	5.71	0.17	5.36	5.56	0.2	
7.61			0			0	GALVA SE 2ND&5TH AVE
	8.41	8.56	0.15	8.24	8.35	0.11	
	9.88	9.98	0.1	9.72	9.82	0.1	
	11.53	11.7	0.17	11.3	11.53	0.23	
	12.08	12.36	0.28	11.9	12.08	0.18	
	12.61	12.84	0.23	12.32	12.65	0.33	
			0	13.2	13.28	0.08	

EXHIBIT 3

**TRAFFIC VOLUME GRAPHS
PREVIOUSLY GENERATED WITHIN AREA FROM
IDOT DISTRICT 2**

**ILLINOIS DEPARTMENT of TRANSPORTATION
TRAFFIC PROJECTION
YAGER RD (0.00 To 3.04)**

TO:
FROM:
DATE: 9/26/2007

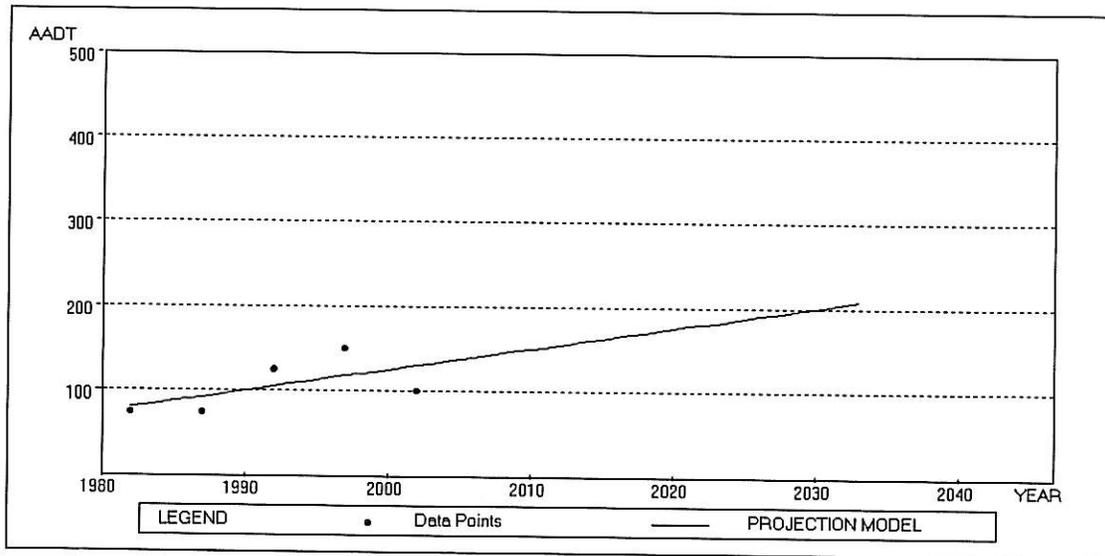
PREPARED BY:

KEY ROUTE CODE:
CURRENT AADT (2002): 100
FORECAST AADT (2033): 200
NOTE:

KEY ROUTE CODE: 70188 00000000
COUNTY NAME: Whiteside

DATA POINTS		PROJECTION	
YEAR	AADT	YEAR	AADT
2002	100	2033	200
1997	150	2028	200
1992	125	2023	175
1987	75	2018	175
1982	75	2013	150

MODEL NAME: Linear Regression
GROWTH / YEAR: 2
% AADT OF YEAR 2002: 2. %
GROWTH OVER 31 YEAR: 100
% GROWTH OVER 31 YEAR: 100.000 %



**ILLINOIS DEPARTMENT of TRANSPORTATION
TRAFFIC PROJECTION
WARD RD (0.00 To 2.19)**

TO:
FROM:
DATE: 9/26/2007

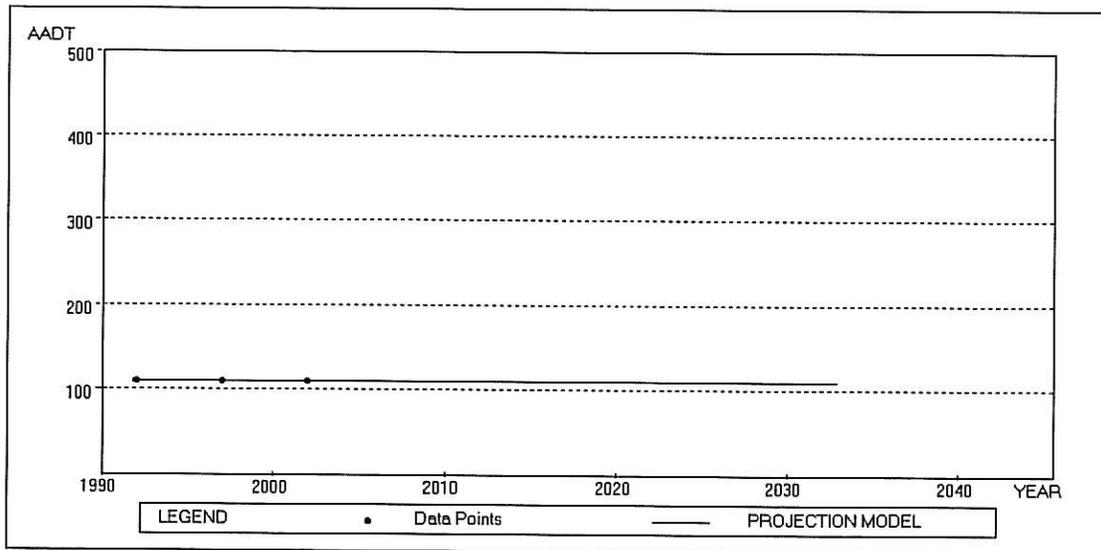
PREPARED BY:

KEY ROUTE CODE:
CURRENT AADT (2002): 109
FORECAST AADT (2033): 100
NOTE:

KEY ROUTE CODE: 70091 00000000
COUNTY NAME: Whiteside

DATA POINTS		PROJECTION	
YEAR	AADT	YEAR	AADT
2002	109	2033	100
1997	109	2028	100
1992	109	2023	100
		2018	100
		2013	100

MODEL NAME: Exponential Regression
GROWTH of YEAR 2002 :
% AADT OF YEAR 2002 : 0. %
GROWTH OVER 31 YEAR: -9
% GROWTH OVER 31 YEAR: -8.257 %



**ILLINOIS DEPARTMENT of TRANSPORTATION
TRAFFIC PROJECTION
LINCOLN RD (4.02 To 4.62)**

TO:
FROM:
DATE: 9/26/2007

PREPARED BY:

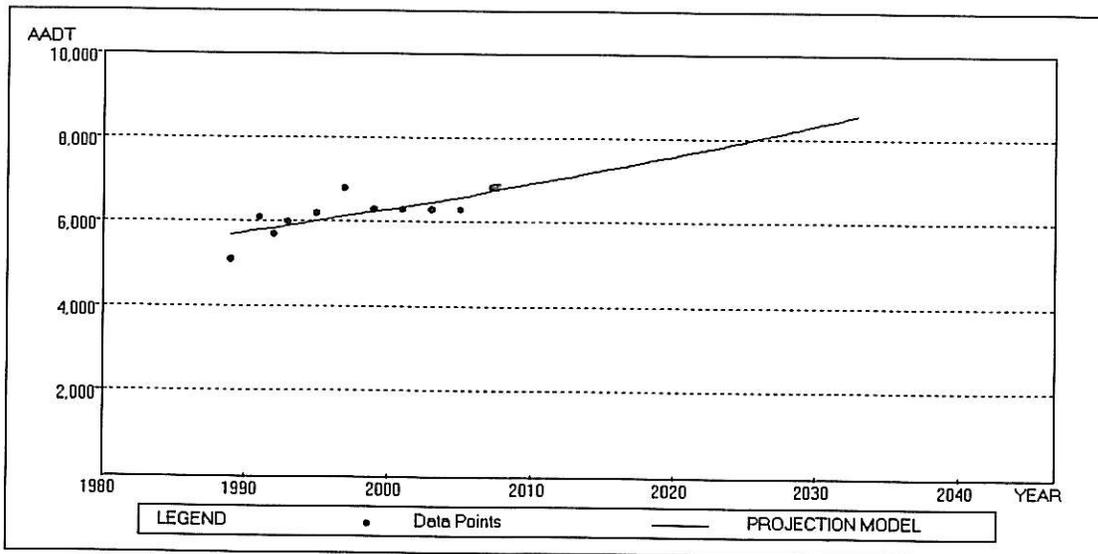
KEY ROUTE CODE:
CURRENT AADT (2005): 6,300
FORECAST AADT (2033): 8,600
NOTE:

KEY ROUTE CODE: 20309 00000000
COUNTY NAME: Whiteside

DATA POINTS PROJECTION

YEAR	AADT	YEAR	AADT
2007	6,400	2033	8,600
2005	6,300	2028	8,200
2003	6,300	2023	7,800
2001	6,300	2018	7,400
1999	6,300	2013	7,100
1997	6,800		
1995	6,200		
1993	6,000		
1992	5,700		
1991	6,100		
1989	5,100		

MODEL NAME: Exponential Regression
 GROWTH of YEAR 2005: 59
 % AADT OF YEAR 2005: 0.932 %
 GROWTH OVER 28 YEAR: 2,300
 % GROWTH OVER 28 YEAR: 36.508 %



**ILLINOIS DEPARTMENT of TRANSPORTATION
TRAFFIC PROJECTION
LINCOLN RD (6.70 To 8.93)**

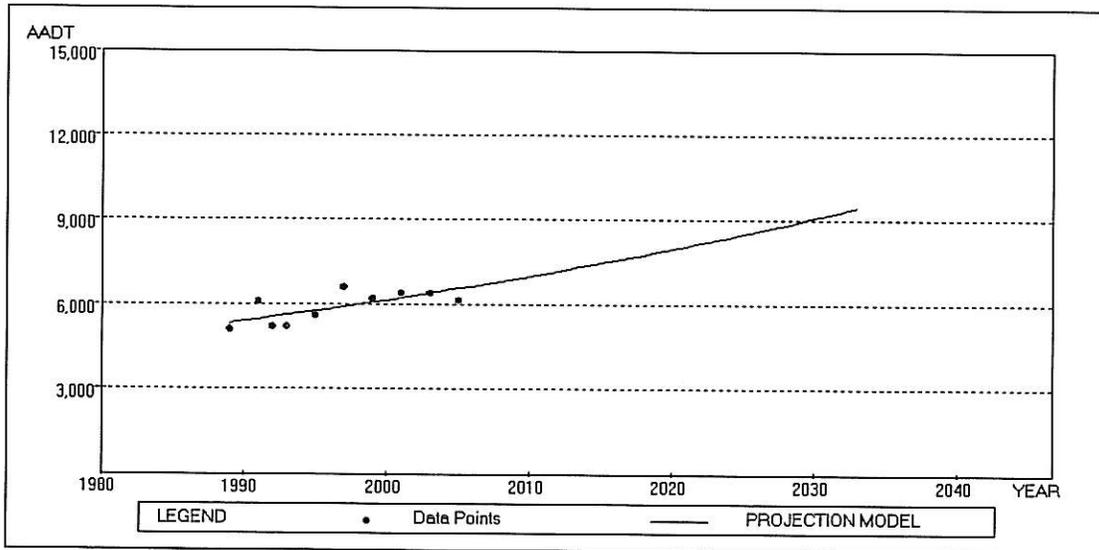
TO:
FROM:
DATE: 9/26/2007

PREPARED BY:

KEY ROUTE CODE:
CURRENT AADT (2005): 6,150
FORECAST AADT (2033): 9,500
NOTE:

KEY ROUTE CODE: 20309 00000000
COUNTY NAME: Whiteside

DATA POINTS		PROJECTION		MODEL NAME:	Exponential Regression
YEAR	AADT	YEAR	AADT	GROWTH of YEAR 2005 :	80
2005	6,150	2033	9,500	% AADT OF YEAR 2005 :	1.305 %
2003	6,400	2028	8,900	GROWTH OVER 28 YEAR:	3.350
2001	6,400	2023	8,300	% GROWTH OVER 28 YEAR:	54.472 %
1999	6,200	2018	7,800		
1997	6,600	2013	7,300		
1995	5,600				
1993	5,200				
1992	5,200				
1991	6,100				
1989	5,100				



**ILLINOIS DEPARTMENT of TRANSPORTATION
TRAFFIC PROJECTION
LINCOLN WAY (11.77 To 11.86)**

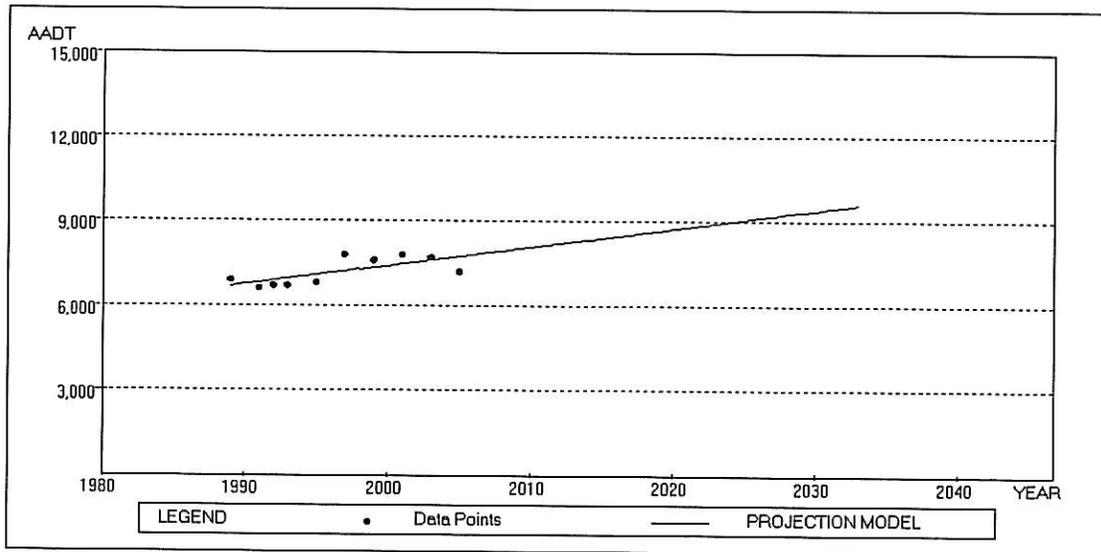
TO:
FROM:
DATE: 9/26/2007

PREPARED BY:

KEY ROUTE CODE:
CURRENT AADT (2005): 7,200
FORECAST AADT (2033): 9,600
NOTE:

KEY ROUTE CODE: 20309 00000000
COUNTY NAME: Whiteside

DATA POINTS		PROJECTION		MODEL NAME:	Linear Regression
YEAR	AADT	YEAR	AADT	GROWTH / YEAR:	66
2005	7,200	2033	9,600	% AADT OF YEAR 2005:	0.917 %
2003	7,700	2028	9,300	GROWTH OVER 28 YEAR:	2,400
2001	7,800	2023	8,900	% GROWTH OVER 28 YEAR:	33.333 %
1999	7,600	2018	8,600		
1997	7,800	2013	8,300		
1995	6,800				
1993	6,700				
1992	6,700				
1991	6,600				
1989	6,900				



**ILLINOIS DEPARTMENT of TRANSPORTATION
TRAFFIC PROJECTION
LINCOLN WAY (12.69 To 13.11)**

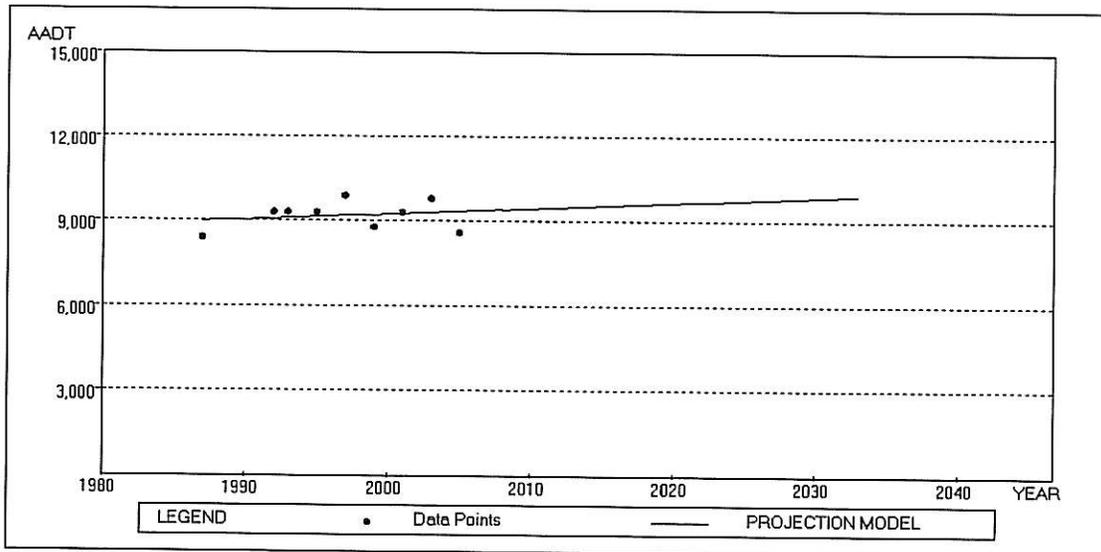
TO:
FROM:
DATE: 9/26/2007

PREPARED BY:

KEY ROUTE CODE:
CURRENT AADT (2005): 8,600
FORECAST AADT (2033): 9,900
NOTE:

KEY ROUTE CODE: 20309 00000000
COUNTY NAME: Whiteside

DATA POINTS		PROJECTION		MODEL NAME:	Exponential Regression
YEAR	AADT	YEAR	AADT	GROWTH of YEAR 2005 :	19
2005	8,600	2033	9,900	% AADT OF YEAR 2005 :	0.22 %
2003	9,800	2028	9,800	GROWTH OVER 28 YEAR:	1,300
2001	9,300	2023	9,700	% GROWTH OVER 28 YEAR:	15.116 %
1999	8,800	2018	9,600		
1997	9,900	2013	9,500		
1995	9,300				
1993	9,300				
1992	9,300				
1987	8,400				



ILLINOIS DEPARTMENT of TRANSPORTATION
TRAFFIC PROJECTION
 LINCOLN RD (15.05 To 17.66)

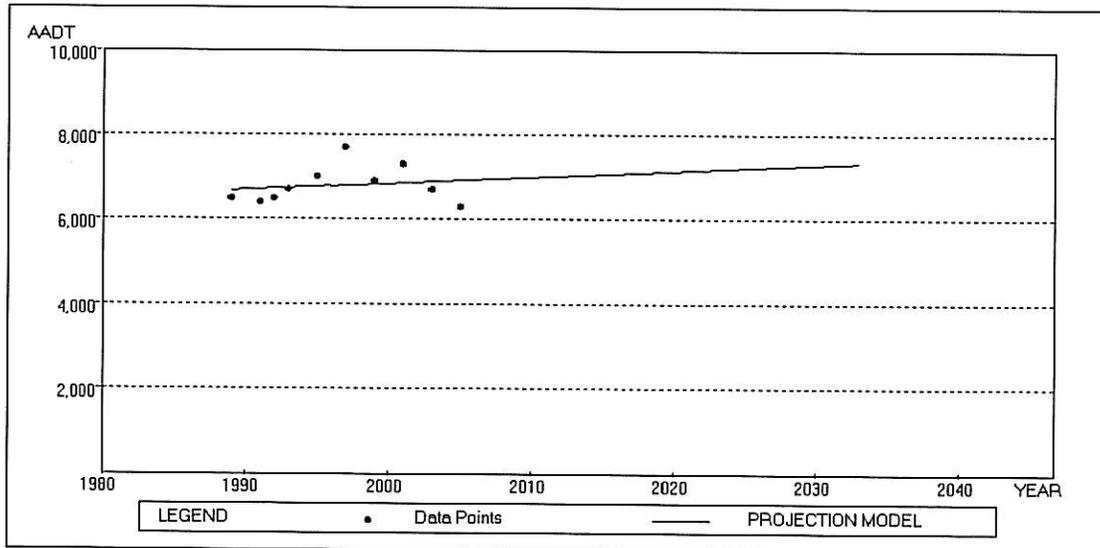
TO:
 FROM:
 DATE: 9/26/2007

PREPARED BY:

KEY ROUTE CODE:
 CURRENT AADT (2005): 6,300
 FORECAST AADT (2033): 7,300
 NOTE:

KEY ROUTE CODE: 20309 00000000
 COUNTY NAME: Whiteside

DATA POINTS		PROJECTION		MODEL NAME:	Exponential Regression
YEAR	AADT	YEAR	AADT	GROWTH of YEAR 2005 :	13
2005	6,300	2033	7,300	% AADT OF YEAR 2005 :	0.212 %
2003	6,700	2028	7,300	GROWTH OVER 28 YEAR:	1.000
2001	7,300	2023	7,200	% GROWTH OVER 28 YEAR:	15.873 %
1999	6,900	2018	7,100		
1997	7,700	2013	7,000		
1995	7,000				
1993	6,700				
1992	6,500				
1991	6,400				
1989	6,500				



ILLINOIS DEPARTMENT of TRANSPORTATION
TRAFFIC PROJECTION
 LINCOLN RD (17.66 To 19.06)

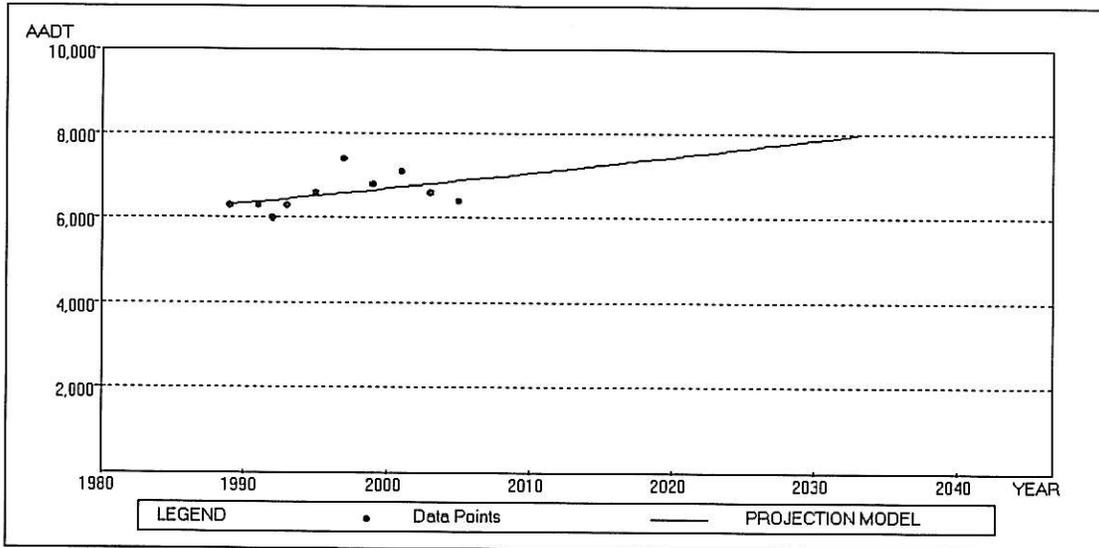
TO:
 FROM:
 DATE: 9/26/2007

PREPARED BY:

KEY ROUTE CODE:
 CURRENT AADT (2005): 6,400
 FORECAST AADT (2033): 8,000
 NOTE:

KEY ROUTE CODE: 20309 00000000
 COUNTY NAME: Whiteside

DATA POINTS		PROJECTION		MODEL NAME:	Exponential Regression
YEAR	AADT	YEAR	AADT	GROWTH of YEAR 2005 :	34
2005	6,400	2033	8,000	% AADT OF YEAR 2005 :	0.532 %
2003	6,600	2028	7,800	GROWTH OVER 28 YEAR:	1,600
2001	7,100	2023	7,600	% GROWTH OVER 28 YEAR:	25.000 %
1999	6,800	2018	7,400		
1997	7,400	2013	7,200		
1995	6,600				
1993	6,300				
1992	6,000				
1991	6,300				
1989	6,300				



**ILLINOIS DEPARTMENT of TRANSPORTATION
TRAFFIC PROJECTION
LINCOLN RD (20.78 To 21.65)**

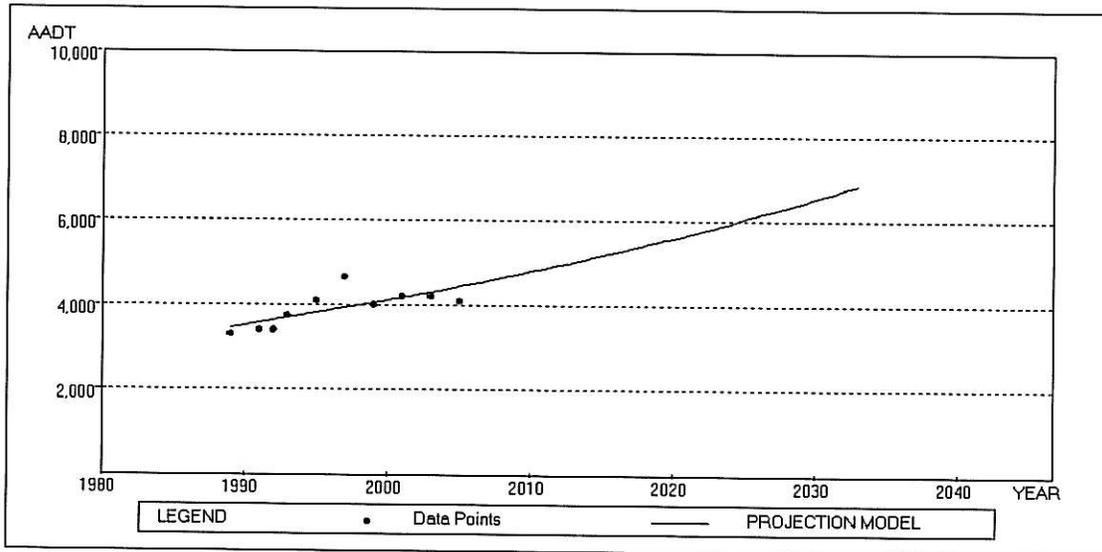
TO:
FROM:
DATE: 9/26/2007

PREPARED BY:

KEY ROUTE CODE:
CURRENT AADT (2005): 4,100
FORECAST AADT (2033): 6,900
NOTE:

KEY ROUTE CODE: 20309 00000000
COUNTY NAME: Whiteside

DATA POINTS		PROJECTION		MODEL NAME:	Exponential Regression
YEAR	AADT	YEAR	AADT	GROWTH of YEAR 2005 :	64
2005	4,100	2033	6,900	% AADT OF YEAR 2005 :	1.556 %
2003	4,200	2028	6,300	GROWTH OVER 28 YEAR:	2.800
2001	4,200	2023	5,900	% GROWTH OVER 28 YEAR:	68.293 %
1999	4,009	2018	5,400		
1997	4,650	2013	5,000		
1995	4,100				
1993	3,750				
1992	3,400				
1991	3,400				
1989	3,300				



ILLINOIS DEPARTMENT of TRANSPORTATION
TRAFFIC PROJECTION
 LINCOLN RD (4.02 To 17.66)

TO:
 FROM:
 DATE: 1/29/2008

PREPARED BY:

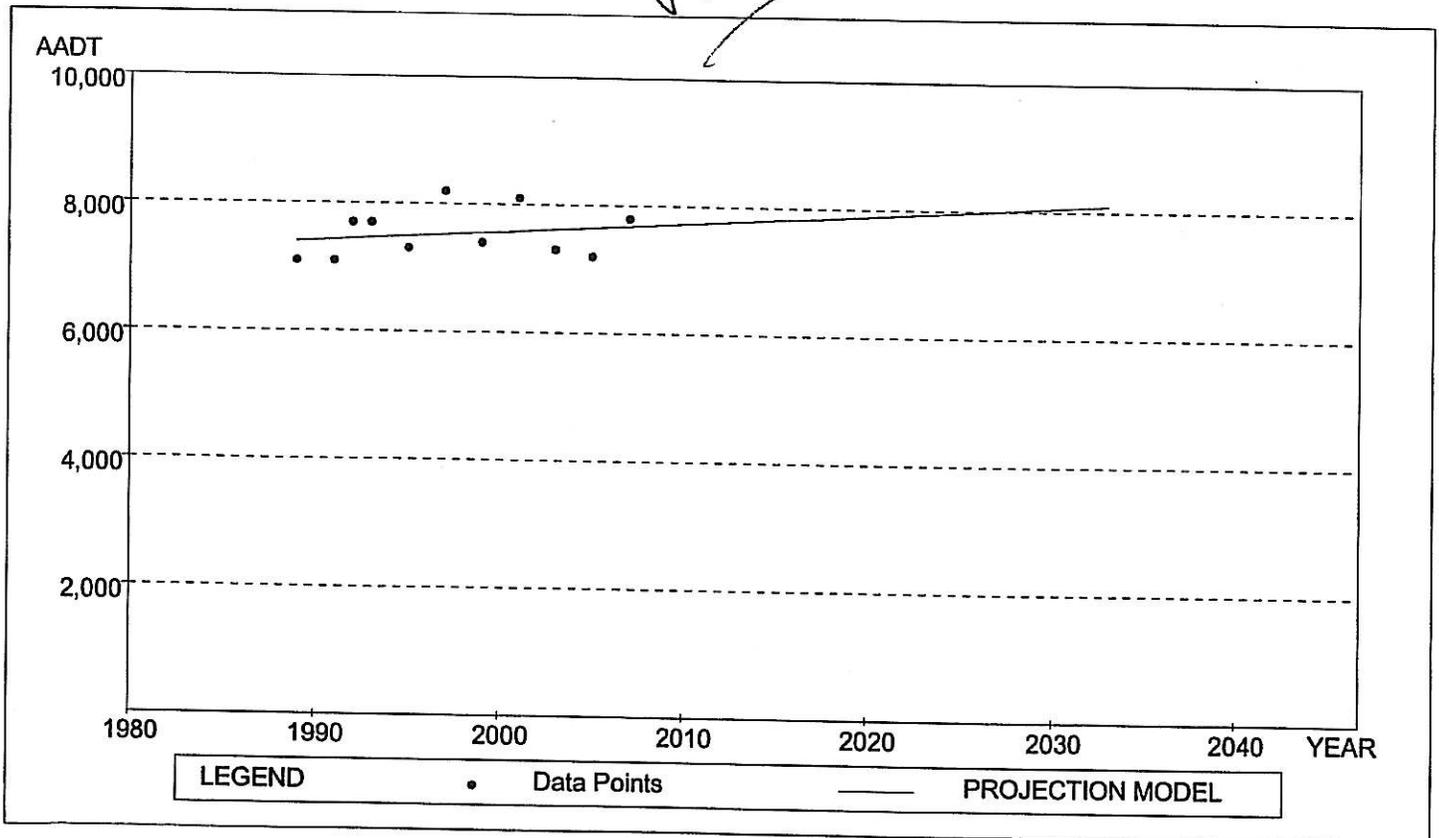
KEY ROUTE CODE:
 CURRENT AADT (2007): 7,800
 FORECAST AADT (2033): 8,100
 NOTE: Jackson Road to Lyndon Road

KEY ROUTE CODE: 20309 00000000
 COUNTY NAME: Whiteside

DATA POINTS		PROJECTION	
YEAR	AADT	YEAR	AADT
2007	7,800	2033	8,100
2005	7,200	2028	8,000
2003	7,300	2023	7,900
2001	8,100	2018	7,900
1999	7,400	2013	7,800
1997	8,200		
1995	7,300		
1993	7,700		
1992	7,700		
1991	7,100		
1989	7,100		

MODEL NAME: Exponential Regression
 GROWTH of YEAR 2007 : 16
 % AADT OF YEAR 2007 : 0.207 %
 GROWTH OVER 26 YEAR: 300
 % GROWTH OVER 26 YEAR: 3.846 %

Use .5% growth



ILLINOIS DEPARTMENT of TRANSPORTATION TRAFFIC PROJECTION CARROLL RD (6.49 To 7.32)

TO:
FROM:
DATE: 1/29/2008

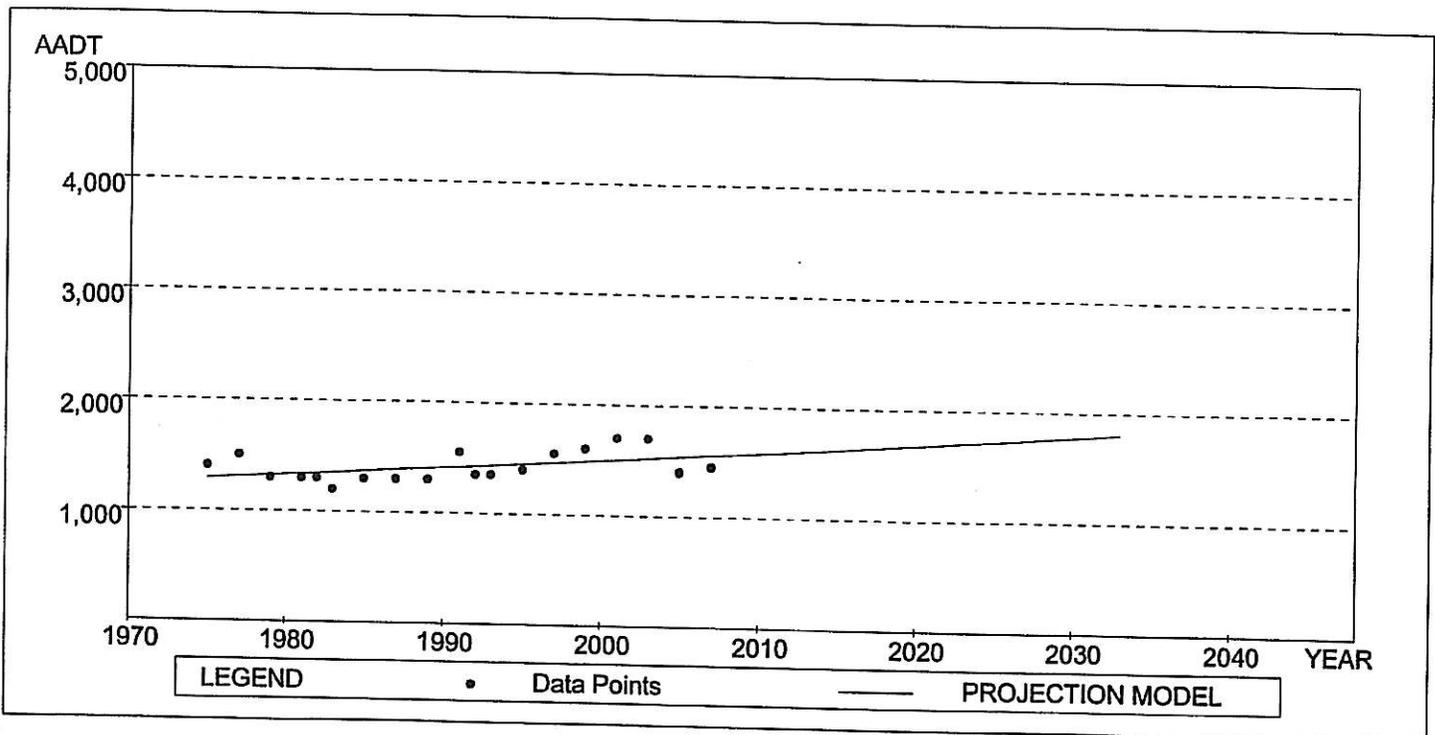
PREPARED BY:

KEY ROUTE CODE:
CURRENT AADT (2007): 1,450
FORECAST AADT (2033): 1,800
NOTE: IL 78 North of US 30

KEY ROUTE CODE: 20642 00000000
COUNTY NAME: Whiteside

DATA POINTS		PROJECTION	
YEAR	AADT	YEAR	AADT
2007	1,450	2033	1,800
2005	1,400	2028	1,750
2003	1,700	2023	1,700
2001	1,700	2018	1,650
1999	1,600	2013	1,600
1997	1,550		
1995	1,400		
1993	1,350		
1992	1,350		
1991	1,550		
1989	1,300		
1987	1,300		
1985	1,300		
1983	1,200		
1982	1,300		
1981	1,300		
1979	1,300		
1977	1,500		
1975	1,400		

MODEL NAME: Exponential Regression
 GROWTH of YEAR 2007 : 8
 % AADT OF YEAR 2007 : 0.58 %
 GROWTH OVER 26 YEAR: 350
 % GROWTH OVER 26 YEAR: 24.138 %



ILLINOIS DEPARTMENT of TRANSPORTATION TRAFFIC PROJECTION CHERRY (0.00 To 0.13)

TO:
FROM:
DATE: 1/29/2008

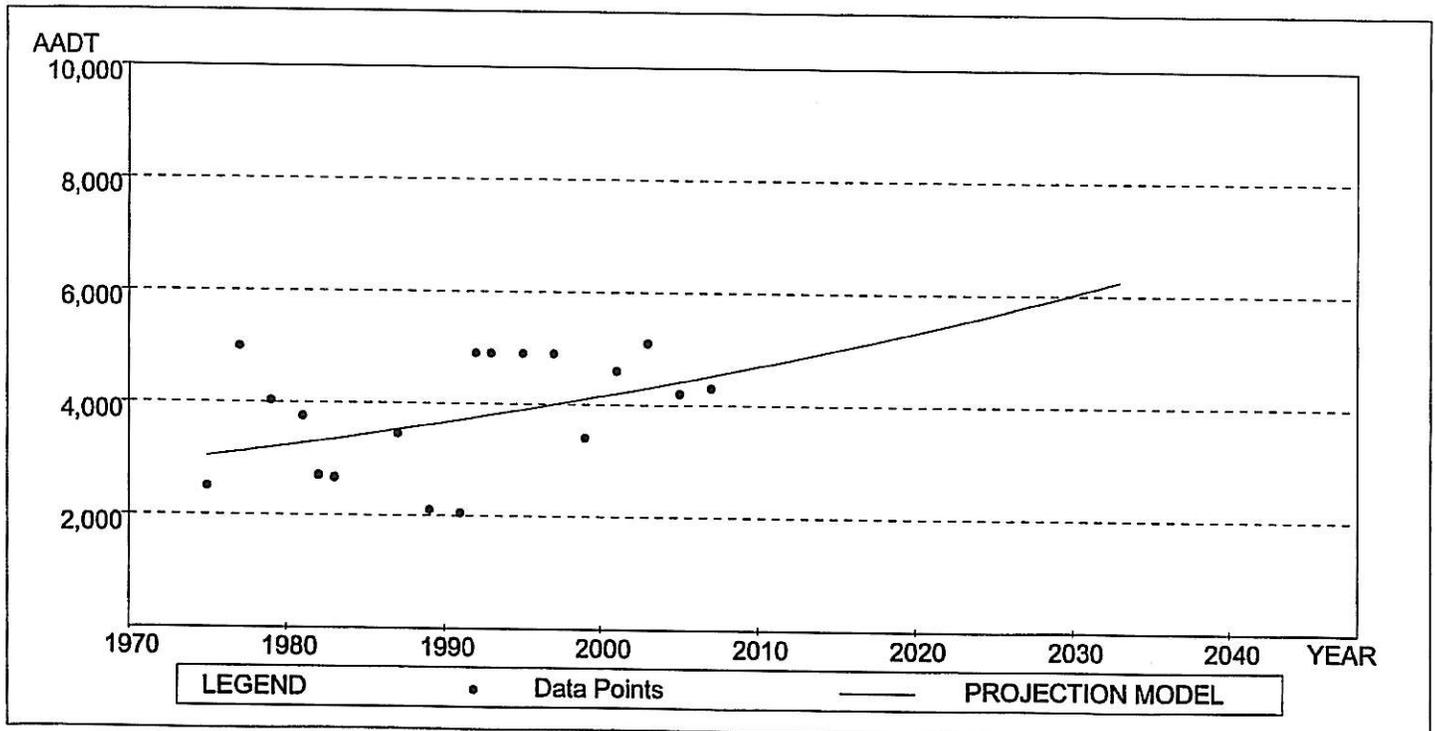
PREPARED BY:

KEY ROUTE CODE:
CURRENT AADT (2007): 4,300
FORECAST AADT (2033): 6,200
NOTE: IL 78 from US 30 to Wall St.

KEY ROUTE CODE: 20022 00000000
COUNTY NAME: Whiteside

DATA POINTS		PROJECTION	
YEAR	AADT	YEAR	AADT
2007	4,300	2033	6,200
2005	4,200	2028	5,900
2003	5,100	2023	5,500
2001	4,600	2018	5,200
1999	3,400	2013	4,850
1997	4,900		
1995	4,900		
1993	4,900		
1992	4,900		
1991	2,050		
1989	2,100		
1987	3,456		
1983	2,669		
1982	2,707		
1981	3,757		
1979	4,033		
1977	5,000		
1975	2,500		

MODEL NAME: Exponential Regression
 GROWTH of YEAR 2007 : 54
 % AADT OF YEAR 2007 : 1.245 %
 GROWTH OVER 26 YEAR: 1,900
 % GROWTH OVER 26 YEAR: 44.186 %



ILLINOIS DEPARTMENT of TRANSPORTATION TRAFFIC PROJECTION PORTLAND (0.41 To 0.66)

TO:
FROM:
DATE: 1/29/2008

PREPARED BY:

KEY ROUTE CODE:
CURRENT AADT (2007): 3,250
FORECAST AADT (2033): 3,250
NOTE: IL 78 from Cherry to Academic Drive

KEY ROUTE CODE: 20022 00000000
COUNTY NAME: Whiteside

DATA POINTS		PROJECTION	
YEAR	AADT	YEAR	AADT
2007	3,250	2033	3,250
2005	2,800	2028	3,200
2003	3,300	2023	3,150
2001	3,450	2018	3,100
1999	3,500	2013	3,050
1997	2,950		
1995	2,700		
1993	2,700		
1992	2,700		
1991	2,050		
1989	2,100		
1987	2,900		
1983	2,250		
1982	2,175		
1981	2,825		
1979	3,067		
1977	5,000		
1975	2,500		

MODEL NAME: Exponential Regression
 GROWTH of YEAR 2007 : 10
 % AADT OF YEAR 2007 : 0.315 %
 GROWTH OVER 26 YEAR: 0
 % GROWTH OVER 26 YEAR: 0.000 %

Use 5% growth

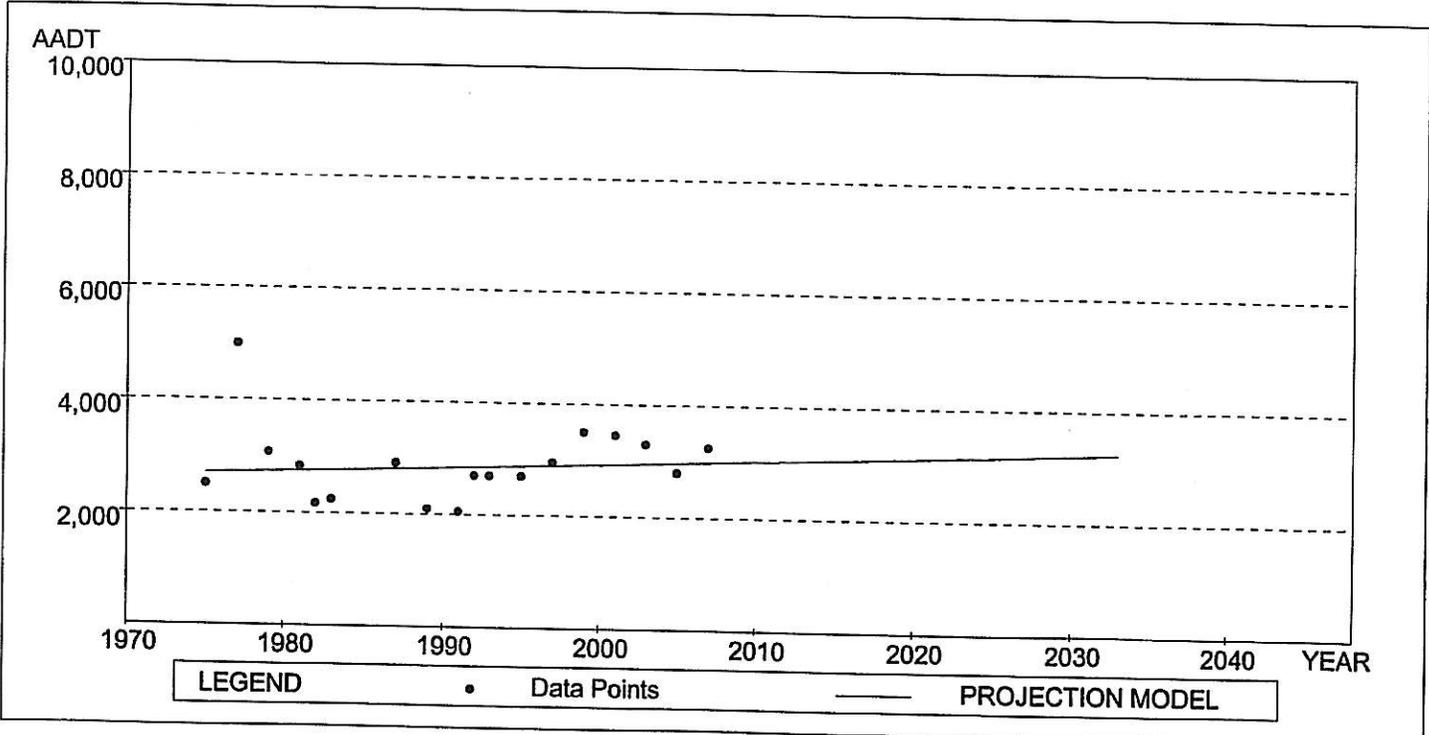
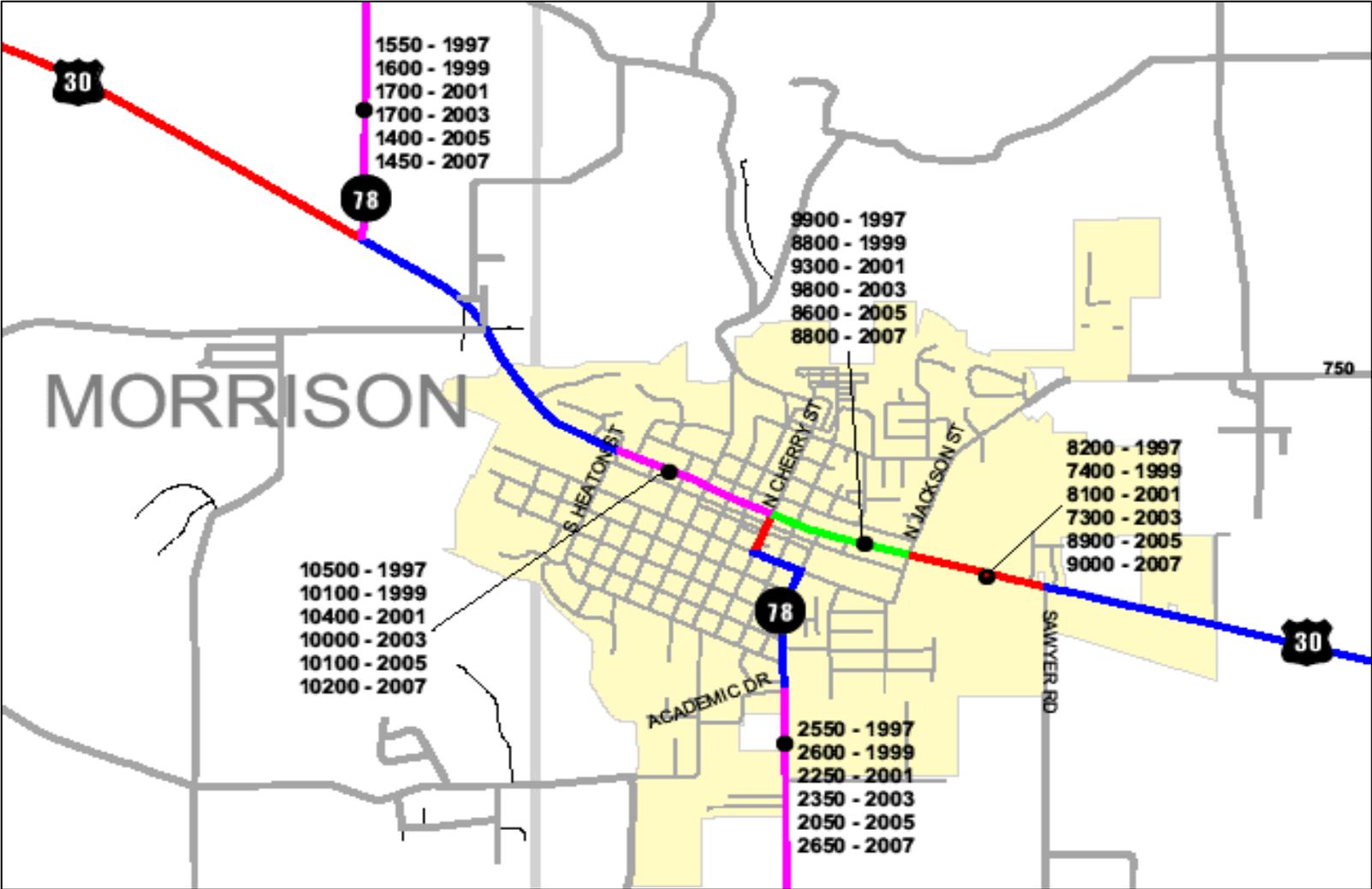
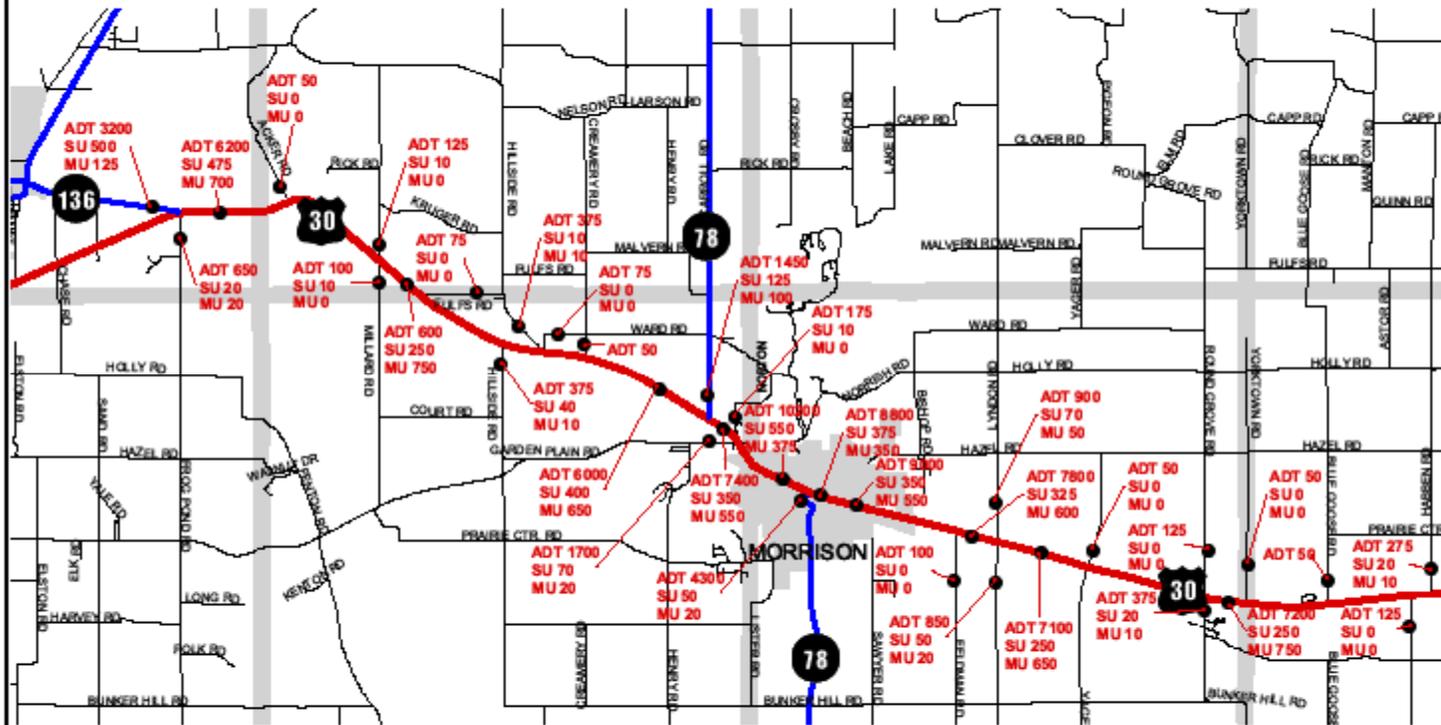


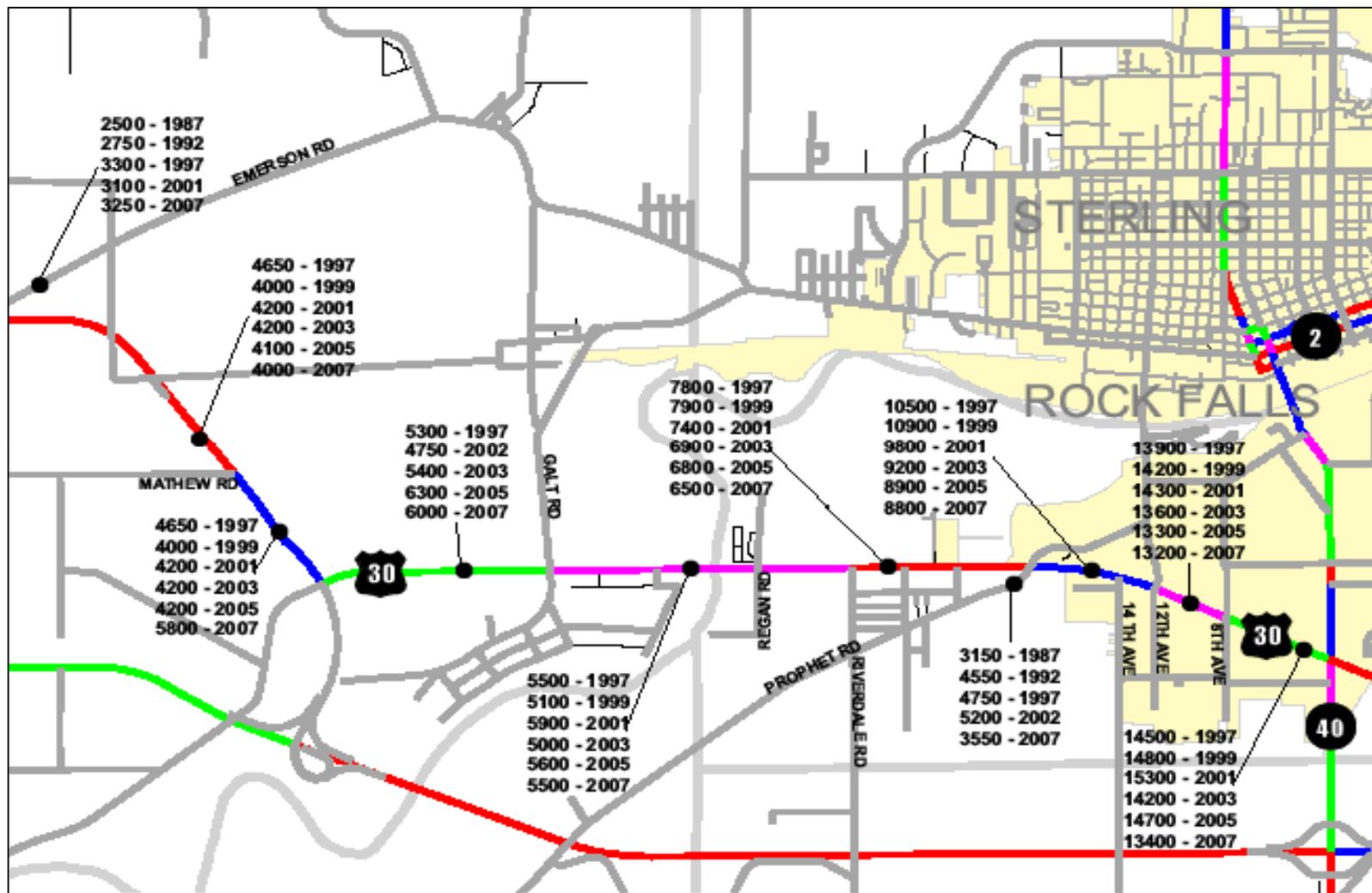
EXHIBIT 4

TRAFFIC VOLUME HISTORY AND TRUCK VOLUME MAPS



2007 US30 Corridor Preliminary ADT's





2007 US30 Corridor Preliminary ADT's

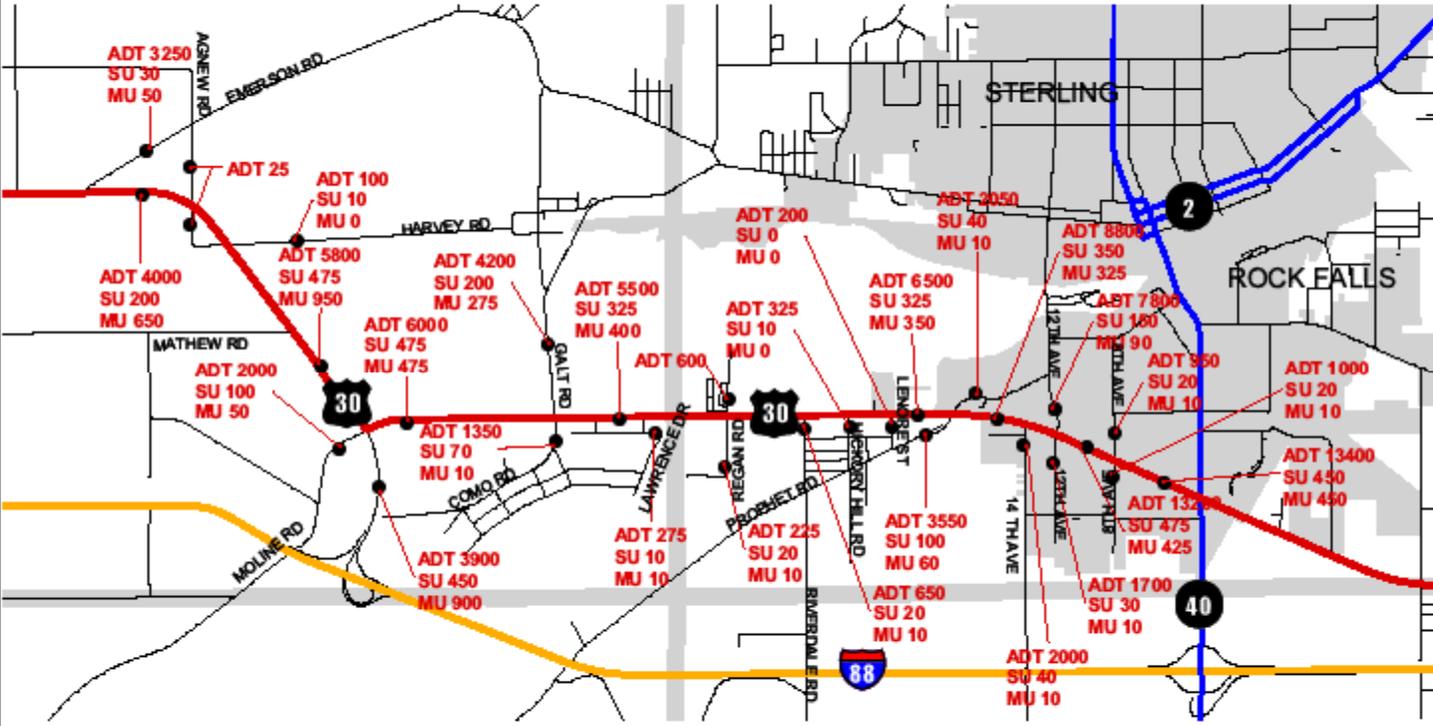


EXHIBIT 5

SEGMENT PROJECTION GRAPHS

US 30 (4.02 to 6.70)

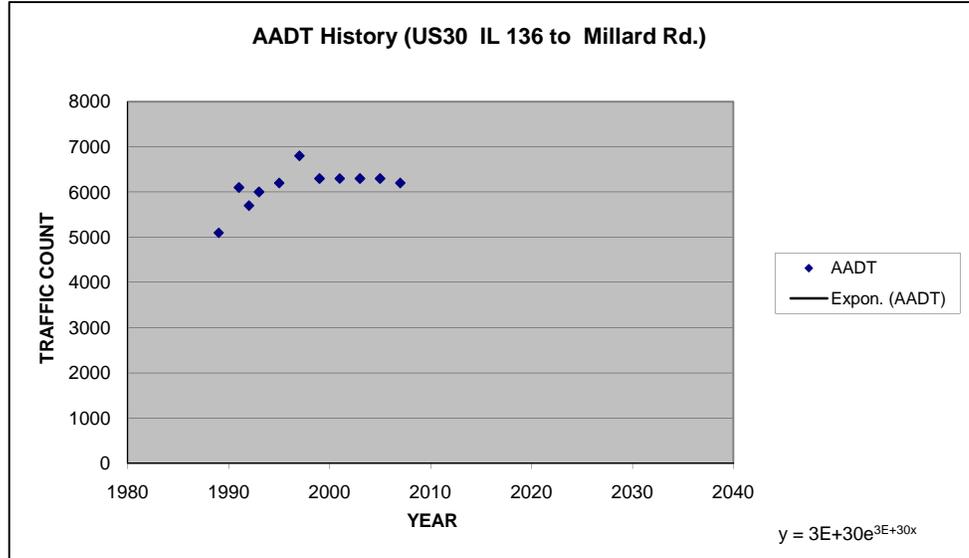
(from IL 136 to Millard Rd.)

(Location#1)

Year	AADT
1989	5100
1991	6100
1992	5700
1993	6000
1995	6200
1997	6800
1999	6300
2001	6300
2003	6300
2005	6300
2007	6200
2013	
2023	
2033	

SU	475
MU	700

- 19% Truck Volume
- 23% No Passing Zones
- 5 Access Points(2/mi)
- 55 Posted Speed



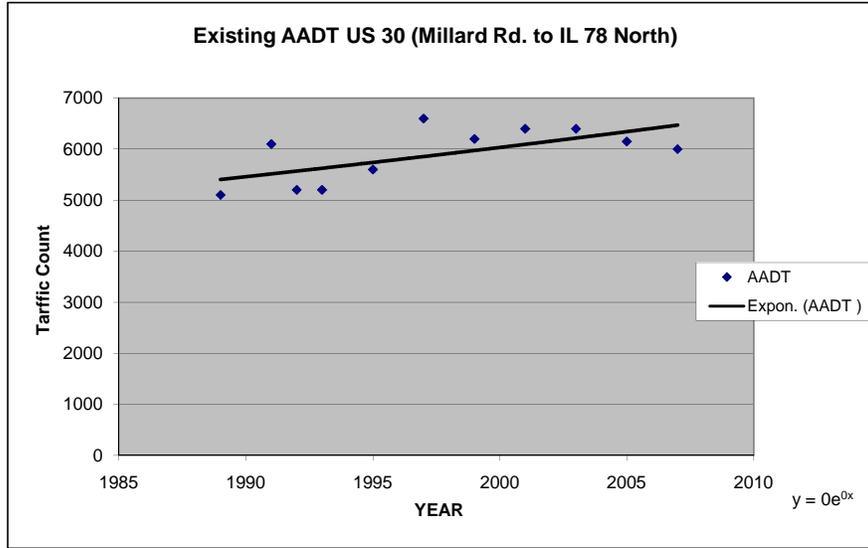
Based on Exponential Regression Line:		
	Year	AADT
Forecasted Const. Year AADT	2013	6,826
Forecasted AADT	2023	7,335
Forecasted Rdwy. Design Year AADT	2033	7,883
Growth Rate is:	0.72%	
% Growth over 26 Years	27.14%	

US 30 (6.70 to 11.18)

(Location#2)

(Millard Rd. to IL 78 North)

Year	AADT
1989	5100
1991	6100
1992	5200
1993	5200
1995	5600
1997	6600
1999	6200
2001	6400
2003	6400
2005	6150
2007	6000
2013	
2023	
2033	



SU	250
MU	750

- 17% Truck Volume
- 21% No Passing Zones
- 7 Access Points(2/mi.)
- 55 Posted Speed

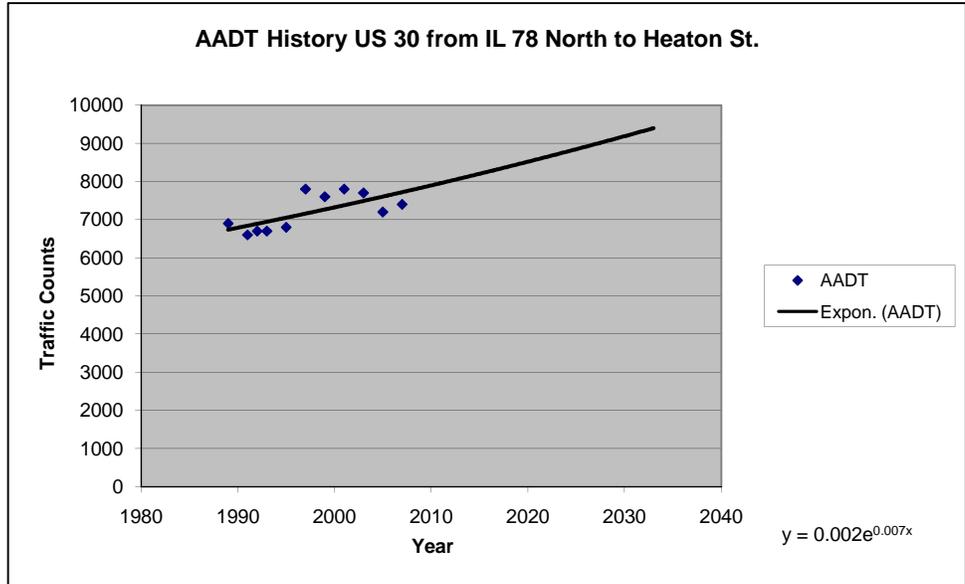
Based on Exponential Regression Line:		
	Year	AADT
Forecasted Const. Year AADT	2013	6,873
Forecasted AADT	2023	7,598
Forecasted Rdwy. Design YearAADT	2033	8,398
Growth Rate is:	1.01%	
% Growth over 26 Years	39.97%	

US 30 (11.18 to 12.20)

(Location#3)

(from IL 78 to Heaton St. in Morrison)

Year	AADT
1989	6900
1991	6600
1992	6700
1993	6700
1995	6800
1997	7800
1999	7600
2001	7800
2003	7700
2005	7200
2007	7400
2013	
2023	
2033	



SU	350
MU	550

- 12% Truck Volume
- 67% No Passing Zones
- 10 Access Points
- 35 Posted Speed

(10 per mile in this area)

Based on Exponential Regression Line:		
	Year	AADT
Forecasted Const. Year AADT	2013	8,081
Forecasted AADT	2023	8,715
Forecasted Rdwy. Design Year AADT	2033	9,399
Growth Rate is:	0.76%	
% Growth over 26 Years	27.01%	

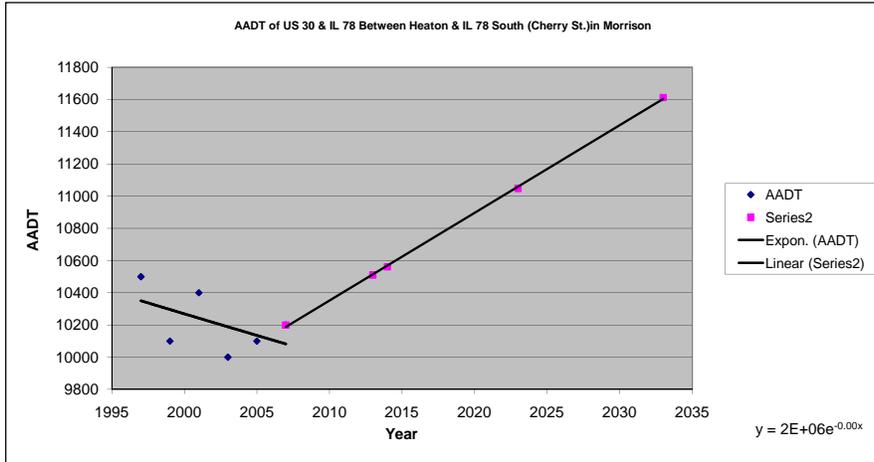
US 30 & IL 78 (12.20 to 12.62)
 (Heaton St. to Cherry St. (IL 78 south) in Morrison)

(Location#4)

Year	AADT
1997	10500
1999	10100
2001	10400
2003	10000
2005	10100
2007	10200
2013	
2023	
2033	

SU	550
MU	375

9% Truck Volume
 1% No Passing Zones
 8 Access Points(16/mi.)
 30 Posted Speed

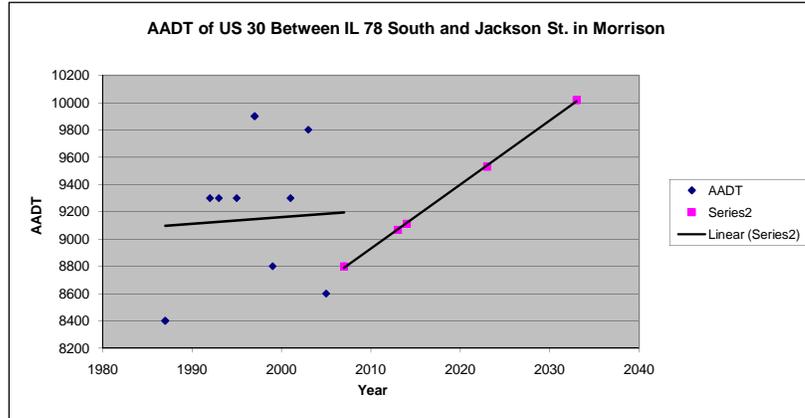


Based on Exponential Regression Line:			(However, minimum growth rate set at 0.50%)	
	Year	AADT	Revised AADT (Based on 0.5% linear growth)	
Forecasted Const. Year AADT	2013	9,924		10,510
Forecasted AADT	2023	9,666		11,047
Forecasted Rdwy. Design Year AADT	2033	9,415		11,612
Growth Rate is:	-0.26%			0.50%
% Growth over 26 Years	-10.33%			13.85%

US 30 (12.69 to 13.11)
 (IL 78 South (Cherry St.) to Jackson St.)

(Location#5)

Year	AADT
1987	8400
1992	9300
1993	9300
1995	9300
1997	9900
1999	8800
2001	9300
2003	9800
2005	8600
2007	8800
2013	
2023	
2033	



SU	375
MU	350

8% Truck Volume
 30% No Passing Zones
 5 Access Points(12/mi.)
 30 to 40mph Posted Speed

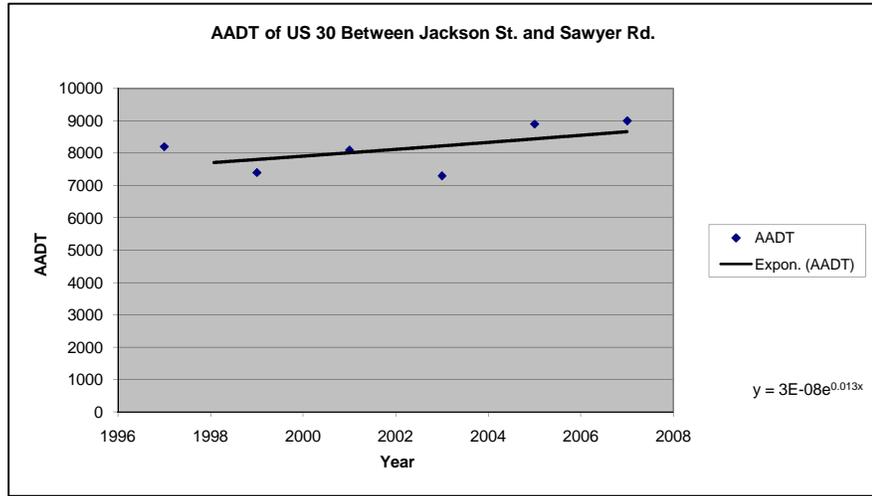
Based on Exponential Regression Line:			(However, minimum growth rate set at 0.50%)
	Year	AADT	Revised AADT(Based on 0.5% linear growth)
Forecasted Const. Year AADT	2013	9,216	9,067
Forecasted AADT	2023	9,268	9,531
Forecasted Rdwy. Design YearAADT	2033	9,320	10,018
Growth Rate is:	0.06%		0.50%
% Growth over 26 Years	5.91%		13.85%

US 30 (13.11 to 13.51)

(Location#6)

(Jackson St. to Sawyer Rd.)

Year	AADT
1997	8200
1999	7400
2001	8100
2003	7300
2005	8900
2007	9000
2013	
2023	
2033	



SU	350
MU	550

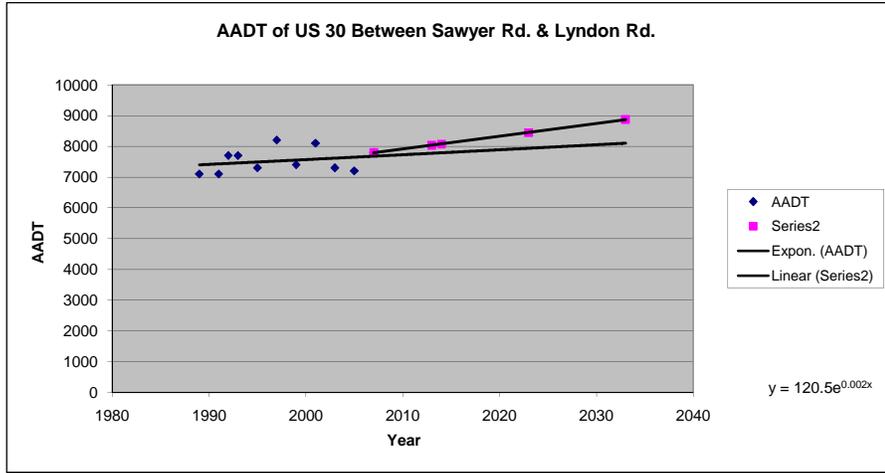
- 10% Truck Volume
- 40% No Passing Zones
- 3 Access Points(7.5/mi.)
- 45mph Posted Speed

Based on Exponential Regression Line:		
	Year	AADT
Forecasted Const. Year AADT	2013	9,380
Forecasted AADT	2023	10,690
Forecasted Rdwy. Design Year AADT	2033	12,183
Growth Rate is:	1.32%	
% Growth over 26 Years	35.37%	

US 30 (13.51 to 15.05)
 (Sawyer Rd. to Lyndon Rd.)

(Location#6A)

Year	AADT
1989	7100
1991	7100
1992	7700
1993	7700
1995	7300
1997	8200
1999	7400
2001	8100
2003	7300
2005	7200
2007	7800
2013	
2023	
2033	



SU	350
MU	550

12% Truck Volume
 12% No Passing Zones
 6 Access Points(4/mi.)
 45mph Posted Speed

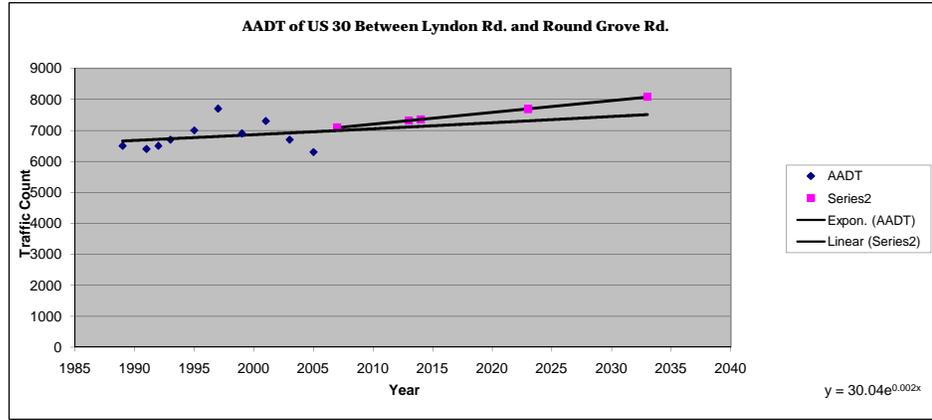
Based on Exponential Regression Line:			(However, minimum growth rate set at 0.50%) Revised AADT(Based on 0.5% linear growth)	
	Year	AADT		
Forecasted Const. Year AADT	2013	7,774		8,037
Forecasted AADT	2023	7,936		8,448
Forecasted Rdwy. Design Year AADT	2033	8,102		8,880
Growth Rate is:	0.21%			0.50%
% Growth over 26 Years	3.87%			13.85%

US 30 (15.05 to 17.66)
(Lyndon Rd. to Round Grove Rd.)

(Location#7)

Year	AADT
1989	6500
1991	6400
1992	6500
1993	6700
1995	7000
1997	7700
1999	6900
2001	7300
2003	6700
2005	6300
2007	7100
2013	
2023	
2033	

(Location#7)



SU	250
MU	650

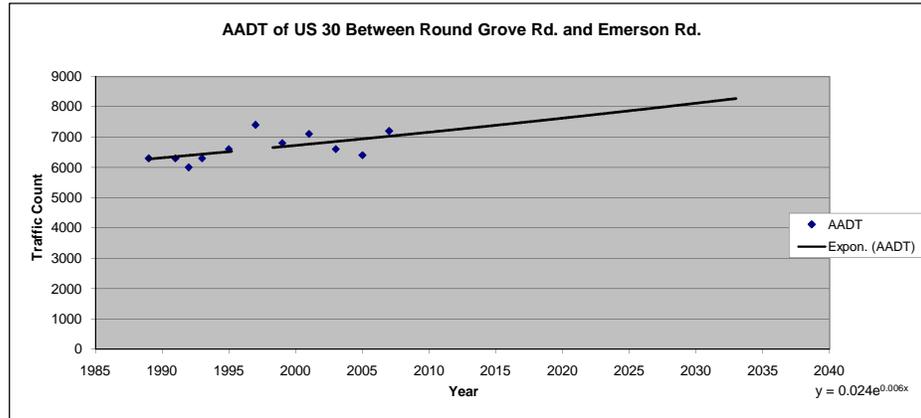
- 13% Truck Volume
- 5% No Passing Zones
- 4 Access Points(3/mi.)
- 55mph Posted Speed

Based on Exponential Regression Line:			(However, minimum growth rate set at 0.50%)	
	Year	AADT	Revised AADT(Based on 0.5% linear growth)	
Forecasted Const. Year AADT	2013	7,109	7,316	
Forecasted AADT	2023	7,305	7,690	
Forecasted Rdwy. Design Year AADT	2033	7,506	8,083	
Growth Rate is:	0.27%		0.50%	
% Growth over 26 Years	5.72%		13.85%	

US 30 (17.66 to 20.78)
 (Round Grove Rd. to Emerson Rd.)

(Location#8)

Year	AADT
1989	6300
1991	6300
1992	6000
1993	6300
1995	6600
1997	7400
1999	6800
2001	7100
2003	6600
2005	6400
2007	7200
2013	
2023	
2033	



SU	250
MU	750

- 14% Truck Volume
- 30% No Passing Zones
- 7 Access Points(2/mi.)
- 55 mph Posted Speed

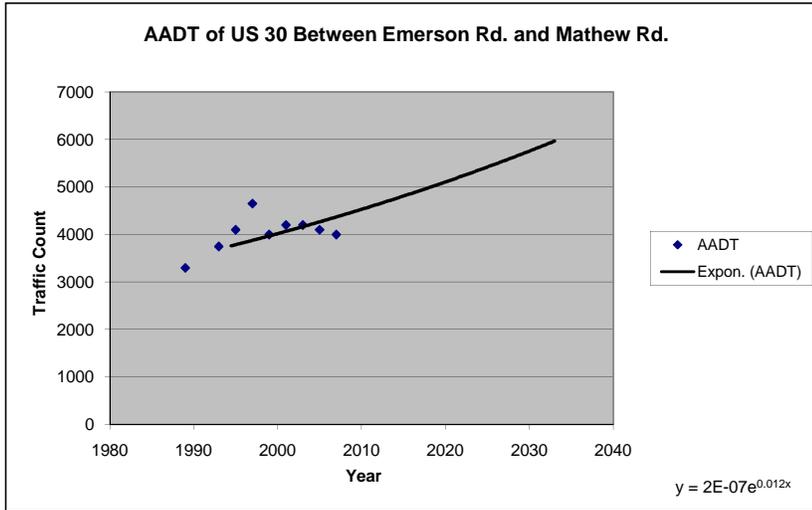
Based on Exponential Regression Line:		
	Year	AADT
Forecasted Const. Year AADT	2013	7,301
Forecasted AADT	2023	7,773
Forecasted Rdwy. Design Year AADT	2033	8,275
Growth Rate is:	0.63%	
% Growth over 26 Years	14.93%	

US 30 (20.78 to 22.31)

(Location#9)

(Emerson Rd. to Mathew Rd.)

Year	AADT
1989	3300
1991	3400
1992	3400
1993	3750
1995	4100
1997	4650
1999	4000
2001	4200
2003	4200
2005	4100
2007	4000
2013	
2023	
2033	



SU	200
MU	650

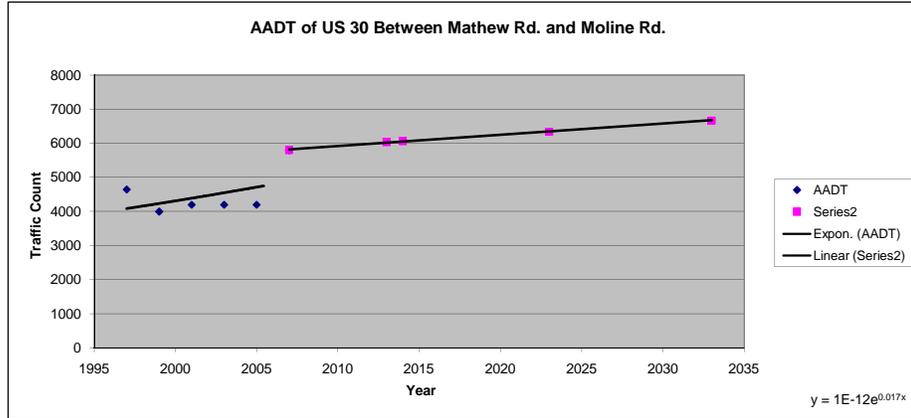
- 21% Truck Volume
- 56% No Passing Zones
- 5 Access Points(3/mi.)
- 55 Posted Speed

Based on Exponential Regression Line:		
	Year	AADT
Forecasted Const. Year AADT	2013	4,697
Forecasted AADT	2023	5,295
Forecasted Rdwy. Design Year AADT	2033	5,970
Growth Rate is:	1.21%	
% Growth over 26 Years	49.25%	

US 30 (22.31 to 23.03)
(Mathew Rd. to Moline Rd.)

(Location#10)

Year	AADT
1997	4650
1999	4000
2001	4200
2003	4200
2005	4200
2007	5800
2013	
2023	
2033	



SU	475
MU	950

- 25% Truck Volume
- 11% No Passing Zones
- 2 Access Points(3/mi.)
- 55 Posted Speed

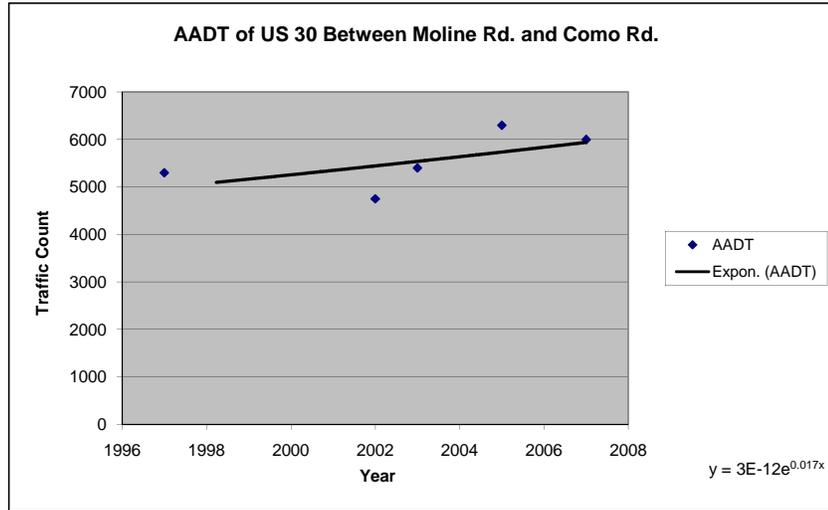
Based on Exponential Regression Line:			(However, minimum growth rate set at 0.50%) AADT(Based on 0.5% growth) (Not used here)	
	Year	AADT		
Forecasted Const. Year AADT	2013	5,443	6,036	(This value is higher but not used in this case)
Forecasted AADT	2023	6,509	6,345	
Forecasted Rdwy. Design Year AADT	2033	7,782	6,669	
Growth Rate is:	1.80%		0.50%	
% Growth over 26 Years	34.18%		13.85%	

US 30 (23.03 to 24.11)

(Location#11)

(Moline Rd. to Como Rd.)

Year	AADT
1997	5300
2002	4750
2003	5400
2005	6300
2007	6000
2013	
2023	
2033	



SU	475
MU	475

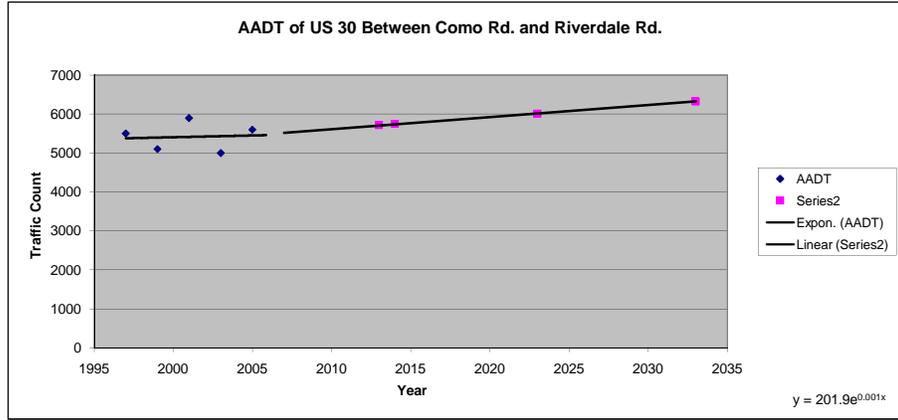
- 16% Truck Volume
- 4% No Passing Zones
- 2 Access Points(1/mi.)
- 55 Posted Speed

Based on Exponential Regression Line:		
	Year	AADT
Forecasted Const. Year AADT	2013	6,601
Forecasted AADT	2023	7,861
Forecasted Rdwy. Design Year AADT	2033	9,362
Growth Rate is:	1.76%	
% Growth over 26 Years	56.04%	

US 30 (24.11 to 25.53)
 (Como Rd. to Riverdale Rd.)

(Location#12)

Year	AADT
1997	5500
1999	5100
2001	5900
2003	5000
2005	5600
2007	5500
2013	
2023	
2033	



SU	325
MU	400

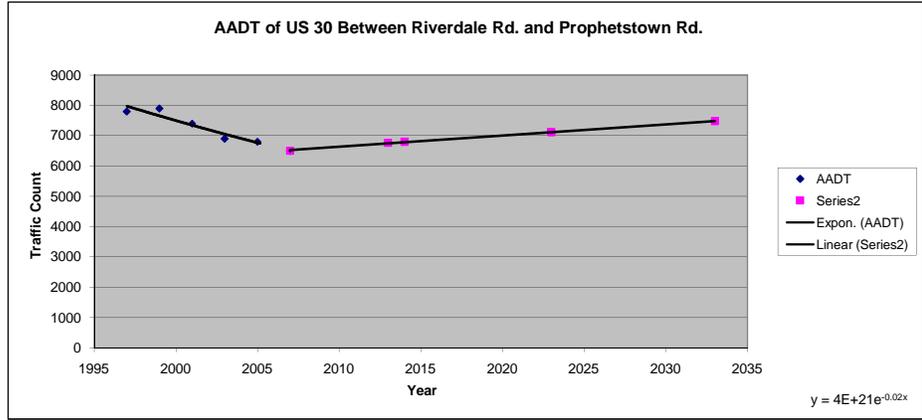
- 13% Truck Volume
- 0% No Passing Zones
- 5 Access Points(3/mi.)
- 55 Posted Speed

Based on Exponential Regression Line:			(However, minimum growth rate set at 0.50%)	
	Year	AADT	Revised AADT (Based on 0.5% linear growth)	
Forecasted Const. Year AADT	2013	5,524	5,724	
Forecasted AADT	2023	5,615	6,017	
Forecasted Rdwy. Design Year AADT	2033	5,708	6,324	
Growth Rate is:	0.16%		0.50%	
% Growth over 26 Years	3.79%		13.85%	

US 30 (25.53 to 26.34)
(Riverdale Rd. to Prophetstown Rd.)

(Location#13)

Year	AADT
1997	7800
1999	7900
2001	7400
2003	6900
2005	6800
2007	6500
2013	
2023	
2033	



SU	325
MU	350

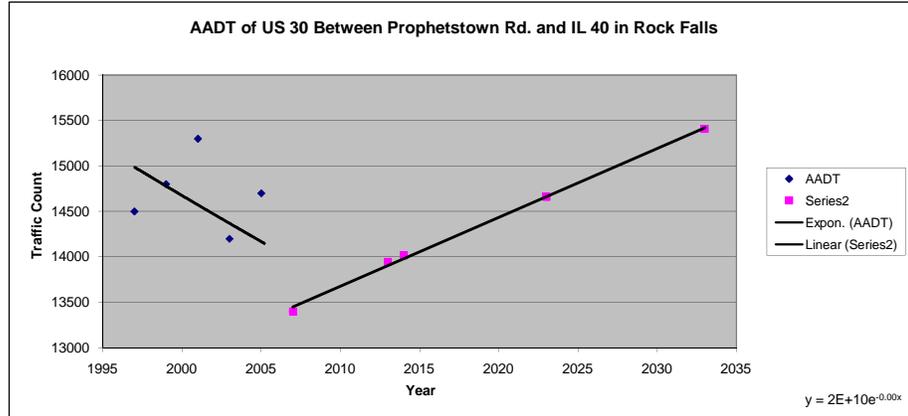
- 10% Truck Volume
- 10% No Passing Zones
- 5 Access Points(6/mi)
- 55 Posted Speed

Based on Exponential Regression Line:			(However, minimum growth rate set at 0.50%)	
	Year	AADT	Revised AADT (Based on 0.5% linear growth)	
Forecasted Const. Year AADT	2013	5,748	6,765	
Forecasted AADT	2023	4,685	7,111	
Forecasted Rdwy. Design Year AADT	2033	3,819	7,474	
Growth Rate is:	-2.02%		0.50%	
% Growth over 26 Years	-41.25%		13.85%	

US 30 (26.34 to 27.85)
 (Prophet Rd. to IL 40 (1st Ave.) in Rock Falls)

(Location#14)

Year	AADT
1997	14500
1999	14800
2001	15300
2003	14200
2005	14700
2007	13400
2013	
2023	
2033	



SU	475
MU	425

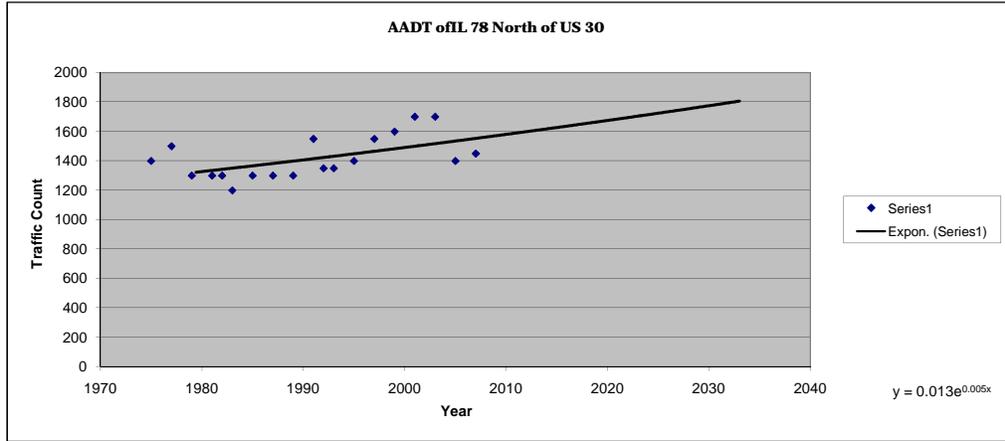
7% Truck Volume
 0% No Passing Zones (5 lane section)
 16 Access Points(11/mi)
 45 Posted Speed

Based on Exponential Regression Line:			(However, minimum growth rate set at 0.50%)	
	Year	AADT	Revised AADT (Based on 0.5% linear growth)	
Forecasted Const. Year AADT	2013	13,400	13,945	
Forecasted AADT	2023	12,495	14,659	
Forecasted Rdwy. Design Year AADT	2033	11,651	15,408	
Growth Rate is:	-0.70%		0.50%	
% Growth over 26 Years	-13.05%		13.85%	

IL 78 North of US 30

Year	AADT
1975	1400
1977	1500
1979	1300
1981	1300
1982	1300
1983	1200
1985	1300
1987	1300
1989	1300
1991	1550
1992	1350
1993	1350
1995	1400
1997	1550
1999	1600
2001	1700
2003	1700
2005	1400
2007	1450
2013	
2023	
2033	

SU	125
MU	100



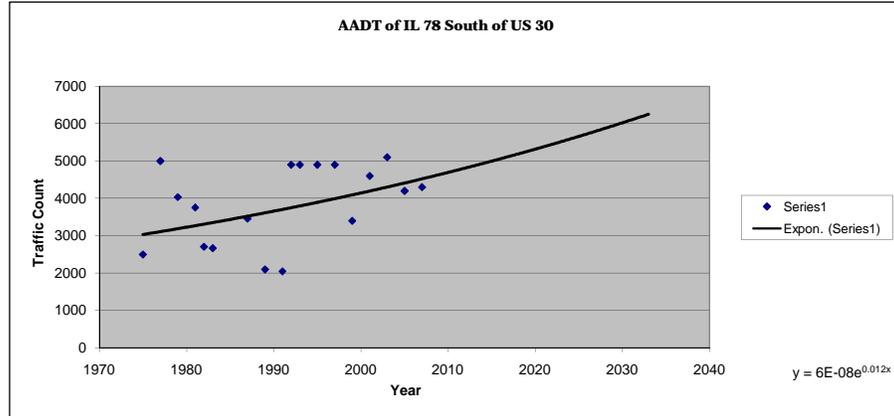
- 16% Truck Volume
- 0% No Passing Zones
- Access Points
- Posted Speed

Based on Exponential Regression Line:		
	Year	AADT
Forecasted Const. Year AADT	2013	1,608
		1,617
Forecasted AADT	2023	1,704
Forecasted Rdwy. Design Year AADT	2033	1,806
Growth Rate is:	0.58%	
% Growth over 26 Years	24.52%	

IL 78 South (Cherry St.) from US 30 to Wall St.

Year	ADT
1975	2500
1977	5000
1979	4033
1981	3757
1982	2707
1983	2669
1987	3456
1989	2100
1991	2050
1992	4900
1993	4900
1995	4900
1997	4900
1999	3400
2001	4600
2003	5100
2005	4200
2007	4300
2013	
2023	
2033	

SU	50
MU	20

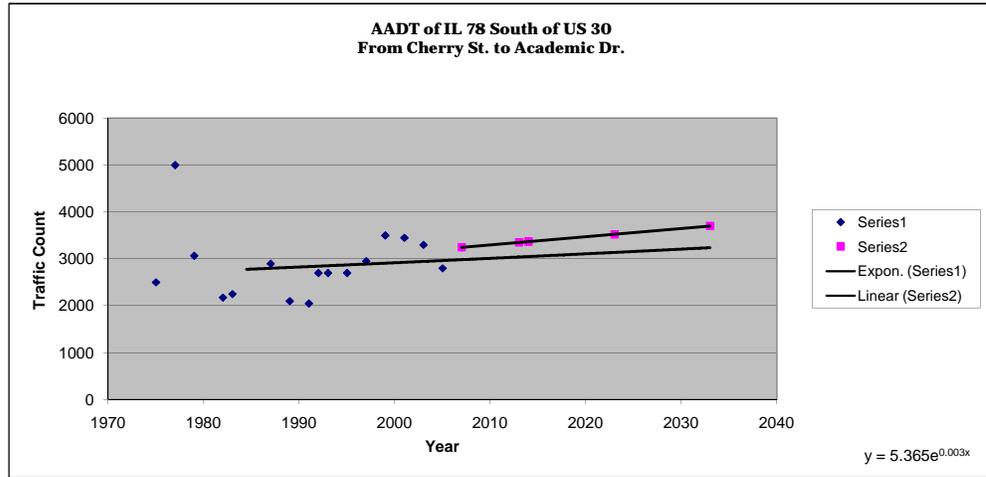


2% Truck Volume
 0% No Passing Zones
 Access Points
 Posted Speed

Based on Exponential Regression Line:		
	Year	ADT
Forecasted Const. Year AADT	2013	4,873
Forecasted AADT	2023	4,934
Forecasted Rdwy. Design Year AADT	2033	6,250
Growth Rate is:	1.25%	
% Growth over 26 Years	45.35%	

IL 78 South (Portland) From Cherry to Academic Dr.

Year	AADT
1975	2500
1977	5000
1979	3067
1981	2825
1982	2175
1983	2250
1987	2900
1989	2100
1991	2050
1992	2700
1993	2700
1995	2700
1997	2950
1999	3500
2001	3450
2003	3300
2005	2800
2007	3250
2013	
2023	
2033	



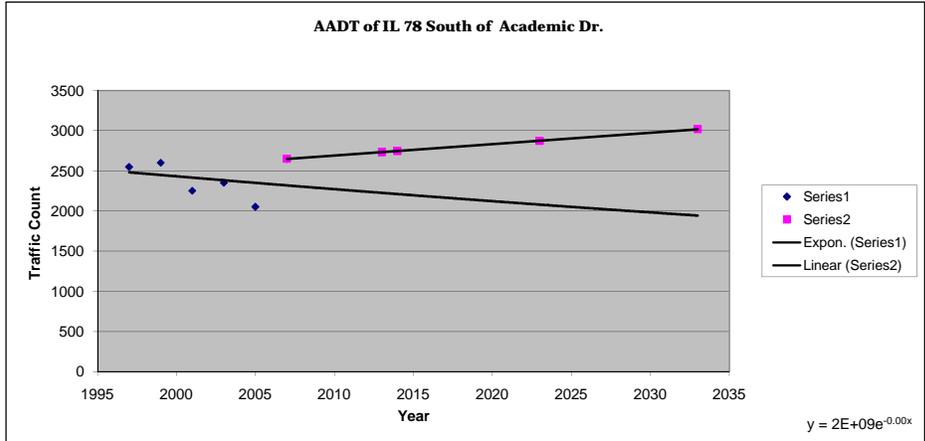
SU	50
MU	20

2% Truck Volume
 0% No Passing Zones
 Access Points
 Posted Speed

Based on Exponential Regression Line:		(However, minimum growth rate set at 0.50%) Revised AADT (Based on 0.5% linear growth)	
	Year	AADT	
Forecasted Const. Year AADT	2013	3,039	3,349
		3,048	
Forecasted AADT	2023	3,136	3,520
Forecasted Rdwy. Design Year AADT	2033	3,236	3,700
Growth Rate is:	0.32%		0.50%
% Growth over 26 Years	43.83%		13.85%

IL 78 South Of Academic Dr.

Year	AADT
1997	2550
1999	2600
2001	2250
2003	2350
2005	2050
2007	2650
2013	
2023	
2033	



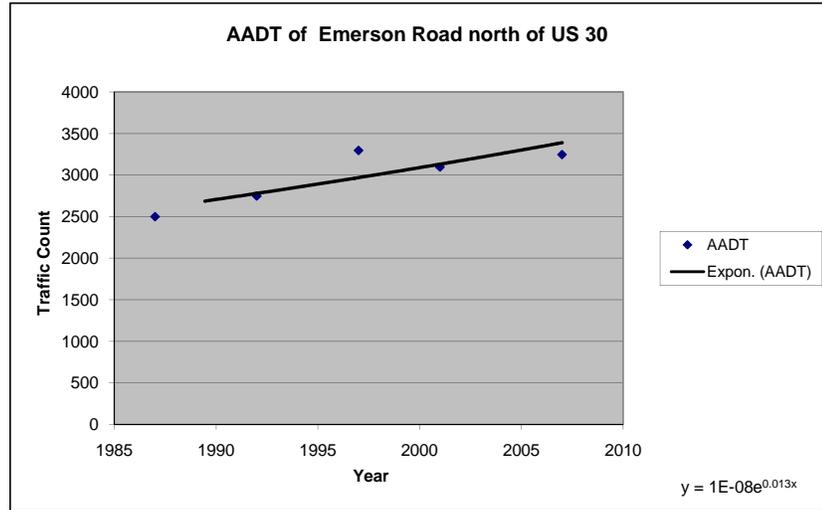
SU	50
MU	20

3% Truck Volume
 0% No Passing Zones
 Access Points
 Posted Speed

Based on Exponential Regression Line:			(However, minimum growth rate set at 0.50%) Revised AADT (Based on 0.5% linear growth)	
	Year	AADT		
Forecasted Const. Year AADT	2013	2,225		2,731
Forecasted AADT	2023	2,210		2,870
Forecasted Rdwy. Design Year AADT	2033	1,942		3,017
Growth Rate is:	-0.68%			0.50%
% Growth over 26 Years	-26.73%			13.85%

Emerson Road (north of US 30)

Year	AADT
1987	2500
1992	2750
1997	3300
2001	3100
2005	
2007	3250
2013	
2023	
2033	



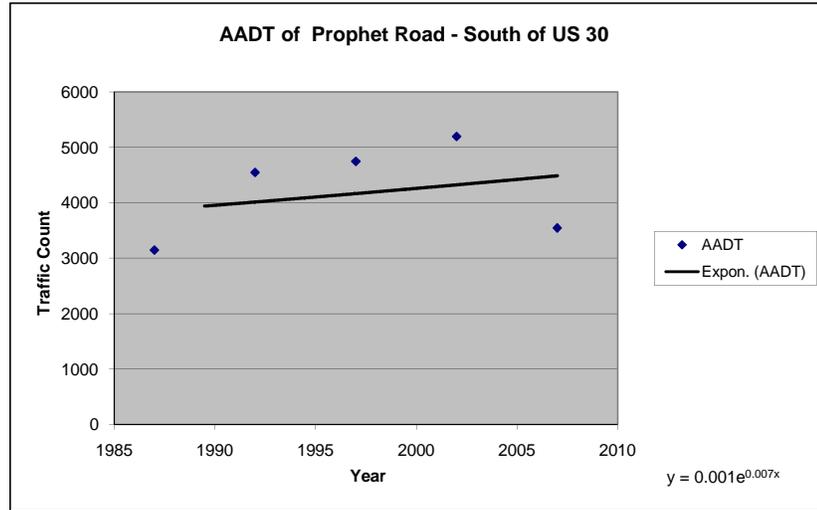
SU	30
MU	50

2% Truck Volume
 0% No Passing Zones
 Access Points
 Posted Speed

Based on Exponential Regression Line:		
	Year	AADT
Forecasted Const. Year AADT	2013	3,594
Forecasted AADT	2023	3,973
Forecasted Rdwy. Design Year AADT	2033	4,353
Growth Rate is:	1.05%	
% Growth over 26 Years	33.92%	

Prophet Road (South of US 30)

Year	AADT
1987	3150
1992	4550
1997	4750
2002	5200
2005	
2007	3550
2013	
2023	
2033	



SU	100
MU	60

- 5% Truck Volume
- 0% No Passing Zones
- Access Points
- Posted Speed

Based on Exponential Regression Line:		
	Year	AADT
Forecasted Const. Year AADT	2013	4,704
Forecasted AADT	2023	4,994
Forecasted Rdwy. Design Year AADT	2033	5,284
Growth Rate is:	0.62%	
% Growth over 26 Years	48.85%	

EXHIBIT 6

HCS ANALYSIS OF SEGMENTS

Heavy-vehicle adjustment factor,	0.854
Two-way flow rate,(note-1) vp	887 pc/h
Highest directional split proportion (note-2)	488 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	60.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	0.5 mi/h
Free-flow speed, FFS	59.5 mi/h
Adjustment for no-passing zones, fnp	1.3 mi/h
Average travel speed, ATS	51.3 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	0.94
PCE for trucks, ET	1.5
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.913
Two-way flow rate,(note-1) vp	821 pc/h
Highest directional split proportion (note-2)	452
Base percent time-spent-following, BPTSF	51.4 %
Adj.for directional distribution and no-passing zones, fd/np	8.6
Percent time-spent-following, PTSF	60.0 %

 Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.28
Peak 15-min vehicle-miles of travel, VMT15	299 veh-mi
Peak-hour vehicle-miles of travel, VMT60	1054 veh-mi
Peak 15-min total travel time, TT15	5.8 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

HCS+: Two-Lane Highways Release 5.21

Phone: Fax:
E-Mail:

Two-Way Two-Lane Highway Segment Analysis

Analyst M Walton
Agency/Co. Volkert & Assoc.
Date Performed 11/13/2007
Analysis Time Period 1989 to 2033
Highway US 30
From/To IL 136 to Millard Rd.
Jurisdiction State of Illinois
Analysis Year 2013
Description Environmnetal Impact Statement & Phase I Design Report

Input Data

Highway class Class 1
Shoulder width 6.0 ft Peak-hour factor, PHF 0.88
Lane width 12.0 ft % Trucks and buses 19 %
Segment length 1.7 mi % Recreational vehicles 0 %
Terrain type Rolling % No-passing zones 23 %
Grade: Length mi Access points/mi 2 /mi
 Up/down %

Two-way hourly volume, V 683 veh/h
Directional split 55 / 45 %

Average Travel Speed

Grade adjustment factor, fG 0.93
PCE for trucks, ET 1.9
PCE for RVs, ER 1.1

Heavy-vehicle adjustment factor,	0.854
Two-way flow rate,(note-1) vp	977 pc/h
Highest directional split proportion (note-2)	537 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	60.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	0.5 mi/h

Free-flow speed, FFS	59.5 mi/h
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Adjustment for no-passing zones, fnp	1.2 mi/h
Average travel speed, ATS	50.7 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	0.94
PCE for trucks, ET	1.5
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.913
Two-way flow rate,(note-1) vp	904 pc/h
Highest directional split proportion (note-2)	497
Base percent time-spent-following, BPTSF	54.8 %
Adj.for directional distribution and no-passing zones, fd/np	7.9
Percent time-spent-following, PTSF	62.7 %

 Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.31
Peak 15-min vehicle-miles of travel, VMT15	330 veh-mi
Peak-hour vehicle-miles of travel, VMT60	1161 veh-mi
Peak 15-min total travel time, TT15	6.5 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

HCS+: Two-Lane Highways Release 5.21

Phone: Fax:
E-Mail:

Two-Way Two-Lane Highway Segment Analysis

Analyst M Walton
Agency/Co. Volkert & Assoc.
Date Performed 11/13/2007
Analysis Time Period 1989 to 2033
Highway US 30
From/To IL 136 to Millard Rd.
Jurisdiction State of Illinois
Analysis Year 2023
Description Environmnetal Impact Statement & Phase I Design Report

Input Data

Highway class Class 1
Shoulder width 6.0 ft Peak-hour factor, PHF 0.88
Lane width 12.0 ft % Trucks and buses 19 %
Segment length 1.7 mi % Recreational vehicles 0 %
Terrain type Rolling % No-passing zones 23 %
Grade: Length mi Access points/mi 2 /mi
 Up/down %

Two-way hourly volume, V 733 veh/h
Directional split 55 / 45 %

Average Travel Speed

Grade adjustment factor, fG 0.93
PCE for trucks, ET 1.9
PCE for RVs, ER 1.1

Heavy-vehicle adjustment factor,	0.854
Two-way flow rate,(note-1) vp	1049 pc/h
Highest directional split proportion (note-2)	577 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	60.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	0.5 mi/h
Free-flow speed, FFS	59.5 mi/h
Adjustment for no-passing zones, fnp	1.1 mi/h
Average travel speed, ATS	50.3 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	0.94
PCE for trucks, ET	1.5
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.913
Two-way flow rate,(note-1) vp	970 pc/h
Highest directional split proportion (note-2)	534
Base percent time-spent-following, BPTSF	57.4 %
Adj.for directional distribution and no-passing zones, fd/np	7.4
Percent time-spent-following, PTSF	64.8 %

 Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.33
Peak 15-min vehicle-miles of travel, VMT15	354 veh-mi
Peak-hour vehicle-miles of travel, VMT60	1246 veh-mi
Peak 15-min total travel time, TT15	7.0 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

HCS+: Two-Lane Highways Release 5.21

Phone: Fax:
E-Mail:

Two-Way Two-Lane Highway Segment Analysis

Analyst M Walton
Agency/Co. Volkert & Assoc.
Date Performed 11/13/2007
Analysis Time Period 1989 to 2033
Highway US 30
From/To IL 136 to Millard Rd.
Jurisdiction State of Illinois
Analysis Year 2033
Description Environmental Impact Statement & Phase I Design Report

Input Data

Highway class Class 1
Shoulder width 6.0 ft Peak-hour factor, PHF 0.88
Lane width 12.0 ft % Trucks and buses 19 %
Segment length 1.7 mi % Recreational vehicles 0 %
Terrain type Rolling % No-passing zones 23 %
Grade: Length mi Access points/mi 2 /mi
 Up/down %

Two-way hourly volume, V 788 veh/h
Directional split 55 / 45 %

Average Travel Speed

Grade adjustment factor, fG 0.93
PCE for trucks, ET 1.9
PCE for RVs, ER 1.1

Heavy-vehicle adjustment factor,	0.854	
Two-way flow rate,(note-1) vp	1128	pc/h
Highest directional split proportion (note-2)	620	pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	-	mi/h
Observed volume, Vf	-	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed, BFFS	60.0	mi/h
Adj. for lane and shoulder width, fLS	0.0	mi/h
Adj. for access points, fA	0.5	mi/h

Free-flow speed, FFS	59.5	mi/h
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Adjustment for no-passing zones, fnp	1.0	mi/h
Average travel speed, ATS	49.8	mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	0.94	
PCE for trucks, ET	1.5	
PCE for RVs, ER	1.0	
Heavy-vehicle adjustment factor, fHV	0.913	
Two-way flow rate,(note-1) vp	1043	pc/h
Highest directional split proportion (note-2)	574	
Base percent time-spent-following, BPTSF	60.0	%
Adj.for directional distribution and no-passing zones, fd/np	6.8	
Percent time-spent-following, PTSF	66.8	%

 Level of Service and Other Performance Measures

Level of service, LOS	D	
Volume to capacity ratio, v/c	0.35	
Peak 15-min vehicle-miles of travel, VMT15	381	veh-mi
Peak-hour vehicle-miles of travel, VMT60	1340	veh-mi
Peak 15-min total travel time, TT15	7.7	veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

Heavy-vehicle adjustment factor,	0.867
Two-way flow rate,(note-1) vp	845 pc/h
Highest directional split proportion (note-2)	465 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	60.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	0.5 mi/h

Free-flow speed, FFS	59.5 mi/h
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Adjustment for no-passing zones, fnp	1.4 mi/h
Average travel speed, ATS	51.6 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	0.94
PCE for trucks, ET	1.5
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.922
Two-way flow rate,(note-1) vp	787 pc/h
Highest directional split proportion (note-2)	433
Base percent time-spent-following, BPTSF	49.9 %
Adj.for directional distribution and no-passing zones, fd/np	8.7
Percent time-spent-following, PTSF	58.6 %

 Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.26
Peak 15-min vehicle-miles of travel, VMT15	580 veh-mi
Peak-hour vehicle-miles of travel, VMT60	2040 veh-mi
Peak 15-min total travel time, TT15	11.2 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

Heavy-vehicle adjustment factor,	0.867
Two-way flow rate,(note-1) vp	968 pc/h
Highest directional split proportion (note-2)	532 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	60.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	0.5 mi/h

Free-flow speed, FFS	59.5 mi/h
----------------------	-----------

Adjustment for no-passing zones, fnp	1.2 mi/h
Average travel speed, ATS	50.8 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	0.94
PCE for trucks, ET	1.5
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.922
Two-way flow rate,(note-1) vp	901 pc/h
Highest directional split proportion (note-2)	496
Base percent time-spent-following, BPTSF	54.7 %
Adj.for directional distribution and no-passing zones, fd/np	7.7
Percent time-spent-following, PTSF	62.4 %

 Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.30
Peak 15-min vehicle-miles of travel, VMT15	664 veh-mi
Peak-hour vehicle-miles of travel, VMT60	2336 veh-mi
Peak 15-min total travel time, TT15	13.1 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

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Phone: Fax:
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Two-Way Two-Lane Highway Segment Analysis

Analyst M Walton
Agency/Co. Volkert & Assoc.
Date Performed 11/13/2007
Analysis Time Period 1989 to 2033
Highway US 30
From/To Millard Rd. to IL 78 North
Jurisdiction State of Illinois
Analysis Year 2023
Description Environmnetal Impact Statement & Phase I Design Report

Input Data

Highway class Class 1
Shoulder width 6.0 ft Peak-hour factor, PHF 0.88
Lane width 12.0 ft % Trucks and buses 17 %
Segment length 3.4 mi % Recreational vehicles 0 %
Terrain type Rolling % No-passing zones 21 %
Grade: Length mi Access points/mi 2 /mi
 Up/down %

Two-way hourly volume, V 760 veh/h
Directional split 55 / 45 %

Average Travel Speed

Grade adjustment factor, fG 0.93
PCE for trucks, ET 1.9
PCE for RVs, ER 1.1

Heavy-vehicle adjustment factor,	0.867
Two-way flow rate,(note-1) vp	1071 pc/h
Highest directional split proportion (note-2)	589 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	60.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	0.5 mi/h
Free-flow speed, FFS	59.5 mi/h
Adjustment for no-passing zones, fnp	1.0 mi/h
Average travel speed, ATS	50.2 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	0.94
PCE for trucks, ET	1.5
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.922
Two-way flow rate,(note-1) vp	997 pc/h
Highest directional split proportion (note-2)	548
Base percent time-spent-following, BPTSF	58.4 %
Adj.for directional distribution and no-passing zones, fd/np	6.9
Percent time-spent-following, PTSF	65.3 %

 Level of Service and Other Performance Measures

Level of service, LOS	D
Volume to capacity ratio, v/c	0.33
Peak 15-min vehicle-miles of travel, VMT15	734 veh-mi
Peak-hour vehicle-miles of travel, VMT60	2584 veh-mi
Peak 15-min total travel time, TT15	14.6 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

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Two-Way Two-Lane Highway Segment Analysis

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Analysis Time Period 1989 to 2033
Highway US 30
From/To Millard Rd. to IL 78 North
Jurisdiction State of Illinois
Analysis Year 2033
Description Environmnetal Impact Statement & Phase I Design Report

Input Data

Highway class Class 1
Shoulder width 6.0 ft Peak-hour factor, PHF 0.88
Lane width 12.0 ft % Trucks and buses 17 %
Segment length 3.4 mi % Recreational vehicles 0 %
Terrain type Rolling % No-passing zones 21 %
Grade: Length mi Access points/mi 2 /mi
 Up/down %

Two-way hourly volume, V 840 veh/h
Directional split 55 / 45 %

Average Travel Speed

Grade adjustment factor, fG 0.93
PCE for trucks, ET 1.9
PCE for RVs, ER 1.1

Heavy-vehicle adjustment factor,	0.867	
Two-way flow rate,(note-1) vp	1183	pc/h
Highest directional split proportion (note-2)	651	pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	-	mi/h
Observed volume, Vf	-	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed, BFFS	60.0	mi/h
Adj. for lane and shoulder width, fLS	0.0	mi/h
Adj. for access points, fA	0.5	mi/h

Free-flow speed, FFS	59.5	mi/h
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Adjustment for no-passing zones, fnp	0.8	mi/h
Average travel speed, ATS	49.5	mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	0.94	
PCE for trucks, ET	1.5	
PCE for RVs, ER	1.0	
Heavy-vehicle adjustment factor, fHV	0.922	
Two-way flow rate,(note-1) vp	1102	pc/h
Highest directional split proportion (note-2)	606	
Base percent time-spent-following, BPTSF	62.0	%
Adj.for directional distribution and no-passing zones, fd/np	6.1	
Percent time-spent-following, PTSF	68.1	%

 Level of Service and Other Performance Measures

Level of service, LOS	D	
Volume to capacity ratio, v/c	0.37	
Peak 15-min vehicle-miles of travel, VMT15	811	veh-mi
Peak-hour vehicle-miles of travel, VMT60	2856	veh-mi
Peak 15-min total travel time, TT15	16.4	veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

Heavy-vehicle adjustment factor,	0.903	
Two-way flow rate,(note-1) vp	1002	pc/h
Highest directional split proportion (note-2)	551	pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	-	mi/h
Observed volume, Vf	-	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed, BFFS	45.0	mi/h
Adj. for lane and shoulder width, fLS	1.3	mi/h
Adj. for access points, fA	2.5	mi/h

Free-flow speed, FFS	41.2	mi/h
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Adjustment for no-passing zones, fnp	2.1	mi/h
Average travel speed, ATS	31.4	mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	0.94	
PCE for trucks, ET	1.5	
PCE for RVs, ER	1.0	
Heavy-vehicle adjustment factor, fHV	0.943	
Two-way flow rate,(note-1) vp	948	pc/h
Highest directional split proportion (note-2)	521	
Base percent time-spent-following, BPTSF	56.5	%
Adj.for directional distribution and no-passing zones, fd/np	12.1	
Percent time-spent-following, PTSF	68.6	%

 Level of Service and Other Performance Measures

Level of service, LOS	E	
Volume to capacity ratio, v/c	0.31	
Peak 15-min vehicle-miles of travel, VMT15	210	veh-mi
Peak-hour vehicle-miles of travel, VMT60	740	veh-mi
Peak 15-min total travel time, TT15	6.7	veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

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Two-Way Two-Lane Highway Segment Analysis

Analyst M Walton
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Date Performed 11/13/2007
Analysis Time Period 1989 to 2033
Highway US 30
From/To IL 78 North to Heaton St.
Jurisdiction State of Illinois
Analysis Year 2013
Description Environmnetal Impact Statement & Phase I Design Report

Input Data

Highway class Class 1
Shoulder width 4.0 ft Peak-hour factor, PHF 0.88
Lane width 12.0 ft % Trucks and buses 12 %
Segment length 1.0 mi % Recreational vehicles 0 %
Terrain type Rolling % No-passing zones 67 %
Grade: Length mi Access points/mi 10 /mi
Up/down %

Two-way hourly volume, V 808 veh/h
Directional split 55 / 45 %

Average Travel Speed

Grade adjustment factor, fG 0.93
PCE for trucks, ET 1.9
PCE for RVs, ER 1.1

Heavy-vehicle adjustment factor,	0.903
Two-way flow rate,(note-1) vp	1094 pc/h
Highest directional split proportion (note-2)	602 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	45.0 mi/h
Adj. for lane and shoulder width, fLS	1.3 mi/h
Adj. for access points, fA	2.5 mi/h

Free-flow speed, FFS	41.2 mi/h
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Adjustment for no-passing zones, fnp	1.9 mi/h
Average travel speed, ATS	30.8 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	0.94
PCE for trucks, ET	1.5
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.943
Two-way flow rate,(note-1) vp	1035 pc/h
Highest directional split proportion (note-2)	569
Base percent time-spent-following, BPTSF	59.7 %
Adj.for directional distribution and no-passing zones, fd/np	11.1
Percent time-spent-following, PTSF	70.9 %

 Level of Service and Other Performance Measures

Level of service, LOS	E
Volume to capacity ratio, v/c	0.34
Peak 15-min vehicle-miles of travel, VMT15	230 veh-mi
Peak-hour vehicle-miles of travel, VMT60	808 veh-mi
Peak 15-min total travel time, TT15	7.5 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

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Two-Way Two-Lane Highway Segment Analysis

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Analysis Time Period 1989 to 2033
Highway US 30
From/To IL 78 North to Heaton St.
Jurisdiction State of Illinois
Analysis Year 2023
Description Environmnetal Impact Statement & Phase I Design Report

Input Data

Highway class Class 1
Shoulder width 4.0 ft Peak-hour factor, PHF 0.88
Lane width 12.0 ft % Trucks and buses 12 %
Segment length 1.0 mi % Recreational vehicles 0 %
Terrain type Rolling % No-passing zones 67 %
Grade: Length mi Access points/mi 10 /mi
 Up/down %

Two-way hourly volume, V 871 veh/h
Directional split 55 / 45 %

Average Travel Speed

Grade adjustment factor, fG 0.93
PCE for trucks, ET 1.9
PCE for RVs, ER 1.1

Heavy-vehicle adjustment factor,	0.903
Two-way flow rate,(note-1) vp	1179 pc/h
Highest directional split proportion (note-2)	648 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	45.0 mi/h
Adj. for lane and shoulder width, fLS	1.3 mi/h
Adj. for access points, fA	2.5 mi/h

Free-flow speed, FFS	41.2 mi/h
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Adjustment for no-passing zones, fnp	1.7 mi/h
Average travel speed, ATS	30.3 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	0.94
PCE for trucks, ET	1.5
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.943
Two-way flow rate,(note-1) vp	1116 pc/h
Highest directional split proportion (note-2)	614
Base percent time-spent-following, BPTSF	62.5 %
Adj.for directional distribution and no-passing zones, fd/np	10.2
Percent time-spent-following, PTSF	72.7 %

 Level of Service and Other Performance Measures

Level of service, LOS	E
Volume to capacity ratio, v/c	0.37
Peak 15-min vehicle-miles of travel, VMT15	247 veh-mi
Peak-hour vehicle-miles of travel, VMT60	871 veh-mi
Peak 15-min total travel time, TT15	8.1 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

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Two-Way Two-Lane Highway Segment Analysis

Analyst M Walton
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Date Performed 11/13/2007
Analysis Time Period 1989 to 2033
Highway US 30
From/To IL 78 North to Heaton St.
Jurisdiction State of Illinois
Analysis Year 2033
Description Environmental Impact Statement & Phase I Design Report

Input Data

Highway class Class 1
Shoulder width 4.0 ft Peak-hour factor, PHF 0.88
Lane width 12.0 ft % Trucks and buses 12 %
Segment length 1.0 mi % Recreational vehicles 0 %
Terrain type Rolling % No-passing zones 67 %
Grade: Length mi Access points/mi 10 /mi
 Up/down %

Two-way hourly volume, V 940 veh/h
Directional split 55 / 45 %

Average Travel Speed

Grade adjustment factor, fG 0.99
PCE for trucks, ET 1.5
PCE for RVs, ER 1.1

Heavy-vehicle adjustment factor,	0.943
Two-way flow rate,(note-1) vp	1144 pc/h
Highest directional split proportion (note-2)	629 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	45.0 mi/h
Adj. for lane and shoulder width, fLS	1.3 mi/h
Adj. for access points, fA	2.5 mi/h

Free-flow speed, FFS	41.2 mi/h
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Adjustment for no-passing zones, fnp	1.8 mi/h
Average travel speed, ATS	30.5 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	1.00
PCE for trucks, ET	1.0
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	1.000
Two-way flow rate,(note-1) vp	1068 pc/h
Highest directional split proportion (note-2)	587
Base percent time-spent-following, BPTSF	60.9 %
Adj.for directional distribution and no-passing zones, fd/np	10.8
Percent time-spent-following, PTSF	71.7 %

 Level of Service and Other Performance Measures

Level of service, LOS	E
Volume to capacity ratio, v/c	0.36
Peak 15-min vehicle-miles of travel, VMT15	267 veh-mi
Peak-hour vehicle-miles of travel, VMT60	940 veh-mi
Peak 15-min total travel time, TT15	8.7 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

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Two-Way Two-Lane Highway Segment Analysis

Analyst M Walton
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Date Performed 11/13/2007
Analysis Time Period 1989 to 2033
Highway US 30
From/To Heaton St. to IL 78 South
Jurisdiction State of Illinois
Analysis Year 2007
Description Environmnetal Impact Statement & Phase I Design Report

Input Data

Highway class Class 1
Shoulder width 2.0 ft Peak-hour factor, PHF 0.88
Lane width 12.0 ft % Trucks and buses 9 %
Segment length 0.4 mi % Recreational vehicles 0 %
Terrain type Level % No-passing zones 1 %
Grade: Length mi Access points/mi 16 /mi
Up/down %

Two-way hourly volume, V 1020 veh/h
Directional split 55 / 45 %

Average Travel Speed

Grade adjustment factor, fG 1.00
PCE for trucks, ET 1.2
PCE for RVs, ER 1.0

Heavy-vehicle adjustment factor,	0.982
Two-way flow rate,(note-1) vp	1180 pc/h
Highest directional split proportion (note-2)	649 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	45.0 mi/h
Adj. for lane and shoulder width, fLS	2.6 mi/h
Adj. for access points, fA	4.0 mi/h

Free-flow speed, FFS	38.4 mi/h
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Adjustment for no-passing zones, fnp	0.0 mi/h
Average travel speed, ATS	29.2 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	1.00
PCE for trucks, ET	1.1
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.991
Two-way flow rate,(note-1) vp	1170 pc/h
Highest directional split proportion (note-2)	644
Base percent time-spent-following, BPTSF	64.2 %
Adj.for directional distribution and no-passing zones, fd/np	0.3
Percent time-spent-following, PTSF	64.5 %

 Level of Service and Other Performance Measures

Level of service, LOS	E
Volume to capacity ratio, v/c	0.37
Peak 15-min vehicle-miles of travel, VMT15	116 veh-mi
Peak-hour vehicle-miles of travel, VMT60	408 veh-mi
Peak 15-min total travel time, TT15	4.0 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

Heavy-vehicle adjustment factor,	0.991
Two-way flow rate,(note-1) vp	1205 pc/h
Highest directional split proportion (note-2)	663 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	45.0 mi/h
Adj. for lane and shoulder width, fLS	2.6 mi/h
Adj. for access points, fA	4.0 mi/h

Free-flow speed, FFS	38.4 mi/h
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Adjustment for no-passing zones, fnp	0.0 mi/h
Average travel speed, ATS	29.0 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	1.00
PCE for trucks, ET	1.0
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	1.000
Two-way flow rate,(note-1) vp	1194 pc/h
Highest directional split proportion (note-2)	657
Base percent time-spent-following, BPTSF	65.0 %
Adj.for directional distribution and no-passing zones, fd/np	0.3
Percent time-spent-following, PTSF	65.3 %

 Level of Service and Other Performance Measures

Level of service, LOS	E
Volume to capacity ratio, v/c	0.38
Peak 15-min vehicle-miles of travel, VMT15	119 veh-mi
Peak-hour vehicle-miles of travel, VMT60	420 veh-mi
Peak 15-min total travel time, TT15	4.1 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

Heavy-vehicle adjustment factor,	0.991
Two-way flow rate,(note-1) vp	1267 pc/h
Highest directional split proportion (note-2)	697 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	45.0 mi/h
Adj. for lane and shoulder width, fLS	2.6 mi/h
Adj. for access points, fA	4.0 mi/h

Free-flow speed, FFS	38.4 mi/h
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Adjustment for no-passing zones, fnp	0.0 mi/h
Average travel speed, ATS	28.5 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	1.00
PCE for trucks, ET	1.0
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	1.000
Two-way flow rate,(note-1) vp	1256 pc/h
Highest directional split proportion (note-2)	691
Base percent time-spent-following, BPTSF	66.8 %
Adj.for directional distribution and no-passing zones, fd/np	0.2
Percent time-spent-following, PTSF	67.1 %

 Level of Service and Other Performance Measures

Level of service, LOS	E
Volume to capacity ratio, v/c	0.40
Peak 15-min vehicle-miles of travel, VMT15	126 veh-mi
Peak-hour vehicle-miles of travel, VMT60	442 veh-mi
Peak 15-min total travel time, TT15	4.4 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

Heavy-vehicle adjustment factor,	0.991	
Two-way flow rate,(note-1) vp	1331	pc/h
Highest directional split proportion (note-2)	732	pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	-	mi/h
Observed volume, Vf	-	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed, BFFS	45.0	mi/h
Adj. for lane and shoulder width, fLS	2.6	mi/h
Adj. for access points, fA	4.0	mi/h

Free-flow speed, FFS	38.4	mi/h
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Adjustment for no-passing zones, fnp	0.0	mi/h
Average travel speed, ATS	28.0	mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	1.00	
PCE for trucks, ET	1.0	
PCE for RVs, ER	1.0	
Heavy-vehicle adjustment factor, fHV	1.000	
Two-way flow rate,(note-1) vp	1319	pc/h
Highest directional split proportion (note-2)	725	
Base percent time-spent-following, BPTSF	68.6	%
Adj.for directional distribution and no-passing zones, fd/np	0.2	
Percent time-spent-following, PTSF	68.8	%

 Level of Service and Other Performance Measures

Level of service, LOS	E	
Volume to capacity ratio, v/c	0.42	
Peak 15-min vehicle-miles of travel, VMT15	132	veh-mi
Peak-hour vehicle-miles of travel, VMT60	464	veh-mi
Peak 15-min total travel time, TT15	4.7	veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

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Two-Way Two-Lane Highway Segment Analysis

Analyst M Walton
Agency/Co. Volkert & Assoc.
Date Performed 11/13/2007
Analysis Time Period 1989 to 2033
Highway US 30
From/To IL 78 South to Jackson St.
Jurisdiction State of Illinois
Analysis Year 2007
Description Environmnetal Impact Statement & Phase I Design Report

Input Data

Highway class Class 1
Shoulder width 2.0 ft Peak-hour factor, PHF 0.88
Lane width 12.0 ft % Trucks and buses 8 %
Segment length 0.4 mi % Recreational vehicles 0 %
Terrain type Level % No-passing zones 30 %
Grade: Length mi Access points/mi 12 /mi
Up/down %

Two-way hourly volume, V 880 veh/h
Directional split 55 / 45 %

Average Travel Speed

Grade adjustment factor, fG 1.00
PCE for trucks, ET 1.2
PCE for RVs, ER 1.0

Heavy-vehicle adjustment factor,	0.984
Two-way flow rate,(note-1) vp	1016 pc/h
Highest directional split proportion (note-2)	559 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	45.0 mi/h
Adj. for lane and shoulder width, fLS	2.6 mi/h
Adj. for access points, fA	3.0 mi/h

Free-flow speed, FFS	39.4 mi/h
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Adjustment for no-passing zones, fnp	1.3 mi/h
Average travel speed, ATS	30.2 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	1.00
PCE for trucks, ET	1.1
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.992
Two-way flow rate,(note-1) vp	1008 pc/h
Highest directional split proportion (note-2)	554
Base percent time-spent-following, BPTSF	58.8 %
Adj.for directional distribution and no-passing zones, fd/np	8.0
Percent time-spent-following, PTSF	66.8 %

 Level of Service and Other Performance Measures

Level of service, LOS	E
Volume to capacity ratio, v/c	0.32
Peak 15-min vehicle-miles of travel, VMT15	100 veh-mi
Peak-hour vehicle-miles of travel, VMT60	352 veh-mi
Peak 15-min total travel time, TT15	3.3 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

Heavy-vehicle adjustment factor,	0.984
Two-way flow rate,(note-1) vp	1047 pc/h
Highest directional split proportion (note-2)	576 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	45.0 mi/h
Adj. for lane and shoulder width, fLS	2.6 mi/h
Adj. for access points, fA	3.0 mi/h

Free-flow speed, FFS	39.4 mi/h
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Adjustment for no-passing zones, fnp	1.3 mi/h
Average travel speed, ATS	30.0 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	1.00
PCE for trucks, ET	1.1
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.992
Two-way flow rate,(note-1) vp	1039 pc/h
Highest directional split proportion (note-2)	571
Base percent time-spent-following, BPTSF	59.9 %
Adj.for directional distribution and no-passing zones, fd/np	7.7
Percent time-spent-following, PTSF	67.6 %

 Level of Service and Other Performance Measures

Level of service, LOS	E
Volume to capacity ratio, v/c	0.33
Peak 15-min vehicle-miles of travel, VMT15	103 veh-mi
Peak-hour vehicle-miles of travel, VMT60	363 veh-mi
Peak 15-min total travel time, TT15	3.4 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

Heavy-vehicle adjustment factor,	0.984
Two-way flow rate,(note-1) vp	1100 pc/h
Highest directional split proportion (note-2)	605 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	45.0 mi/h
Adj. for lane and shoulder width, fLS	2.6 mi/h
Adj. for access points, fA	3.0 mi/h

Free-flow speed, FFS	39.4 mi/h
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Adjustment for no-passing zones, fnp	1.2 mi/h
Average travel speed, ATS	29.7 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	1.00
PCE for trucks, ET	1.1
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.992
Two-way flow rate,(note-1) vp	1092 pc/h
Highest directional split proportion (note-2)	601
Base percent time-spent-following, BPTSF	61.7 %
Adj.for directional distribution and no-passing zones, fd/np	7.2
Percent time-spent-following, PTSF	69.0 %

 Level of Service and Other Performance Measures

Level of service, LOS	E
Volume to capacity ratio, v/c	0.34
Peak 15-min vehicle-miles of travel, VMT15	108 veh-mi
Peak-hour vehicle-miles of travel, VMT60	381 veh-mi
Peak 15-min total travel time, TT15	3.6 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

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 Two-Way Two-Lane Highway Segment Analysis

Analyst M Walton
Agency/Co. Volkert & Assoc.
Date Performed 11/13/2007
Analysis Time Period 1989 to 2033
Highway US 30
From/To IL 78 South to Jackson St.
Jurisdiction State of Illinois
Analysis Year 2033
Description Environmental Impact Statement & Phase I Design Report

 Input Data

Highway class Class 1
Shoulder width 2.0 ft Peak-hour factor, PHF 0.88
Lane width 12.0 ft % Trucks and buses 8 %
Segment length 0.4 mi % Recreational vehicles 0 %
Terrain type Level % No-passing zones 30 %
Grade: Length mi Access points/mi 12 /mi
Up/down %

Two-way hourly volume, V 1002 veh/h
Directional split 55 / 45 %

 Average Travel Speed

Grade adjustment factor, fG 1.00
PCE for trucks, ET 1.2
PCE for RVs, ER 1.0

Heavy-vehicle adjustment factor,	0.984
Two-way flow rate,(note-1) vp	1157 pc/h
Highest directional split proportion (note-2)	636 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	45.0 mi/h
Adj. for lane and shoulder width, fLS	2.6 mi/h
Adj. for access points, fA	3.0 mi/h

Free-flow speed, FFS	39.4 mi/h
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Adjustment for no-passing zones, fnp	1.1 mi/h
Average travel speed, ATS	29.3 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	1.00
PCE for trucks, ET	1.1
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.992
Two-way flow rate,(note-1) vp	1148 pc/h
Highest directional split proportion (note-2)	631
Base percent time-spent-following, BPTSF	63.5 %
Adj.for directional distribution and no-passing zones, fd/np	6.8
Percent time-spent-following, PTSF	70.3 %

 Level of Service and Other Performance Measures

Level of service, LOS	E
Volume to capacity ratio, v/c	0.36
Peak 15-min vehicle-miles of travel, VMT15	114 veh-mi
Peak-hour vehicle-miles of travel, VMT60	401 veh-mi
Peak 15-min total travel time, TT15	3.9 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

Heavy-vehicle adjustment factor,	0.980
Two-way flow rate,(note-1) vp	1043 pc/h
Highest directional split proportion (note-2)	574 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	45.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	1.8 mi/h

Free-flow speed, FFS	43.3 mi/h
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Adjustment for no-passing zones, fnp	1.5 mi/h
Average travel speed, ATS	33.6 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	1.00
PCE for trucks, ET	1.1
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.990
Two-way flow rate,(note-1) vp	1033 pc/h
Highest directional split proportion (note-2)	568
Base percent time-spent-following, BPTSF	59.7 %
Adj.for directional distribution and no-passing zones, fd/np	9.0
Percent time-spent-following, PTSF	68.7 %

 Level of Service and Other Performance Measures

Level of service, LOS	E
Volume to capacity ratio, v/c	0.33
Peak 15-min vehicle-miles of travel, VMT15	102 veh-mi
Peak-hour vehicle-miles of travel, VMT60	360 veh-mi
Peak 15-min total travel time, TT15	3.0 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

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Two-Way Two-Lane Highway Segment Analysis

Analyst M Walton
Agency/Co. Volkert & Assoc.
Date Performed 11/13/2007
Analysis Time Period 1989 to 2033
Highway US 30
From/To Jackson St. to Sawyer Rd.
Jurisdiction State of Illinois
Analysis Year 2013
Description Environmnetal Impact Statement & Phase I Design Report

Input Data

Highway class Class 1
Shoulder width 6.0 ft Peak-hour factor, PHF 0.88
Lane width 12.0 ft % Trucks and buses 10 %
Segment length 0.4 mi % Recreational vehicles 0 %
Terrain type Level % No-passing zones 40 %
Grade: Length mi Access points/mi 7 /mi
Up/down %

Two-way hourly volume, V 938 veh/h
Directional split 55 / 45 %

Average Travel Speed

Grade adjustment factor, fG 1.00
PCE for trucks, ET 1.2
PCE for RVs, ER 1.0

Heavy-vehicle adjustment factor,	0.980
Two-way flow rate,(note-1) vp	1087 pc/h
Highest directional split proportion (note-2)	598 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	45.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	1.8 mi/h

Free-flow speed, FFS	43.3 mi/h
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Adjustment for no-passing zones, fnp	1.4 mi/h
Average travel speed, ATS	33.4 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	1.00
PCE for trucks, ET	1.1
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.990
Two-way flow rate,(note-1) vp	1077 pc/h
Highest directional split proportion (note-2)	592
Base percent time-spent-following, BPTSF	61.2 %
Adj.for directional distribution and no-passing zones, fd/np	8.6
Percent time-spent-following, PTSF	69.8 %

 Level of Service and Other Performance Measures

Level of service, LOS	E
Volume to capacity ratio, v/c	0.34
Peak 15-min vehicle-miles of travel, VMT15	107 veh-mi
Peak-hour vehicle-miles of travel, VMT60	375 veh-mi
Peak 15-min total travel time, TT15	3.2 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

HCS+: Two-Lane Highways Release 5.21

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Two-Way Two-Lane Highway Segment Analysis

Analyst M Walton
Agency/Co. Volkert & Assoc.
Date Performed 11/13/2007
Analysis Time Period 1989 to 2033
Highway US 30
From/To Jackson St. to Sawyer Rd.
Jurisdiction State of Illinois
Analysis Year 2023
Description Environmnetal Impact Statement & Phase I Design Report

Input Data

Highway class Class 1
Shoulder width 6.0 ft Peak-hour factor, PHF 0.88
Lane width 12.0 ft % Trucks and buses 10 %
Segment length 0.4 mi % Recreational vehicles 0 %
Terrain type Level % No-passing zones 40 %
Grade: Length mi Access points/mi 7 /mi
Up/down %

Two-way hourly volume, V 1069 veh/h
Directional split 55 / 45 %

Average Travel Speed

Grade adjustment factor, fG 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0

Heavy-vehicle adjustment factor,	0.990
Two-way flow rate,(note-1) vp	1227 pc/h
Highest directional split proportion (note-2)	675 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	45.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	1.8 mi/h

Free-flow speed, FFS	43.3 mi/h
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Adjustment for no-passing zones, fnp	1.2 mi/h
Average travel speed, ATS	32.6 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	1.00
PCE for trucks, ET	1.0
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	1.000
Two-way flow rate,(note-1) vp	1215 pc/h
Highest directional split proportion (note-2)	668
Base percent time-spent-following, BPTSF	65.6 %
Adj.for directional distribution and no-passing zones, fd/np	7.3
Percent time-spent-following, PTSF	72.9 %

 Level of Service and Other Performance Measures

Level of service, LOS	E
Volume to capacity ratio, v/c	0.38
Peak 15-min vehicle-miles of travel, VMT15	121 veh-mi
Peak-hour vehicle-miles of travel, VMT60	428 veh-mi
Peak 15-min total travel time, TT15	3.7 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

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Phone: Fax:
E-Mail:

Two-Way Two-Lane Highway Segment Analysis

Analyst M Walton
Agency/Co. Volkert & Assoc.
Date Performed 11/13/2007
Analysis Time Period 1989 to 2033
Highway US 30
From/To Jackson St. to Sawyer Rd.
Jurisdiction State of Illinois
Analysis Year 2033
Description Environmnetal Impact Statement & Phase I Design Report

Input Data

Highway class Class 1
Shoulder width 6.0 ft Peak-hour factor, PHF 0.88
Lane width 12.0 ft % Trucks and buses 10 %
Segment length 0.4 mi % Recreational vehicles 0 %
Terrain type Level % No-passing zones 40 %
Grade: Length mi Access points/mi 7 /mi
Up/down %

Two-way hourly volume, V 1218 veh/h
Directional split 55 / 45 %

Average Travel Speed

Grade adjustment factor, fG 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0

Heavy-vehicle adjustment factor,	0.990
Two-way flow rate,(note-1) vp	1398 pc/h
Highest directional split proportion (note-2)	769 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	45.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	1.8 mi/h

Free-flow speed, FFS	43.3 mi/h
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Adjustment for no-passing zones, fnp	0.9 mi/h
Average travel speed, ATS	31.5 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	1.00
PCE for trucks, ET	1.0
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	1.000
Two-way flow rate,(note-1) vp	1384 pc/h
Highest directional split proportion (note-2)	761
Base percent time-spent-following, BPTSF	70.4 %
Adj.for directional distribution and no-passing zones, fd/np	5.6
Percent time-spent-following, PTSF	76.0 %

 Level of Service and Other Performance Measures

Level of service, LOS	E
Volume to capacity ratio, v/c	0.44
Peak 15-min vehicle-miles of travel, VMT15	138 veh-mi
Peak-hour vehicle-miles of travel, VMT60	487 veh-mi
Peak 15-min total travel time, TT15	4.4 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

Heavy-vehicle adjustment factor,	0.903	
Two-way flow rate,(note-1) vp	1056	pc/h
Highest directional split proportion (note-2)	581	pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	-	mi/h
Observed volume, Vf	-	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed, BFFS	60.0	mi/h
Adj. for lane and shoulder width, fLS	0.0	mi/h
Adj. for access points, fA	1.0	mi/h

Free-flow speed, FFS	59.0	mi/h
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Adjustment for no-passing zones, fnp	0.6	mi/h
Average travel speed, ATS	50.2	mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	0.94	
PCE for trucks, ET	1.5	
PCE for RVs, ER	1.0	
Heavy-vehicle adjustment factor, fHV	0.943	
Two-way flow rate,(note-1) vp	1000	pc/h
Highest directional split proportion (note-2)	550	
Base percent time-spent-following, BPTSF	58.5	%
Adj.for directional distribution and no-passing zones, fd/np	4.1	
Percent time-spent-following, PTSF	62.5	%

 Level of Service and Other Performance Measures

Level of service, LOS	C	
Volume to capacity ratio, v/c	0.33	
Peak 15-min vehicle-miles of travel, VMT15	332	veh-mi
Peak-hour vehicle-miles of travel, VMT60	1170	veh-mi
Peak 15-min total travel time, TT15	6.6	veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

Heavy-vehicle adjustment factor,	0.903
Two-way flow rate,(note-1) vp	1089 pc/h
Highest directional split proportion (note-2)	599 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	60.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	1.0 mi/h

Free-flow speed, FFS	59.0 mi/h
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Adjustment for no-passing zones, fnp	0.6 mi/h
Average travel speed, ATS	50.0 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	0.94
PCE for trucks, ET	1.5
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.943
Two-way flow rate,(note-1) vp	1030 pc/h
Highest directional split proportion (note-2)	567
Base percent time-spent-following, BPTSF	59.6 %
Adj.for directional distribution and no-passing zones, fd/np	3.9
Percent time-spent-following, PTSF	63.5 %

 Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.34
Peak 15-min vehicle-miles of travel, VMT15	343 veh-mi
Peak-hour vehicle-miles of travel, VMT60	1206 veh-mi
Peak 15-min total travel time, TT15	6.9 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

Heavy-vehicle adjustment factor,	0.903
Two-way flow rate,(note-1) vp	1144 pc/h
Highest directional split proportion (note-2)	629 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	60.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	1.0 mi/h
Free-flow speed, FFS	59.0 mi/h
Adjustment for no-passing zones, fnp	0.5 mi/h
Average travel speed, ATS	49.6 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	0.94
PCE for trucks, ET	1.5
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.943
Two-way flow rate,(note-1) vp	1083 pc/h
Highest directional split proportion (note-2)	596
Base percent time-spent-following, BPTSF	61.4 %
Adj.for directional distribution and no-passing zones, fd/np	3.7
Percent time-spent-following, PTSF	65.1 %

 Level of Service and Other Performance Measures

Level of service, LOS	D
Volume to capacity ratio, v/c	0.36
Peak 15-min vehicle-miles of travel, VMT15	360 veh-mi
Peak-hour vehicle-miles of travel, VMT60	1268 veh-mi
Peak 15-min total travel time, TT15	7.3 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

Heavy-vehicle adjustment factor,	0.943
Two-way flow rate,(note-1) vp	1080 pc/h
Highest directional split proportion (note-2)	594 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	60.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	1.0 mi/h

Free-flow speed, FFS	59.0 mi/h
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Adjustment for no-passing zones, fnp	0.6 mi/h
Average travel speed, ATS	50.0 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	0.94
PCE for trucks, ET	1.5
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.943
Two-way flow rate,(note-1) vp	1138 pc/h
Highest directional split proportion (note-2)	626
Base percent time-spent-following, BPTSF	63.2 %
Adj.for directional distribution and no-passing zones, fd/np	3.4
Percent time-spent-following, PTSF	66.6 %

 Level of Service and Other Performance Measures

Level of service, LOS	D
Volume to capacity ratio, v/c	0.34
Peak 15-min vehicle-miles of travel, VMT15	378 veh-mi
Peak-hour vehicle-miles of travel, VMT60	1332 veh-mi
Peak 15-min total travel time, TT15	7.6 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

Heavy-vehicle adjustment factor,	0.895
Two-way flow rate,(note-1) vp	969 pc/h
Highest directional split proportion (note-2)	533 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	60.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	0.5 mi/h

Free-flow speed, FFS	59.5 mi/h
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Adjustment for no-passing zones, fnp	0.2 mi/h
Average travel speed, ATS	51.8 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	0.94
PCE for trucks, ET	1.5
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.939
Two-way flow rate,(note-1) vp	914 pc/h
Highest directional split proportion (note-2)	503
Base percent time-spent-following, BPTSF	55.2 %
Adj.for directional distribution and no-passing zones, fd/np	1.1
Percent time-spent-following, PTSF	56.3 %

 Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.30
Peak 15-min vehicle-miles of travel, VMT15	121 veh-mi
Peak-hour vehicle-miles of travel, VMT60	426 veh-mi
Peak 15-min total travel time, TT15	2.3 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

Heavy-vehicle adjustment factor,	0.895
Two-way flow rate,(note-1) vp	999 pc/h
Highest directional split proportion (note-2)	549 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	60.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	0.8 mi/h
Free-flow speed, FFS	59.3 mi/h
Adjustment for no-passing zones, fnp	0.3 mi/h
Average travel speed, ATS	51.2 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	0.94
PCE for trucks, ET	1.5
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.939
Two-way flow rate,(note-1) vp	942 pc/h
Highest directional split proportion (note-2)	518
Base percent time-spent-following, BPTSF	56.3 %
Adj.for directional distribution and no-passing zones, fd/np	1.8
Percent time-spent-following, PTSF	58.1 %

 Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.31
Peak 15-min vehicle-miles of travel, VMT15	333 veh-mi
Peak-hour vehicle-miles of travel, VMT60	1171 veh-mi
Peak 15-min total travel time, TT15	6.5 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

Heavy-vehicle adjustment factor,	0.895
Two-way flow rate,(note-1) vp	1050 pc/h
Highest directional split proportion (note-2)	578 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	60.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	0.8 mi/h

Free-flow speed, FFS	59.3 mi/h
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Adjustment for no-passing zones, fnp	0.3 mi/h
Average travel speed, ATS	50.8 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	0.94
PCE for trucks, ET	1.5
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.939
Two-way flow rate,(note-1) vp	990 pc/h
Highest directional split proportion (note-2)	545
Base percent time-spent-following, BPTSF	58.1 %
Adj.for directional distribution and no-passing zones, fd/np	1.7
Percent time-spent-following, PTSF	59.8 %

 Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.33
Peak 15-min vehicle-miles of travel, VMT15	350 veh-mi
Peak-hour vehicle-miles of travel, VMT60	1230 veh-mi
Peak 15-min total travel time, TT15	6.9 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

Heavy-vehicle adjustment factor,	0.895	
Two-way flow rate,(note-1) vp	1103	pc/h
Highest directional split proportion (note-2)	607	pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	-	mi/h
Observed volume, Vf	-	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed, BFFS	60.0	mi/h
Adj. for lane and shoulder width, fLS	0.0	mi/h
Adj. for access points, fA	0.8	mi/h

Free-flow speed, FFS	59.3	mi/h
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Adjustment for no-passing zones, fnp	0.2	mi/h
Average travel speed, ATS	50.5	mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	0.94	
PCE for trucks, ET	1.5	
PCE for RVs, ER	1.0	
Heavy-vehicle adjustment factor, fHV	0.939	
Two-way flow rate,(note-1) vp	1040	pc/h
Highest directional split proportion (note-2)	572	
Base percent time-spent-following, BPTSF	59.9	%
Adj.for directional distribution and no-passing zones, fd/np	1.6	
Percent time-spent-following, PTSF	61.5	%

 Level of Service and Other Performance Measures

Level of service, LOS	C	
Volume to capacity ratio, v/c	0.34	
Peak 15-min vehicle-miles of travel, VMT15	367	veh-mi
Peak-hour vehicle-miles of travel, VMT60	1293	veh-mi
Peak 15-min total travel time, TT15	7.3	veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

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Two-Way Two-Lane Highway Segment Analysis

Analyst M Walton
Agency/Co. Volkert & Assoc.
Date Performed 11/13/2007
Analysis Time Period 1989 to 2033
Highway US 30
From/To Round Grove Rd. to Emerson Rd.
Jurisdiction State of Illinois
Analysis Year 2007
Description Environmnetal Impact Statement & Phase I Design Report

Input Data

Highway class Class 1
Shoulder width 6.0 ft Peak-hour factor, PHF 0.88
Lane width 12.0 ft % Trucks and buses 14 %
Segment length 3.1 mi % Recreational vehicles 0 %
Terrain type Rolling % No-passing zones 30 %
Grade: Length mi Access points/mi 2 /mi
Up/down %

Two-way hourly volume, V 720 veh/h
Directional split 55 / 45 %

Average Travel Speed

Grade adjustment factor, fG 0.93
PCE for trucks, ET 1.9
PCE for RVs, ER 1.1

Heavy-vehicle adjustment factor,	0.888
Two-way flow rate,(note-1) vp	991 pc/h
Highest directional split proportion (note-2)	545 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	60.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	0.5 mi/h

Free-flow speed, FFS	59.5 mi/h
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Adjustment for no-passing zones, fnp	1.4 mi/h
Average travel speed, ATS	50.4 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	0.94
PCE for trucks, ET	1.5
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.935
Two-way flow rate,(note-1) vp	931 pc/h
Highest directional split proportion (note-2)	512
Base percent time-spent-following, BPTSF	55.9 %
Adj.for directional distribution and no-passing zones, fd/np	8.7
Percent time-spent-following, PTSF	64.5 %

 Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.31
Peak 15-min vehicle-miles of travel, VMT15	634 veh-mi
Peak-hour vehicle-miles of travel, VMT60	2232 veh-mi
Peak 15-min total travel time, TT15	12.6 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

Heavy-vehicle adjustment factor,	0.888
Two-way flow rate,(note-1) vp	1004 pc/h
Highest directional split proportion (note-2)	552 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	60.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	0.5 mi/h

Free-flow speed, FFS	59.5 mi/h
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Adjustment for no-passing zones, fnp	1.3 mi/h
Average travel speed, ATS	50.4 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	0.94
PCE for trucks, ET	1.5
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.935
Two-way flow rate,(note-1) vp	944 pc/h
Highest directional split proportion (note-2)	519
Base percent time-spent-following, BPTSF	56.4 %
Adj.for directional distribution and no-passing zones, fd/np	8.5
Percent time-spent-following, PTSF	64.9 %

 Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.31
Peak 15-min vehicle-miles of travel, VMT15	643 veh-mi
Peak-hour vehicle-miles of travel, VMT60	2263 veh-mi
Peak 15-min total travel time, TT15	12.8 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

Heavy-vehicle adjustment factor,	0.888
Two-way flow rate,(note-1) vp	1069 pc/h
Highest directional split proportion (note-2)	588 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	60.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	0.5 mi/h

Free-flow speed, FFS	59.5 mi/h
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Adjustment for no-passing zones, fnp	1.2 mi/h
Average travel speed, ATS	50.0 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	0.94
PCE for trucks, ET	1.5
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.935
Two-way flow rate,(note-1) vp	1005 pc/h
Highest directional split proportion (note-2)	553
Base percent time-spent-following, BPTSF	58.7 %
Adj.for directional distribution and no-passing zones, fd/np	8.0
Percent time-spent-following, PTSF	66.7 %

 Level of Service and Other Performance Measures

Level of service, LOS	D
Volume to capacity ratio, v/c	0.33
Peak 15-min vehicle-miles of travel, VMT15	684 veh-mi
Peak-hour vehicle-miles of travel, VMT60	2409 veh-mi
Peak 15-min total travel time, TT15	13.7 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

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Two-Way Two-Lane Highway Segment Analysis

Analyst M Walton
Agency/Co. Volkert & Assoc.
Date Performed 11/13/2007
Analysis Time Period 1989 to 2033
Highway US 30
From/To Round Grove Rd. to Emerson Rd.
Jurisdiction State of Illinois
Analysis Year 2033
Description Environmnetal Impact Statement & Phase I Design Report

Input Data

Highway class Class 1
Shoulder width 6.0 ft Peak-hour factor, PHF 0.88
Lane width 12.0 ft % Trucks and buses 14 %
Segment length 3.1 mi % Recreational vehicles 0 %
Terrain type Rolling % No-passing zones 30 %
Grade: Length mi Access points/mi 2 /mi
Up/down %

Two-way hourly volume, V 827 veh/h
Directional split 55 / 45 %

Average Travel Speed

Grade adjustment factor, fG 0.93
PCE for trucks, ET 1.9
PCE for RVs, ER 1.1

Heavy-vehicle adjustment factor,	0.888	
Two-way flow rate,(note-1) vp	1138	pc/h
Highest directional split proportion (note-2)	626	pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	-	mi/h
Observed volume, Vf	-	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed, BFFS	60.0	mi/h
Adj. for lane and shoulder width, fLS	0.0	mi/h
Adj. for access points, fA	0.5	mi/h
Free-flow speed, FFS	59.5	mi/h
Adjustment for no-passing zones, fnp	1.1	mi/h
Average travel speed, ATS	49.6	mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	0.94	
PCE for trucks, ET	1.5	
PCE for RVs, ER	1.0	
Heavy-vehicle adjustment factor, fHV	0.935	
Two-way flow rate,(note-1) vp	1070	pc/h
Highest directional split proportion (note-2)	589	
Base percent time-spent-following, BPTSF	61.0	%
Adj.for directional distribution and no-passing zones, fd/np	7.4	
Percent time-spent-following, PTSF	68.4	%

 Level of Service and Other Performance Measures

Level of service, LOS	D	
Volume to capacity ratio, v/c	0.36	
Peak 15-min vehicle-miles of travel, VMT15	728	veh-mi
Peak-hour vehicle-miles of travel, VMT60	2564	veh-mi
Peak 15-min total travel time, TT15	14.7	veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

Heavy-vehicle adjustment factor,	0.841
Two-way flow rate,(note-1) vp	581 pc/h
Highest directional split proportion (note-2)	320 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	60.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	0.8 mi/h

Free-flow speed, FFS	59.3 mi/h
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Adjustment for no-passing zones, fnp	2.9 mi/h
Average travel speed, ATS	51.8 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	0.94
PCE for trucks, ET	1.5
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.905
Two-way flow rate,(note-1) vp	534 pc/h
Highest directional split proportion (note-2)	294
Base percent time-spent-following, BPTSF	37.5 %
Adj.for directional distribution and no-passing zones, fd/np	19.1
Percent time-spent-following, PTSF	56.5 %

 Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.18
Peak 15-min vehicle-miles of travel, VMT15	170 veh-mi
Peak-hour vehicle-miles of travel, VMT60	600 veh-mi
Peak 15-min total travel time, TT15	3.3 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

Heavy-vehicle adjustment factor,	0.841
Two-way flow rate,(note-1) vp	683 pc/h
Highest directional split proportion (note-2)	376 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	60.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	0.8 mi/h

Free-flow speed, FFS	59.3 mi/h
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Adjustment for no-passing zones, fnp	2.6 mi/h
Average travel speed, ATS	51.3 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	0.94
PCE for trucks, ET	1.5
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.905
Two-way flow rate,(note-1) vp	628 pc/h
Highest directional split proportion (note-2)	345
Base percent time-spent-following, BPTSF	42.4 %
Adj.for directional distribution and no-passing zones, fd/np	17.5
Percent time-spent-following, PTSF	59.9 %

 Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.21
Peak 15-min vehicle-miles of travel, VMT15	200 veh-mi
Peak-hour vehicle-miles of travel, VMT60	705 veh-mi
Peak 15-min total travel time, TT15	3.9 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

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Two-Way Two-Lane Highway Segment Analysis

Analyst M Walton
Agency/Co. Volkert & Assoc.
Date Performed 11/13/2007
Analysis Time Period 1989 to 2033
Highway US 30
From/To Emerson Rd. to Mathew Rd.
Jurisdiction State of Illinois
Analysis Year 2023
Description Environmnetal Impact Statement & Phase I Design Report

Input Data

Highway class Class 1
Shoulder width 6.0 ft Peak-hour factor, PHF 0.88
Lane width 12.0 ft % Trucks and buses 21 %
Segment length 1.5 mi % Recreational vehicles 0 %
Terrain type Rolling % No-passing zones 56 %
Grade: Length mi Access points/mi 3 /mi
Up/down %

Two-way hourly volume, V 529 veh/h
Directional split 55 / 45 %

Average Travel Speed

Grade adjustment factor, fG 0.93
PCE for trucks, ET 1.9
PCE for RVs, ER 1.1

Heavy-vehicle adjustment factor,	0.841
Two-way flow rate,(note-1) vp	769 pc/h
Highest directional split proportion (note-2)	423 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	60.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	0.8 mi/h
Free-flow speed, FFS	59.3 mi/h
Adjustment for no-passing zones, fnp	2.4 mi/h
Average travel speed, ATS	50.9 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	0.94
PCE for trucks, ET	1.5
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.905
Two-way flow rate,(note-1) vp	707 pc/h
Highest directional split proportion (note-2)	389
Base percent time-spent-following, BPTSF	46.3 %
Adj.for directional distribution and no-passing zones, fd/np	15.5
Percent time-spent-following, PTSF	61.7 %

 Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.24
Peak 15-min vehicle-miles of travel, VMT15	225 veh-mi
Peak-hour vehicle-miles of travel, VMT60	794 veh-mi
Peak 15-min total travel time, TT15	4.4 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

HCS+: Two-Lane Highways Release 5.21

Phone: Fax:
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Two-Way Two-Lane Highway Segment Analysis

Analyst M Walton
Agency/Co. Volkert & Assoc.
Date Performed 11/13/2007
Analysis Time Period 1989 to 2033
Highway US 30
From/To Emerson Rd. to Mathew Rd.
Jurisdiction State of Illinois
Analysis Year 2033
Description Environmnetal Impact Statement & Phase I Design Report

Input Data

Highway class Class 1
Shoulder width 6.0 ft Peak-hour factor, PHF 0.88
Lane width 12.0 ft % Trucks and buses 21 %
Segment length 1.5 mi % Recreational vehicles 0 %
Terrain type Rolling % No-passing zones 56 %
Grade: Length mi Access points/mi 3 /mi
Up/down %

Two-way hourly volume, V 597 veh/h
Directional split 55 / 45 %

Average Travel Speed

Grade adjustment factor, fG 0.93
PCE for trucks, ET 1.9
PCE for RVs, ER 1.1

Heavy-vehicle adjustment factor,	0.841
Two-way flow rate,(note-1) vp	867 pc/h
Highest directional split proportion (note-2)	477 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	60.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	0.8 mi/h

Free-flow speed, FFS	59.3 mi/h
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Adjustment for no-passing zones, fnp	2.2 mi/h
Average travel speed, ATS	50.3 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	0.94
PCE for trucks, ET	1.5
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.905
Two-way flow rate,(note-1) vp	797 pc/h
Highest directional split proportion (note-2)	438
Base percent time-spent-following, BPTSF	50.4 %
Adj.for directional distribution and no-passing zones, fd/np	13.2
Percent time-spent-following, PTSF	63.5 %

 Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.27
Peak 15-min vehicle-miles of travel, VMT15	254 veh-mi
Peak-hour vehicle-miles of travel, VMT60	896 veh-mi
Peak 15-min total travel time, TT15	5.0 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

Heavy-vehicle adjustment factor,	0.952
Two-way flow rate,(note-1) vp	692 pc/h
Highest directional split proportion (note-2)	381 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	60.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	0.8 mi/h

Free-flow speed, FFS	59.3 mi/h
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Adjustment for no-passing zones, fnp	1.1 mi/h
Average travel speed, ATS	52.8 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	1.00
PCE for trucks, ET	1.1
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.976
Two-way flow rate,(note-1) vp	676 pc/h
Highest directional split proportion (note-2)	372
Base percent time-spent-following, BPTSF	44.8 %
Adj.for directional distribution and no-passing zones, fd/np	7.1
Percent time-spent-following, PTSF	51.9 %

 Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.22
Peak 15-min vehicle-miles of travel, VMT15	115 veh-mi
Peak-hour vehicle-miles of travel, VMT60	406 veh-mi
Peak 15-min total travel time, TT15	2.2 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

Heavy-vehicle adjustment factor,	0.952
Two-way flow rate,(note-1) vp	649 pc/h
Highest directional split proportion (note-2)	357 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	60.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	0.8 mi/h

Free-flow speed, FFS	59.3 mi/h
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Adjustment for no-passing zones, fnp	1.1 mi/h
Average travel speed, ATS	53.1 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	1.00
PCE for trucks, ET	1.1
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.976
Two-way flow rate,(note-1) vp	634 pc/h
Highest directional split proportion (note-2)	349
Base percent time-spent-following, BPTSF	42.7 %
Adj.for directional distribution and no-passing zones, fd/np	7.6
Percent time-spent-following, PTSF	50.3 %

 Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.20
Peak 15-min vehicle-miles of travel, VMT15	108 veh-mi
Peak-hour vehicle-miles of travel, VMT60	381 veh-mi
Peak 15-min total travel time, TT15	2.0 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

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Two-Way Two-Lane Highway Segment Analysis

Analyst M Walton
Agency/Co. Volkert & Assoc.
Date Performed 11/13/2007
Analysis Time Period 1989 to 2033
Highway US 30
From/To Mathew Rd. to Moline Rd.
Jurisdiction State of Illinois
Analysis Year 2023
Description Environmnetal Impact Statement & Phase I Design Report

Input Data

Highway class Class 1
Shoulder width 6.0 ft Peak-hour factor, PHF 0.88
Lane width 12.0 ft % Trucks and buses 25 %
Segment length 0.7 mi % Recreational vehicles 0 %
Terrain type Level % No-passing zones 14 %
Grade: Length mi Access points/mi 3 /mi
 Up/down %

Two-way hourly volume, V 651 veh/h
Directional split 55 / 45 %

Average Travel Speed

Grade adjustment factor, fG 1.00
PCE for trucks, ET 1.2
PCE for RVs, ER 1.0

Heavy-vehicle adjustment factor,	0.952
Two-way flow rate,(note-1) vp	777 pc/h
Highest directional split proportion (note-2)	427 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	60.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	0.8 mi/h

Free-flow speed, FFS	59.3 mi/h
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Adjustment for no-passing zones, fnp	1.0 mi/h
Average travel speed, ATS	52.2 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	1.00
PCE for trucks, ET	1.1
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.976
Two-way flow rate,(note-1) vp	758 pc/h
Highest directional split proportion (note-2)	417
Base percent time-spent-following, BPTSF	48.6 %
Adj.for directional distribution and no-passing zones, fd/np	6.3
Percent time-spent-following, PTSF	54.9 %

 Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.24
Peak 15-min vehicle-miles of travel, VMT15	129 veh-mi
Peak-hour vehicle-miles of travel, VMT60	456 veh-mi
Peak 15-min total travel time, TT15	2.5 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

HCS+: Two-Lane Highways Release 5.21

Phone: Fax:
E-Mail:

Two-Way Two-Lane Highway Segment Analysis

Analyst M Walton
Agency/Co. Volkert & Assoc.
Date Performed 11/13/2007
Analysis Time Period 1989 to 2033
Highway US 30
From/To Mathew Rd. to Moline Rd.
Jurisdiction State of Illinois
Analysis Year 2033
Description Environmnetal Impact Statement & Phase I Design Report

Input Data

Highway class Class 1
Shoulder width 6.0 ft Peak-hour factor, PHF 0.88
Lane width 12.0 ft % Trucks and buses 25 %
Segment length 0.7 mi % Recreational vehicles 0 %
Terrain type Level % No-passing zones 14 %
Grade: Length mi Access points/mi 3 /mi
Up/down %

Two-way hourly volume, V 778 veh/h
Directional split 55 / 45 %

Average Travel Speed

Grade adjustment factor, fG 1.00
PCE for trucks, ET 1.2
PCE for RVs, ER 1.0

Heavy-vehicle adjustment factor,	0.952
Two-way flow rate,(note-1) vp	928 pc/h
Highest directional split proportion (note-2)	510 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	60.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	0.8 mi/h

Free-flow speed, FFS	59.3 mi/h
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Adjustment for no-passing zones, fnp	0.8 mi/h
Average travel speed, ATS	51.2 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	1.00
PCE for trucks, ET	1.1
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.976
Two-way flow rate,(note-1) vp	906 pc/h
Highest directional split proportion (note-2)	498
Base percent time-spent-following, BPTSF	54.9 %
Adj.for directional distribution and no-passing zones, fd/np	5.2
Percent time-spent-following, PTSF	60.1 %

 Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.29
Peak 15-min vehicle-miles of travel, VMT15	155 veh-mi
Peak-hour vehicle-miles of travel, VMT60	545 veh-mi
Peak 15-min total travel time, TT15	3.0 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

Heavy-vehicle adjustment factor,	0.969
Two-way flow rate,(note-1) vp	704 pc/h
Highest directional split proportion (note-2)	387 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	60.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	0.3 mi/h

Free-flow speed, FFS	59.8 mi/h
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Adjustment for no-passing zones, fnp	0.3 mi/h
Average travel speed, ATS	54.0 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	1.00
PCE for trucks, ET	1.1
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.984
Two-way flow rate,(note-1) vp	693 pc/h
Highest directional split proportion (note-2)	381
Base percent time-spent-following, BPTSF	45.6 %
Adj.for directional distribution and no-passing zones, fd/np	2.0
Percent time-spent-following, PTSF	47.6 %

 Level of Service and Other Performance Measures

Level of service, LOS	B
Volume to capacity ratio, v/c	0.22
Peak 15-min vehicle-miles of travel, VMT15	170 veh-mi
Peak-hour vehicle-miles of travel, VMT60	600 veh-mi
Peak 15-min total travel time, TT15	3.1 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

Heavy-vehicle adjustment factor,	0.969
Two-way flow rate,(note-1) vp	774 pc/h
Highest directional split proportion (note-2)	426 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	60.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	0.3 mi/h

Free-flow speed, FFS	59.8 mi/h
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Adjustment for no-passing zones, fnp	0.3 mi/h
Average travel speed, ATS	53.5 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	1.00
PCE for trucks, ET	1.1
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.984
Two-way flow rate,(note-1) vp	762 pc/h
Highest directional split proportion (note-2)	419
Base percent time-spent-following, BPTSF	48.8 %
Adj.for directional distribution and no-passing zones, fd/np	1.8
Percent time-spent-following, PTSF	50.6 %

 Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.24
Peak 15-min vehicle-miles of travel, VMT15	188 veh-mi
Peak-hour vehicle-miles of travel, VMT60	660 veh-mi
Peak 15-min total travel time, TT15	3.5 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

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Phone: Fax:
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Two-Way Two-Lane Highway Segment Analysis

Analyst M Walton
Agency/Co. Volkert & Assoc.
Date Performed 11/13/2007
Analysis Time Period 1989 to 2033
Highway US 30
From/To Moline Rd. to Como Rd.
Jurisdiction State of Illinois
Analysis Year 2023
Description Environmnetal Impact Statement & Phase I Design Report

Input Data

Highway class Class 1
Shoulder width 6.0 ft Peak-hour factor, PHF 0.88
Lane width 12.0 ft % Trucks and buses 16 %
Segment length 1.0 mi % Recreational vehicles 0 %
Terrain type Level % No-passing zones 4 %
Grade: Length mi Access points/mi 1 /mi
Up/down %

Two-way hourly volume, V 786 veh/h
Directional split 55 / 45 %

Average Travel Speed

Grade adjustment factor, fG 1.00
PCE for trucks, ET 1.2
PCE for RVs, ER 1.0

Heavy-vehicle adjustment factor,	0.969
Two-way flow rate,(note-1) vp	922 pc/h
Highest directional split proportion (note-2)	507 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	60.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	0.3 mi/h

Free-flow speed, FFS	59.8 mi/h
----------------------	-----------

Adjustment for no-passing zones, fnp	0.2 mi/h
Average travel speed, ATS	52.4 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	1.00
PCE for trucks, ET	1.1
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.984
Two-way flow rate,(note-1) vp	907 pc/h
Highest directional split proportion (note-2)	499
Base percent time-spent-following, BPTSF	54.9 %
Adj.for directional distribution and no-passing zones, fd/np	1.5
Percent time-spent-following, PTSF	56.4 %

 Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.29
Peak 15-min vehicle-miles of travel, VMT15	223 veh-mi
Peak-hour vehicle-miles of travel, VMT60	786 veh-mi
Peak 15-min total travel time, TT15	4.3 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

Heavy-vehicle adjustment factor,	0.969
Two-way flow rate,(note-1) vp	1098 pc/h
Highest directional split proportion (note-2)	604 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	60.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	0.3 mi/h
Free-flow speed, FFS	59.8 mi/h
Adjustment for no-passing zones, fnp	0.2 mi/h
Average travel speed, ATS	51.0 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	1.00
PCE for trucks, ET	1.1
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.984
Two-way flow rate,(note-1) vp	1081 pc/h
Highest directional split proportion (note-2)	595
Base percent time-spent-following, BPTSF	61.3 %
Adj.for directional distribution and no-passing zones, fd/np	1.2
Percent time-spent-following, PTSF	62.6 %

 Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.34
Peak 15-min vehicle-miles of travel, VMT15	266 veh-mi
Peak-hour vehicle-miles of travel, VMT60	936 veh-mi
Peak 15-min total travel time, TT15	5.2 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

Heavy-vehicle adjustment factor,	0.975
Two-way flow rate,(note-1) vp	641 pc/h
Highest directional split proportion (note-2)	353 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	60.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	0.8 mi/h
Free-flow speed, FFS	59.3 mi/h
Adjustment for no-passing zones, fnp	0.0 mi/h
Average travel speed, ATS	54.3 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	1.00
PCE for trucks, ET	1.1
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.987
Two-way flow rate,(note-1) vp	633 pc/h
Highest directional split proportion (note-2)	348
Base percent time-spent-following, BPTSF	42.7 %
Adj.for directional distribution and no-passing zones, fd/np	0.0
Percent time-spent-following, PTSF	42.7 %

 Level of Service and Other Performance Measures

Level of service, LOS	B
Volume to capacity ratio, v/c	0.20
Peak 15-min vehicle-miles of travel, VMT15	219 veh-mi
Peak-hour vehicle-miles of travel, VMT60	770 veh-mi
Peak 15-min total travel time, TT15	4.0 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

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Two-Way Two-Lane Highway Segment Analysis

Analyst M Walton
Agency/Co. Volkert & Assoc.
Date Performed 11/13/2007
Analysis Time Period 1989 to 2033
Highway US 30
From/To Como Rd. to Riverdale Rd.
Jurisdiction State of Illinois
Analysis Year 2013
Description Environmnetal Impact Statement & Phase I Design Report

Input Data

Highway class Class 1
Shoulder width 6.0 ft Peak-hour factor, PHF 0.88
Lane width 12.0 ft % Trucks and buses 13 %
Segment length 1.4 mi % Recreational vehicles 0 %
Terrain type Level % No-passing zones 0 %
Grade: Length mi Access points/mi 3 /mi
 Up/down %

Two-way hourly volume, V 572 veh/h
Directional split 55 / 45 %

Average Travel Speed

Grade adjustment factor, fG 1.00
PCE for trucks, ET 1.2
PCE for RVs, ER 1.0

Heavy-vehicle adjustment factor,	0.975
Two-way flow rate,(note-1) vp	667 pc/h
Highest directional split proportion (note-2)	367 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	60.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	0.8 mi/h

Free-flow speed, FFS	59.3 mi/h
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Adjustment for no-passing zones, fnp	0.0 mi/h
Average travel speed, ATS	54.1 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	1.00
PCE for trucks, ET	1.1
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.987
Two-way flow rate,(note-1) vp	658 pc/h
Highest directional split proportion (note-2)	362
Base percent time-spent-following, BPTSF	43.9 %
Adj.for directional distribution and no-passing zones, fd/np	0.0
Percent time-spent-following, PTSF	43.9 %

 Level of Service and Other Performance Measures

Level of service, LOS	B
Volume to capacity ratio, v/c	0.21
Peak 15-min vehicle-miles of travel, VMT15	227 veh-mi
Peak-hour vehicle-miles of travel, VMT60	801 veh-mi
Peak 15-min total travel time, TT15	4.2 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

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E-Mail:

Two-Way Two-Lane Highway Segment Analysis

Analyst M Walton
Agency/Co. Volkert & Assoc.
Date Performed 11/13/2007
Analysis Time Period 1989 to 2033
Highway US 30
From/To Como Rd. to Riverdale Rd.
Jurisdiction State of Illinois
Analysis Year 2023
Description Environmnetal Impact Statement & Phase I Design Report

Input Data

Highway class Class 1
Shoulder width 6.0 ft Peak-hour factor, PHF 0.88
Lane width 12.0 ft % Trucks and buses 13 %
Segment length 1.4 mi % Recreational vehicles 0 %
Terrain type Level % No-passing zones 0 %
Grade: Length mi Access points/mi 3 /mi
Up/down %

Two-way hourly volume, V 602 veh/h
Directional split 55 / 45 %

Average Travel Speed

Grade adjustment factor, fG 1.00
PCE for trucks, ET 1.2
PCE for RVs, ER 1.0

Heavy-vehicle adjustment factor,	0.975
Two-way flow rate,(note-1) vp	702 pc/h
Highest directional split proportion (note-2)	386 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	60.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	0.8 mi/h
Free-flow speed, FFS	59.3 mi/h
Adjustment for no-passing zones, fnp	0.0 mi/h
Average travel speed, ATS	53.8 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	1.00
PCE for trucks, ET	1.1
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.987
Two-way flow rate,(note-1) vp	693 pc/h
Highest directional split proportion (note-2)	381
Base percent time-spent-following, BPTSF	45.6 %
Adj.for directional distribution and no-passing zones, fd/np	0.0
Percent time-spent-following, PTSF	45.6 %

 Level of Service and Other Performance Measures

Level of service, LOS	B
Volume to capacity ratio, v/c	0.22
Peak 15-min vehicle-miles of travel, VMT15	239 veh-mi
Peak-hour vehicle-miles of travel, VMT60	843 veh-mi
Peak 15-min total travel time, TT15	4.4 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

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Two-Way Two-Lane Highway Segment Analysis

Analyst M Walton
Agency/Co. Volkert & Assoc.
Date Performed 11/13/2007
Analysis Time Period 1989 to 2033
Highway US 30
From/To Como Rd. to Riverdale Rd.
Jurisdiction State of Illinois
Analysis Year 2033
Description Environmnetal Impact Statement & Phase I Design Report

Input Data

Highway class Class 1
Shoulder width 6.0 ft Peak-hour factor, PHF 0.88
Lane width 12.0 ft % Trucks and buses 13 %
Segment length 1.4 mi % Recreational vehicles 0 %
Terrain type Level % No-passing zones 0 %
Grade: Length mi Access points/mi 3 /mi
Up/down %

Two-way hourly volume, V 632 veh/h
Directional split 55 / 45 %

Average Travel Speed

Grade adjustment factor, fG 1.00
PCE for trucks, ET 1.2
PCE for RVs, ER 1.0

Heavy-vehicle adjustment factor,	0.975
Two-way flow rate,(note-1) vp	737 pc/h
Highest directional split proportion (note-2)	405 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	60.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	0.8 mi/h
Free-flow speed, FFS	59.3 mi/h
Adjustment for no-passing zones, fnp	0.0 mi/h
Average travel speed, ATS	53.5 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	1.00
PCE for trucks, ET	1.1
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.987
Two-way flow rate,(note-1) vp	728 pc/h
Highest directional split proportion (note-2)	400
Base percent time-spent-following, BPTSF	47.3 %
Adj.for directional distribution and no-passing zones, fd/np	0.0
Percent time-spent-following, PTSF	47.3 %

 Level of Service and Other Performance Measures

Level of service, LOS	B
Volume to capacity ratio, v/c	0.23
Peak 15-min vehicle-miles of travel, VMT15	251 veh-mi
Peak-hour vehicle-miles of travel, VMT60	885 veh-mi
Peak 15-min total travel time, TT15	4.7 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

Heavy-vehicle adjustment factor,	0.980
Two-way flow rate,(note-1) vp	753 pc/h
Highest directional split proportion (note-2)	414 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	60.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	1.5 mi/h

Free-flow speed, FFS	58.5 mi/h
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Adjustment for no-passing zones, fnp	0.7 mi/h
Average travel speed, ATS	51.9 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	1.00
PCE for trucks, ET	1.1
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.990
Two-way flow rate,(note-1) vp	746 pc/h
Highest directional split proportion (note-2)	410
Base percent time-spent-following, BPTSF	48.1 %
Adj.for directional distribution and no-passing zones, fd/np	4.6
Percent time-spent-following, PTSF	52.7 %

 Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.24
Peak 15-min vehicle-miles of travel, VMT15	148 veh-mi
Peak-hour vehicle-miles of travel, VMT60	520 veh-mi
Peak 15-min total travel time, TT15	2.8 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

HCS+: Two-Lane Highways Release 5.21

Phone: Fax:
E-Mail:

Two-Way Two-Lane Highway Segment Analysis

Analyst M Walton
Agency/Co. Volkert & Assoc.
Date Performed 11/13/2007
Analysis Time Period 1989 to 2033
Highway US 30
From/To Riverdale Rd. to Prophet Rd.
Jurisdiction State of Illinois
Analysis Year 2013
Description Environmnetal Impact Statement & Phase I Design Report

Input Data

Highway class Class 1
Shoulder width 6.0 ft Peak-hour factor, PHF 0.88
Lane width 12.0 ft % Trucks and buses 10 %
Segment length 0.8 mi % Recreational vehicles 0 %
Terrain type Level % No-passing zones 10 %
Grade: Length mi Access points/mi 6 /mi
Up/down %

Two-way hourly volume, V 676 veh/h
Directional split 55 / 45 %

Average Travel Speed

Grade adjustment factor, fG 1.00
PCE for trucks, ET 1.2
PCE for RVs, ER 1.0

Heavy-vehicle adjustment factor,	0.980
Two-way flow rate,(note-1) vp	784 pc/h
Highest directional split proportion (note-2)	431 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	60.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	1.5 mi/h

Free-flow speed, FFS	58.5 mi/h
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Adjustment for no-passing zones, fnp	0.7 mi/h
Average travel speed, ATS	51.7 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	1.00
PCE for trucks, ET	1.1
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.990
Two-way flow rate,(note-1) vp	776 pc/h
Highest directional split proportion (note-2)	427
Base percent time-spent-following, BPTSF	49.4 %
Adj.for directional distribution and no-passing zones, fd/np	4.3
Percent time-spent-following, PTSF	53.8 %

 Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.25
Peak 15-min vehicle-miles of travel, VMT15	154 veh-mi
Peak-hour vehicle-miles of travel, VMT60	541 veh-mi
Peak 15-min total travel time, TT15	3.0 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

Heavy-vehicle adjustment factor,	0.980
Two-way flow rate,(note-1) vp	824 pc/h
Highest directional split proportion (note-2)	453 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	60.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	1.5 mi/h

Free-flow speed, FFS	58.5 mi/h
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Adjustment for no-passing zones, fnp	0.7 mi/h
Average travel speed, ATS	51.4 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	1.00
PCE for trucks, ET	1.1
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.990
Two-way flow rate,(note-1) vp	816 pc/h
Highest directional split proportion (note-2)	449
Base percent time-spent-following, BPTSF	51.2 %
Adj.for directional distribution and no-passing zones, fd/np	4.1
Percent time-spent-following, PTSF	55.3 %

 Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.26
Peak 15-min vehicle-miles of travel, VMT15	162 veh-mi
Peak-hour vehicle-miles of travel, VMT60	569 veh-mi
Peak 15-min total travel time, TT15	3.2 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

Heavy-vehicle adjustment factor,	0.980
Two-way flow rate,(note-1) vp	866 pc/h
Highest directional split proportion (note-2)	476 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	- mi/h
Observed volume, Vf	- veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	60.0 mi/h
Adj. for lane and shoulder width, fLS	0.0 mi/h
Adj. for access points, fA	1.5 mi/h

Free-flow speed, FFS	58.5 mi/h
----------------------	-----------

Adjustment for no-passing zones, fnp	0.7 mi/h
Average travel speed, ATS	51.1 mi/h

 Percent Time-Spent-Following

Grade adjustment factor, fG	1.00
PCE for trucks, ET	1.1
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.990
Two-way flow rate,(note-1) vp	857 pc/h
Highest directional split proportion (note-2)	471
Base percent time-spent-following, BPTSF	52.9 %
Adj.for directional distribution and no-passing zones, fd/np	3.9
Percent time-spent-following, PTSF	56.8 %

 Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.27
Peak 15-min vehicle-miles of travel, VMT15	170 veh-mi
Peak-hour vehicle-miles of travel, VMT60	598 veh-mi
Peak 15-min total travel time, TT15	3.3 veh-h

Notes:

1. If $vp \geq 3200$ pc/h, terminate analysis-the LOS is F.
2. If highest directional split $vp \geq 1700$ pc/h, terminate analysis-the LOS is F.

LEVEL OF SERVICE

Free-Flow Speed = 60 mph

Free-Flow Speed = 50 mph

Percent Trucks

Percent Trucks

LOS 0 5 10 15 20 0 5 10 15 20

Terrain

Level	A	560	550	530	520	510	440	430	420	410	400
	B	920	900	870	850	840	710	700	680	660	650
	C	1310	1280	1250	1220	1190	1030	1000	980	960	940
	D	1680	1640	1600	1570	1530	1350	1320	1290	1260	1230
	E	1870	1820	1780	1740	1700	1610	1570	1530	1500	1460

Rolling	A	560	520	490	460	430	440	410	380	360	340
	B	920	850	800	750	710	710	660	620	580	550
	C	1310	1220	1140	1070	1010	1030	960	900	840	790
	D	1680	1570	1470	1380	1300	1350	1260	1180	1100	1040
	E	1870	1740	1620	1520	1440	1610	1500	1400	1310	1240

Mountain	A	560	480	420	370	330	440	370	320	290	260
	B	920	780	680	600	540	710	610	530	470	420
	C	1310	1120	970	860	770	1030	880	760	680	610
	D	1680	1430	1250	1100	990	1350	1150	1000	890	800
	E	1870	1590	1380	1220	1100	1610	1370	1190	1050	950

Assumptions: highway with 60 mi/h FFS has 8 access points/mi; highway with 50 mi/h FFS has 25 access points/mi; lane width = 12 ft; shoulder width > 6 ft; divided highway; PHF = 0.88; all heavy vehicles are trucks and regular commuters

LEVEL OF SERVICE

Free-Flow Speed = 60 mph

Free-Flow Speed = 50 mph

Percent Trucks

Percent Trucks

LOS 0 5 10 15 20 0 5 10 15 20

Terrain

Level	A	560	550	530	520	510	440	430	420	410	400
B	920	900	870	850	840	710	700	680	660	650	
C	1310	1280	1250	1220	1190	1030	1000	980	960	940	
D	1680	1640	1600	1570	1530	1350	1320	1290	1260	1230	
E	1870	1820	1780	1740	1700	1610	1570	1530	1500	1460	

Rolling	A	560	520	490	460	430	440	410	380	360	340
B	920	850	800	750	710	710	660	620	580	550	
C	1310	1220	1140	1070	1010	1030	960	900	840	790	
D	1680	1570	1470	1380	1300	1350	1260	1180	1100	1040	
E	1870	1740	1620	1520	1440	1610	1500	1400	1310	1240	

Mountain	A	560	480	420	370	330	440	370	320	290	260
B	920	780	680	600	540	710	610	530	470	420	
C	1310	1120	970	860	770	1030	880	760	680	610	
D	1680	1430	1250	1100	990	1350	1150	1000	890	800	
E	1870	1590	1380	1220	1100	1610	1370	1190	1050	950	

Assumptions: highway with 60 mi/h FFS has 8 access points/mi; highway with 50 mi/h FFS has 25 access points/mi; lane width = 12 ft; shoulder width > 6 ft; divided highway; PHF = 0.88; all heavy vehicles are trucks and regular commuters

LEVEL OF SERVICE

Free-Flow Speed = 60 mph

Free-Flow Speed = 50 mph

Percent Trucks

Percent Trucks

LOS 0 5 10 15 20 0 5 10 15 20

Terrain

Level	A	560	550	530	520	510	440	430	420	410	400
	B	920	900	870	850	840	710	700	680	660	650
	C	1310	1280	1250	1220	1190	1030	1000	980	960	940
	D	1680	1640	1600	1570	1530	1350	1320	1290	1260	1230
	E	1870	1820	1780	1740	1700	1610	1570	1530	1500	1460

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	B	920	850	800	750	710	710	660	620	580	550
	C	1310	1220	1140	1070	1010	1030	960	900	840	790
	D	1680	1570	1470	1380	1300	1350	1260	1180	1100	1040
	E	1870	1740	1620	1520	1440	1610	1500	1400	1310	1240

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	B	920	780	680	600	540	710	610	530	470	420
	C	1310	1120	970	860	770	1030	880	760	680	610
	D	1680	1430	1250	1100	990	1350	1150	1000	890	800
	E	1870	1590	1380	1220	1100	1610	1370	1190	1050	950

Assumptions: highway with 60 mi/h FFS has 8 access points/mi; highway with 50 mi/h FFS has 25 access points/mi; lane width = 12 ft; shoulder width > 6 ft; divided highway; PHF = 0.88; all heavy vehicles are trucks and regular commuters

LEVEL OF SERVICE

Free-Flow Speed = 60 mph

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Percent Trucks

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LOS 0 5 10 15 20 0 5 10 15 20

Terrain

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	D	1680	1430	1250	1100	990	1350	1150	1000	890	800
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