

PLANNING APPLICATION WORKSHEET

Intersection: Central Ave / N. Karner Date: 3/29/90
 Analyst: _____ Time Period Analyzed: 2005 Target PM
 Project No. _____ City/State: OPTION 16(25%)

SB TOTAL

1080
 220 ↓ 234
626

N. Karner
 N-S STREET



254 ↙
1484 ← 2017
 279 ↘
 WB TOTAL

1541
 EB TOTAL
 234 ↗
1108
 199 ↘

Central
 E-W STREET
587
 330 ↙ | ↘ 127
1094
 NB TOTAL

EB LT = 234WB TH = 544WB LT = 778WB LT = 279EB TH = 406685

OR

NB LT = 330SB TH = 329SB LT = 659SB LT = 234NB TH = 300542

OR

MAXIMUM
 SUM OF CRITICAL
 VOLUMES

0 TO 1,200

1,201 to 1,400

> 1,400

CAPACITY
LEVEL

UNDER

NEAR

OVER

770
 E-W CRITICAL

659
 N-S CRITICAL

1437STATUS? OVER

1985 HCM: SIGNALIZED INTERSECTIONS
SUMMARY REPORT

INTERSECTION..CENTRAL AVE./N. KARNER RD.
AREA TYPE.....OTHER
ANALYST.....TJ
DATE.....3/30/90
TIME.....2005 TARGET PM
COMMENT.....OPTION 1 (25%)

VOLUMES					:	GEOMETRY							
	EB	WB	NB	SB	:	EB		WB		NB		SB	
LT	234	279	330	234	:	L	12.0	L	12.0	L	12.0	L	12.0
TH	1108	1484	587	626	:	T	12.0	T	12.0	T	12.0	T	12.0
RT	199	254	177	220	:	T	12.0	T	12.0	T	12.0	T	12.0
RR	0	0	0	0	:	T	12.0	T	12.0	R	12.0	R	12.0
					:	R	12.0	R	12.0		12.0		12.0
					:		12.0		12.0		12.0		12.0

ADJUSTMENT FACTORS										
	GRADE (%)	HV (%)	ADJ Y/N	PKG Nm	BUSES Nb	PHF	PEDS	PED. Y/N	BUT. min T	ARR. TYPE
EB	0.00	2.00	N	0	0	0.90	0	N	31.8	3
WB	0.00	2.00	N	0	0	0.90	0	N	31.8	3
NB	0.00	2.00	N	0	0	0.90	0	N	37.8	3
SB	0.00	2.00	N	0	0	0.90	0	N	37.8	3

SIGNAL SETTINGS										CYCLE LENGTH = 87	
		PH-1	PH-2	PH-3	PH-4			PH-1	PH-2	PH-3	PH
EB	LT	X	X			NB	LT	X	X	X	
	TH		X				TH		X	X	
	RT		X				RT		X	X	
	PD						PD				
WB	LT	X	X			SB	LT			X	
	TH		X				TH			X	
	RT		X				RT			X	
	PD						PD				
GREEN		15.0	30.0	0.0	0.0	GREEN		8.0	2.0	20.0	0.0
YELLOW		0.0	4.0	0.0	0.0	YELLOW		4.0	0.0	4.0	0.0

LEVEL OF SERVICE								
	LANE	GRP.	V/C	G/C	DELAY	LOS	APP. DELAY	APP. LOS
EB	L		0.607	0.517	13.8	B	15.7	C
	T		0.735	0.345	17.1	C		
	R		0.317	0.460	9.7	B		
WB	L		0.779	0.517	21.4	C	26.2	D
	T		0.984	0.345	29.3	D		
	R		0.427	0.437	11.2	B		
NB	L		0.752	0.391	24.9	C	21.2	C
	T		0.760	0.253	21.7	C		
	R		0.342	0.379	12.6	B		
SB	L		0.566	0.322	22.1	C	24.2	C
	T		0.891	0.230	28.2	D		
	R		0.453	0.356	14.2	B		

INTERSECTION: Delay = 22.0 (sec/veh) V/C = 0.880 LOS = C

1985 HCM: SIGNALIZED INTERSECTIONS

SUMMARY REPORT

 INTERSECTION..CENTRAL AVE./N. KARNER RD.
 AREA TYPE.....OTHER
 ANALYST.....TJ
 DATE.....3/30/90
 TIME.....2005 TARGET PM
 COMMENT.....OPTION L (25%).

VOLUMES				GEOMETRY							
	EB	WB	NB	EB	EB	WB	NB	SB			
LT	234	279	330	234	L	12.0	L	12.0	L	12.0	L
TH	1108	1484	587	626	T	12.0	T	12.0	T	12.0	T
RT	199	254	177	220	T	12.0	T	12.0	T	12.0	T
PD	0	0	0	0	T	12.0	T	12.0	R	12.0	R
					R	12.0	R	12.0		12.0	
						12.0		12.0		12.0	

ADJUSTMENT FACTORS									
	GRADE (%)	HV (%)	ADJ Y/V	PKE Nm	BUSES Nb	PHF	PEDS	PED. Y/N	BUT. min T
EB	0.00	2.00	N	0	0	0.90	0	N	31.6
WB	0.00	2.00	N	0	0	0.90	0	N	31.2
NB	0.00	2.00	N	0	0	0.90	0	N	37.8
SB	0.00	2.00	N	0	0	0.90	0	N	37.8

SIGNAL SETTINGS									
CYCLE LENGTH = 87.0									
	PH-1	PH-2	PH-3	PH-4		PH-1	PH-2	PH-3	PH-4
EB LT	X	X			NB LT	X	X	X	
TH		X			TH		X	X	
RT		X			RT		X	X	
PD					PD				
WB LT	X	X			SB LT	X		X	
TH		X			TH			X	
RT		X			RT			X	
PD					PD				
GREEN	15.0	30.0	0.0	0.0	GREEN	8.0	2.0	20.0	0.0
YELLOW	0.0	4.0	0.0	0.0	YELLOW	4.0	0.0	4.0	0.0

LEVEL OF SERVICE							
	LANE	GRP.	V/C	G/C	DELAY	LOS	APP. DELAY
EB	L		0.607	0.517	13.8	B	15.7
	T		0.735	0.345	17.1	C	
	R		0.317	0.460	9.7	B	
WB	L		0.779	0.517	21.4	C	26.2
	T		0.984	0.345	29.3	D	
	R		0.427	0.437	11.2	B	
NB	L		0.752	0.391	24.9	C	21.2
	T		0.760	0.253	21.7	C	
	R		0.342	0.379	12.6	B	
SB	L		0.566	0.322	22.1	C	24.2
	T		0.891	0.230	28.2	D	
	R		0.453	0.356	14.2	B	

INTERSECTION: Delay = 22.0 (sec/veh) V/C = 0.880 LOS = C

PLANNING APPLICATION WORKSHEET

Intersection: WATERVLIET-SHARON / N. KARNER - VLY Date: 3/29/90
 Analyst: _____ Time Period Analyzed: 2005 Target PM
 Project No. _____ City/State: OPTION 152 (-25%)

SB TOTAL

477
 33 + 176 = 268

Vly - N. Karner
 N-S STREET



317
932
550
1799
 WB TOTAL

442
 EB TOTAL
 32 + 376 + 34 = 442

WTLT-SHAR

E-W STREET

417
98 + 605
1120
 NB TOTAL

EB LT = 32WB TH = 932WB LT = 964EB TH = 275EB TH = 215EB TH = 490

OR

NB LT = 98SB TH = 301SB LT = 399SB LT = 176NB TH = 417NB TH = 593

OR

MAXIMUM
SUM OF CRITICAL
VOLUMESCAPACITY
LEVEL

0 TO 1,200

1,201 to 1,400

> 1,400

UNDER

NEAR

OVER

964
 E-W CRITICAL

593
 N-S CRITICAL

1557STATUS? OVER

1985 HCM: SIGNALIZED INTERSECTIONS

MARY REPORT

ERSECTION..WATERVLIT SHAKER ROAD/NEW KARNER ROAD / VLY ROAD

AREA TYPE.....OTHER

ANALYST.....SL

DATE.....3/30/90

TIME.....PM PEAK HOUR

COMMENT.....OPTION 1 (25%) *OPTION 2 (25%)*

	VOLUMES					GEOMETRY					
	EB	WB	NB	SB		EB	WB	NB	SB		
LT	32	550	98	176	: L	12.0	L	12.0	L	12.0	L
TH	376	932	417	268	: T	12.0	L	12.0	T	12.0	TR
RT	34	317	605	33	: TR	12.0	T	12.0	R	12.0	
RR	0	0	0	0	:	12.0	R	12.0		12.0	
					:	12.0		12.0		12.0	
					:	12.0		12.0		12.0	

	ADJUSTMENT FACTORS									
	GRADE (%)	HV (%)	ADJ Y/N	PKG Nm	BUSES Nb	PHF	PEDS	PED. Y/N	BUT. min T	ARR. TYPE
EB	0.00	2.00	N	0	0	0.90	0	N	17.5	3
WB	0.00	2.00	N	0	0	0.90	0	N	17.5	3
NB	0.00	2.00	N	0	0	0.90	0	N	23.5	3
SB	0.00	2.00	N	0	0	0.90	0	N	23.5	3

SIGNAL SETTINGS										CYCLE LENGTH = 95.0	
	PH-1	PH-2	PH-3	PH-4		PH-1	PH-2	PH-3	PH-4		
EB LT	X				NB LT	X	X				
TH	X				TH	X					
RT	X				RT	X					
PD					PD						
WB LT		X			SB LT	X	X				
TH	X	X			TH	X					
RT	X	X			RT	X					
PD					PD						
GREEN	26.0	26.0	0.0	0.0	GREEN	29.0	6.0	0.0	0.0		
YELLOW	0.0	4.0	0.0	0.0	YELLOW	0.0	4.0	0.0	0.0		

LEVEL OF SERVICE							
	LANE GRP.	V/C	G/C	DELAY	LOS	APP. DELAY	APP. LOS
EB	L	0.474	0.232	27.4	D	22.1	C
	TR	0.587	0.232	21.7	C		
WB	L	0.715	0.274	25.6	D	34.4	D
	T	1.062	0.547	49.4	E		
	R	0.381	0.611	6.2	B		
NB	L	0.056	0.368	14.7	B	27.5	D
	T	0.988	0.263	47.2	E		
	R	0.827	0.537	16.0	C		
SB	L	0.056	0.368	14.7	B	20.5	C
	TR	0.725	0.263	23.9	C		

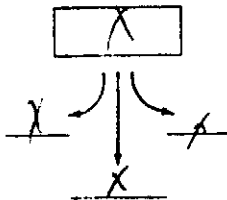
ERSECTION: Delay = 29.2 (sec/veh) V/C = 1.126 LOS = D

PLANNING APPLICATION WORKSHEET

3

Intersection: NATELVLET-SHAVER/SAND CREEK RD. Date: 3/29/90Analyst: _____ Time Period Analyzed: 2005 Target PMProject No. _____ City/State: OPTION 142 (-25%)

SB TOTAL



Sand Creek
N-S STREET

X



X

1251

249

1500

WB TOTAL

1199

EB TOTAL

X

878

321

NATELVLET-SHAVER

E-W STREET

639

X

46

685

NB TOTAL

EB LT = X

WB TH = 626

WB LT = 249

EB TH = 461

OR

710

NB LT = 320

SB TH = X

SB LT = X

NB TH = X

OR

X

MAXIMUM
SUM OF CRITICAL
VOLUMESCAPACITY
LEVEL

0 TO 1,200

1,201 to 1,400

> 1,400

UNDER

NEAR

OVER

710
E-W CRITICAL

320
N-S CRITICAL

= 1030

STATUS? UNDER

1985 HCM: SIGNALIZED INTERSECTIONS

PRIMARY REPORT

 INTERSECTION..WATERVLIET SHAKER ROAD/SAND CREEK ROAD
 AREA TYPE.....OTHER
 ANALYST.....SL
 DATE.....3/30/90
 TIME.....PM PEAK HOUR
 COMMENT.....OPTION 1 (25%) *OPTION 2*

VOLUMES					GEOMETRY				
	EB	WB	NB	SB		EB	WB	NB	SB
LT	0	249	639	0	: T	12.0	L	12.0	12.0
TH	878	1251	0	0	: T	12.0	T	12.0	12.0
RT	321	0	46	0	: R	12.0	T	12.0	12.0
RR	0	0	0	0	:	12.0		12.0	12.0
					:	12.0		12.0	12.0
					:	12.0		12.0	12.0

ADJUSTMENT FACTORS											
	GRADE	HV	ADJ	PKG	BUSES	PHF	PEDS	PED.	BUT.	ARR.	TYPE
	(%)	(%)	Y/N	Nm	Nb			Y/N	min T		
EB	0.00	2.00	N	0	0	0.90	0	N	11.5		3
WB	0.00	2.00	N	0	0	0.90	0	N	11.5		3
NB	0.00	2.00	N	0	0	0.90	0	N	20.5		3
SB	0.00	2.00	N	0	0	0.90	0	N	20.5		3

SIGNAL SETTINGS					CYCLE LENGTH = 66.0				
	PH-1	PH-2	PH-3	PH-4		PH-1	PH-2	PH-3	PH-4
EB LT					NB LT	X			
TH	X				TH				
RT	X				RT	X			
PD					PD				
WB LT	X	X			SB LT				
TH	X	X			TH				
RT					RT				
PD					PD				
GREEN	29.0	6.0	0.0	0.0	GREEN	23.0	0.0	0.0	0.0
YELLOW	0.0	4.0	0.0	0.0	YELLOW	4.0	0.0	0.0	0.0

LEVEL OF SERVICE								
	LANE	GRP.	V/C	G/C	DELAY	LOS	APP. DELAY	APP. LOS
EB	T		0.759	0.379	13.1	B	10.2	B
	R		0.324	0.727	2.1	A		
WB	L		0.452	0.530	8.2	B	9.0	B
	T		0.772	0.530	9.2	B		
NB	L		0.800	0.348	18.3	C	17.6	C
	R		0.077	0.439	6.9	B		

INTERSECTION: Delay = 11.2 (sec/veh) V/C = 0.783 LOS = B

PLANNING APPLICATION WORKSHEET

Intersection: WATERKILFT-SHAKER/ALBANY-SHAKER Date: 3/30/90
 Analyst: _____ Time Period Analyzed: 2005 Target PM
 Project No. _____ City/State: _____ OPTION 1 (-25%)

SB TOTAL

1481
 536 ——— 0
945

Alb - Shkr
 N-S STREET

0
95 ——— 95
0 WB TOTAL

914
 EB TOTAL
241
0
673

Water - Shkr
 E-W STREET
146
670 ——— 816
 NB TOTAL

EB LT = 241WB TH = 95WB LT = 336EB TH = X

OR

OR

OR

NB LT = 335SB TH = 496SB LT = 831NB TH = X

OR

OR

OR

MAXIMUM
 SUM OF CRITICAL
 VOLUMES

0 TO 1,200

1,201 to 1,400

> 1,400

CAP
LE

UNI

NI

OR

336 + 831 = 1167
 E-W CRITICAL N-S CRITICAL

STATUS? UNDER

1985 HCM: SIGNALIZED INTERSECTIONS

PRIMARY REPORT

 INTERSECTION..WATERVLIET SHAKER ROAD/ALBANY SHAKER ROAD
 AREA TYPE.....OTHER
 ANALYST.....SL
 DATE.....3/30/90
 TIME.....PM PEAK HOUR
 COMMENT.....OPTION 1 (25%)

VOLUMES					:	GEOMETRY							
	EB	WB	NB	SB	:	EB		WB	NB		SB		
LT	241	0	670	0	:	LT	12.0	LTR	12.0	L	12.0	LT	12.0
TH	0	95	146	945	:	R	12.0		12.0	L	12.0	T	12.0
RT	673	0	0	536	:	R	12.0		12.0	TR	12.0	R	12.0
RR	0	0	0	0	:		12.0		12.0		12.0	R	12.0
					:		12.0		12.0		12.0		12.0
					:		12.0		12.0		12.0		12.0

ADJUSTMENT FACTORS										
	GRADE (%)	HV (%)	ADJ Y/N	PKG Nm	BUSES Nb	PHF	PEDS	PED. Y/N	BUT. min T	ARR. TYPE
EB	0.00	2.00	N	0	0	0.90	0	N	23.5	3
WB	0.00	2.00	N	0	0	0.90	0	N	23.5	3
NB	0.00	2.00	N	0	0	0.90	0	N	14.5	3
SB	0.00	2.00	N	0	0	0.90	0	N	14.5	3

SIGNAL SETTINGS								CYCLE LENGTH = 112.0			
		PH-1	PH-2	PH-3	PH-4			PH-1	PH-2	PH-3	PH-4
EB	LT	X	X			NB	LT	X			
	TH	X	X				TH	X	X		
	RT	X	X				RT	X	X		
	PD						PD				
WB	LT		X			SB	LT		X		
	TH		X				TH		X		
	RT		X				RT		X		
	PD						PD				
GREEN		11.0	15.0	0.0	0.0	GREEN		34.0	40.0	0.0	0.0
YELLOW		0.0	4.0	0.0	0.0	YELLOW		4.0	4.0	0.0	0.0

LEVEL OF SERVICE							
	LANE GRP.	V/C	G/C	DELAY	LOS	APP. DELAY	APP. LOS
EB	LT	0.788	0.232	32.9	D	16.8	C
	R	0.548	0.536	11.3	B		
WB	LTR	0.442	0.134	29.6	D	29.6	D
NB	L	0.785	0.304	30.1	D	25.5	D
	TR	0.131	0.696	3.7	A		
SB	LT	0.866	0.357	25.6	D	22.2	C
	R	0.557	0.420	16.3	C		

INTERSECTION: Delay = 21.8 (sec/veh) V/C = 0.818 LOS = C

PLANNING APPLICATION WORKSHEET

4

Intersection: WINTERMUT - SHAKER RD / ALBANY - SHAKER RD Date: 3/30/90Analyst: _____ Time Period Analyzed: 2005 Target PMProject No. _____ City/State: _____ OPTION 2 (-25%)

<p>SB TOTAL</p> <p><u>1693</u></p> <p>500 → ← 356</p> <p><u>837</u></p>	<p><u>Alb - Shkr.</u></p> <p>N-S STREET</p> <p>↓ ↓ ↓ ↓</p>	<p>0</p> <p>437 ← → 437</p> <p>0</p> <p>WB TOTAL</p>
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<p>EB TOTAL</p> <p><u>2275</u></p> <p>→ <u>194</u></p> <p>→ <u>173</u></p> <p>→ <u>1908</u></p>	<p>↗ ↖ ↗ ↖</p>	<p><u>Wtut - Shkr</u></p> <p>E-W STREET</p> <p><u>620</u></p> <p>925 → ← 0</p> <p><u>1545</u></p> <p>NB TOTAL</p>
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<p>EB LT = <u>194</u></p> <p>WB TH = <u>218</u></p> <p>WB LT = <u>412</u></p> <p>EB TH = <u>173</u></p> <p>OR</p> <p><u>173</u></p>	<p>NB LT = <u>462</u></p> <p>SB TH = <u>418</u></p> <p>SB LT = <u>880</u></p> <p>NB TH = <u>310</u></p> <p>OR</p> <p><u>661</u></p>	<p>MAXIMUM SUM OF CRITICAL VOLUMES</p> <p>0 TO 1,200</p> <p>1,201 to 1,400</p> <p>> 1,400</p>	<p>CAPACITY LEVEL</p> <p>UNDER</p> <p>NEAR</p> <p>OVER</p>
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412 + 880 = 1292 STATUS? NEAR

E-W CRITICAL N-S CRITICAL

1985 HCM: SIGNALIZED INTERSECTIONS

SUMMARY REPORT

INTERSECTION..WTVLT-SHKR RD./ALB-SHKR

AREA TYPE.....OTHER

ANALYST.....TJ

DATE.....3/30/90

TIME.....2005 TARGET PM

COMMENT.....OPTION 2 (25%)

VOLUMES					GEOMETRY						
	EB	WB	NB	SB		EB	WB	NB	SB		
LT	194	0	925	355	L	12.0	L	12.0	L	12.0	L
TH	173	437	620	337	T	12.0	T	12.0	L	12.0	T
RT	1908	0	0	500	R	12.0	TR	12.0	T	12.0	T
RR	700	0	0	730	R	12.0	TR	12.0	TR	12.0	R
						12.0		12.0		12.0	
						12.0		12.0		12.0	

ADJUSTMENT FACTORS										ARR. TYPE	
	GRADE (%)	HV (%)	ADJ PKG Y/N	PKG	BUSES NB	PHF	PEDS	PED. BUT. Y/N	BUT. min		
EB	0.00	2.00	N	0	0	0.90	0	N	31.8	3	
WB	0.00	2.00	N	0	0	0.90	0	N	31.8	3	
NB	0.00	2.00	N	0	0	0.90	0	N	28.8	3	
SB	0.00	2.00	N	0	0	0.90	0	N	28.8	3	

SIGNAL SETTINGS					CYCLE LENGTH = 102.0				
	PH-1	PH-2	PH-3	PH-4		PH-1	PH-2	PH-3	PH-4
EB LT	X	X			NB LT	X	X		
TH	X	X			TH		X	X	
RT	X	X			RT		X	X	
PD					PD				
WB LT		X			SB LT	X		X	
TH		X			TH			X	
RT		X			RT			X	
PD					PD				
GREEN	8.0	19.0	0.0	0.0	GREEN	17.0	18.0	28.0	0.0
YELLOW	0.0	4.0	0.0	0.0	YELLOW	4.0	0.0	4.0	0.0

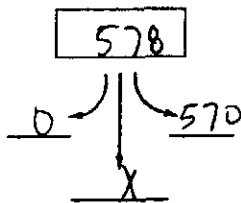
LEVEL OF SERVICE							
	LANE GRP.	V/C	G/C	DELAY	LOS	APP. DELAY	APP. LOS
EB	L	0.341	0.265	23.6	C	14.6	B
	T	0.408	0.265	20.2	C		
	R	0.826	0.608	12.4	B		
WB	L	0.000	0.186	25.3	D	28.7	D
	TR	0.768	0.186	28.7	D		
NB	L	0.913	0.343	32.5	D	24.5	C
	TR	0.429	0.451	12.4	B		
SB	L	0.710	0.441	23.1	C	29.4	D
	T	0.951	0.275	34.7	D		
	R	0.630	0.314	21.0	C		

INTERSECTION: Delay = 23.2 (sec/veh) V/C = 0.843 LOS = C

PLANNING APPLICATION WORKSHEET

Intersection: ALBANY-SHARPER / AIRPORT ACCESS SOUTH Date: 3/30/90
 Analyst: _____ Time Period Analyzed: 2005 Target PM
 Project No. _____ City/State: _____ OPTION 1 (-25%)

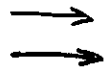
SB TOTAL



Airport Access South
N-S STREET



827
776
X 1603
 WB TOTAL



1618
 EB TOTAL X

Alb-Sharper
E-W STREET

X
X X
X
 NB TOTAL

EB LT = XWB TH = 776776WB LT = XEB TH = 809809

OR

NB LT = XSB TH = XXSB LT = 299NB TH = X299

OR

MAXIMUM
SUM OF CRITICAL
VOLUMES

CAP/

0 TO 1,200

UNI

1,201 to 1,400

NI

> 1,400

O

809 + 299 = 1108
 E-W CRITICAL N-S CRITICAL

STATUS? UNDER

5 HCM: SIGNALIZED INTERSECTIONS

MARY REPORT

 INTERSECTION..ALBANY SHAKER ROAD/AIRPORT ACCESS ROAD SOUTH
 AREA TYPE.....OTHER
 ANALYST.....SL
 DATE.....3/30/90
 TIME.....PM PEAK HOUR
 COMMENT.....OPTION 1 (25%)

VOLUMES				GEOMETRY							
	EB	WB	NB	SB	:	EB	WB	NB	SB		
LT	0	0	0	570	:	T 12.0	T 12.0	12.0	L 12.0		
TH	1618	776	0	0	:	T 12.0	R 12.0	12.0	L 12.0		
RT	0	827	0	0	:	12.0	R 12.0	12.0			
RR	0	0	0	0	:	12.0	12.0	12.0			
					:	12.0	12.0	12.0			
					:	12.0	12.0	12.0			

ADJUSTMENT FACTORS										
	GRADE (%)	HV (%)	ADJ Y/N	PKG Nm	BUSES Nb	PHF	PEDS	PED. Y/N	BUT. min T	ARR. TYPE
EB	0.00	2.00	N	0	0	0.90	0	N	8.5	3
WB	0.00	2.00	N	0	0	0.90	0	N	8.5	3
NB	0.00	2.00	N	0	0	0.90	0	N	17.5	3
	0.00	2.00	N	0	0	0.90	0	N	17.5	3

SIGNAL SETTINGS								CYCLE LENGTH = 86.0			
		PH-1	PH-2	PH-3	PH-4			PH-1	PH-2	PH-3	PH-4
EB	LT					NB	LT				
	TH	X					TH				
	RT						RT				
	PD						PD				
WB	LT					SB	LT	X			
	TH	X					TH				
	RT	X					RT				
	PD						PD				
GREEN		51.0	0.0	0.0	0.0	GREEN		27.0	0.0	0.0	0.0
YELLOW		4.0	0.0	0.0	0.0	YELLOW		4.0	0.0	0.0	0.0

LEVEL OF SERVICE							
	LANE	GRP.	V/C	G/C	DELAY	LOS	APP. DELAY
EB	T		0.893	0.593	13.1	B	13.1
WB	T		0.816	0.593	11.9	B	5.9
	R		0.398	0.907	0.4	A	
SB	L		0.792	0.314	24.1	C	24.1

INTERSECTION: Delay = 11.7 (sec/veh) V/C = 0.858 LOS = B

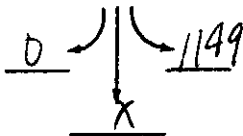
PLANNING APPLICATION WORKSHEET

5

Intersection: ALBANY-SWAKER / AIRPORT ACCESS SOUTH Date: 3/31/90
 Analyst: _____ Time Period Analyzed: 2005 Target PM
 Project No. _____ City/State: OPTW 2 (-25%)

SB TOTAL

1149



Airport Access South
N-S STREET



1320

1374

X

2694

WB TOTAL

2586

EB TOTAL

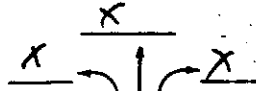
0

2586

X

Alt. SLK

E-W STREET



X

NB TOTAL

EB LT = 0

WB TH = 687

687

WB LT = X

862 7243

862 7243

OR

NB LT = X

SB TH = X

X

SB LT = 574

NB TH = X

574

OR

MAXIMUM
SUM OF CRITICAL
VOLUMES

0 TO 1,200

1,201 to 1,400

> 1,400

CAPACITY
LEVEL

UNDER

NEAR

OVER

7243 862 + 574 = 7867 STATUS? OVER
 E-W CRITICAL N-S CRITICAL 1436

1985 HCM: SIGNALIZED INTERSECTIONS

SUMMARY REPORT

INTERSECTION..ALB-SHR RD./AIRPORT ACCESS SOUTH

AREA TYPE.....OTHER

ANALYST.....TJ

DATE.....3/30/90

TIME.....2005 TARGET PM

COMMENT.....OPTION 2 (25%)

VOLUMES					GEOMETRY					
	EB	WB	NB	SB		EB	WB	NB	SB	
LT	0	0	0	1149	T	12.0	T	12.0	12.0	L
TH	2386	1374	0	0	T	12.0	T	12.0	12.0	L
RT	0	1320	0	0	T	12.0	R	12.0	12.0	
BB	0	1320	0	0		12.0	R	12.0	12.0	
						12.0		12.0	12.0	
						12.0		12.0	12.0	

ADJUSTMENT FACTORS									
	GRADE	HV	ADJ	PKG	BUSES	PHF	PEDS	PED. BUT.	ARR. TYPE
	(%)	(%)	Y/N	Nm	NB			Y/N min T	
EB	0.00	2.00	N	0	0	0.90	0	N 11.3	3
WB	0.00	2.00	N	0	0	0.90	0	N 11.3	3
NB	0.00	2.00	N	0	0	0.90	0	N 28.8	3
SB	0.00	2.00	N	0	0	0.90	0	N 28.8	3

SIGNAL SETTINGS									
					CYCLE LENGTH = 73.0				
	PH-1	PH-2	PH-3	PH-4		PH-1	PH-2	PH-3	PH-4
EB	LT				NB	LT			
	TH	X				TH			
	RT					RT			
	PD					PD			
WB	LT				SB	LT	X		
	TH	X				TH			
	RT	X				RT			
	PD					PD			
GREEN	35.0	0.0	0.0	0.0	GREEN	30.0	0.0	0.0	0.0
YELLOW	4.0	0.0	0.0	0.0	YELLOW	4.0	0.0	0.0	0.0

LEVEL OF SERVICE							
	LANE	GRP.	V/C	S/C	DELAY	LOS	APP. DELAY
EB	T		1.121	0.479	63.4	F	63.4
WB	T		0.893	0.479	15.2	C	15.2
	R		0.000	0.890	23.9	C	
SB	L		1.162	0.411	104.9	F	104.9

INTERSECTION: Delay = 59.7 (sec/veh) V/C = 1.140 LOS = E

PLANNING APPLICATION WORKSHEET

6

Intersection: ALBANY - SINKER / AIRPORT ACCESS NORTH Date: 3/30/90
 Analyst: _____ Time Period Analyzed: 2005 Target PM
 Project No. _____ City/State: OPTION 1 (-25%)

SB TOTAL

1568

0 → | ← 177
 1391

Alb-Sinker

N-S STREET

↓ ↓ ↓



170

739

65

974

WB TOTAL

↑
 ↑
 ↑

676

EB TOTAL

0
 → 676
 ← 0

Airport Access N.

E-W STREET

217

0 → | ← 85

362

NB TOTAL

↖ ↗
 ↑

EB LT = X

WB TH = 388

388

WB LT = 65

EB TH = 355

420

OR

NB LT = 0

SB TH = 696

696

SB LT = 177

NB TH = 217

454

OR

MAXIMUM
 SUM OF CRITICAL
 VOLUMES

CAPACITY

0 TO 1,200

1,201 to 1,400

> 1,400

UN

NI

OK

420
 E-W CRITICAL

696
 N-S CRITICAL

1116

STATUS? UNDER

85 HCM: SIGNALIZED INTERSECTIONS

PRIMARY REPORT

 INTERSECTION..ALBANY SHAKER ROAD/AIRPORT ACCESS ROAD NORTH
 AREA TYPE.....OTHER
 ANALYST.....SL
 DATE.....3/30/90
 TIME.....PM PEAK HOUR
 COMMENT.....OPTION 1 (25%)

	VOLUMES					GEOMETRY							
	EB	WB	NB	SB		EB	WB	NB	SB	EB	WB	NB	SB
LT	0	65	0	177	:	L	12.0	L	12.0	L	12.0	L	12.0
TH	676	739	277	1391	:	T	12.0	T	12.0	T	12.0	T	12.0
RT	0	170	85	0	:	TR	12.0	T	12.0	R	12.0	TR	12.0
RR	0	0	0	0	:		12.0	R	12.0		12.0		12.0
					:		12.0		12.0		12.0		12.0
					:		12.0		12.0		12.0		12.0

	ADJUSTMENT FACTORS									
	GRADE (%)	HV (%)	ADJ Y/N	PKG Nm	BUSES Nb	PHF	PEDS	PED. Y/N	BUT. min T	ARR. TYPE
EB	0.00	2.00	N	0	0	0.90	0	N	20.5	3
WB	0.00	2.00	N	0	0	0.90	0	N	20.5	3
NB	0.00	2.00	N	0	0	0.90	0	N	23.5	3
SB	0.00	2.00	N	0	0	0.90	0	N	23.5	3

SIGNAL SETTINGS										CYCLE LENGTH = 61.0	
	PH-1	PH-2	PH-3	PH-4		PH-1	PH-2	PH-3	PH-4		
EB LT	X				NB LT		X				
TH	X				TH		X				
RT	X				RT		X				
PD					PD						
WB LT	X				SB LT	X	X				
TH	X				TH	X	X				
RT	X				RT	X	X				
PD					PD						
GREEN	20.0	0.0	0.0	0.0	GREEN	10.0	23.0	0.0	0.0		
YELLOW	4.0	0.0	0.0	0.0	YELLOW	0.0	4.0	0.0	0.0		

LEVEL OF SERVICE							
	LANE GRP.	V/C	G/C	DELAY	LOS	APP. DELAY	APP. LOS
EB	L	0.000	0.328	12.4	B	12.4	B
	TR	0.675	0.328	12.4	B		
WB	L	0.338	0.328	12.1	B	12.2	B
	T	0.738	0.328	13.2	B		
	R	0.293	0.426	7.5	B		
NB	L	0.000	0.377	9.6	B	9.2	B
	T	0.458	0.377	9.6	B		
	R	0.165	0.377	8.2	B		
SB	L	0.036	0.541	5.0	A	9.3	B
	TR	0.842	0.541	9.8	B		

INTERSECTION: Delay = 10.6 (sec/veh) V/C = 0.802 LOS = B

PLANNING APPLICATION WORKSHEET

6

Intersection: ALDAN + SHAW / AIRPORT ACCESS NORTH Date: 3/30/90Analyst: _____ Time Period Analyzed: 2005 Target PMProject No. _____ City/State: OPTION 2 (-2506)

SB TOTAL

1575

40 → | ← 185
↓
1350

Aldan Sh. Cr.

N-S STREET



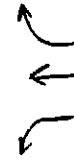
170

174

139

483

WB TOTAL



373

EB TOTAL

0
→ 191
→ 182

Airport + Access North

E-W STREET

230

474

89

793

NB TOTAL

EB LT = 0

WB TH = 174

WB LT = 174

WB LT = 139

EB TH = 186

325

OR

NB LT = 249

SB TH = 695

SB LT = 944

SB LT = 185

NB TH = 274

459

OR

MAXIMUM
SUM OF CRITICAL
VOLUMES

0 TO 1,200

1,201 to 1,400

> 1,400

CAPACITY
LEVEL

UNDER

NEAR

OVER

325 + 944 = 1269

E-W CRITICAL

N-S CRITICAL

STATUS? NEAR

1985 HCM: SIGNALIZED INTERSECTIONS

SUMMARY REPORT

INTERSECTION..AIRPORT ACCESS NORTH/ALB-SHR RD.

AREA TYPE.....OTHER

ANALYST.....TJ

DATE.....3/30/90

TIME.....2005 TARGET PM

COMMENT.....OPTION 2 (10%)

VOLUMES					GEOMETRY							
	EB	WB	NB	SB		EB	WB	NB	SB		EB	WB
LT	0	160	545	204	L	12.0	L	12.0	L	12.0	L	12.0
TH	210	200	265	150	T	12.0	T	12.0	L	12.0	T	12.0
RT	200	196	98	40	TR	12.0	R	12.0	TR	12.0	TR	12.0
FR	0	0	0	0		12.0		12.0		12.0		12.0
						12.0		12.0		12.0		12.0
						12.0		12.0		12.0		12.0

ADJUSTMENT FACTORS									
	GRADE (%)	HV (%)	ADJ PKG Y/N	BUSES Nm	PHF	PEDS	PED. Y/N	BUT. min T	ARR. TYPE
EB	0.00	2.00	N	0	0.90	0	N	25.8	3
WB	0.00	2.00	N	0	0.90	0	N	25.8	3
NB	0.00	2.00	N	0	0.90	0	N	25.8	3
SB	0.00	2.00	N	0	0.90	0	N	25.8	3

SIGNAL SETTINGS									
CYCLE LENGTH = 102.0									
	PH-1	PH-2	PH-3	PH-4		PH-1	PH-2	PH-3	PH-4
EB LT	X				NB LT	X	X		
TH	X				TH		X	X	
RT	X				RT		X	X	
PD					PD				
WB LT	X	X			SB LT	X			
TH	X	X			TH			X	
RT	X	X			RT			X	
PD					PD			X	
GREEN	19.0	2.0	0.0	0.0	GREEN	16.0	3.0	50.0	0.0
YELLOW	0.0	4.0	0.0	0.0	YELLOW	4.0	0.0	4.0	0.0

LEVEL OF SERVICE							
	LANE GRP.	V/C	G/C	DELAY	LOS	APP. DELAY	APP. LOS
EB	L	0.000	0.147	23.6	C	43.9	E
	TR	0.938	0.147	43.9	E		
WB	L	0.391	0.206	27.9	D	27.1	D
	T	0.606	0.206	25.5	D		
	R	0.698	0.206	28.2	D		
NB	L	0.991	0.186	57.5	E	38.6	D
	TR	0.454	0.520	10.2	B		
SB	L	0.854	0.157	47.4	E	37.0	D
	TR	1.021	0.490	35.7	D		

INTERSECTION: Delay = 36.7 (sec/veh) V/C = 0.959 LOS = D

PLANNING APPLICATION WORKSHEET

Intersection: A1b-Skr / Brit. Amer. Blvd. Date: 3/30/90
 Analyst: _____ Time Period Analyzed: 2005 Target PM
 Project No. _____ City/State: OPT/ON 142(-25%)

SB TOTAL

1890
 107 → | ← 76
967

A1b-Skr

N-S STREET

↓ ↓ ↓ ↓

186148213547

WB TOTAL

847

EB TOTAL

48226339Brit. Amer.

E-W STREET

378115121614

NB TOTAL

EB LT = 241WB TH = 148WB LT = 389EB TH = 213196409

OR

NB LT = 115SB TH = 476SB LT = 591NB TH = 76262339

OR

MAXIMUM
SUM OF CRITICAL
VOLUMES

0 TO 1,200

1,201 to 1,400

> 1,400

CAP' I
LE

UN

NI

O

409 + 591 = 1000
 E-W CRITICAL N-S CRITICAL

STATUS? UNDER

1985 HCM: SIGNALIZED INTERSECTIONS

SUMMARY REPORT

INTERSECTION..BRITISH AMERICAN/ALBANY SHAKER ROAD

AREA TYPE.....OTHER

ANALYST.....SL

DATE.....3/30/90

TIME.....PM PEAK HOUR

COMMENT.....OPTION 1 (25%) *OPTION 2 (25%)*

	VOLUMES					GEOMETRY							
	EB	WB	NB	SB		EB	WB	NB	SB	EB	WB	NB	SB
LT	482	213	115	76	:	L	12.0	L	12.0	L	12.0	L	12.0
TH	26	148	378	907	:	L	12.0	T	12.0	T	12.0	T	12.0
RT	339	186	121	107	:	TR	12.0	R	12.0	TR	12.0	T	12.0
RR	0	0	0	0	:		12.0		12.0		12.0	R	12.0
					:		12.0		12.0		12.0		12.0
					:		12.0		12.0		12.0		12.0

	ADJUSTMENT FACTORS									
	GRADE (%)	HV (%)	ADJ Y/N	PKG Nm	BUSES Nb	PHF	PEDS	PED. Y/N	BUT. min T	ARR. TYPE
EB	0.00	2.00	N	0	0	0.90	0	N	23.5	3
WB	0.00	2.00	N	0	0	0.90	0	N	23.5	3
NB	0.00	2.00	N	0	0	0.90	0	N	20.5	3
SB	0.00	2.00	N	0	0	0.90	0	N	20.5	3

SIGNAL SETTINGS										CYCLE LENGTH = 115.0			
		PH-1	PH-2	PH-3	PH-4			PH-1	PH-2	PH-3	PH-4		
EB	LT	X	X			NB	LT	X	X				
	TH		X	X			TH		X				
	RT		X	X			RT		X				
	PD						PD						
WB	LT	X		X		SB	LT	X	X				
	TH			X			TH		X				
	RT			X			RT		X				
	PD						PD						
GREEN		11.0	24.0	20.0	0.0	GREEN		8.0	40.0	0.0	0.0		
YELLOW		4.0	0.0	4.0	0.0	YELLOW		0.0	4.0	0.0	0.0		

LEVEL OF SERVICE							
	LANE GRP.	V/C	G/C	DELAY	LOS	APP. DELAY	APP. LOS
EB	L	0.564	0.304	26.1	D	24.1	C
	TR	0.691	0.383	21.3	C		
WB	L	0.394	0.270	26.9	D	28.5	D
	T	0.531	0.174	29.1	D		
	R	0.654	0.209	29.8	D		
NB	L	0.085	0.417	15.4	C	18.6	C
	TR	0.487	0.348	19.2	C		
SB	L	0.085	0.417	15.4	C	23.4	C
	T	0.854	0.348	26.1	D		
	R	0.120	0.652	4.9	A		

ERSECTION: Delay = 23.5 (sec/veh) V/C = 0.675 LOS = C

PLANNING APPLICATION WORKSHEET

8

Intersection: Rt. 7 / Albany Shaker Date: 3/30/90
 Analyst: _____ Time Period Analyzed: 2005 Target PM
 Project No. _____ City/State: OPTION 1 & 2 (-25%)

SB TOTAL

210
 40 → ↓ ← 50
120

Alb-Shaker

N-S STREET

↙ ↘

15
 1922
 416
2353
 WB TOTAL



2246
 EB TOTAL
 20
 1853
373

↙ ↘ ↙ ↘

↙ ↘ ↙ ↘

Rt. 7

E-W STREET

30
 377 → | ← 841

1248
 NB TOTAL

EB LT = 20WB TH = 641WB LT = 238EB TH = 618

OR

826NB LT = 214SB TH = 120SB LT = 334NB TH = 30

OR

80MAXIMUM
SUM OF CRITICAL
VOLUMES

CAPACITY

0 TO 1,200

1,201 to 1,400

> 1,400

UN

NI

O

826
 E-W CRITICAL

334
 N-S CRITICAL

1160

STATUS?

Under

1985 HCM: SIGNALIZED INTERSECTIONS

SUMMARY REPORT

INTERSECTION..ROUTE 7/ALB-SHKR RD.

AREA TYPE.....OTHER

ANALYST.....TJ

DATE.....3/30/90

TIME.....2005 TARGET PM

COMMENT.....OPTION 1 (25%)

VOLUMES					GEOMETRY						
	EB	WB	NB	SB		EB	WB	NB	SB		
LT	20	416	377	50	: L	12.0	L	12.0	L	12.0	L
TH	1853	1922	30	60	: T	12.0	L	12.0	LT	12.0	T
RT	373	15	841	80	: T	12.0	T	12.0	R	12.0	R
PD	0	0	150	0	: T	12.0	T	12.0	R	12.0	
					: P	12.0	TR	12.0		12.0	
					:	12.0		12.0		12.0	

ADJUSTMENT FACTORS									
	GRADE	HV	ADJ	PKG	BUSES	PHF	PEDS	PED.	BUT.
	(%)	(%)	Y/N	Nm	Nb			Y/N	min T
EB	0.00	2.00	N	0	0	0.90	0	N	25.8
WB	0.00	2.00	N	0	0	0.90	0	N	25.8
NB	0.00	2.00	N	0	0	0.90	0	N	37.8
SB	0.00	2.00	N	0	0	0.90	0	N	37.8

SIGNAL SETTINGS									
					CYCLE LENGTH = 122.0				
	PH-1	PH-2	PH-3	PH-4		PH-1	PH-2	PH-3	PH-4
EB	LT	X			NB	LT	X		
	TH	X				TH	X		
	RT	X				RT	X		
	PD					PD			
WB	LT	X			SB	LT	X		
	TH	X	X			TH	X		
	RT	X	X			RT	X		
	PD					PD			
GREEN	28.0	52.0	0.0	0.0	GREEN	10.0	20.0	0.0	0.0
YELLOW	0.0	4.0	0.0	0.0	YELLOW	4.0	4.0	0.0	0.0

LEVEL OF SERVICE							
	LANE	GRP.	V/C	G/C	DELAY	LOS	APP. DELAY
EB	L		0.379	0.426	20.1	C	29.9
	T		0.994	0.426	33.8	D	
	R		0.464	0.590	9.4	B	
WB	L		0.752	0.197	38.6	D	13.8
	TR		0.675	0.656	8.7	B	
NB	L		0.830	0.164	50.3	E	33.5
	LT		0.792	0.164	39.9	D	
	R		0.836	0.361	27.0	D	
SB	L		0.400	0.082	41.4	E	42.0
	T		0.609	0.082	39.2	D	
	R		0.716	0.082	45.2	E	

INTERSECTION: Delay = 24.4 (sec/veh) V/C = 1.072 LOS = C

1985 HCM: SIGNALIZED INTERSECTIONS
SUMMARY REPORT

INTERSECTION...ROUTE 7/ALB-SHR RD.
AREA TYPE.....OTHER
ANALYST.....TJ
DATE.....3/30/90
TIME.....2005 TARGET PM
COMMENT.....OPTION 2 (25%)

VOLUMES				GEOMETRY							
	EB	WB	NB	SB	EB	WB	NB	SB	EB	WB	NB
LT	20	416	377	50	L	12.0	L	12.0	L	12.0	L
TH	1853	1922	30	80	T	12.0	L	12.0	LT	12.0	T
RT	373	15	341	80	T	12.0	T	12.0	R	12.0	R
RR	0	0	150	0	T	12.0	T	12.0	R	12.0	
					R	12.0	TR	12.0		12.0	12.0
						12.0		12.0		12.0	

ADJUSTMENT FACTORS										ARR. TYPE
	GRADE	HV	ADJ	PKG	BUSES	PHF	PEDS	PED.	BUT.	
	(%)	(%)	Y/N	Nm	Nb			Y/N	min T	
EB	0.00	2.00	N	0	0	0.90	0	N	25.8	3
WB	0.00	2.00	N	0	0	0.90	0	N	25.8	3
NB	0.00	2.00	N	0	0	0.90	0	N	37.8	3
SB	0.00	2.00	N	0	0	0.90	0	N	37.8	3

SIGNAL SETTINGS										CYCLE LENGTH = 122.0	
	PH-1	PH-2	PH-3	PH-4		PH-1	PH-2	PH-3	PH-4		
EB LT		X			NB LT		X				
TH		X			TR		X				
RT		X			RT		X				
PD					PD						
WB LT	X				SB LT	X					
TH	X	X			TH	X					
RT	X	X			RT	X					
PD					PD						
GREEN	26.0	52.0	0.0	0.0	GREEN	10.0	20.0	0.0	0.0		
YELLOW	0.0	4.0	0.0	0.0	YELLOW	4.0	4.0	0.0	0.0		

LEVEL OF SERVICE							
	LANE GRP.	V/C	G/C	DELAY	LOS	APP. DELAY	APP. LOS
EB	L	0.379	0.426	20.1	C	29.9	D
	T	0.994	0.426	33.8	D		
	R	0.464	0.590	9.4	B		
WB	L	0.752	0.197	38.6	D	13.8	B
	TR	0.675	0.656	8.7	B		
NB	L	0.830	0.164	50.3	E	33.5	D
	LT	0.792	0.164	39.9	D		
	R	0.836	0.361	27.0	D		
SB	L	0.400	0.082	41.4	E	42.0	E
	T	0.609	0.082	39.2	D		
	R	0.716	0.082	45.2	E		

INTERSECTION: Delay = 24.4 (sec/veh) V/C = 1.072 LOS = C

PLANNING APPLICATION WORKSHEET

9

Intersection: RT. 7 / Vly - ROSENDALE RD. Date: 3/29/90Analyst: _____ Time Period Analyzed: 2005 Target PMProject No. _____ City/State: OPTION 1 (2(-25%))

SB TOTAL

343

31
44
268

Vly - Rosendale
N-S STREET

d l



285

3289

265

3879

WB TOTAL

1735

EB TOTAL

18

164

76

Wthlt-Sth

E-W STREET

33

48

94

175

NB TOTAL

EB LT = 18

WB TH = 1096

1114

WB LT = 265

EB TH = 547

812

OR

NB LT = 48

SB TH = 44

92

SB LT = 268

NB TH = 33

301

OR

MAXIMUM
SUM OF CRITICAL
VOLUMES

CAPACITY
LEVEL

0 TO 1,200

1,201 to 1,400

> 1,400

UNDER

NEAR

OVER

1114 + 301 = 1415 STATUS? OVER

E-W CRITICAL

N-S CRITICAL

1985 HCM: SIGNALIZED INTERSECTIONS SUMMARY REPORT

INTERSECTION..ROUTE 7/VLY-ROSENDALE
AREA TYPE.....OTHER
ANALYST.....TJ
DATE.....3/30/90
TIME.....2005 TARGET PM
COMMENT.....OPTION 1 (25%)

VOLUMES					GEOMETRY							
	EB	WB	NB	SB		EB	WB	NB	SB		EB	WB
LT	18	265	48	268	: L	12.0	L	12.0	L	12.0	L	12.0
TH	1641	3289	33	44	: T	12.0	T	12.0	TR	12.0	TR	12.0
RT	76	285	94	31	: T	12.0	T	12.0		12.0		12.0
RR	0	0	0	0	: TR	12.0	T	12.0		12.0		12.0
					:	12.0	R	12.0		12.0		12.0
					:	12.0		12.0		12.0		12.0

ADJUSTMENT FACTORS									
	GRADE (%)	HV (%)	ADJ Y/N	PKG Nm	BUSES Nb	PHF	PEDS	PED. Y/N	BUT. min T
EB	0.00	2.00	N	0	0	0.90	0	N	19.8
WB	0.00	2.00	N	0	0	0.90	0	N	19.8
NB	0.00	2.00	N	0	0	0.90	0	N	34.8
SB	0.00	2.00	N	0	0	0.90	0	N	34.8

SIGNAL SETTINGS					CYCLE LENGTH = 120.				
	PH-1	PH-2	PH-3	PH-4		PH-1	PH-2	PH-3	PH-4
EB LT		X			NB LT	X			
TH		X			TH	X			
RT		X			RT	X			
PD					PD				
WB LT	X	X			SB LT	X	X		
TH	X	X			TH	X	X		
RT	X	X			RT	X	X		
PD					PD				
GREEN	27.0	55.0	0.0	0.0	GREEN	20.0	10.0	0.0	0.0
YELLOW	0.0	4.0	0.0	0.0	YELLOW	0.0	4.0	0.0	0.0

LEVEL OF SERVICE							
	LANE	GRP.	V/C	G/C	DELAY	LOS	APP. DELAY
EB	L		0.335	0.458	17.1	C	18.8
	TR		0.784	0.458	18.8	C	
WB	L		0.615	0.683	10.0	B	20.0
	T		1.000	0.683	22.1	C	
	R		0.306	0.683	5.0	A	
NB	L		0.299	0.133	36.0	D	36.3
	TR		0.668	0.133	36.5	D	
SB	L		0.658	0.250	36.0	D	33.1
	TR		0.199	0.250	23.0	C	

INTERSECTION: Delay = 20.8 (sec/veh) V/C = 0.910 LOS = C

1985 HCM: SIGNALIZED INTERSECTIONS SUMMARY REPORT

INTERSECTION..ROUTE 7/VLY-ROSENDALE
AREA TYPE.....OTHER
ANALYST.....TJ
DATE.....3/30/90
TIME.....2005 TARGET PM
COMMENT.....OPTION 2 (25%)

VOLUMES				GEOMETRY							
	EB	WB	NB	SB		EB	WB	NB	SB		
LT	18	265	48	268	:	L	12.0	L	12.0	L	12.0
TH	1641	3269	33	44	:	T	12.0	T	12.0	TR	12.0
RT	76	285	94	31	:	T	12.0	T	12.0		12.0
RR	0	0	0	0	:	TR	12.0	T	12.0		12.0
					:		12.0	R	12.0		12.0
					:		12.0		12.0		12.0

ADJUSTMENT FACTORS											
	GRADE	HV	ADJ	PKG	BUSES	PHF	PEDS	PED.	BUT.	ARR.	TYPE
	(%)	(%)	Y/N	Km	Nb			Y/N	min T		
EB	0.00	2.00	N	0	0	0.90	0	N	19.8		3
WB	0.00	2.00	N	0	0	0.90	0	N	19.8		3
NB	0.00	2.00	N	0	0	0.90	0	N	34.8		3
SB	0.00	2.00	N	0	0	0.90	0	N	34.8		3

SIGNAL SETTINGS					CYCLE LENGTH = 120.0				
	PH-1	PH-2	PH-3	PH-4		PH-1	PH-2	PH-3	PH-4
EB LT		X			NB LT	X			
TH		X			TH	X			
RT		X			RT	X			
PD					PD				
WB LT	X	X			SB LT	X	X		
TH	X	X			TH	X	X		
RT	X	X			RT	X	X		
PD					PD				
GREEN	27.0	55.0	0.0	0.0	GREEN	20.0	10.0	0.0	0.0
YELLOW	0.0	4.0	0.0	0.0	YELLOW	0.0	4.0	0.0	0.0

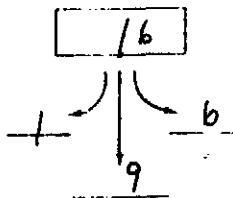
LEVEL OF SERVICE							
	LANE GRP.	V/C	G/C	DELAY	LOS	APP. DELAY	APP. LOS
EB	L	0.335	0.458	17.1	C	18.8	C
	TR	0.784	0.458	18.8	C		
WB	L	0.615	0.683	10.0	B	20.0	C
	T	1.000	0.683	22.1	C		
	R	0.306	0.683	5.0	A		
NB	L	0.299	0.133	36.0	D	36.3	D
	TR	0.668	0.133	36.5	D		
SB	L	0.658	0.250	36.0	D	33.1	D
	TR	0.199	0.250	23.0	C		

INTERSECTION: Delay = 20.8 (sec/veh) V/C = 0.910 LOS = C

PLANNING APPLICATION WORKSHEET

Intersection: Wade rd / Old Niskayuna Date: 3/29/90
 Analyst: _____ Time Period Analyzed: 2005 Target PM
 Project No. _____ City/State: _____ OPTION 1 (-25%)

SB TOTAL



Old Niskayuna
N-S STREET

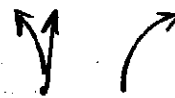


7 7 839
WB TOTAL



273
EB TOTAL

0
121
152



Wade rd / Military Affairs
E-W STREET
5
17 559
581
NB TOTAL

EB LT = XWB TH = 7WB LT = 839EB TH = 121960

OR

NB LT = 17SB TH = 9SB LT = 26NB TH = 511

OR

MAXIMUM
SUM OF CRITICAL
VOLUMES

0 TO 1,200

1,201 to 1,400

> 1,400

CAP
LE

NONE

N/A

OK

960
E-W CRITICAL

26
N-S CRITICAL

986STATUS? UNDER

5 HCM: SIGNALIZED INTERSECTIONS
MARY REPORT

INTERSECTION..WADE ROAD / MILITARY AFFAIRS/OLD NISKAYUNA ROAD
AREA TYPE.....OTHER
ANALYST.....SL
DATE.....3/30/90
TIME.....PM PEAK HOUR
COMMENT.....OPTION 1 (25%)

VOLUMES					GEOMETRY						
	EB	WB	NB	SB	:	EB	WB	NB	SB		
LT	0	839	17	6	:	LTR 12.0	L 12.0	LT 12.0	LTR 12.0		
TH	121	7	5	9	:	12.0	TR 12.0	R 12.0	12.0		
RT	152	7	559	1	:	12.0	12.0	12.0	12.0		
RR	0	0	0	0	:	12.0	12.0	12.0	12.0		
					:	12.0	12.0	12.0	12.0		
					:	12.0	12.0	12.0	12.0		

ADJUSTMENT FACTORS										
	GRADE	HV	ADJ	PKG	BUSES	PHF	PEDS	PED.	BUT.	ARR. TYPE
	(%)	(%)	Y/N	Nm	Nb			Y/N	min T	
EB	0.00	2.00	N	0	0	0.90	0	N	11.5	3
WB	0.00	2.00	N	0	0	0.90	0	N	11.5	3
NB	0.00	2.00	N	0	0	0.90	0	N	11.5	3
SB	0.00	2.00	N	0	0	0.90	0	N	11.5	3

SIGNAL SETTINGS					CYCLE LENGTH = 60.0				
	PH-1	PH-2	PH-3	PH-4		PH-1	PH-2	PH-3	PH-4
EB LT	X				NB LT	X			
TH	X				TH	X			
RT	X				RT	X			
PD					PD				
WB LT	X	X			SB LT	X			
TH	X	X			TH	X			
RT	X	X			RT	X			
PD					PD				
GREEN	22.0	21.0	0.0	0.0	GREEN	9.0	0.0	0.0	0.0
YELLOW	0.0	4.0	0.0	0.0	YELLOW	4.0	0.0	0.0	0.0

LEVEL OF SERVICE							
	LANE GRP.	V/C	G/C	DELAY	LOS	APP. DELAY	APP. LOS
EB	LTR	0.688	0.300	14.6	B	14.6	B
WB	L	0.855	0.717	11.8	B	11.7	B
	TR	0.013	0.717	1.6	A		
NB	LT	0.091	0.150	14.2	B	12.5	B
	R	0.820	0.500	12.5	B		
SB	LTR	0.118	0.150	14.3	B	14.3	B

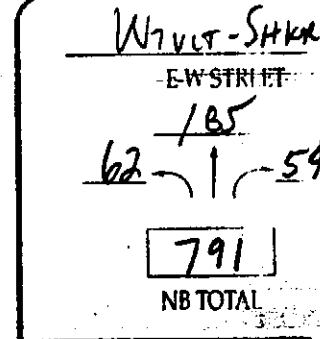
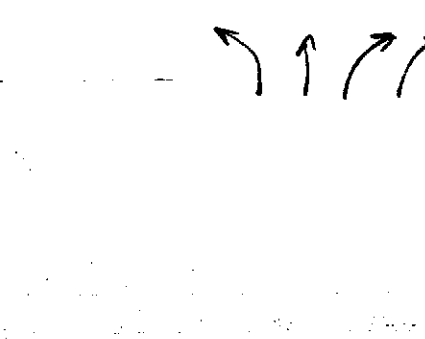
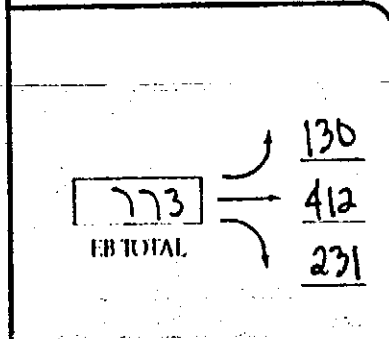
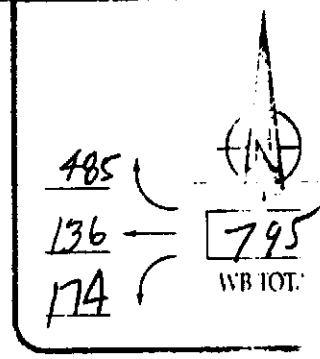
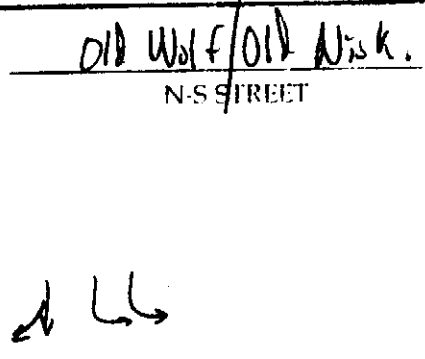
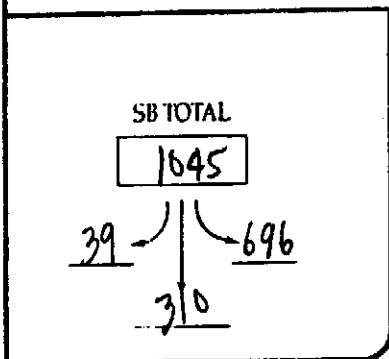
INTERSECTION: Delay = 12.4 (sec/veh) V/C = 1.122 LOS = B

SIGNALIZED INTERSECTIONS

PLANNING APPLICATION WORKSHEET

13

Intersection: WATERVLIET-SHAKR / OLD WOLF - OLD NISK. Date: 3/29/90
Analyst: _____ Time Period Analyzed: 2005 Target PM
Project No. _____ City/State: OPTION 1 (-25%)



EB LT	=	<u>130</u>
WB TH	=	<u>136</u>
WB LT	=	<u>266</u>
EB TH	=	<u>412</u>
		<u>536</u>

NB LT	=	<u>62</u>
SB TH	=	<u>349</u>
SB LT	=	<u>411</u>
NB TH	=	<u>185</u>
		<u>533</u>

MAXIMUM SUM OF CRITICAL VOLUMES	CAPACITY LEVEL
0 TO 1,200	UNSATURATED
1,201 to 1,400	NORMAL
> 1,400	OVERSATURATED

536 E-W CRITICAL | 533 N-S CRITICAL | 1119 STATUS? UNDER

1985 HCM: SIGNALIZED INTERSECTIONS

PRIMARY REPORT

INTERSECTION..WATERVLIET SHAKER ROAD/OLD WOLF RD / OLD NISKAYUNA RD

AREA TYPE.....OTHER

ANALYST.....SL

DATE.....3/30/90

TIME.....PM PEAK HOUR

COMMENT.....OPTION 1 (25%)

VOLUMES					GEOMETRY						
	EB	WB	NB	SB		EB	WB	NB	SB		
LT	130	174	62	696	: L	12.0	L	12.0	L	12.0	
TH	412	136	185	310	: T	12.0	T	12.0	T	12.0	
RT	231	485	544	39	: R	12.0	R	12.0	R	12.0	TR
RR	0	0	0	0	:	12.0		12.0	R	12.0	
					:	12.0		12.0		12.0	
					:	12.0		12.0		12.0	

ADJUSTMENT FACTORS										
	GRADE	HV	ADJ	PKG	BUSES	PHF	PEDS	PED.	BUT.	ARR. TYPE
	(%)	(%)	Y/N	Nm	Nb			Y/N	min T	
EB	0.00	2.00	N	0	0	0.90	0	N	23.5	3
WB	0.00	2.00	N	0	0	0.90	0	N	23.5	3
NB	0.00	2.00	N	0	0	0.90	0	N	20.5	3
SB	0.00	2.00	N	0	0	0.90	0	N	20.5	3

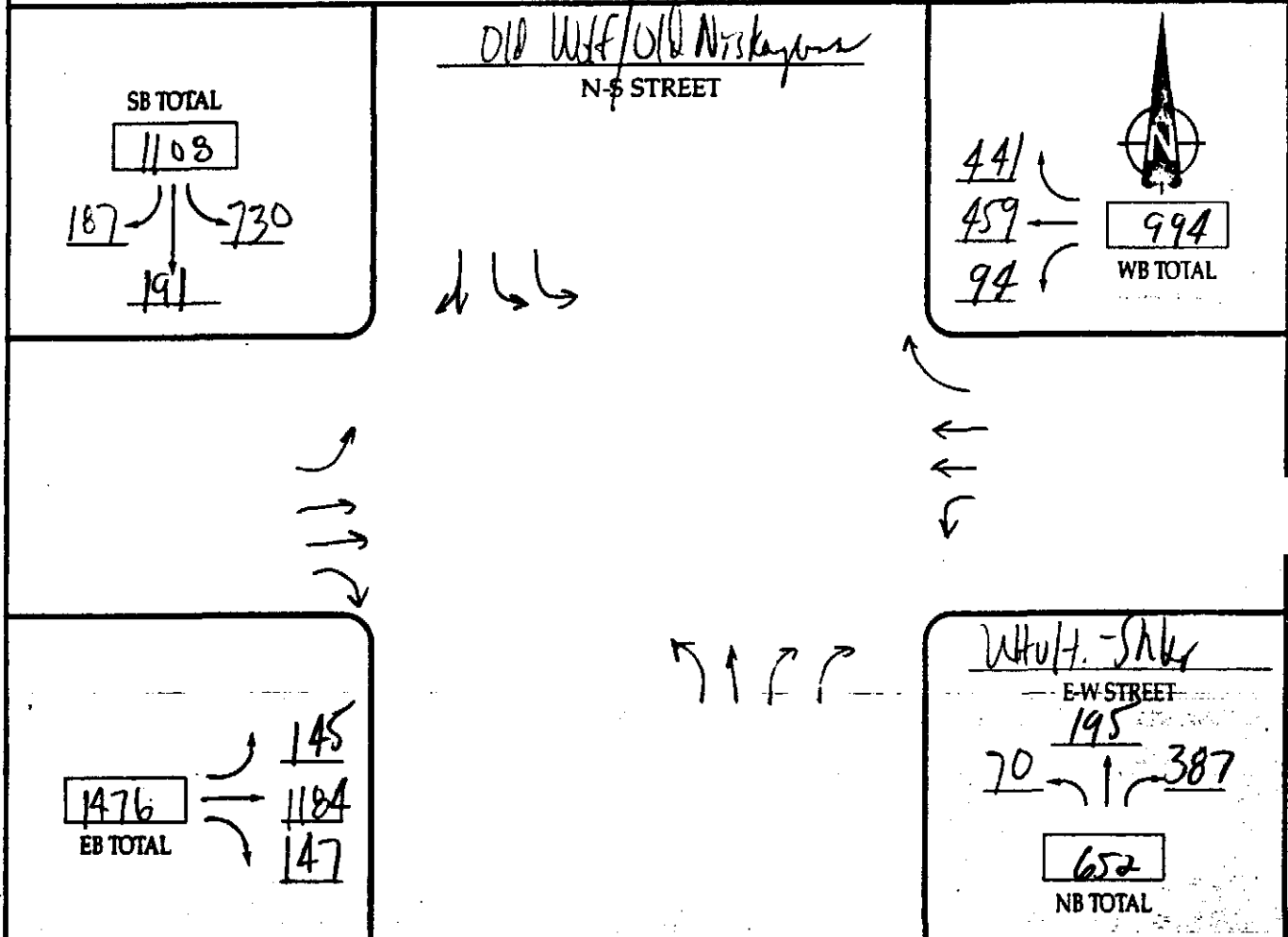
SIGNAL SETTINGS										CYCLE LENGTH = 79.0
	PH-1	PH-2	PH-3	PH-4		PH-1	PH-2	PH-3	PH-4	
EB LT	X	X			NB LT	X		X		
TH		X			TH			X		
RT		X			RT			X		
PD					PD					
WB LT	X	X			SB LT	X	X			
TH		X			TH		X	X		
RT		X			RT		X	X		
PD					PD					
GREEN	8.0	22.0	0.0	0.0	GREEN	10.0	15.0	12.0	0.0	
YELLOW	4.0	4.0	0.0	0.0	YELLOW	0.0	0.0	4.0	0.0	

LEVEL OF SERVICE								
	LANE	GRP.	V/C	G/C	DELAY	LOS	APP. DELAY	APP. LOS
EB	L		0.039	0.430	9.9	B	22.6	C
	T		0.922	0.278	31.8	D		
	R		0.478	0.354	13.3	B		
WB	L		0.039	0.430	9.9	B	10.4	B
	T		0.305	0.278	14.6	B		
	R		0.654	0.544	9.3	B		
NB	L		0.078	0.228	18.2	C	29.6	D
	T		0.759	0.152	27.5	D		
	R		0.938	0.253	31.5	D		
	L		0.932	0.266	33.4	D	27.7	D
	TR		0.648	0.342	15.7	C		

INTERSECTION: Delay = 23.0 (sec/veh) V/C = 0.854 LOS = C

PLANNING APPLICATION WORKSHEET

13

Intersection: WATERLOO-STARKER / OLD WOLF-OLD NISKAYUNA Date: 3/30/90Analyst: _____ Time Period Analyzed: 2005 Target PMProject No. _____ City/State: OPTION 2 (-25%)

EB LT = <u>145</u>	NB LT = <u>70</u>	MAXIMUM SUM OF CRITICAL VOLUMES <hr/> 0 TO 1,200 1,201 to 1,400 > 1,400	CAPACITY LEVEL <hr/> UNDER NEAR OVER
WB TH = <u>241</u>	SB TH = <u>284</u>		
WB LT = <u>94</u>	SB LT = <u>365</u>		
EB TH = <u>592</u>	NB TH = <u>195</u>		
<u>386</u>	<u>354</u>		
<u>686</u>	<u>560</u>		

686 + 560 = 1246 STATUS? NEAR

E-W CRITICAL N-S CRITICAL

1985 HCM: SIGNALIZED INTERSECTIONS

SUMMARY REPORT

INTERSECTION..WTVLT-SHKR RD./OLD WOLF-O.NISK.

AREA TYPE.....OTHER

ANALYST.....TJ

DATE.....3/30/90

TIME.....2005 TARGET PM

COMMENT.....OPTION 2 (25%)

VOLUMES					GEOMETRY							
	EB	WB	NB	SB		EB	WB	NB	SB		EB	WB
LT	145	94	70	730	L	12.0	L	12.0	L	12.0	L	12.0
TH	1184	459	193	191	T	12.0	T	12.0	T	12.0	L	12.0
RT	147	441	387	187	T	12.0	T	12.0	R	12.0	T	12.0
RR	0	200	150	0	R	12.0	R	12.0	R	12.0	R	12.0
						12.0		12.0		12.0		12.0
						12.0		12.0		12.0		12.0

ADJUSTMENT FACTORS										ARR. TYPE	
	GRADE (%)	HV (%)	ADJ Y/N	PKB Nm	BUSES Nb	PHF	PEDS	PED. Y/N	BUT. min T		
EB	0.00	2.00	N	0	0	0.90	0	N	31.8	3	
WB	0.00	2.00	N	0	0	0.90	0	N	31.8	3	
NB	0.00	2.00	N	0	0	0.90	0	N	31.8	3	
SB	0.00	2.00	N	0	0	0.90	0	N	31.8	3	

SIGNAL SETTINGS					CYCLE LENGTH = 102.0				
	PH-1	PH-2	PH-3	PH-4		PH-1	PH-2	PH-3	PH-4
EB LT	X	X			NB LT	X		X	
TH	X				TH			X	
RT	X				RT			X	
PD					PD				
WB LT	X	X			SB LT	X	X		
TH	X				TH		X	X	
RT	X				RT		X	X	
PD					PD				
GREEN	42.0	3.0	0.0	0.0	GREEN	5.0	25.0	15.0	0.0
YELLOW	0.0	4.0	0.0	0.0	YELLOW	4.0	0.0	4.0	0.0

LEVEL OF SERVICE							
	LANE	GRP.	V/C	G/C	DELAY	LOS	APP. DELAY
EB	L		0.086	0.441	12.6	B	30.6
	T		0.991	0.373	35.1	D	
	R		0.256	0.422	12.4	B	
WB	L		0.291	0.441	14.3	B	11.8
	T		0.384	0.373	15.2	C	
	R		0.265	0.667	4.5	A	
NB	L		0.121	0.196	25.7	D	32.3
	T		0.827	0.147	38.4	D	
	R		0.669	0.147	29.1	D	
SB	L		0.841	0.294	30.4	D	24.9
	T		0.304	0.392	13.9	B	
	R		0.350	0.392	14.2	B	

INTERSECTION: Delay = 25.3 (sec/veh) V/C = 0.859 LOS = D

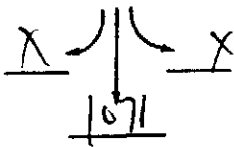
PLANNING APPLICATION WORKSHEET

14

Intersection: Old Wolf/Exit 4 Ramp Date: 3/30/90Analyst: _____ Time Period Analyzed: 2005 Target PMProject No. _____ City/State: _____ OPTION 1 (-25%)

SB TOTAL

1071

Old Wolf
N-S STREET

72

X

505



577

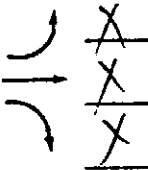
WB TOTAL

X



X

EB TOTAL



Exit 4 Ramp

E-W STREET

599



599

NB TOTAL

EB LT = X

WB TH = X

WB LT = X

265

EB TH = X

265

OR

NB LT = X

SB TH = 562

SB LT = X

562

NB TH = 599

599

OR

MAXIMUM
SUM OF CRITICAL
VOLUMES

0 TO 1,200

1,201 to 1,400

> 1,400

CAPACITY
LEVEL

UN

NL

O

$$\frac{265}{\text{E-W CRITICAL}} + \frac{599}{\text{N-S CRITICAL}} = 864$$
STATUS: UNDER

1985 HCM: SIGNALIZED INTERSECTIONS

PRIMARY REPORT

INTERSECTION..EXIT 4 RAMP/OLD WOLF ROAD
AREA TYPE.....OTHER
ANALYST.....SL
DATE.....3/30/90
TIME.....PM PEAK HOUR
COMMENT.....OPTION 1 (25%)

VOLUMES					GEOMETRY						
	EB	WB	NB	SB	:	EB		WB		NB	SB
LT	0	505	0	0	:	12.0	L	12.0	T	12.0	T
TH	0	0	599	1071	:	12.0	LR	12.0		12.0	T
RT	0	72	0	0	:	12.0		12.0		12.0	
RR	0	0	0	0	:	12.0		12.0		12.0	
					:	12.0		12.0		12.0	
					:	12.0		12.0		12.0	

ADJUSTMENT FACTORS										
	GRADE	HV	ADJ	PKG	BUSES	PHF	PEDS	PED.	BUT.	ARR. TYPE
	(%)	(%)	Y/N	Nm	Nb			Y/N	min T	
EB	0.00	2.00	N	0	0	0.90	0	N	16.8	3
WB	0.00	2.00	N	0	0	0.90	0	N	16.8	3
NB	0.00	2.00	N	0	0	0.90	0	N	11.3	3
SB	0.00	2.00	N	0	0	0.90	0	N	11.3	3

SIGNAL SETTINGS										CYCLE LENGTH = 61.0
	PH-1	PH-2	PH-3	PH-4		PH-1	PH-2	PH-3	PH-4	
EB	LT				NB	LT				
	TH					TH	X			
	RT					RT				
	PD					PD				
WB	LT	X			SB	LT				
	TH					TH	X			
	RT	X				RT				
	PD					PD				
GREEN	21.0	0.0	0.0	0.0	GREEN	30.0	0.0	0.0	0.0	
YELLOW	5.0	0.0	0.0	0.0	YELLOW	5.0	0.0	0.0	0.0	

LEVEL OF SERVICE							
	LANE GRP.	V/C	G/C	DELAY	LOS	APP. DELAY	APP. LOS
WB	L	0.592	0.344	13.8	B	13.1	B
	LR	0.635	0.344	12.4	B		
NB	T	0.759	0.492	10.4	B	10.4	B
SB	T	0.713	0.492	8.7	B	8.7	B

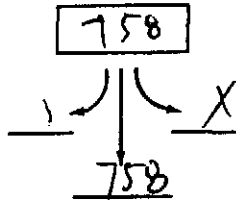
INTERSECTION: Delay = 10.2 (sec/veh) V/C = 0.708 LOS = B

PLANNING APPLICATION WORKSHEET

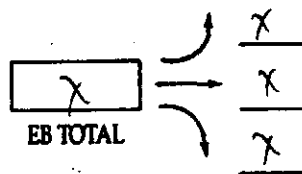
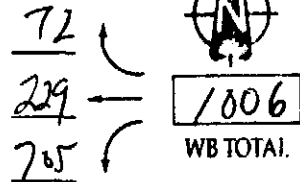
14

Intersection: Old Wolf / Exit 4 Off Ramp Date: 3/30/90
 Analyst: _____ Time Period Analyzed: 2005 Target PM
 Project No. _____ City/State: OPTION 2 (-25%)

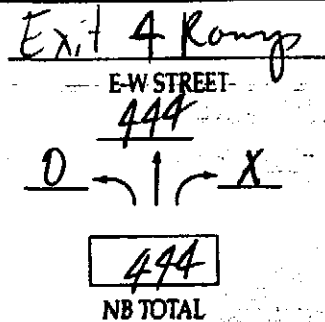
SB TOTAL



Old Wolf
N-S STREET



EB TOTAL



NB TOTAL

EB LT = XWB TH = 765265WB LT = 352EB TH = X352

OR

NB LT = XSB TH = 398398SB LT = XNB TH = 444444

OR

MAXIMUM
SUM OF CRITICAL
VOLUMES

0 TO 1,200

1,201 to 1,400

> 1,400

CAPACITY
LEVEL

UNDER

NEAR

OVER

352 + 444 = 796 STATUS? UNDER
 E-W CRITICAL N-S CRITICAL

1985 HCM: SIGNALIZED INTERSECTIONS SUMMARY REPORT

INTERSECTION..EIT 4 OFF RAMP/OLD WOLF RD.
AREA TYPE.....OTHER
ANALYST.....TJ
DATE.....3/31/90
TIME.....2005 TARGET PM
COMMENT.....OPTION 2 (25%)

VOLUMES					GEOMETRY							
	EB	WB	NB	SB		EB	WB	NB	SB		EB	WB
LT	1	705	0	0	LTR	12.0	L	12.0	LTR	12.0	LT	12.0
TH	1	229	444	756		12.0	L	12.0		12.0	TR	12.0
RT	1	72	0	1		12.0	TR	12.0		12.0		12.0
RB	0	0	0	0		12.0		12.0		12.0		12.0
						12.0		12.0		12.0		12.0
						12.0		12.0		12.0		12.0

ADJUSTMENT FACTORS									
	GRADE (%)	HV (%)	ADJ Y/N	PKG Y/N	BUSES	PHF	PEDS	PED. CUT. Y/N	ARR. TYPE
EB	0.00	2.00	N	0	0	0.90	0	N	16.8
WB	0.00	2.00	N	0	0	0.90	0	N	16.8
NB	0.00	2.00	N	0	0	0.90	0	N	19.8
SB	0.00	2.00	N	0	0	0.90	0	N	19.8

SIGNAL SETTINGS								CYCLE LENGTH = 68.0			
		PH-1	PH-2	PH-3	PH-4			PH-1	PH-2	PH-3	PH-4
EB	LT	X				NB	LT	X			
	TH	X					TH	X			
	RT	X					RT	X			
	PD						PD				
WB	LT	X				SB	LT	X			
	TH	X					TH	X			
	RT	X					RT	X			
	PD						PD				
GREEN		30.0	0.0	0.0	0.0	GREEN		30.0	0.0	0.0	0.0
YELLOW		4.0	0.0	0.0	0.0	YELLOW		4.0	0.0	0.0	0.0

LEVEL OF SERVICE							
	LANE GRP.	V/C	G/C	DELAY	LOS	APP. DELAY	APP. LOS
EB	LTR	0.006	0.441	6.9	B	6.9	B
WB	L	0.576	0.441	11.2	B	10.5	B
	TR	0.441	0.441	8.8	B		
NB	LTR	0.628	0.441	10.5	B	10.5	B
SB	LTR	0.563	0.441	9.4	B	9.4	B

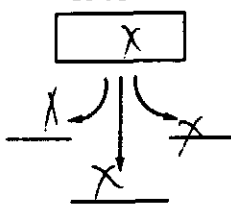
INTERSECTION: Delay = 10.1 (sec/veh) V/C = 0.602 LOS = B

PLANNING APPLICATION WORKSHEET

15

Intersection: A16-SLkr. / Wolf Rd. Date: 3/30/90
 Analyst: _____ Time Period Analyzed: 2005 Target PM -
 Project No. _____ City/State: OPTION 1 (-25%)

SB TOTAL



Wolf Rd.
N-S STREET

Y

325
935
232



WB TOTAL

2063
EB TOTAL

644
1322
97

A16-SLkr
E-W STREET
423
356 | 271
1050
NB TOTAL

EB LT = 644WB TH = 468WB LT = 1112EB TH = 232

OR

OR

OR

NB LT = 286

SB TH = _____

SB LT = 286

OR

OR

OR

OR

OR

MAXIMUM
SUM OF CRITICAL
VOLUMES

0 TO 1,200

1,201 to 1,400

> 1,400

CAPACITY
LEVEL

UNSAT

NEAR

OVER

1112 + 286 = 1398
E-W CRITICAL N-S CRITICAL

STATUS? TOP NEAR

1985 HCM: SIGNALIZED INTERSECTIONS

SUMMARY REPORT

INTERSECTION..ALB-SHMR RD./WOLF RD.

AREA TYPE.....OTHER

ANALYST.....TJ

DATE.....3/30/90

TIME.....2005 TARGET PM

COMMENT.....OPTION 1 (35%)

VOLUMES					GEOMETRY						
	EB	WB	NB	SB		EB	WB	NB	SB		
LT	644	232	356	1	: L	12.0	L	12.0	L	12.0	LTR 12.0
TH	1322	935	487	1	: T	12.0	T	12.0	LT	12.0	12.0
RT	97	325	271	1	: T	12.0	T	12.0	T	12.0	12.0
RR	0	0	0	0	: R	12.0	R	12.0	R	12.0	12.0
					:	12.0		12.0		12.0	12.0
					:	12.0		12.0		12.0	12.0

ADJUSTMENT FACTORS										
	GRADE	HV	ADJ PKG	BUSES	PHF	PEDS	PED.	BUT.	ARR.	TYPE
	(%)	(%)	Y/N Nm	NB			Y/N	min T		
EB	0.00	2.00	N 0	0	0.90	0	N	22.8	3	
WB	0.00	2.00	N 0	0	0.90	0	N	22.8	3	
NB	0.00	2.00	N 0	0	0.90	0	N	31.8	3	
SB	0.00	2.00	N 0	0	0.90	0	N	31.8	3	

SIGNAL SETTINGS										CYCLE LENGTH = 100.0			
		PH-1	PH-2	PH-3	PH-4			PH-1	PH-2	PH-3	PH-4		
EB	LT	X	X	X		NB	LT	X					
	TH		X	X			TH	X					
	RT		X	X			RT	X					
	PD						PD						
WB	LT	X		X		SB	LT		X				
	TH			X			TH		X				
	RT			X			RT		X				
	PD						PD						
GREEN		20.0	18.0	30.0	0.0	GREEN		22.0	1.0	0.0	0.0		
YELLOW		0.0	0.0	4.0	0.0	YELLOW		4.0	1.0	0.0	0.0		

LEVEL OF SERVICE							
	LANE GRP.	V/C	G/C	DELAY	LOS	APP. DELAY	APP. LOS
EB	L	0.944	0.680	27.4	D	20.0	C
	T	0.859	0.480	17.7	C		
	R	0.102	0.700	3.1	A		
WB	L	0.686	0.460	21.0	C	31.3	D
	T	0.972	0.300	35.6	D		
	R	0.795	0.300	26.3	D		
NB	L	0.531	0.220	27.3	D	26.1	D
	LT	0.864	0.220	30.3	D		
	R	0.523	0.380	16.1	C		
SB	LTR	-0.111	-0.020	33.7	D	33.7	D

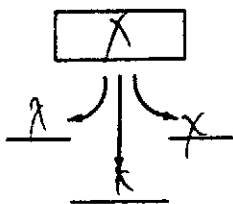
INTERSECTION: Delay = 25.1 (sec/veh) V/C = 1.053 LOS = D

PLANNING APPLICATION WORKSHEET

15

Intersection: ALBANY-SHAKER/WOLF RD. Date: 3/30/90
 Analyst: _____ Time Period Analyzed: 2005 Target PM
 Project No. _____ City/State: OPTION 2 (-25%)

SB TOTAL



Wolf Rd.

N-S STREET



283
 1450
 232
 1965
 WB TOTAL

244
 EB TOTAL

201
 1360
 880

E-W STREET

606
 490
 294
 1380
 NB TOTAL

EB LT = 201
 WB TH = 725
 WB LT = 926
 EB TH = 680
 912

OR

NB LT = 365
 SB TH = X
 SB LT = 365
 NB TH = X

OR

MAXIMUM
SUM OF CRITICAL
VOLUMES

0 TO 1,200
 1,201 to 1,400
 > 1,400

CAPACITY
LEVEL

UNDER
 NEAR
 OVER

926 + 365 = 1291 STATUS? NEAR

E-W CRITICAL

N-S CRITICAL

1985 HCM: SIGNALIZED INTERSECTIONS
SUMMARY REPORT

INTERSECTION..ALB-SHKR RD./WOLF RD.
AREA TYPE.....OTHER
ANALYST.....TJ
DATE.....3/31/90
TIME.....2005 TARGET PM
COMMENT.....OPTION 2 (25%)

VOLUMES					GEOMETRY						
	EB	WB	NB	SB		EB	WB	NB	SB		
LT	201	232	490	1	L	12.0	L	12.0	L	12.0	LTR 12.0
TH	1360	1450	606	1	T	12.0	T	12.0	LT	12.0	12.0
RT	280	283	284	1	T	12.0	T	12.0	T	12.0	12.0
RR	0	0	0	0	R	12.0	R	12.0	R	12.0	12.0
						12.0		12.0		12.0	12.0
						12.0		12.0		12.0	12.0

ADJUSTMENT FACTORS										
	GRADE (%)	HV (%)	ADJ Y/N	PKG Nm	BUSES Nb	PHF	PEDS	FED. Y/N	ILT. min T	ARR. TYPE
EB	0.00	2.00	N	0	0	0.90	0	N	22.5	3
WB	0.00	2.00	N	0	0	0.90	0	N	22.5	3
NB	0.00	2.00	N	0	0	0.90	0	N	31.8	3
SB	0.00	2.00	N	0	0	0.90	0	N	31.8	3

SIGNAL SETTINGS										CYCLE LENGTH = 115.0
	PH-1	PH-2	PH-3	PH-4		PH-1	PH-2	PH-3	PH-4	
EB LT	X	X			NB LT	X				
TH		X			TH					
RT		X			RT					
PD					PD					
WB LT	X	X			SB LT		X			
TH		X			TH		X			
RT		X			RT		X			
PD					PD					
GREEN	15.0	55.0	0.0	0.0	GREEN	35.0	1.0	0.0	0.0	
YELLOW	0.0	4.0	0.0	0.0	YELLOW	4.0	1.0	0.0	0.0	

LEVEL OF SERVICE							
	LANE	GRP.	V/C	G/C	DELAY	LOS	APP. DELAY
EB	L		0.728	0.609	19.7	C	16.3
	T		0.887	0.478	21.3	C	
	R		0.825	0.783	7.9	B	
WB	L		0.884	0.609	36.4	D	25.0
	T		0.945	0.478	25.6	D	
	R		0.434	0.478	13.0	B	
NB	L		0.528	0.304	26.0	D	26.7
	LT		0.884	0.304	30.0	D	
	R		0.521	0.400	17.5	C	
SB	LTR		-0.128	-0.017	38.6	D	38.6

INTERSECTION: Delay = 21.8 (sec/veh) V/C = 1.426 LOS = C

PLANNING APPLICATION WORKSHEET

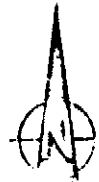
16

Intersection: A16 - Shkr / Old Wolf Date: 3/30/90
 Analyst: _____ Time Period Analyzed: 2005 Target PM
 Project No. _____ City/State: OPTION 1 (-25%)

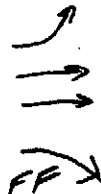
SB TOTAL

1639
793 | 581
265

Old Wolf
 N-S STREET



296
641
354 | 1291
 WB TOTAL



2660
 EB TOTAL

297
1499
864
 FF

X

E-W STREET

X | X
X | X

X
 NB TOTAL

EB LT = 297WB TH = 336WB LT = 633EB TH = 354

1104 } OR

NB LT = XSB TH = 265SB LT = 265NB TH = 291

291 } OR

MAXIMUM SUM OF CRITICAL VOLUMES

CAPACITY LEVEL

0 TO 1,200

UNDER

1,201 to 1,400

NEAR

> 1,400

OVER

1104
 E-W CRITICAL

291
 N-S CRITICAL

= 1395STATUS? NEAR

1985 HCM: SIGNALIZED INTERSECTIONS

SUMMARY REPORT

INTERSECTION..ALB-SHERR RD./OLD WOLF RD.

AREA TYPE.....OTHER

ANALYST.....TJ

DATE.....3/30/90

TIME.....2005 TARGET PM

COMMENT.....OPTION 1 (25%)

VOLUMES					GEOMETRY							
	EB	WB	NB	SB		EB	WB	NB	SB		EB	WB
LT	297	354	1	551	L	12.0	L	12.0	LTR	L	12.0	L
TH	1499	541	3	265	T	12.0	T	12.0		L	12.0	L
RT	864	296	1	793	T	12.0	T	12.0		T	12.0	T
RR	864	0	0	300	R	12.0	R	12.0		R	12.0	R
						12.0		12.0			12.0	
						12.0		12.0			12.0	

ADJUSTMENT FACTORS										
	GRADE (%)	HV (%)	ADJ Y/N	PKG Nm	RUSES Nb	PHF	PEDS	PED. Y/N	BLT. min T	ARR. TYPE
EB	0.00	2.00	N	0	0	0.90	0	N	22.8	3
WB	0.00	2.00	N	0	0	0.90	0	N	22.8	3
NB	0.00	2.00	N	0	0	0.90	0	N	31.8	3
SB	0.00	2.00	N	0	0	0.90	0	N	31.8	3

SIGNAL SETTINGS										CYCLE LENGTH = 122.0			
		PH-1	PH-2	PH-3	PH-4			PH-1	PH-2	PH-3	PH-4		
EB	LT	X	X			NB	LT						
	TH	X					TH		X				
	RT						RT		X				
	PD						PD						
WB	LT	X	X			SB	LT	X					
	TH	X					TH	X					
	RT	X					RT	X					
	PD						PD						
GREEN		60.0	22.0	0.0	0.0	GREEN		30.0	1.0	0.0	0.0		
YELLOW		0.0	4.0	0.0	0.0	YELLOW		4.0	1.0	0.0	0.0		

LEVEL OF SERVICE							
	LANE GRP.	V/C	G/C	DELAY	LOS	APP. DELAY	APP. LOS
EB	L	0.040	0.672	5.1	B	34.1	D
	T	1.018	0.459	39.9	D		
	R	0.000	0.459	0.0	A		
WB	L	0.927	0.672	34.3	D	17.6	C
	T	0.435	0.459	14.5	B		
	R	0.308	0.705	4.4	A		
NB	LTR	1.136	1.016	40.9	E	40.9	E
SB	L	0.801	0.246	36.9	D	31.5	D
	T	0.672	0.246	29.2	D		
	R	0.849	0.426	26.5	D		

INTERSECTION: Delay = 28.5 (sec/veh) V/C = 1.141 LOS = D

PLANNING APPLICATION WORKSHEET

/6

Intersection: ALBANY-SHAKER / OLD WOLF Date: 3/30/90
 Analyst: _____ Time Period Analyzed: 2005 Target PM
 Project No. _____ City/State: OPTION 2 (-25%)

SB TOTAL

1505
224 106
265

OLD WOLF
 N-S STREET

↓ ↓ ↓ ↓



296
106
584
194
 WB TOTAL

↑
 ↑
 ↑
 ↓

↑
 ↑
 ↑
 FF

3545
 EB TOTAL
129
116
2000
 FF

X

Alb-Shkr.

E-W STREET

X
X X
X
 NB TOTAL

EB LT = 129WB TH = 531WB LT = 660WB LT = 584EB TH = 7081292

OR

NB LT = XSB TH = 265SB LT = 265SB LT = 508NB TH = X508

OR

MAXIMUM
SUM OF CRITICAL
VOLUMESCAPACITY
LEVEL

0 TO 1,200

UNDER

1,201 to 1,400

NEAR

> 1,400

OVER

1292
 E-W CRITICAL

508
 N-S CRITICAL

1800STATUS? OVER

1985 HCM: SIGNALIZED INTERSECTIONS

SUMMARY REPORT

INTERSECTION..ALB-SHKR RD./OLD WOLF RD.

AREA TYPE.....OTHER

ANALYST.....TJ

DATE.....3/31/90

TIME.....2005 TARGET PM

COMMENT.....OPTION 2 (25%)

VOLUMES					GEOMETRY							
	EB	WB	NB	SB		EB	WB	NB	SB		EB	WB
LT	129	594	1	1016	L	12.0	L	12.0	LTR	12.0	L	12.0
TH	1416	1061	1	265	T	12.0	T	12.0		12.0	L	12.0
RT	2000	296	1	234	T	12.0	T	12.0		12.0	T	12.0
RR	2000	0	0	0	R	12.0	R	12.0		12.0	R	12.0
						12.0		12.0		12.0		12.0
						12.0		12.0		12.0		12.0

ADJUSTMENT FACTORS										
	GRADE (%)	HV (%)	ADJ Y/N	PKE Nm	BUSES Nb	PHF	PEDS	PED. Y/N	EST. min T	ARR. TYPE
EB	0.00	2.00	N	0	0	0.90	0	N	22.8	3
WB	0.00	2.00	N	0	0	0.90	0	N	22.8	3
NB	0.00	2.00	N	0	0	0.90	0	N	31.8	3
SB	0.00	2.00	N	0	0	0.90	0	N	31.8	3

SIGNAL SETTINGS										CYCLE LENGTH = 109.0			
		PH-1	PH-2	PH-3	PH-4			PH-1	PH-2	PH-3	PH-4		
EB	LT	X		X		NB	LT						
	TH			X			TH						
	RT			X			RT						
	PD						PD						
WB	LT	X	X			SB	LT	X					
	TH		X	X			TH	X					
	RT		X	X			RT	X					
	PD						PD						
GREEN		5.0	20.0	38.0	0.0	GREEN		32.0	1.0	0.0	0.0		
YELLOW		4.0	0.0	4.0	0.0	YELLOW		4.0	1.0	0.0	0.0		

LEVEL OF SERVICE								
	LANE	GRP.	V/C	G/C	DELAY	LOS	APP. DELAY	APP. LOS
EB	L		0.853	0.394	60.3	F	*	*
	T		1.266	0.349	*	*		
	R		0.000	0.349	14.9	B		
WB	L		1.671	0.229	*	*	*	*
	T		0.622	0.532	11.9	B		
	R		0.408	0.532	10.0	B		
NB	LTR		-0.121	-0.018	36.7	D	36.7	D
SB	L		1.173	0.294	125.5	F	91.8	F
	T		0.563	0.294	21.9	C		
	R		0.560	0.294	22.1	C		

INTERSECTION: Delay = * (sec/veh) V/C = 1.614 LOS = *

PLANNING APPLICATION WORKSHEET

/8

Intersection: Ex 3 Connector / Ex 3 SB Ramp Date: 3/30/90
 Analyst: _____ Time Period Analyzed: 2005 Target PM
 Project No. _____ City/State: OPTION 1 (-25%)

SB TOTAL

513

78
 X
 435

N-S STREET

Off Ramp



X

1833

403

2236

WB TOTAL

8696

EB TOTAL

X
 1087
 1609

Connector

E-W STREET

X
 X
 X

X

NB TOTAL

EB LT = X

WB TH = 916

WB LT = 916

WB LT = 212

EB TH = 544

756

OR

NB LT = X

SB TH = X

X

SB LT = 228

NB TH = X

228

OR

MAXIMUM
SUM OF CRITICAL
VOLUMES

0 TO 1,200

1,201 to 1,400

> 1,400

CAPACITY
LEVEL

UNDER

NEAR

OVER

916 + 228 = 1144

E-W CRITICAL

N-S CRITICAL

STATUS? UNDER

1985 HCM: SIGNALIZED INTERSECTIONS

SUMMARY REPORT

INTERSECTION..NEW CONNECTOR/EXIT 3 SB RAMP

AREA TYPE.....OTHER

ANALYST.....TJ

DATE.....3/30/90

TIME.....2005 TAGEET PM

COMMENT.....OPTION 1 (25%)

VOLUMES					GEOMETRY							
	EB	WB	NB	SB		EB	WB	NB	SB			
LT	0	413	1	435	T	12.0	L	12.0	LTR	12.0	L	12.0
TH	1087	1333	1	0	T	12.0	L	12.0		12.0	L	12.0
RT	1609	0	1	78	R	12.0	T	12.0		12.0	R	12.0
RR	1609	0	0	0		12.0	T	12.0		12.0		12.0
						12.0		12.0		12.0		12.0
						12.0		12.0		12.0		12.0

ADJUSTMENT FACTORS									
	GRADE (%)	HV (%)	ADJ V/N	PKG Nm	BUSES Nb	PHF	PEDS	PED. Y/N	ARR. TYPE
EB	0.00	2.00	N	0	0	0.90	0	N	15.8
WB	0.00	2.00	N	0	0	0.90	0	N	14.8
NB	0.00	2.00	N	0	0	0.90	0	N	28.8
SB	0.00	2.00	N	0	0	0.90	0	N	28.8

SIGNAL SETTINGS					CYCLE LENGTH = 103.0				
	PH-1	PH-2	PH-3	PH-4		PH-1	PH-2	PH-3	PH-4
EB LT					NB LT		X		
TH	X				TH		X		
RT	X				RT				
PD					PD				
WB LT		A			SB LT	X			
TH	X	X			TH				
RT					RT	X			
PD					PD				
GREEN	50.0	19.0	0.0	0.0	GREEN	24.0	1.0	0.0	0.0
YELLOW	0.0	4.0	0.0	0.0	YELLOW	4.0	1.0	0.0	0.0

LEVEL OF SERVICE							
	LANE	GRP.	V/C	G/C	DELAY	LOS	APP. LOS
EB	T		0.759	0.447	16.7	C	C
	R		0.000	0.447	0.0	A	
WB	L		0.759	0.184	34.1	D	B
	T		0.853	0.670	10.4	B	
NB	LTR		-1.115	-0.019	34.7	D	D
SB	L		0.633	0.233	28.2	D	D
	R		0.246	0.233	20.8	C	

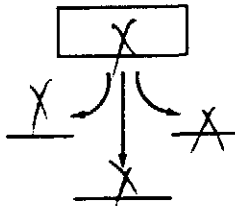
INTERSECTION: Delay = 17.0 (sec/veh) V/C = 0.836 LOS = C

PLANNING APPLICATION WORKSHEET

19

Intersection: Exit 3 Connector / Exit 3 NB Ramps Date: 3/30/90
 Analyst: _____ Time Period Analyzed: 2005 Target PM
 Project No. _____ City/State: _____ OPTION 1 (-25%)

SB TOTAL



Exit 3 Ramps
N-S STREET

X

FF
548

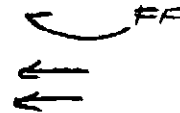
1567

X



2115

WB TOTAL



1521
EB TOTAL

304
1217
X

Connector

E-W STREET

670 X 487

1157
NB TOTAL

EB LT = 160

WB TH = 704

WB LT = 944

EB TH = 608

OR

608

NB LT = 335

SB TH = X

SB LT = 335

NB TH = X

OR

X

MAXIMUM
SUM OF CRITICAL
VOLUMES

0 TO 1,200

1,201 to 1,400

> 1,400

CAPACITY
LEVEL

UNDER

NEAR

OVER

944 + 335 = 1279 STATUS? NEAR
 E-W CRITICAL N-S CRITICAL

1985 HCM: SIGNALIZED INTERSECTIONS
SUMMARY REPORT

INTERSECTION..NEW CONNECTOR/EXIT 3 NB RAMP
AREA TYPE.....OTHER
ANALYST.....TJ
DATE.....3/30/90
TIME.....2005 TARGET PM
COMMENT.....OPTION 1 (25%)

VOLUMES					GEOMETRY						
	EB	WB	NB	SB		EB	WB	NB	SB		
LT	304	0	670	1	:	L	12.0	LT	12.0	L	12.0
TH	1217	1567	0	1	:	L	12.0	T	12.0	LT	12.0
RT	0	548	487	1	:	T	12.0	R	12.0	R	12.0
RR	0	548	0	0	:	TR	12.0		12.0	R	12.0
					:		12.0		12.0		12.0
					:		12.0		12.0		12.0

ADJUSTMENT FACTORS									
	GRADE (%)	HV (%)	ADJ Y/N	PKG Nm	BUSES Nb	PHF	PEDS	PED. Y/N	ARR. min 7
EB	0.00	2.00	N	0	0	0.90	0	N	22.8
WB	0.00	2.00	N	0	0	0.90	0	N	22.8
NB	0.00	2.00	N	0	0	0.90	0	N	28.8
SB	0.00	2.00	N	0	0	0.90	0	N	28.8

SIGNAL SETTINGS									
CYCLE LENGTH = 108.0									
	PH-1	PH-2	PH-3	PH-4		PH-1	PH-2	PH-3	PH-4
EB	LT	X			NB	LT	X		
	TH	X				TH	X		
	RT	X				RT	X		
	PD					PD			
WB	LT	X			SB	LT	X		
	TH	X				TH	X		
	RT	X				RT	X		
	PD					PD			
GREEN	57.0	13.0	0.0	0.0	GREEN	28.0	1.0	0.0	0.0
YELLOW	0.0	4.0	0.0	0.0	YELLOW	4.0	1.0	0.0	0.0

LEVEL OF SERVICE							
	LANE GRP.	V/C	G/C	DELAY	LOS	APP. DELAY	APP. LOS
EB	L	0.856	0.120	47.0	E	15.2	C
	TR	0.585	0.648	7.2	B		
WB	LT	0.995	0.491	31.0	D	31.0	D
	R	0.000	0.491	0.0	A		
NB	L	0.848	0.259	38.9	D	32.3	D
	LT	0.646	0.259	32.9	D		
	R	0.781	0.259	27.4	D		
SB	LTR	-0.120	-0.019	36.3	D	36.3	D

INTERSECTION: Delay = 25.7 (sec/veh) V/C = 0.955 LOS = D

PLANNING APPLICATION WORKSHEET

20

Intersection: Wolf Rd / Metro Park Rd. Date: 3/30/90
 Analyst: _____ Time Period Analyzed: 2005 Target PM
 Project No. _____ City/State: OPTION 1 (-45%)

SB TOTAL

888

261
 523
 84

Wolf Rd

N-S STREET



95
 1153
 133

1381

WB TOTAL

1704

EB TOTAL

522
 452
 730

Metro Park

E-W STREET

843

701
 173

1717

NB TOTAL

EB LT = 261

WB TH = 576

837

WB LT = 133

EB TH = 237

370

OR

NB LT = 350

SB TH = 285

635

SB LT = 84

NB TH = 422

516

OR

MAXIMUM
SUM OF CRITICAL
VOLUMESCAPACITY
LEVEL

0 TO 1,200

UNDER

1,201 to 1,400

NEAR

> 1,400

OVER

837

635

1472

STATUS? over

E-W CRITICAL

N-S CRITICAL

1985 HCM: SIGNALIZED INTERSECTIONS

SUMMARY REPORT

INTERSECTION..METRO PARK RD./WOLF RD.

AREA TYPE.....OTHER

ANALYST.....TJ

DATE.....3/30/90

TIME.....2005 TARGET PM

COMMENT.....OPTION 1 (25%)

VOLUMES					GEOMETRY						
	EB	WB	NB	SB		EB	WB	NB	SB		
LT	522	133	701	84	: L	12.0	L	12.0	L	12.0	L 12.0
TH	452	1153	843	543	: L	12.0	T	12.0	L	12.0	T 12.0
RT	730	95	173	261	: T	12.0	T	12.0	T	12.0	T 12.0
RR	0	0	0	0	: T	12.0	R	12.0	T	12.0	R 12.0
					: R	12.0		12.0	R	12.0	12.0
					: R	12.0		12.0	R	12.0	12.0

ADJUSTMENT FACTORS									
GRADE	HV	ADJ	PKE	SUBSB	PHF	PEDS	PED.	BUT.	ARR. TYPE
(%)	(%)	Y/N	No	4b			Y/N	SLIP T	
EB	0.00	2.00	N	0	0.90	0	N	34.8	3
WB	0.00	2.00	N	0	0.90	0	N	34.8	3
NB	0.00	2.00	N	0	0.90	0	N	37.8	3
SB	0.00	2.00	N	0	0.90	0	N	37.8	3

SIGNAL SETTINGS								CYCLE LENGTH = 131.0			
		PH-1	PH-2	PH-3	PH-4			PH-1	PH-2	PH-3	PH-4
EB	LT	X				NB	LT	X			
	TH	X	X				TH	X	X		
	RT	X	X				RT	X	X		
	PD						PD				
WB	LT		X	X		SB	LT		X	X	
	TH		X	X			TH		X	X	
	RT		X	X			RT		X	X	
	PD						PD				
GREEN		25.0	30.0	10.0	0.0	GREEN		30.0	15.0	5.0	0.0
YELLOW		4.0	0.0	4.0	0.0	YELLOW		4.0	0.0	4.0	0.0

LEVEL OF SERVICE							
	LANE	GRP.	V/C	G/C	DELAY	LOS	APP. DELAY
EB	L		0.927	0.191	54.1	E	24.2
	T		0.336	0.420	16.6	C	
	R		0.468	0.649	7.6	B	
WB	L		0.055	0.305	24.4	C	98.0
	T		1.177	0.305	113.0	F	
	R		0.203	0.344	19.6	C	
NB	L		1.037	0.229	74.3	F	45.0
	T		0.765	0.344	26.5	D	
	R		0.302	0.420	16.4	C	
SB	L		0.330	0.153	38.3	D	68.2
	T		1.109	0.153	94.4	F	
	R		0.557	0.344	23.4	C	

INTERSECTION: Delay = 55.3 (sec/veh) V/C = 1.074 LOS = E

1985 HCM: SIGNALIZED INTERSECTIONS

SUMMARY REPORT

INTERSECTION..METRO PARK RD./WOLF RD.

AREA TYPE.....OTHER

ANALYST.....TJ

DATE.....3/30/90

TIME.....2005 TARGET PM

COMMENT.....OPTION 1 (25%)

VOLUMES					GEOMETRY						
	EB	WB	NB	SB		EB	WB	NB	SB		
LT	522	133	701	84	: L	12.0	L	12.0	L	12.0	L
TH	452	1153	843	543	: L	12.0	T	12.0	L	12.0	T
RT	730	95	173	261	: T	12.0	T	12.0	T	12.0	T
RR	0	0	0	0	: T	12.0	T	12.0	T	12.0	R
					: R	12.0	R	12.0	R	12.0	
					: R	12.0	R	12.0	R	12.0	

ADJUSTMENT FACTORS									
	GRADE (%)	HV (%)	ADJ Y/N	PKG Nm	BUSES Nb	PHF	PEDS	PED. Y/N	BUT. min T
EB	0.00	2.00	N	0	0	0.90	0	N	34.8
WB	0.00	2.00	N	0	0	0.90	0	N	34.8
NB	0.00	2.00	N	0	0	0.90	0	N	37.8
SB	0.00	2.00	N	0	0	0.90	0	N	37.8

SIGNAL SETTINGS					CYCLE LENGTH = 137.				
	PH-1	PH-2	PH-3	PH-4		PH-1	PH-2	PH-3	PH-4
EB LT	X	X			NB LT	X	X		
TH					TH			X	
RT					RT			X	
PD					PD				
WB LT	X		X		SB LT	X		X	
TH			X		TH			X	
RT			X		RT			X	
PD					PD				
GREEN	8.0	18.0	35.0	0.0	GREEN	5.0	30.0	25.0	0.0
YELLOW	4.0	0.0	4.0	0.0	YELLOW	4.0	0.0	4.0	0.0

LEVEL OF SERVICE							
	LANE	GRP.	V/C	G/C	DELAY	LOS	APP. DELAY
EB	L		0.932	0.190	56.7	E	26.1
	T		0.364	0.387	19.4	C	
	R		0.472	0.642	8.3	B	
WB	L		0.101	0.314	25.3	D	37.5
	T		0.938	0.255	40.0	D	
	R		0.239	0.292	23.9	C	
NB	L		0.930	0.255	49.9	E	32.7
	T		0.655	0.401	22.2	C	
	R		0.276	0.460	14.8	B	
SB	L		0.162	0.219	33.0	D	38.8
	T		0.928	0.182	47.6	E	
	R		0.514	0.372	22.1	C	

INTERSECTION: Delay = 32.8 (sec/veh) V/C = 0.932 LOS = D

PLANNING APPLICATION WORKSHEET

20

Intersection: Wolf Rd. / Metro Park Rd. Date: 3/30/90
 Analyst: _____ Time Period Analyzed: 2005 Target PM
 Project No. _____ City/State: OPTION 2 (-25%)

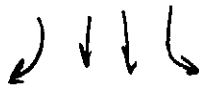
SB TOTAL

1567

282
 290
 995

Wolf

N-S STREET



523

354

292

1169

WB TOTAL



Metro Park

E-W STREET

561

552

181

1294

NB TOTAL

677
 164
 209
 304
 EB TOTAL

EB LT = 164

WB TH = 354

WB LT = 292

EB TH = 209

OR

501

NB LT = 276

SB TH = 498

SB LT = 290

NB TH = 214

OR

584

MAXIMUM
SUM OF CRITICAL
VOLUMESCAPACITY
LEVEL

0 TO 1,200

UNDER

1,201 to 1,400

NEAR

> 1,400

OVER

510 + 774 = 1292 STATUS? NEAR
 E-W CRITICAL N-S CRITICAL

1985 HCM: SIGNALIZED INTERSECTIONS

SUMMARY REPORT

INTERSECTION..METRO PARK RD./WOLF RD.

AREA TYPE.....OTHER

ANALYST.....TJ

DATE.....3/31/90

TIME.....2005 TARGET PM

COMMENT.....OPTION 2 (25%)

VOLUMES					GEOMETRY						
	EB	WB	NB	SB		EB	WB	NB	SB		
LT	164	292	552	290	: L	12.0	L	12.0	L	12.0	L
TH	209	354	561	995	: T	12.0	T	12.0	L	12.0	L
RT	304	523	181	282	: T	12.0	T	12.0	T	12.0	T
RR	0	150	0	0	: R	12.0	R	12.0	T	12.0	T
					:	12.0		12.0	R	12.0	R
					:	12.0		12.0		12.0	12.0

ADJUSTMENT FACTORS									
	GRADE	HV	ADJ	PKS	BUSES	PHF	PEDS	PED. BUT.	ARR. TYPE
	(%)	(%)	Y/N	Nm	Nb			Y/N min T	
EB	0.00	2.00	N	0	0	0.90	0	N 37.8	3
WB	0.00	2.00	N	0	0	0.90	0	N 37.8	3
NB	0.00	2.00	N	0	0	0.90	0	N 34.8	3
SB	0.00	2.00	N	0	0	0.90	0	N 34.8	3

SIGNAL SETTINGS					CYCLE LENGTH = 114.				
	PH-1	PH-2	PH-3	PH-4		PH-1	PH-2	PH-3	PH-4
EB LT	X		X		NB LT	X			
TH			X		TH	X			
RT			X		RT	X			
PD					PD				
WB LT	X	X	X		SB LT			X	
TH		X	X		TH		X	X	
RT		X	X		RT		X	X	
PD					PD				
GREEN	11.0	4.0	12.0	0.0	GREEN	30.0	25.0	20.0	0.0
YELLOW	4.0	0.0	4.0	0.0	YELLOW	0.0	0.0	4.0	0.0

LEVEL OF SERVICE							
	LANE	GRP.	V/C	G/C	DELAY	LOS	APP. DELAY
EB	L		0.467	0.202	32.0	D	31.9
	T		0.650	0.105	34.0	D	
	R		0.794	0.281	30.4	D	
WB	L		0.714	0.272	34.1	D	30.6
	T		0.786	0.140	35.4	D	
	R		0.742	0.368	23.3	C	
NB	L		0.820	0.228	36.8	D	22.7
	T		0.391	0.447	13.7	B	
	R		0.229	0.579	7.5	B	
SB	L		0.560	0.175	33.6	D	22.0
	T		0.786	0.395	21.4	C	
	R		0.421	0.491	12.2	B	

INTERSECTION: Delay = 25.6 (sec/veh) V/C = 0.765 LOS = D

PLANNING APPLICATION WORKSHEET

21

Intersection: Wolf Rd. / Sand Creek Rd Date: 3/30/90Analyst: _____ Time Period Analyzed: 2005 Project PMProject No. _____ City/State: OPTION 1 (-25%)

SB TOTAL

$\begin{array}{r} 111 \\ 183 \rightarrow \downarrow \leftarrow 94 \\ \hline 849 \end{array}$

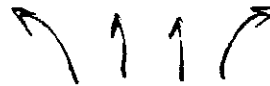
Wolf Rd.

N-S STREET



$\begin{array}{r} 126 \\ 344 \\ \hline 246 \end{array}$

$\begin{array}{r} 716 \\ \hline \end{array}$ WB TOTAL



$\begin{array}{r} 178 \\ 543 \rightarrow \leftarrow 214 \\ \hline 151 \end{array}$

EB TOTAL

Sand Creek

E-W STREET

$\begin{array}{r} 485 \\ 298 \rightarrow \downarrow \leftarrow 220 \end{array}$

$\begin{array}{r} 1003 \\ \hline \end{array}$ NB TOTAL

EB LT = 178WB TH = 344WB LT = 246EB TH = 214

OR

 $\begin{array}{r} 528 \\ 400 \end{array}$
NB LT = 298SB TH = 424SB LT = 84NB TH = 255

OR

 $\begin{array}{r} 722 \\ 339 \end{array}$
MAXIMUM
SUM OF CRITICAL
VOLUMESCAPACITY
LEVEL

0 TO 1,200

UNDER

1,201 to 1,400

NEAR

> 1,400

OVER

$\begin{array}{r} 528 \\ \hline \end{array}$ E-W CRITICAL + $\begin{array}{r} 722 \\ \hline \end{array}$ N-S CRITICAL = 1249 STATUS? NEAR

1985 HCM: SIGNALIZED INTERSECTIONS

PRIMARY REPORT

INTERSECTION..SAND CREEK ROAD/WOLF ROAD

AREA TYPE.....OTHER

ANALYST.....SL

DATE.....3/30/90

TIME.....PM PEAK HOUR

COMMENT.....OPTION 1 (25%)

VOLUMES					GEOMETRY						
	EB	WB	NB	SB		EB	WB	NB	SB		
LT	178	246	298	84	: L	12.0	L	12.0	L	12.0	L
TH	214	344	485	859	: T	12.0	T	12.0	T	12.0	T
RT	151	126	220	183	: R	12.0	R	12.0	T	12.0	T
RR	0	0	0	0	:	12.0		12.0	R	12.0	R
					:	12.0		12.0		12.0	
					:	12.0		12.0		12.0	

ADJUSTMENT FACTORS										
	GRADE (%)	HV (%)	ADJ Y/N	PKG Nm	BUSES Nb	PHF	PEDS	PED. Y/N	BUT. min T	ARR. TYPE
EB	0.00	2.00	N	0	0	0.90	0	N	26.5	3
WB	0.00	2.00	N	0	0	0.90	0	N	26.5	3
NB	0.00	2.00	N	0	0	0.90	0	N	20.5	3
SB	0.00	2.00	N	0	0	0.90	0	N	20.5	3

SIGNAL SETTINGS										CYCLE LENGTH = 66.0
	PH-1	PH-2	PH-3	PH-4		PH-1	PH-2	PH-3	PH-4	
EB LT	X	X			NB LT	X	X			
TH	X				TH	X				
RT	X				RT	X				
PD					PD					
WB LT	X	X			SB LT	X	X			
TH	X				TH	X				
RT	X				RT	X				
PD					PD					
GREEN	21.0	6.0	0.0	0.0	GREEN	23.0	8.0	0.0	0.0	
YELLOW	0.0	4.0	0.0	0.0	YELLOW	0.0	4.0	0.0	0.0	

LEVEL OF SERVICE							
	LANE	GRP.	V/C	G/C	DELAY	LOS	APP. DELAY
EB	L		0.039	0.409	8.9	B	11.1
	T		0.518	0.258	14.3	B	
	R		0.292	0.379	9.3	B	
WB	L		0.039	0.409	8.9	B	15.3
	T		0.833	0.258	22.2	C	
	R		0.244	0.379	9.1	B	
NB	L		0.659	0.470	13.7	B	12.7
	T		0.551	0.288	13.3	B	
	R		0.426	0.379	10.1	B	
SB	L		0.032	0.470	7.2	B	24.7
	T		0.977	0.288	29.4	D	
	R		0.354	0.379	9.6	B	

INTERSECTION: Delay = 17.1 (sec/veh) V/C = 0.707 LOS = C

PLANNING APPLICATION WORKSHEET

21

Intersection:

Wolf Rd / Sand Creek Rd

Date:

3/30/90

Analyst:

Time Period Analyzed:

2005 Target PM

Project No:

City/State:

OPTION 2 (-25%)

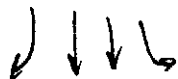
SB TOTAL

1173

183 → | ← 199
791

Wolf

N-S STREET



178

344

257

779

WB TOTAL

543

EB TOTAL

178
214
151



Sand Creek

E-W STREET

347

312

220

879

NB TOTAL

EB LT

= 178

WB TH

= 344

WB LT

= 520

EB TH

= 214

471

OR

NB LT

= 312

SB TH

= 396

SB LT

= 708

NB TH

= 182

381

OR

MAXIMUM
SUM OF CRITICAL
VOLUMES

0 TO 1,200
1,201 to 1,400
> 1,400

CAPACITY
LEVEL

UNDER
NEAR
OVER

E-W CRITICAL

N-S CRITICAL

STATUS? ~~BT~~ UNDER

1985 HCM: SIGNALIZED INTERSECTIONS

SUMMARY REPORT

INTERSECTION..SAND CREEK RD./WOLF RD.

AREA TYPE.....OTHER

ANALYST.....TJ

DATE.....3/31/90

TIME.....2005 TARGET PM

COMMENT.....OPTION 2 (25%)

VOLUMES					GEOMETRY						
	EB	WB	NB	SB		EB	WB	NB	SB		
LT	178	257	312	199	L	12.0	12.0	12.0	12.0	L	12.0
TH	214	344	347	791	T	12.0	12.0	12.0	12.0	T	12.0
RT	151	178	220	183	R	12.0	12.0	12.0	12.0	R	12.0
RR	0	0	0	0		12.0	12.0	12.0	12.0		12.0
						12.0	12.0	12.0	12.0		12.0
						12.0	12.0	12.0	12.0		12.0

ADJUSTMENT FACTORS										
	GRADE	PV	ADD	PVE	BUSEF	PHF	PEDE	PEDE	BUT.	ARR. TYPE
	(%)	(%)	Y/N	Nb	Nb			Y/N	min T	
EB	0.00	2.00	N	0	0	0.90	0	N	26.5	3
WB	0.00	2.00	N	0	0	0.90	0	N	26.5	3
NB	0.00	2.00	N	0	0	0.90	0	N	20.5	3
SB	0.00	2.00	N	0	0	0.90	0	N	20.5	3

SIGNAL SETTINGS					CYCLE LENGTH = 110.				
	PH-1	PH-2	PH-3	PH-4		PH-1	PH-2	PH-3	PH-4
EB	LT	X			NB	LT		X	
	TH					TH		X	
	RT					RT		X	
	PD					PD			
WB	LT	X	X	X	SB	LT	X	X	
	TH		X	X		TH		X	
	RT		X	X		RT		X	
	PD					PD			
GREEN	10.0	4.0	25.0	0.0	GREEN	10.0	5.0	40.0	0.0
YELLOW	4.0	0.0	4.0	0.0	YELLOW	4.0	0.0	4.0	0.0

LEVEL OF SERVICE							
	LANE	GRP.	V/C	G/C	DELAY	LOS	APP. LOS
EB	L		0.065	0.318	19.8	C	21.9
	T		0.587	0.227	25.9	D	
	R		0.348	0.318	18.7	C	
WB	L		0.077	0.391	16.0	C	22.8
	T		0.814	0.264	30.7	D	
	R		0.368	0.355	17.2	C	
NB	L		0.538	0.536	14.2	B	12.9
	T		0.278	0.409	14.0	B	
	R		0.301	0.536	9.2	B	
SB	L		0.065	0.455	12.8	B	18.0
	T		0.712	0.364	20.5	C	
	R		0.295	0.455	12.3	B	

INTERSECTION: Delay = 18.4 (sec/veh) V/C = 0.642 LOS = C

PLANNING APPLICATION WORKSHEET

22

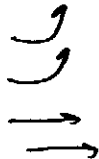
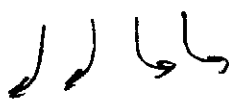
Intersection: CENTRAL AVE / WOLF RD. Date: 3/29/90
 Analyst: _____ Time Period Analyzed: 2005 Target PM
 Project No. _____ City/State: _____ OPTION 1 (2-25%)

SB TOTAL

2290

1462
 828
 X

Wolf Rd.
 N-S STREET



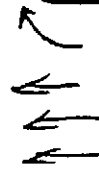
464

1418

X



1882
 WB TOTAL



1709
 EB TOTAL

571

1138

X



Central Ave.
 E-W STREET

595

X

213

808

NB TOTAL

EB LT = 286

WB TH = 473

759

WB LT = X

EB TH = 569

569

OR

NB LT = X

SB TH = X

X

SB LT = 444

NB TH = 298

742

OR

MAXIMUM
 SUM OF CRITICAL
 VOLUMES

CAPACITY
 LEVEL

0 TO 1,200

UN

1,201 to 1,400

NI

> 1,400

O

759 + 742 = 1501
 E-W CRITICAL N-S CRITICAL

STATUS? OVER

1985 HCM: SIGNALIZED INTERSECTIONS

SUMMARY REPORT

 INTERSECTION..CENTRAL AVENUE/WOLF ROAD
 AREA TYPE.....OTHER
 ANALYST.....SL
 DATE.....3/30/90
 TIME.....PM PEAK HOUR
 COMMENT.....OPTION 1 (25%) *12*

VOLUMES					GEOMETRY							
	EB	WB	NB	SB		EB	WB	NB	SB		EB	WB
LT	571	0	0	888	: L	12.0	T	12.0	T	12.0	L	12.0
TH	1138	1418	595	0	: L	12.0	T	12.0	T	12.0	L	12.0
RT	0	464	213	1402	: T	12.0	T	12.0	R	12.0	R	12.0
RR	0	0	0	0	: T	12.0	R	12.0		12.0	R	12.0
					:	12.0		12.0		12.0		12.0
					:	12.0		12.0		12.0		12.0

ADJUSTMENT FACTORS									
	GRADE	HV	ADJ	PKG	BUSES	PHF	PEDS	FED. BUT.	ARR. TYPE
	(%)	(%)	Y/N	Nm	Nb			Y/N min T	
EB	0.00	2.00	N	0	0	0.90	0	N 23.5	3
WB	0.00	2.00	N	0	0	0.90	0	N 23.5	3
NB	0.00	2.00	N	0	0	0.90	0	N 26.5	3
SB	0.00	2.00	N	0	0	0.90	0	N 26.5	3

SIGNAL SETTINGS								CYCLE LENGTH = 116.0			
		PH-1	PH-2	PH-3	PH-4			PH-1	PH-2	PH-3	PH-4
EB	LT	X				NB	LT				
	TH	X	X				TH	X			
	RT	X	X				RT	X			
	PD						PD				
WB	LT					SB	LT		X		
	TH		X				TH				
	RT		X				RT	X	X		
	PD						PD				
GREEN		20.0	30.0	0.0	0.0	GREEN		20.0	30.0	0.0	0.0
YELLOW		4.0	4.0	0.0	0.0	YELLOW		4.0	4.0	0.0	0.0

LEVEL OF SERVICE							
	LANE	GRP.	V/C	G/C	DELAY	LOS	AFF. DELAY
EB	L		1.178	0.172	142.1	F	60.0
	T		0.800	0.466	18.8	C	
WB	T		1.254	0.259	*	*	*
	R		0.658	0.517	14.5	B	
NB	T		1.130	0.172	96.6	F	84.6
	R		0.906	0.172	49.7	E	
SB	L		1.222	0.259	*	*	*
	R		0.959	0.638	21.1	C	

INTERSECTION: Delay = * (sec/veh) V/C = 1.204 LOS = *

PLANNING APPLICATION WORKSHEET

A

Intersection: WATERVLIET-SHAKER / NEW CONNECTOR Date: 3/30/90Analyst: _____ Time Period Analyzed: 2005 Tazet PMProject No. _____ City/State: OPTION 1 (-25%)

SB TOTAL

1643

$$\begin{array}{r} 191 \\ 1452 \\ \hline 1643 \end{array}$$
New Connector

N-S STREET



$$\begin{array}{r} 182 \\ 1270 \\ 174 \\ \hline 1626 \end{array}$$
1626
WB TOTAL
$$\begin{array}{r} 145 \\ 1826 \\ \hline 231 \\ 600 \\ \hline 831 \end{array}$$

EB TOTAL

WtHt-Shkr

E-W STREET

$$\begin{array}{r} 1442 \\ 217 \\ 182 \\ \hline 1841 \end{array}$$

1841

NB TOTAL

EB LT = 145WB TH = 635WB LT = 179EB TH = 148

OR

322

NB LT = 217SB TH = 726SB LT = 943SB LT = 0NB TH = 721

OR

721

MAXIMUM
SUM OF CRITICAL
VOLUMESCAPACITY
LEVEL

0 TO 1,200

UNDER

1,201 to 1,400

NEAR

> 1,400

OVER

780 + 943 = 1723 STATUS? OVER

E-W CRITICAL

N-S CRITICAL

1985 HCM: SIGNALIZED INTERSECTIONS
SUMMARY REPORT

INTERSECTION..WATERVLIET SHAKER ROAD/NEW CONNECTOR

AREA TYPE.....OTHER

ANALYST.....SL

DATE.....3/30/90

TIME.....PM PEAK HOUR

COMMENT.....OPTION 1 (25%)

	VOLUMES					GEOMETRY					
	EB	WB	NB	SB		EB	WB	NB	SB		
LT	145	174	217	0	: L	12.0	L	12.0	L	12.0	12.0
TH	281	1270	1442	1452	: T	12.0	T	12.0	T	12.0	12.0
RT	600	182	182	191	: T	12.0	T	12.0	T	12.0	12.0
RR	0	0	0	0	: R	12.0	R	12.0	R	12.0	12.0
					: R	12.0		12.0		12.0	12.0
					:	12.0		12.0		12.0	12.0

	ADJUSTMENT FACTORS									
	GRADE (%)	HV (%)	ADJ Y/N	PKG Nm	BUSES Nb	PHF	PEDS	FED. Y/N	BUT. min T	ARR. TYPE
EB	0.00	2.00	N	0	0	0.90	0	N	26.5	3
WB	0.00	2.00	N	0	0	0.90	0	N	26.5	3
NB	0.00	2.00	N	0	0	0.90	0	N	29.5	3
SB	0.00	2.00	N	0	0	0.90	0	N	29.5	3

SIGNAL SETTINGS								CYCLE LENGTH = 102.0			
		PH-1	PH-2	PH-3	PH-4			PH-1	PH-2	PH-3	PH-4
EB	LT	X	X			NB	LT	X	X		
	TH		X				TH	X	X		
	RT		X				RT	X	X		
	PD						PD				
WB	LT	X	X			SB	LT		X		
	TH		X				TH		X		
	RT		X				RT		X		
	PD						PD				
GREEN		10.0	30.0	0.0	0.0	GREEN		15.0	35.0	0.0	0.0
YELLOW		4.0	4.0	0.0	0.0	YELLOW		0.0	4.0	0.0	0.0

LEVEL OF SERVICE							
	LANE	GRP.	V/C	G/C	DELAY	LOS	APP. DELAY
EB	L		0.390	0.431	15.6	C	17.0
	T		0.313	0.294	18.1	C	
	R		0.652	0.402	16.8	C	
WB	L		0.043	0.431	12.8	B	*
	T		1.413	0.294	*	*	
	R		0.454	0.294	19.4	C	
NB	L		0.685	0.490	20.3	C	22.7
	T		0.963	0.490	24.9	C	
	R		0.227	0.588	6.5	B	
SB	L		0.000	0.343	162.1	F	*
	T		1.385	0.343	*	*	
	R		0.318	0.441	12.0	B	

INTERSECTION: Delay = * (sec/veh) V/C = 1.134 LOS = *

PLANNING APPLICATION WORKSHEET

A

Intersection: WARRICK - SHAKER / NEW CONNECTION Date: 3/30/90
 Analyst: _____ Time Period Analyzed: 2005 Target PM
 Project No. _____ City/State: OPTION 2 (-25%)

SB TOTAL

936

191
 32
 713

New Connection
 N-S STREET

↓ ↓ ↓ ↓



477

1285

95

1857

WB TOTAL

1067
 EB TOTAL

145
 890
 32

E-W STREET

203

203
 610

1016

NB TOTAL

Left Lane

EB LT = 145

WB TH = 642

WB LT = 787

WB LT = 95

EB TH = 445

540

OR

NB LT = 203

SB TH = 32

SB LT = 235

SB LT = 356

NB TH = 203

559

OR

MAXIMUM
 SUM OF CRITICAL
 VOLUMES

CAPACITY
 LEVEL

0 TO 1,200

UNDER

1,201 to 1,400

NEAR

> 1,400

OVER

787 + 559 = 1346 STATUS? NEAR
 E-W CRITICAL N-S CRITICAL

1985 HCM: SIGNALIZED INTERSECTIONS

SUMMARY REPORT

INTERSECTION..WTVLT-SHKR RD./NEW CONNECTOR

AREA TYPE.....OTHER

ANALYST.....TJ

DATE.....3/31/90

TIME.....2005 TARGET PM

COMMENT.....OPTION 2 (25%)

VOLUMES					GEOMETRY						
	EB	WB	NB	SB		EB	WB	NB	SB		
LT	145	95	203	713	: L	12.0	L	12.0	L	12.0	L
TH	590	1285	203	32	: T	12.0	T	12.0	T	12.0	L
RT	32	477	610	191	: T	12.0	T	12.0	R	12.0	T
RR	0	250	100	0	: R	12.0	R	12.0	R	12.0	R
						12.0		12.0		12.0	
						12.0		12.0		12.0	

ADJUSTMENT FACTORS									
	GRADE	HV	ADJ	PKE	BUSES	PHF	PEDS	PED, BUT.	ARR. TYPE
	(%)	(%)	Y/N	Nm	Nb			Y/N min T	
EB	0.00	2.00	N	0	0	0.90	0	N 26.5	3
WB	0.00	2.00	N	0	0	0.90	0	N 26.5	3
NB	0.00	2.00	N	0	0	0.90	0	N 20.5	3
SB	0.00	2.00	N	0	0	0.90	0	N 20.5	3

SIGNAL SETTINGS										CYCLE LENGTH = 115.			
		PH-1	PH-2	PH-3	PH-4			PH-1	PH-2	PH-3	PH-4		
EB	LT	X	X			NB	LT	X		X			
	TH						TH			X			
	RT		X				RT			X			
	PD						PD						
WB	LT	X	X			SB	LT	X	X				
	TH		X				TH		X		X		
	RT		X				RT		X		X		
	PD						PD						
GREEN		4.0	44.0	0.0	0.0	GREEN		10.0	20.0	25.0	0.0		
YELLOW		0.0	4.0	0.0	0.0	YELLOW		4.0	0.0	4.0	0.0		

LEVEL OF SERVICE							
	LANE	GRP.	V/C	G/C	DELAY	LOS	
EB	L		0.152	0.800	2.0	A	17.9
	T		0.725	0.383	20.8	C	
	R		0.050	0.470	10.7	B	
WB	L		0.015	0.800	1.8	A	42.4
	T		1.047	0.383	50.6	E	
	R		0.354	0.470	12.7	B	
NB	L		0.068	0.304	21.6	C	37.9
	T		0.582	0.217	27.4	D	
	R		0.975	0.217	48.6	E	
SB	L		0.926	0.261	42.9	E	36.5
	T		0.051	0.391	14.0	B	
	R		0.358	0.391	16.1	C	

INTERSECTION: Delay = 34.5 (sec/veh) V/C = 0.923 LOS = D

PLANNING APPLICATION WORKSHEET

B

Intersection: New Connector / To Airport Date: 3/30/90
 Analyst: _____ Time Period Analyzed: 2005 Target PM
 Project No. _____ City/State: OPTION 1 (-25%)

SB TOTAL

1101
 X 983 118

New Connector
 N-S STREET

↓ ↓ ↘



91
 X 743
650
 WB TOTAL

X

↖
 ↘
 ↘

EB TOTAL
 X
 X
 X

↑ ↑ ↗ ↗

To Airport →
 E-W STREET
1190
 X 563
1755
 NB TOTAL

EB LT = XWB TH = XWB LT = 326EB TH = X

OR

NB LT = XSB TH = 516SB LT = 118NB TH = 626

OR

MAXIMUM
 SUM OF CRITICAL
 VOLUMES

CAPACITY
 LEVEL

0 TO 1,200
 1,201 to 1,400
 > 1,400

UNDER
 NEAR
 OVER

326 + 744 = 1070
 E-W CRITICAL N-S CRITICAL

STATUS? UNDER

1985 HCM: SIGNALIZED INTERSECTIONS

SUMMARY REPORT

 INTERSECTION..TO AIRPORT/NEW CONNECTOR
 AREA TYPE.....OTHER
 ANALYST.....SL
 DATE.....3/30/90
 TIME.....PM PEAK HOUR
 COMMENT.....OPTION 1 (25%)

	VOLUMES				:	GEOMETRY							
	EB	WB	NB	SB	:	EB		WB		NB		SB	
LT	0	652	0	118	:	L	12.0	L	12.0	T	12.0	L	12.0
TH	0	0	1192	983	:	T	12.0	L	12.0	T	12.0	T	12.0
RT	0	91	563	0	:	TR	12.0	R	12.0	R	12.0	T	12.0
RR	0	0	0	0	:		12.0		12.0	R	12.0		12.0
					:		12.0		12.0		12.0		12.0
					:		12.0		12.0		12.0		12.0

ADJUSTMENT FACTORS										
	GRADE (%)	HV (%)	ADJ Y/N	PKG Nm	BUSES Nb	PHF	PEDS	PED. Y/N	BUT. min T	ARR. TYPE
EB	0.00	2.00	N	0	0	0.90	0	N	23.5	3
WB	0.00	2.00	N	0	0	0.90	0	N	23.5	3
NB	0.00	2.00	N	0	0	0.90	0	N	11.5	3
SB	0.00	2.00	N	0	0	0.90	0	N	11.5	3

SIGNAL SETTINGS										CYCLE LENGTH = 93.0
	PH-1	PH-2	PH-3	PH-4		PH-1	PH-2	PH-3	PH-4	
EB LT					NB LT					
TH					TH	X				
RT					RT	X				
PD					PD					
WB LT	X				SB LT	X	X			
TH					TH	X	X			
RT	X				RT					
PD					PD					
GREEN	35.0	0.0	0.0	0.0	GREEN	45.0	5.0	0.0	0.0	
YELLOW	4.0	0.0	0.0	0.0	YELLOW	0.0	4.0	0.0	0.0	

LEVEL OF SERVICE								
	LANE	GRP.	V/C	G/C	DELAY	LOS	APP. DELAY	APP. LOS
WB	L		0.756	0.376	21.5	C	20.2	C
	R		0.155	0.430	10.5	B		
NB	T		0.885	0.441	19.3	C	13.6	B
	R		0.301	0.817	1.4	A		
SB	L		0.328	0.538	9.6	B	9.8	B
	T		0.599	0.538	9.8	B		

INTERSECTION: Delay = 13.8 (sec/veh) V/C = 0.773 LOS = B

PLANNING APPLICATION WORKSHEET

B

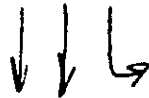
Intersection: New Connector / To Airport Date: 3/30/90
 Analyst: _____ Time Period Analyzed: 2005 Target PM
 Project No. _____ City/State: OPTION 2 (-256)

SB TOTAL

1096

X → 287
 ↓
 809

New Connector
 N-S STREET



561
 X →
 127

688
 WB TOTAL

X



X
 EB TOTAL

To Airport →
 E-W STREET

765
 X → 80

845
 NB TOTAL

EB LT = X
 WB TH = X
 WB LT = X }
 EB TH = X } OR
 127

NB LT = X
 SB TH = 425
 SB LT = 425 }
 NB TH = 402 } OR
 689

MAXIMUM
 SUM OF CRITICAL
 VOLUMES

CAPACITY
 LEVEL

0 TO 1,200
 1,201 to 1,400
 > 1,400

UNDER
 NEAR
 OVER

127 + 689 = 816 STATUS? UNDER
 E-W CRITICAL N-S CRITICAL

1985 HCM: SIGNALIZED INTERSECTIONS SUMMARY REPORT

INTERSECTION..TO AIRPORT/NEW CONNECTOR
AREA TYPE.....OTHER
ANALYST.....TJ
DATE.....3/31/90
TIME.....2005 TARGET PM
COMMENT.....OPTION 2 (25%)

	VOLUMES				GEOMETRY							
	EB	WB	NB	SB	EB	WB	NB	SB	EB	WB	NB	SB
LT	0	127	0	287	12.0	L	12.0	T	12.0	L	12.0	12.0
TH	0	0	765	309	12.0	R	12.0	T	12.0	T	12.0	12.0
RT	0	561	80	0	12.0	R	12.0	R	12.0	T	12.0	12.0
RR	0	0	0	0	12.0		12.0		12.0		12.0	12.0
					12.0		12.0		12.0		12.0	12.0
					12.0		12.0		12.0		12.0	12.0

ADJUSTMENT FACTORS									
	GRADE	HV	ADJ	PKG	BUSES	PHF	PEDS	PED. BUT	ARR. TYPE
	(%)	(%)	Y/N	Nm	Nb			Y/N min T	
EB	0.00	2.00	N	0	0	0.90	0	N 25.8	3
WB	0.00	2.00	N	0	0	0.90	0	N 25.8	3
NB	0.00	2.00	N	0	0	0.90	0	N 14.3	3
SB	0.00	2.00	N	0	0	0.90	0	N 14.3	3

SIGNAL SETTINGS					CYCLE LENGTH = 83.				
	PH-1	PH-2	PH-3	PH-4		PH-1	PH-2	PH-3	PH-4
EB LT					NB LT				
EB TH					NB TH				
EB RT					NB RT				
EB PD					NB PD				
WB LT	X				SB LT	X	X		
WB TH	X				SB TH	X	X		
WB RT	X				SB RT				
WB PD					SB PD				
GREEN	25.0	0.0	0.0	0.0	GREEN	20.0	30.0	0.0	0.0
YELLOW	4.0	0.0	0.0	0.0	YELLOW	0.0	4.0	0.0	0.0

LEVEL OF SERVICE							
LANE	GRP.	V/C	G/C	DELAY	LOS	APP. DELAY	APP. LOS
WB	L	0.309	0.301	17.1	C	10.7	B
	R	0.496	0.494	9.3	B		
NB	T	0.693	0.361	15.6	C	14.4	B
	R	0.089	0.663	3.2	A		
SB	L	0.294	0.602	6.2	B	5.9	B
	T	0.440	0.602	5.8	B		

INTERSECTION: Delay = 9.9 (sec/veh) V/C = 0.627 LOS = B

PLANNING APPLICATION WORKSHEET

C

Intersection: New Connector / Br. A. Hwy. Blvd. Date: 3/30/90Analyst: _____ Time Period Analyzed: 2005 Target PMProject No. _____ City/State: OPTION 1/2 (-25%)

SB TOTAL

613

X ↙ ↘ 213
600

New Connector

N-S STREET

↓ ↓ ↘



236

X

496

1032

WB TOTAL

X

↖
↘

X
EB TOTAL

↖ ↗
X
X
X

↑ ↑ ↗

Br. A. Hwy.

E-W STREET

1256

X ↖ ↗ 23

1329

NB TOTAL

EB LT = X

WB TH = X

WB LT = X

WB LT = 260

EB TH = X

260

OR

NB LT = X

SB TH = 315

SB LT = 315

SB LT = 213

NB TH = 623

841

OR

MAXIMUM
SUM OF CRITICAL
VOLUMES

0 TO 1,200

1,201 to 1,400

> 1,400

CAPACITY
LEVEL

UNDER

NEAR

OVER

260 + 841 = 1101 STATUS? UNDER

E-W CRITICAL

N-S CRITICAL

1985 HCM: SIGNALIZED INTERSECTIONS

PRIMARY REPORT

INTERSECTION..BRITISH AMERICAN/NEW CONNECTOR

AREA TYPE.....OTHER

ANALYST.....SL

DATE.....3/30/90

TIME.....PM PEAK HOUR

COMMENT.....OPTION 1 (25%) #2 (25L)

VOLUMES					:	GEOMETRY							
	EB	WB	NB	SB	:	EB		WB		NB		SB	
LT	0	496	0	213	:	L	12.0	L	12.0	T	12.0	L	12.0
TH	0	0	1256	600	:	T	12.0	L	12.0	T	12.0	T	12.0
RT	0	236	73	0	:	TR	12.0	R	12.0	R	12.0	T	12.0
RR	0	0	0	0	:		12.0		12.0		12.0		12.0
					:		12.0		12.0		12.0		12.0
					:		12.0		12.0		12.0		12.0

ADJUSTMENT FACTORS										
	GRADE	HV	ADJ	PKG	BUSES	PHF	PEDS	PED.	BUT.	ARR. TYPE
	(%)	(%)	Y/N	Nm	Nb			Y/N	min T	
EB	0.00	2.00	N	0	0	0.90	0	N	20.5	3
WB	0.00	2.00	N	0	0	0.90	0	N	20.5	3
NB	0.00	2.00	N	0	0	0.90	0	N	11.5	3
SB	0.00	2.00	N	0	0	0.90	0	N	11.5	3

SIGNAL SETTINGS										CYCLE LENGTH = 89.0
	PH-1	PH-2	PH-3	PH-4		PH-1	PH-2	PH-3	PH-4	
EB LT					NB LT					
TH					TH	X				
RT					RT	X				
PD					PD					
WB LT	X				SB LT	X	X			
TH					TH	X	X			
RT	X				RT					
PD					PD					
GREEN	27.0	0.0	0.0	0.0	GREEN	46.0	8.0	0.0	0.0	
YELLOW	4.0	0.0	0.0	0.0	YELLOW	0.0	4.0	0.0	0.0	

LEVEL OF SERVICE							
	LANE GRP.	V/C	G/C	DELAY	LOS	APP. DELAY	APP. LOS
WB	L	0.714	0.303	23.0	C	19.9	C
	R	0.440	0.393	13.1	B		
NB	T	0.871	0.472	16.8	C	16.0	C
	R	0.069	0.775	1.5	A		
SB	L	0.682	0.607	14.4	B	7.8	B
	T	0.324	0.607	5.6	B		

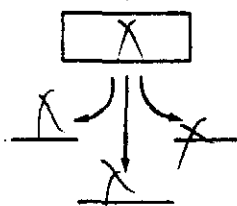
INTERSECTION: Delay = 14.7 (sec/veh) V/C = 0.791 LOS = B

PLANNING APPLICATION WORKSHEET

D

Intersection: New Gannett/Rt. 7 Date: 3/30/90
 Analyst: _____ Time Period Analyzed: 2005 Target PM
 Project No. _____ City/State: OPTION 1A (-25%)

SB TOTAL



New Gannett
N-S STREET



X
2487
50
2537
WB TOTAL

2779
EB TOTAL

X
1366
313
FF

1A.7
E-W STREET

X
1145
337
1482
NB TOTAL

EB LT = XWB TH = 829WB LT = 5EB TH = 455

505

OR

NB LT = 572SB TH = XSB LT = XNB TH = X

X

OR

MAXIMUM
SUM OF CRITICAL
VOLUMES

0 TO 1,200
1,201 to 1,400
> 1,400

CAPACITY LEVEL

UNDER
NEAR
OVER

829 + 572 = 1401 STATUS? OVER
E-W CRITICAL N-S CRITICAL

1985 HCM: SIGNALIZED INTERSECTIONS

PRIMARY REPORT

INTERSECTION..ROUTE 7/NEW CONNECTOR

AREA TYPE.....OTHER

ANALYST.....SL

DATE.....3/30/90

TIME.....PM PEAK HOUR

COMMENT.....OPTION 1 (25%) (25%)

VOLUMES					GEOMETRY				
	EB	WB	NB	SB		EB	WB	NB	SB
LT	0	50	1145	0	00:TT	1200	L	1200	L
TH	1366	2487	0	0	00:TT	1200	T	1200	L
RT	813	0	337	0	00:TT	1200	T	1200	R
RR	813	0	0	0	00:RR	1200	T	1200	12.0
						1200	1200	12.0	12.0
						1200	1200	12.0	12.0

ADJUSTMENT FACTORS									
	GRADE (%)	HV (%)	ADJ PKG Y/N	PKG Nm	BBBES Nb	PHF	PEDS	PED. BUT. Y/N	ARR. TYPE
EB	0.00	2.00	N	0	0	0.90	0	N	14.3
WB	0.00	2.00	N	0	0	0.90	0	N	14.3
NB	0.00	2.00	N	0	0	0.90	0	N	31.8
SB	0.00	2.00	N	0	0	0.90	0	N	31.8

SIGNAL SETTINGS					CYCLE LENGTH = 101.0				
	PH-1	PH-2	PH-3	PH-4		PH-1	PH-2	PH-3	PH-4
EB	LT				NB	LT	X		
	TH	X				TH			
	RT	X				RT	X		
	PD					PD			
WB	LT	X			SB	LT			
	TH	X				TH			
	RT					RT			
	PD					PD			
GREEN	60.0	0.0	0.0	0.0	GREEN	33.0	0.0	0.0	0.0
YELLOW	4.0	0.0	0.0	0.0	YELLOW	4.0	0.0	0.0	0.0

LEVEL OF SERVICE							
	LANE	GRP.	V/C	D/C	DELAY	LOS	APP. DELAY
EB	T		0.526	0.594	7.9	B	7.9
	R		0.000	0.921	0.2	A	
WB	L		0.782	0.594	38.8	D	18.1
	T		0.957	0.594	17.7	C	
NB	L		1.530	0.327	*	*	*
	R		0.757	0.327	23.5	D	

INTERSECTION: Delay = * (sec/Veh) V/C = 1.160 LOS = *