TECHNICAL MEMORANDUM

Riverwood DRI

Charlotte County, Florida

ANNUAL TRAFFIC MONITORING REPORT

Prepared by:
Florida Transportation Engineering, Inc.

◆ Punta Gorda ◆ Tampa ◆ Mayakka City ◆ Coral Gables

November 2001

PROFESSIONAL ENGINEER CERTIFICATE

I hereby certify that I am a registered professional engineer in the State of Florida practicing with Florida Transportation Engineering, Inc., a consulting firm in the State of Florida and that I have supervised the preparation and approve the evaluation, findings, opinions, conclusions, and technical advice hereby reported for

PROJECT: Riverwood DRI Annual Traffic Monitoring Report

LOCATION: El Jobean, Charlotte County

STATE: Florida

This report includes a summary of traffic counts and capacity analyses for Riverwood DRI annual Traffic Monitoring Report. I acknowledge that the procedures and references used to develop the results contained in this report are standard to the professional practice of transportation engineering and planning as applied through professional judgment and experience.

SIGNATURE: William J. Doeringsfeld

William J. Doeringsfeld, P.E.

DATE: 11-15-01

Florida P.E. No. 41291

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1.0 Introduction

A traffic monitoring report is required annually for Riverwood Development of Regional Impact Increments I and II located in Charlotte County, Florida. The monitored requirements were identified in the development order, Resolution No. 90-286 and Resolution No. 97-0030A0. A traffic count location map is provided as Figure 1.

The majority of the mitigation for Increment I, identified in Exhibit 4 - Capital Road Facilities Plan, have been completed. Signalization of the project entrance with SR 776 has not been completed. When signalization is warranted and approved by FDOT, the traffic signal will be designed and constructed. At the completion of this improvement, the concurrency obligations for Riverwood Increment I shall be satisfied for transportation impacts.

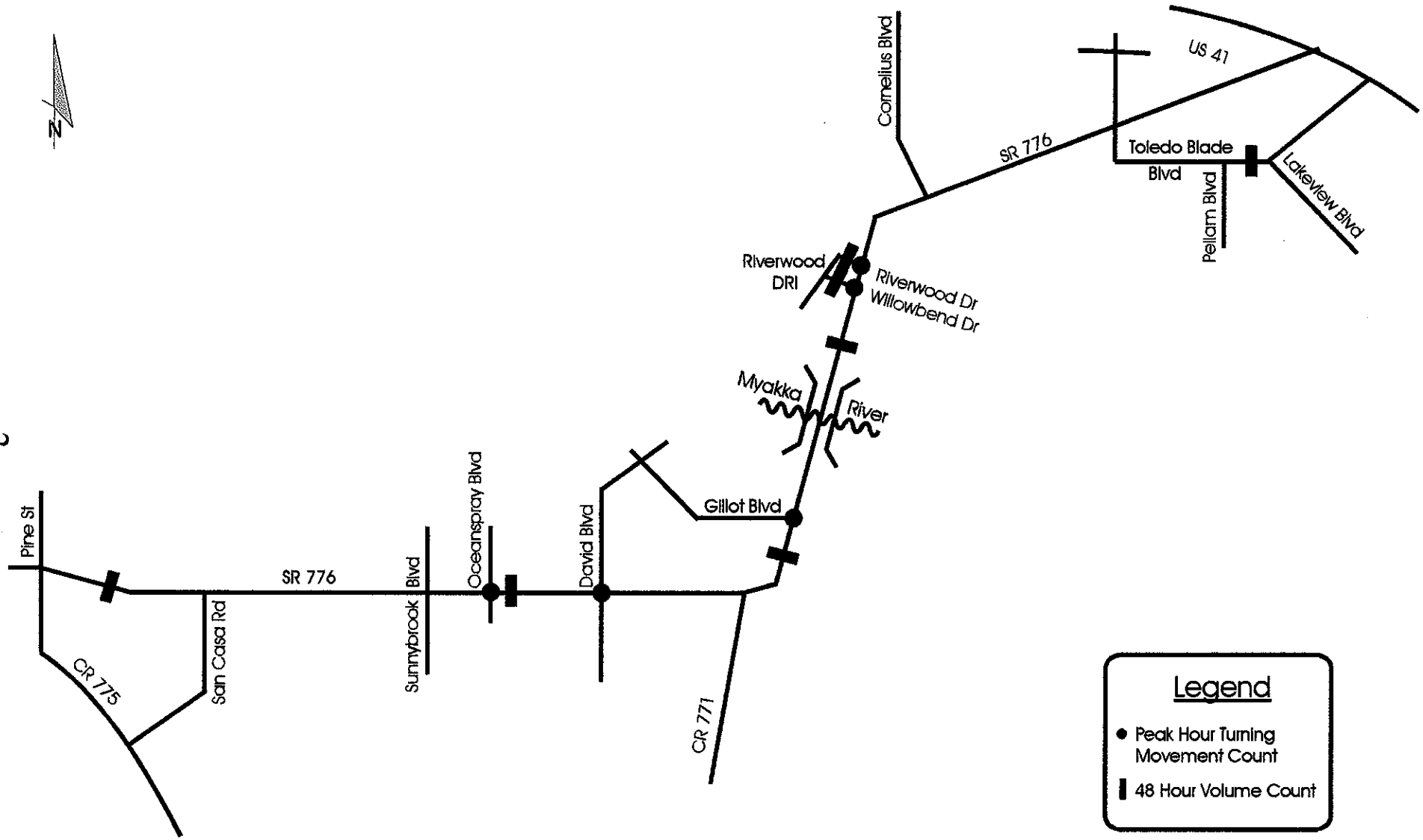
In regards to monitoring of intersections and roadway segments, the following roadway improvements have been completed or are presently under construction by FDOT or Charlotte County:

1. US 41 was widened south of Toledo Blade Boulevard
2. Veterans Boulevard was constructed east of US 41
3. SR 776 was widened from Riverwood to Collingswood Boulevard
4. SR 776 was widened from San Casa Road to Sunnybrook Boulevard
5. SR 776 is being widened from CR 771 to Willowbend Drive
6 SR 776 is being widened from Sunnybrook Boulevard to CR 771

The mitigation for Increment II was compliant with the Charlotte County Impact Fee Ordinance and a lump sum payment. Riverwood will pay the impact fees as development occurs until buildout.

This report contains roadway level of service (LOS) analyses and intersection LOS analyses for SR 776 and for Toledo Blade Boulevard.

Figure 1



Riverwood DRI
Annual Traffic Monitoring Report

Traffic Count Location Map

2.0 Data Collection

Forty-eight hour directional volume counts were conducted on five roadway segments identified below.

September 18 to September 19, 2001:

- SR 776 from CR 771 to Sunnybrook Boulevard
- Toledo Blade from Pellam to Lakeview

September 25 to September 26, 2001:

- SR 776 from Willowbend Drive to Gillot Boulevard
- SR 776 from Gillot Boulevard to CR 771
- SR 776 from San Casa Road to Pine Street
- Willowbend Drive (Project Entrance West)
- Riverwood Drive (Project Entrance East)

The 48-hour directional volume counts are summarized in fifteen-minute increments with hourly totals. These counts are provided in Appendix A. The peak hour determination is also provided in Appendix A.

Four-hour turning movement counts were collected at five intersections during the AM peak period (7:00AM - 9:00AM) and the PM peak period (4:00PM - 6:00PM). The peak hours were determined from traffic counts collected in September of 2000. The turning movement counts were collected at the following locations on September 19, 2001:

- SR 776 and Gillot Boulevard
- SR 776 and David Boulevard
- SR 776 and Oceanspray Boulevard
- SR 776 and Willowbend Drive (Project Entrance West)
- SR 776 and Riverwood Drive (Project Entrance East)

All five intersections are currently unsignalized. Condition diagrams showing the intersection configuration were prepared at all five intersections. The condition diagrams are provided in Appendix B. The turning movement counts are summarized by fifteen-minute increments with hourly totals and are provided in Appendix B.

3.0 Traffic Adjustments

The traffic data collected in September 2001 was adjusted to peak season conditions using the 2000 FDOT adjustment factors for Charlotte County.

The 48-hour directional volume counts collected in September, 2001 were averaged to obtain the Average Daily Traffic (ADT). The ADT's were then adjusted for trucks by applying the FDOT axle adjustment factor of 0.97 for SR 776 from Willowbend Drive to CR 771 and 0.99 for SR 776 from SR 771 to Pine Street. The ADTs were then converted to peak season conditions using the Peak Season Factor of 1.14*1.16=1.32 (9/18-9/19) or 1.12*1.16=1.30 (9/25-9/26).

The raw turning movement counts collected in September 2001 were adjusted to peak season conditions using the Peak Season Factor of 1.330. The FDOT adjustment factors and the 2001 adjusted turning movement volumes are provided in Appendix C.

4.0 Traffic Analysis

The roadway levels of service were determined based on the Charlotte County LOS Tables. The intersection level of service analyses were performed utilizing the procedures in the Highway Capacity Manual, Chapter 8 for unsignalized intersections.

Roadway LOS Analysis

The roadway segments on SR 776 were analyzed utilizing the Charlotte County LOS Tables. The peak season traffic volumes for the AM peak hour and the PM peak hour were analyzed. The roadway LOS analyses are summarized in Table 1.

As shown in Table 1, all roadway segments currently operate at acceptable levels of service except for that segment of SR 776 from San Casa Road to Pine Street and Toledo Blade Boulevard from Pellam Boulevard to Lakeview Boulevard which operates at LOS "E" or worse. Charlotte County has the segment of Toledo Blade Boulevard planned for widening. After widening, the segment should operate at acceptable level of service.

The segment of SR 776 from San Casa Road to Pine Street is 4-laned and has experienced development growth within the last few years. The Charlotte County LOS Tables are provided in Appendix D.

Intersection LOS Analysis

The intersection levels of service at the five intersections on SR 776 were determined using the most current Highway Capacity Software (HCS). The HCS analyses were performed for both AM and PM peak hours. Based on the 48-hour directional volume counts, the peak hours were determined to be between 7:00AM - 9:00AM (AM peak) and 4:00PM - 6:00PM (PM peak).

Table 1
Roadway Level of Service

AM Peak Hour

Roadway	From	To	Unadjusted Peak Hour Traffic				Average Peak Hour Traffic			Axle Adjust. Factor	Peak Season Adjust. Factor	Peak Season Peak Hour Traffic	Adopted Service Volume	Level of Service
			EB 2001		WB 2001		EB	WB	2-WAY					
			9/18---9/25	9/19---9/26	9/18---9/25	9/19---9/26								
SR 776	Project Entrance	Gillot Blvd.	844	829	792	760	837	776	1613	0.97	1.300	2033	2445	C
	Gillot Blvd.	CR 771	697	685	753	740	691	747	1438	0.97	1.300	1813	2445	C
	CR 771	Sunnybrook Blvd	364	374	567	543	369	555	924	0.99	1.320	1207	2445	B
	San Casa Road	Pine Street	1103	1022	1368	1366	1063	1367	2430	0.99	1.300	3127	2445	E
Toledo Blade Blvd	Pellam Blvd.	Lakeview Blvd.	540	558	782	812	697	512	1209	1.00	1.320	1596	1115	F

PM Peak Hour

Roadway	From	To	Unadjusted Peak Hour Traffic				Average Peak Hour Traffic			Axle Adjust. Factor	Peak Season Adjust. Factor	Peak Season Peak Hour Traffic	Adopted Service Volume	Level of Service
			EB 2001		WB 2001		EB	WB	2-WAY					
			9/18---9/25	9/19---9/26	9/18---9/25	9/19---9/26								
SR 776	Project Entrance	Gillot Blvd.	873	874	770	806	874	788	1662	0.97	1.300	2095	2445	C
	Gillot Blvd.	CR 771	807	812	667	696	810	682	1491	0.97	1.300	1880	2445	C
	CR 771	Sunnybrook Blvd	621	550	487	482	586	485	1070	0.99	1.320	1398	2445	B
	San Casa Road	Pine Street	1341	1362	1092	1107	1352	1100	2451	0.99	1.300	3154	2445	E
Toledo Blade Blvd	Pellam Blvd.	Lakeview Blvd.	575	534	584	589	555	587	1141	1.00	1.320	1506	1115	E

The HCS analyses are summarized in Table 2. The percent of trucks during the peak hours as well as the peak hour factors (PHF) at the intersections were determined. The five intersections are currently stop controlled. As shown in Table 2, all intersections operate at LOS "C" or better for the major street (SR776) movements. The delays experienced at these intersections are primarily by side street traffic. When these intersections warrant a traffic signal, and traffic signals are installed, these intersections should operate at acceptable levels of service.

The percent trucks and the peak hour factor calculations as well as the HCS worksheets are provided in Appendix E.

Table 2
Intersection Level of Service

Intersection	Approach	AM Peak Hour		PM Peak Hour	
		V/C	LOS	V/C	LOS
SR 776 and Gillot Blvd.	EBLT	0.01	A	0.18	B
	SBLT	2.28	F	2.64	F
	SBRT	0.25	C	0.26	C
SR 776 and David Blvd.	EBLT	0.04	A	0.09	A
	WBLT	0.01	A	0.02	A
	NB	0.74	F	0.55	F
	SB	0.64	F	0.78	F
SR 776 and Oceanspray Blvd.	EBLT	0.02	A	0.06	A
	WBLT	0.07	A	0.08	A
	NB	1.07	F	2.94	F
	SB	0.86	F	2.28	F
SR 776 and Willowbend Dr.	SBRT	0.01	C	0.12	C
SR 776 and Riverwood Dr.	EBLT	0.02	C	0.01	B
	WBLT	0.01	B	0.01	B
	SBLT	0.38	F	0.52	F
	SBRT	0.01	B	0.01	B

5.0 Conclusion

All the intersections and roadway segments identified in Resolution No. 90-286 were analyzed.

The roadway section monitored on Toledo Blade Boulevard from Pellam Boulevard to Lakeview Boulevard is deficient. This section of Toledo Blade Boulevard is being considered by Charlotte County for widening with no date set for improvement. The roadway section monitored on SR 776 between San Casa Road and Pine Street is also deficient. This segment has experienced development growth within the last few years.

All intersections operate at LOS "C" or better for the major street (SR 776) movements. The delays experienced at these intersections are primarily by side street traffic. When these intersections warrant a traffic signal, and traffic signals are installed, these intersections should operate at acceptable levels of service.

Based on the analyses performed, and the work being performed by FDOT or Charlotte County, no off-site improvements are required. Mitigation for Increment I was completed except for signalization of Riverwood Drive and SR 776 when warranted. Increment II is mitigated by payment of impact fees.

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APPENDIX A

Peak Hour Determination
48-hour Directional Volume Counts

PEAK HOUR DETERMINATION

FTE No. 101046-01
Project Riverwood Annual Monitoring Report
Location SR 776 between Willow Bend and Gillot Blvd.

Count Date 09/25/01

	EB	WB	2-WAY	Hourly		Peak Hour
06:30 AM	152	134	286			
06:45 AM	123	163	286			
07:00 AM	173	179	352			
07:15 AM	191	180	371	1295		
07:30 AM	249	216	465	1474		
07:45 AM	231	217	448	1636		
08:00 AM	217	188	405	1689	*	7:15-8:15AM
08:15 AM	200	167	367	1685		
08:30 AM	167	143	310	1530		
08:45 AM	163	151	314	1396		
03:30 PM	216	175	391			
03:45 PM	213	183	396			
04:00 PM	215	221	436			
04:15 PM	229	191	420	1643		
04:30 PM	211	216	427	1679		
04:45 PM	201	187	388	1671		
05:00 PM	187	222	409	1644		
05:15 PM	233	233	466	1690	*	4:30-5:30PM
05:30 PM	166	185	351	1614		
05:45 PM	135	167	302	1528		

Count Date 09/26/01

	EB	WB	2-WAY	Hourly		Peak Hour
06:30 AM	127	161	288			
06:45 AM	141	176	317			
07:00 AM	179	180	359			
07:15 AM	195	181	376	1340		
07:30 AM	211	196	407	1459		
07:45 AM	244	203	447	1589		
08:00 AM	185	213	398	1628	*	7:15-8:15AM
08:15 AM	182	159	341	1593		
08:30 AM	180	150	330	1516		
08:45 AM	158	157	315	1384		
03:30 PM	226	194	420			
03:45 PM	238	206	444			
04:00 PM	214	215	429			
04:15 PM	196	191	387	1680		
04:30 PM	250	189	439	1699	*	3:30-4:30PM
04:45 PM	174	185	359	1614		
05:00 PM	182	206	388	1573		
05:15 PM	202	218	420	1606		
05:30 PM	172	173	345	1512		
05:45 PM	147	187	334	1487		

	Average EB	Average WB	Average 2-WAY	Average Hourly		Average Peak Hour
06:30 AM	140	148	287			
06:45 AM	132	170	302			
07:00 AM	176	180	356			
07:15 AM	193	181	374	1318		
07:30 AM	230	206	436	1467		
07:45 AM	238	210	448	1613		
08:00 AM	201	201	402	1659	*	7:15-8:15AM
08:15 AM	191	163	354	1639		
08:30 AM	174	147	320	1523		
08:45 AM	161	154	315	1390		
03:30 PM	221	185	406			
03:45 PM	226	195	420			
04:00 PM	215	218	433			
04:15 PM	213	191	404	1662		
04:30 PM	231	203	433	1689	*	3:30-4:30PM
04:45 PM	188	186	374	1643		
05:00 PM	185	214	399	1609		
05:15 PM	218	226	443	1648		
05:30 PM	169	179	348	1563		
05:45 PM	141	177	318	1508		

PEAK HOUR DETERMINATION

FTE No. 101046-01
Project Riverwood Annual Monitoring Report
Location SR 776 between Gillot Blvd. and CR 771

Count Date 09/25/01

	EB	WB	2-WAY	Hourly		Peak Hour
06:30 AM	107	124	231			
06:45 AM	96	164	260			
07:00 AM	157	168	325			
07:15 AM	168	178	346	1162		
07:30 AM	203	203	406	1337		
07:45 AM	169	204	373	1450		
08:00 AM	172	183	355	1480	*	7:15-8:15AM
08:15 AM	151	167	318	1452		
08:30 AM	128	131	259	1305		
08:45 AM	114	161	275	1207		
03:30 PM	231	155	386			
03:45 PM	174	158	332			
04:00 PM	235	151	386			
04:15 PM	207	169	376	1480	*	3:30-4:30PM
04:30 PM	186	177	363	1457		
04:45 PM	179	170	349	1474		
05:00 PM	209	157	366	1454		
05:15 PM	177	197	374	1452		
05:30 PM	146	159	305	1394		
05:45 PM	131	134	265	1310		

Count Date 09/26/01

	EB	WB	2-WAY	Hourly		Peak Hour
06:30 AM	110	145	255			
06:45 AM	114	168	282			
07:00 AM	148	169	317			
07:15 AM	191	202	393	1247		
07:30 AM	182	183	365	1357		
07:45 AM	164	186	350	1425		
08:00 AM	155	199	354	1462	*	7:15-8:15AM
08:15 AM	162	175	337	1406		
08:30 AM	160	162	322	1363		
08:45 AM	126	148	274	1287		
03:30 PM	215	179	394			
03:45 PM	202	190	392			
04:00 PM	213	156	369			
04:15 PM	220	177	397	1552	*	3:30-4:30PM
04:30 PM	179	148	327	1485		
04:45 PM	152	135	287	1380		
05:00 PM	206	169	375	1386		
05:15 PM	153	177	330	1319		
05:30 PM	151	147	298	1290		
05:45 PM	123	174	297	1300		

	Average EB	Average WB	Average 2-WAY	Average Hourly		Average Peak Hour
06:30 AM	109	135	243			
06:45 AM	105	166	271			
07:00 AM	153	169	321			
07:15 AM	180	190	370	1205		
07:30 AM	193	193	386	1347		
07:45 AM	167	195	362	1438		
08:00 AM	164	191	355	1471	*	7:15-8:15AM
08:15 AM	157	171	328	1429		
08:30 AM	144	147	291	1334		
08:45 AM	120	155	275	1247		
03:30 PM	223	167	390			
03:45 PM	188	174	362			
04:00 PM	224	154	378			
04:15 PM	214	173	387	1516	*	3:30-4:30PM
04:30 PM	183	163	345	1471		
04:45 PM	166	153	318	1427		
05:00 PM	208	163	371	1420		
05:15 PM	165	187	352	1386		
05:30 PM	149	153	302	1342		
05:45 PM	127	154	281	1305		

PEAK HOUR DETERMINATION

FTE No. 101046-01
Project Riverwood Annual Monitoring Report
Location SR 776 between CR 771 and Sunnybrook Blvd.
(Count taken between David and Oceanspray for this determination)

Count Date 09/19/01

	EB	WB	2-WAY	Hourly		Peak Hour
06:30 AM	71	86	157			
06:45 AM	72	102	174			
07:00 AM	102	99	201			
07:15 AM	102	117	219	751		
07:30 AM	96	137	233	827		
07:45 AM	75	167	242	895		
08:00 AM	101	122	223	917	*	7:15-8:15AM
08:15 AM	78	120	198	896		
08:30 AM	80	117	197	860		
08:45 AM	83	115	198	816		
03:30 PM	134	111	245			
03:45 PM	143	125	268			
04:00 PM	127	103	230			
04:15 PM	133	112	245	988		
04:30 PM	150	123	273	1016		
04:45 PM	130	117	247	995		
05:00 PM	137	130	267	1032		
05:15 PM	141	122	263	1050	*	4:30-5:30PM
05:30 PM	122	143	265	1042		
05:45 PM	103	85	188	983		

Count Date 09/18/01

	EB	WB	2-WAY	Hourly		Peak Hour
06:30 AM	58	90	148			
06:45 AM	86	90	176			
07:00 AM	105	105	210			
07:15 AM	79	128	207	741		
07:30 AM	99	158	257	850		
07:45 AM	97	162	259	933		
08:00 AM	89	119	208	931		
08:15 AM	99	111	210	934		
08:30 AM	92	134	226	903	*	7:45-8:45AM
08:45 AM	97	103	200	844		
03:30 PM	126	133	259			
03:45 PM	160	121	281			
04:00 PM	151	100	251			
04:15 PM	148	134	282	1073		
04:30 PM	121	117	238	1052		
04:45 PM	152	116	268	1039		
05:00 PM	200	120	320	1108	*	4:15-5:15PM
05:15 PM	121	117	238	1064		
05:30 PM	119	122	241	1067		
05:45 PM	104	110	214	1013		

	Average EB	Average WB	Average 2-WAY	Average Hourly		Average Peak Hour
06:30 AM	65	88	153			
06:45 AM	79	96	175			
07:00 AM	104	102	206			
07:15 AM	91	123	213	746		
07:30 AM	98	148	245	839		
07:45 AM	86	165	251	914		
08:00 AM	95	121	216	924	*	7:15-8:15AM
08:15 AM	89	116	204	915		
08:30 AM	86	126	212	882		
08:45 AM	90	109	199	830		
03:30 PM	130	122	252			
03:45 PM	152	123	275			
04:00 PM	139	102	241			
04:15 PM	141	123	264	1031		
04:30 PM	136	120	256	1034		
04:45 PM	141	117	258	1017		
05:00 PM	169	125	294	1070	*	4:15-5:15PM
05:15 PM	131	120	251	1057		
05:30 PM	121	133	253	1055		
05:45 PM	104	98	201	998		

PEAK HOUR DETERMINATION

FTE No. 101046-01
Project Riverwood Annual Monitoring Report
Location SR 776 between San Casa Road and Pine Street

Count Date 09/25/01

	EB	WB	2-WAY	Hourly		Peak Hour
06:30 AM	108	189	297			
06:45 AM	93	215	308			
07:00 AM	158	244	402			
07:15 AM	119	310	429	1436		
07:30 AM	174	389	563	1702		
07:45 AM	198	425	623	2017		
08:00 AM	208	363	571	2186		
08:15 AM	210	331	541	2298	*	7:30-8:30AM
08:30 AM	214	333	547	2282		
08:45 AM	198	291	489	2148		
03:30 PM	303	243	546			
03:45 PM	314	291	605			
04:00 PM	342	248	590			
04:15 PM	302	260	562	2303		
04:30 PM	321	238	559	2316		
04:45 PM	351	233	584	2295		
05:00 PM	331	255	586	2291		
05:15 PM	354	239	593	2322		
05:30 PM	332	245	577	2340	*	4:45-5:45PM
05:45 PM	324	229	553	2309		

Count Date 09/26/01

	EB	WB	2-WAY	Hourly		Peak Hour
06:30 AM	103	172	275			
06:45 AM	104	211	315			
07:00 AM	140	252	392			
07:15 AM	140	310	450	1432		
07:30 AM	171	385	556	1713		
07:45 AM	184	419	603	2001		
08:00 AM	223	346	569	2178		
08:15 AM	236	325	561	2289		
08:30 AM	213	348	561	2294	*	7:45-8:45AM
08:45 AM	212	286	498	2189		
03:30 PM	351	279	630			
03:45 PM	315	288	603			
04:00 PM	331	255	586			
04:15 PM	355	261	616	2435	*	3:30-4:30PM
04:30 PM	307	213	520	2325		
04:45 PM	321	242	563	2285		
05:00 PM	335	259	594	2293		
05:15 PM	362	240	602	2279		
05:30 PM	320	209	529	2288		
05:45 PM	305	211	516	2241		

	Average EB	Average WB	Average 2-WAY	Average Hourly		Average Peak Hour
06:30 AM	106	181	286			
06:45 AM	99	213	312			
07:00 AM	149	248	397			
07:15 AM	130	310	440	1434		
07:30 AM	173	387	560	1708		
07:45 AM	191	422	613	2009		
08:00 AM	216	355	570	2182		
08:15 AM	223	328	551	2294	*	7:30-8:30AM
08:30 AM	214	341	554	2288		
08:45 AM	205	289	494	2169		
03:30 PM	327	261	588			
03:45 PM	315	290	604			
04:00 PM	337	252	588			
04:15 PM	329	261	589	2369	*	3:30-4:30PM
04:30 PM	314	226	540	2321		
04:45 PM	336	238	574	2290		
05:00 PM	333	257	590	2292		
05:15 PM	358	240	598	2301		
05:30 PM	326	227	553	2314		
05:45 PM	315	220	535	2275		

PEAK HOUR DETERMINATION

FTE No. 101046-01
Project Riverwood Annual Monitoring Report
Location Toledo Blade Blvd. between Pellam and Lakeview

Count Date 09/18/01

	EB	WB	2-WAY	Hourly		Peak Hour
06:30 AM	49	52	101			
06:45 AM	62	59	121			
07:00 AM	81	70	151			
07:15 AM	116	118	234	607		
07:30 AM	120	169	289	795		
07:45 AM	149	187	336	1010		
08:00 AM	131	229	360	1219		
08:15 AM	140	197	337	1322	*	7:30-8:30AM
08:30 AM	89	104	193	1226		
08:45 AM	105	122	227	1117		
03:30 PM	143	141	284			
03:45 PM	132	106	238			
04:00 PM	150	132	282			
04:15 PM	131	122	253	1057		
04:30 PM	151	146	297	1070		
04:45 PM	134	154	288	1120		
05:00 PM	158	131	289	1127		
05:15 PM	132	153	285	1159	*	4:30-5:30PM
05:30 PM	136	150	286	1148		
05:45 PM	127	142	269	1129		

Count Date 09/19/01

	EB	WB	2-WAY	Hourly		Peak Hour
06:30 AM	45	36	81			
06:45 AM	68	49	117			
07:00 AM	87	75	162			
07:15 AM	111	115	226	586		
07:30 AM	156	180	336	841		
07:45 AM	136	201	337	1061		
08:00 AM	122	238	360	1259		
08:15 AM	144	193	337	1370	*	7:30-8:30AM
08:30 AM	101	110	211	1245		
08:45 AM	111	111	222	1130		
03:30 PM	156	129	285			
03:45 PM	167	148	315			
04:00 PM	161	141	302			
04:15 PM	119	144	263	1165	*	3:30-4:30PM
04:30 PM	143	153	296	1176		
04:45 PM	128	154	282	1143		
05:00 PM	146	132	278	1119		
05:15 PM	117	142	259	1115		
05:30 PM	98	162	260	1079		
05:45 PM	121	129	250	1047		

	Average EB	Average WB	Average 2-WAY	Average Hourly		Average Peak Hour
06:30 AM	47	44	91			
06:45 AM	65	54	119			
07:00 AM	84	73	157			
07:15 AM	114	117	230	597		
07:30 AM	138	175	313	818		
07:45 AM	143	194	337	1036		
08:00 AM	127	234	360	1239		
08:15 AM	142	195	337	1346	*	7:30-8:30AM
08:30 AM	95	107	202	1236		
08:45 AM	108	117	225	1124		
03:30 PM	150	135	285			
03:45 PM	150	127	277			
04:00 PM	156	137	292			
04:15 PM	125	133	258	1111		
04:30 PM	147	150	297	1123		
04:45 PM	131	154	285	1132		
05:00 PM	152	132	284	1123		
05:15 PM	125	148	272	1137	*	4:30-5:30PM
05:30 PM	117	156	273	1114		
05:45 PM	124	136	260	1088		

Florida Transportation Engineering, Inc.
8250 Pascal Drive
Punta Gorda, Florida 33950

CHARLOTTE
SR-776 BTW WILLOWBEND DR & GILLOT BLVD

Site Code : 010002111100
Start Date: 09/25/2001
File I.D. : D0925002

EAST BOUND

Begin Time	1 A.M.		1 P.M.		2 A.M.		2 P.M.		Combined A.M.		Combined P.M.		Tuesday
12:00 09/25	12		141		0		0		12		141		
12:15	9		199		0		0		9		199		
12:30	6		158		0		0		6		158		
12:45	2	29	163	661	0	*	0	*	2	29	163	661	
01:00	3		168		0		0		3		168		
01:15	1		180		0		0		1		180		
01:30	9		161		0		0		9		161		
01:45	4	17	176	685	0	*	0	*	4	17	176	685	
02:00	4		186		0		0		4		186		
02:15	2		179		0		0		2		179		
02:30	7		168		0		0		7		168		
02:45	1	14	202	735	0	*	0	*	1	14	202	735	
03:00	6		185		0		0		6		185		
03:15	6		180		0		0		6		180		
03:30	7		216		0		0		7		216		
03:45	13	32	213	794	0	*	0	*	13	32	213	794	
04:00	4		215		0		0		4		215		
04:15	9		229		0		0		9		229		
04:30	19		211		0		0		19		211		
04:45	31	63	201	856	0	*	0	*	31	63	201	856	
05:00	12		187		0		0		12		187		
05:15	22		233		0		0		22		233		
05:30	43		166		0		0		43		166		
05:45	42	119	135	721	0	*	0	*	42	119	135	721	
06:00	79		150		0		0		79		150		
06:15	97		140		0		0		97		140		
06:30	152		108		0		0		152		108		
06:45	123	451	108	506	0	*	0	*	123	451	108	506	
07:00	173		95		0		0		173		95		
07:15	191		87		0		0		191		87		
07:30	249		70		0		0		249		70		
07:45	231	844	44	296	0	*	0	*	231	844	44	296	
08:00	217		64		0		0		217		64		
08:15	200		50		0		0		200		50		
08:30	167		49		0		0		167		49		
08:45	163	747	41	204	0	*	0	*	163	747	41	204	
09:00	130		42		0		0		130		42		
09:15	181		37		0		0		181		37		
09:30	156		34		0		0		156		34		
09:45	175	642	33	146	0	*	0	*	175	642	33	146	
10:00	132		24		0		0		132		24		
10:15	163		26		0		0		163		26		
10:30	176		17		0		0		176		17		
10:45	165	636	19	86	0	*	0	*	165	636	19	86	
11:00	149		10		0		0		149		10		
11:15	172		9		0		0		172		9		
11:30	172		9		0		0		172		9		
11:45	174	667	7	35	0	*	0	*	174	667	7	35	
Totals	4261		5725		0		0		4261		5725		
Day Totals		9986				0				9986			
Split %	100.0%		100.0%		.0%		.0%						

Peak Hour	07:30	03:30		07:30	03:30
Volume	897	873		897	873
P.H.F.	.90	.95		.90	.95

Florida Transportation Engineering, Inc.
8250 Pascal Drive
Punta Gorda, Florida 33950

CHARLOTTE
SR-776 BTW WILLOWBEND DR & GILLOT BLVD

Site Code : 010002111100
Start Date: 09/25/2001
File I.D. : D0925002

EAST BOUND

Wednesday

Begin Time	<------ 1 ------> A.M.		P.M.		<------ 2 ------> A.M.		P.M.		<------Combined------> A.M.		P.M.	
12:00 09/26	6		163		0		0		6		163	
12:15	6		175		0		0		6		175	
12:30	7		194		0		0		7		194	
12:45	10	29	142	674	0	*	0	*	10	29	142	674
01:00	2		177		0		0		2		177	
01:15	6		160		0		0		6		160	
01:30	13		182		0		0		13		182	
01:45	3	24	172	691	0	*	0	*	3	24	172	691
02:00	4		183		0		0		4		183	
02:15	7		190		0		0		7		190	
02:30	1		164		0		0		1		164	
02:45	3	15	191	728	0	*	0	*	3	15	191	728
03:00	7		199		0		0		7		199	
03:15	6		202		0		0		6		202	
03:30	7		226		0		0		7		226	
03:45	5	25	238	865	0	*	0	*	5	25	238	865
04:00	5		214		0		0		5		214	
04:15	7		196		0		0		7		196	
04:30	6		250		0		0		6		250	
04:45	28	46	174	834	0	*	0	*	28	46	174	834
05:00	20		182		0		0		20		182	
05:15	28		202		0		0		28		202	
05:30	44		172		0		0		44		172	
05:45	45	137	147	703	0	*	0	*	45	137	147	703
06:00	77		143		0		0		77		143	
06:15	102		160		0		0		102		160	
06:30	127		124		0		0		127		124	
06:45	141	447	119	546	0	*	0	*	141	447	119	546
07:00	179		98		0		0		179		98	
07:15	195		80		0		0		195		80	
07:30	211		62		0		0		211		62	
07:45	244	829	58	298	0	*	0	*	244	829	58	298
08:00	185		46		0		0		185		46	
08:15	182		53		0		0		182		53	
08:30	180		45		0		0		180		45	
08:45	158	705	37	181	0	*	0	*	158	705	37	181
09:00	151		29		0		0		151		29	
09:15	151		31		0		0		151		31	
09:30	175		29		0		0		175		29	
09:45	137	614	27	116	0	*	0	*	137	614	27	116
10:00	165		35		0		0		165		35	
10:15	158		23		0		0		158		23	
10:30	163		15		0		0		163		15	
10:45	157	643	12	85	0	*	0	*	157	643	12	85
11:00	178		18		0		0		178		18	
11:15	168		8		0		0		168		8	
11:30	147		9		0		0		147		9	
11:45	169	662	8	43	0	*	0	*	169	662	8	43
Totals	4176		5764		0		0		4176		5764	
Day Totals		9940				0				9940		
Split %	100.0%		100.0%		.0%		.0%					
Peak Hour	07:15		03:45						07:15		03:45	
Volume	835		898						835		898	
P.H.F.	.85		.89						.85		.89	

Florida Transportation Engineering, Inc.

CHARLOTTE
SR-776 BTW WILLOBEND DR & Gillot Blvd

8250 Pascal Drive
Punta Gorda, Florida 33950

Site Code : 010002511100
Start Date: 09/25/2001
File I.D. : D0925007

West Bound

Begin Time	1 A.M.		1 P.M.		2 A.M.		2 P.M.		Combined A.M.		Combined P.M.		Tuesday
12:00 09/25	15		167		0		0		15		167		
12:15	9		151		0		0		9		151		
12:30	14		154		0		0		14		154		
12:45	5	43	162	634	0	*	0	*	5	43	162	634	
01:00	6		158		0		0		6		158		
01:15	11		176		0		0		11		176		
01:30	1		158		0		0		1		158		
01:45	7	25	202	694	0	*	0	*	7	25	202	694	
02:00	6		162		0		0		6		162		
02:15	1		166		0		0		1		166		
02:30	2		140		0		0		2		140		
02:45	6	15	196	664	0	*	0	*	6	15	196	664	
03:00	4		193		0		0		4		193		
03:15	3		200		0		0		3		200		
03:30	3		175		0		0		3		175		
03:45	4	14	183	751	0	*	0	*	4	14	183	751	
04:00	6		221		0		0		6		221		
04:15	5		191		0		0		5		191		
04:30	14		216		0		0		14		216		
04:45	14	39	187	815	0	*	0	*	14	39	187	815	
05:00	18		222		0		0		18		222		
05:15	27		233		0		0		27		233		
05:30	31		185		0		0		31		185		
05:45	46	122	167	807	0	*	0	*	46	122	167	807	
06:00	93		164		0		0		93		164		
06:15	109		120		0		0		109		120		
06:30	134		133		0		0		134		133		
06:45	163	499	130	547	0	*	0	*	163	499	130	547	
07:00	179		104		0		0		179		104		
07:15	180		95		0		0		180		95		
07:30	216		105		0		0		216		105		
07:45	217	792	97	401	0	*	0	*	217	792	97	401	
08:00	188		88		0		0		188		88		
08:15	167		67		0		0		167		67		
08:30	143		72		0		0		143		72		
08:45	151	649	78	305	0	*	0	*	151	649	78	305	
09:00	144		75		0		0		144		75		
09:15	114		73		0		0		114		73		
09:30	131		59		0		0		131		59		
09:45	160	549	49	256	0	*	0	*	160	549	49	256	
10:00	113		27		0		0		113		27		
10:15	150		33		0		0		150		33		
10:30	135		34		0		0		135		34		
10:45	154	552	28	122	0	*	0	*	154	552	28	122	
11:00	145		20		0		0		145		20		
11:15	156		16		0		0		156		16		
11:30	166		18		0		0		166		18		
11:45	155	622	27	81	0	*	0	*	155	622	27	81	
Totals	3921		6077		0		0		3921		6077		
Day Totals		9998				0				9998			
Split %	100.0%		100.0%		.0%		.0%						
Peak Hour	07:15		04:30						07:15		04:30		
Volume	801		858						801		858		
P.H.F.	.92		.92						.92		.92		

Florida Transportation Engineering, Inc.
8250 Pascal Drive
Punta Gorda, Florida 33950

CHARLOTTE
SR-776 BTW WILLOBEND DR & Gillot Blvd

Site Code : 010002511100
Start Date: 09/25/2001
File I.D. : D0925007
Page : 2

West Bound

Begin Time	1 A.M.		1 P.M.		2 A.M.		2 P.M.		Combined A.M.		Combined P.M.		Wednesday
12:00 09/26	18		157		0		0		18		157		
12:15	5		142		0		0		5		142		
12:30	19		174		0		0		19		174		
12:45	12	54	168	641	0	*	0	*	12	54	168	641	
01:00	7		177		0		0		7		177		
01:15	3		171		0		0		3		171		
01:30	5		168		0		0		5		168		
01:45	6	21	159	675	0	*	0	*	6	21	159	675	
02:00	7		143		0		0		7		143		
02:15	6		175		0		0		6		175		
02:30	1		176		0		0		1		176		
02:45	2	16	158	652	0	*	0	*	2	16	158	652	
03:00	3		180		0		0		3		180		
03:15	7		212		0		0		7		212		
03:30	6		194		0		0		6		194		
03:45	4	20	206	792	0	*	0	*	4	20	206	792	
04:00	0		215		0		0		0		215		
04:15	1		191		0		0		1		191		
04:30	10		189		0		0		10		189		
04:45	13	24	185	780	0	*	0	*	13	24	185	780	
05:00	17		206		0		0		17		206		
05:15	22		218		0		0		22		218		
05:30	32		173		0		0		32		173		
05:45	44	115	187	784	0	*	0	*	44	115	187	784	
06:00	69		141		0		0		69		141		
06:15	96		110		0		0		96		110		
06:30	161		124		0		0		161		124		
06:45	176	502	121	496	0	*	0	*	176	502	121	496	
07:00	180		94		0		0		180		94		
07:15	181		103		0		0		181		103		
07:30	196		72		0		0		196		72		
07:45	203	760	90	359	0	*	0	*	203	760	90	359	
08:00	213		93		0		0		213		93		
08:15	159		106		0		0		159		106		
08:30	150		101		0		0		150		101		
08:45	157	679	76	376	0	*	0	*	157	679	76	376	
09:00	127		58		0		0		127		58		
09:15	158		62		0		0		158		62		
09:30	154		54		0		0		154		54		
09:45	117	556	51	225	0	*	0	*	117	556	51	225	
10:00	130		49		0		0		130		49		
10:15	126		67		0		0		126		67		
10:30	121		35		0		0		121		35		
10:45	128	505	23	174	0	*	0	*	128	505	23	174	
11:00	147		19		0		0		147		19		
11:15	153		13		0		0		153		13		
11:30	162		18		0		0		162		18		
11:45	156	618	26	76	0	*	0	*	156	618	26	76	
Totals	3870		6030		0		0		3870		6030		
Day Totals		9900				0				9900			
Split %	100.0%		100.0%		.0%		.0%						
Peak Hour	07:15		03:15						07:15		03:15		
Volume	793		827						793		827		
P.H.F.	.93		.96						.93		.96		

Florida Transportation Engineering, Inc.

CHARLOTTE
SR-776 BTW GILLOT BLVD & CR-771

8250 Pascal Drive
Punta Gorda, Florida 33950

Site Code : 010003111100
Start Date: 09/25/2001
File I.D. : D0925004

EAST BOUND

Begin Time	1 A.M.		1 P.M.		2 A.M.		2 P.M.		Combined A.M.		Combined P.M.		Tuesday
12:00 09/25	8		189		0		0		8		189		
12:15	3		143		0		0		3		143		
12:30	4		168		0		0		4		168		
12:45	4	19	158	658	0	*	0	*	4	19	158	658	
01:00	0		162		0		0		0		162		
01:15	7		166		0		0		7		166		
01:30	3		167		0		0		3		167		
01:45	2	12	183	678	0	*	0	*	2	12	183	678	
02:00	2		169		0		0		2		169		
02:15	4		164		0		0		4		164		
02:30	2		199		0		0		2		199		
02:45	3	11	172	704	0	*	0	*	3	11	172	704	
03:00	2		154		0		0		2		154		
03:15	7		211		0		0		7		211		
03:30	5		231		0		0		5		231		
03:45	9	23	174	770	0	*	0	*	9	23	174	770	
04:00	3		235		0		0		3		235		
04:15	16		207		0		0		16		207		
04:30	18		186		0		0		18		186		
04:45	14	51	179	807	0	*	0	*	14	51	179	807	
05:00	9		209		0		0		9		209		
05:15	26		177		0		0		26		177		
05:30	32		146		0		0		32		146		
05:45	46	113	131	663	0	*	0	*	46	113	131	663	
06:00	65		124		0		0		65		124		
06:15	100		100		0		0		100		100		
06:30	107		97		0		0		107		97		
06:45	96	368	95	416	0	*	0	*	96	368	95	416	
07:00	157		92		0		0		157		92		
07:15	168		74		0		0		168		74		
07:30	203		48		0		0		203		48		
07:45	169	697	57	271	0	*	0	*	169	697	57	271	
08:00	172		51		0		0		172		51		
08:15	151		51		0		0		151		51		
08:30	128		26		0		0		128		26		
08:45	114	565	40	168	0	*	0	*	114	565	40	168	
09:00	152		37		0		0		152		37		
09:15	162		33		0		0		162		33		
09:30	125		33		0		0		125		33		
09:45	121	560	19	122	0	*	0	*	121	560	19	122	
10:00	141		27		0		0		141		27		
10:15	164		14		0		0		164		14		
10:30	152		23		0		0		152		23		
10:45	148	605	16	80	0	*	0	*	148	605	16	80	
11:00	147		6		0		0		147		6		
11:15	147		5		0		0		147		5		
11:30	141		4		0		0		141		4		
11:45	135	570	7	22	0	*	0	*	135	570	7	22	
Totals	3594		5359		0		0		3594		5359		
Day Totals		8953				0				8953			
Split %	100.0%		100.0%		.0%		.0%						
Peak Hour	07:15		03:15						07:15		03:15		
Volume	712		851						712		851		
P.H.F.	.87		.90						.87		.90		

Florida Transportation Engineering, Inc.
8250 Pascal Drive
Punta Gorda, Florida 33950

CHARLOTTE
SR-776 BTW GILLOT BLVD & CR-771

Site Code : 010003111100
Start Date: 09/25/2001
File I.D. : D0925004
Page : 2

EAST BOUND

Begin Time	1 A.M.		1 P.M.		2 A.M.		2 P.M.		Combined A.M.		Combined P.M.		Wednesday
12:00 09/26	5		166		0		0		5		166		
12:15	6		173		0		0		6		173		
12:30	6		136		0		0		6		136		
12:45	9	26	155	630	0	*	0	*	9	26	155	630	
01:00	3		177		0		0		3		177		
01:15	10		169		0		0		10		169		
01:30	9		165		0		0		9		165		
01:45	1	23	167	678	0	*	0	*	1	23	167	678	
02:00	5		181		0		0		5		181		
02:15	3		166		0		0		3		166		
02:30	2		181		0		0		2		181		
02:45	7	17	185	713	0	*	0	*	7	17	185	713	
03:00	4		184		0		0		4		184		
03:15	2		211		0		0		2		211		
03:30	8		215		0		0		8		215		
03:45	6	20	202	812	0	*	0	*	6	20	202	812	
04:00	4		213		0		0		4		213		
04:15	3		220		0		0		3		220		
04:30	26		179		0		0		26		179		
04:45	10	43	152	764	0	*	0	*	10	43	152	764	
05:00	17		206		0		0		17		206		
05:15	30		153		0		0		30		153		
05:30	28		151		0		0		28		151		
05:45	47	122	123	633	0	*	0	*	47	122	123	633	
06:00	71		147		0		0		71		147		
06:15	86		134		0		0		86		134		
06:30	110		104		0		0		110		104		
06:45	114	381	83	468	0	*	0	*	114	381	83	468	
07:00	148		78		0		0		148		78		
07:15	191		68		0		0		191		68		
07:30	182		63		0		0		182		63		
07:45	164	685	40	249	0	*	0	*	164	685	40	249	
08:00	155		50		0		0		155		50		
08:15	162		37		0		0		162		37		
08:30	160		39		0		0		160		39		
08:45	126	603	30	156	0	*	0	*	126	603	30	156	
09:00	126		35		0		0		126		35		
09:15	138		30		0		0		138		30		
09:30	165		19		0		0		165		19		
09:45	157	586	33	117	0	*	0	*	157	586	33	117	
10:00	135		23		0		0		135		23		
10:15	169		17		0		0		169		17		
10:30	170		8		0		0		170		8		
10:45	152	626	16	64	0	*	0	*	152	626	16	64	
11:00	170		10		0		0		170		10		
11:15	151		6		0		0		151		6		
11:30	150		6		0		0		150		6		
11:45	163	634	4	26	0	*	0	*	163	634	4	26	
Totals	3766		5310		0		0		3766		5310		
Day Totals		9076				0				9076			
Split %	100.0%		100.0%		.0%		.0%						
Peak Hour	07:15		03:30						07:15		03:30		
Volume	692		850						692		850		
P.H.F.	.90		.96						.90		.96		

Florida Transportation Engineering, Inc.

CHARLOTTE
SR-776 BTW GILLOT RD & CR-771

8250 Pascal Drive
Punta Gorda, Florida 33950

Site Code : 010003511100
Start Date: 09/25/2001
File I.D. : D0925009

West Bound

Page : 1

Begin Time	1 A.M.		1 P.M.		2 A.M.		2 P.M.		Combined A.M.		Combined P.M.		Tuesday
12:00 09/25	8		148		0		0		8		148		
12:15	5		152		0		0		5		152		
12:30	8		139		0		0		8		139		
12:45	4	25	161	600	0	*	0	*	4	25	161	600	
01:00	7		161		0		0		7		161		
01:15	7		158		0		0		7		158		
01:30	1		137		0		0		1		137		
01:45	4	19	187	643	0	*	0	*	4	19	187	643	
02:00	6		152		0		0		6		152		
02:15	2		153		0		0		2		153		
02:30	0		150		0		0		0		150		
02:45	6	14	166	621	0	*	0	*	6	14	166	621	
03:00	5		159		0		0		5		159		
03:15	3		186		0		0		3		186		
03:30	2		155		0		0		2		155		
03:45	3	13	158	658	0	*	0	*	3	13	158	658	
04:00	5		151		0		0		5		151		
04:15	6		169		0		0		6		169		
04:30	11		177		0		0		11		177		
04:45	15	37	170	667	0	*	0	*	15	37	170	667	
05:00	14		157		0		0		14		157		
05:15	15		197		0		0		15		197		
05:30	42		159		0		0		42		159		
05:45	50	121	134	647	0	*	0	*	50	121	134	647	
06:00	69		123		0		0		69		123		
06:15	117		119		0		0		117		119		
06:30	124		102		0		0		124		102		
06:45	164	474	91	435	0	*	0	*	164	474	91	435	
07:00	168		90		0		0		168		90		
07:15	178		89		0		0		178		89		
07:30	203		88		0		0		203		88		
07:45	204	753	77	344	0	*	0	*	204	753	77	344	
08:00	183		77		0		0		183		77		
08:15	167		62		0		0		167		62		
08:30	131		55		0		0		131		55		
08:45	161	642	51	245	0	*	0	*	161	642	51	245	
09:00	120		48		0		0		120		48		
09:15	130		71		0		0		130		71		
09:30	116		51		0		0		116		51		
09:45	142	508	34	204	0	*	0	*	142	508	34	204	
10:00	99		30		0		0		99		30		
10:15	139		30		0		0		139		30		
10:30	126		24		0		0		126		24		
10:45	141	505	27	111	0	*	0	*	141	505	27	111	
11:00	140		12		0		0		140		12		
11:15	124		12		0		0		124		12		
11:30	151		12		0		0		151		12		
11:45	149	564	17	53	0	*	0	*	149	564	17	53	
Totals	3675		5228		0		0		3675		5228		
Day Totals		8903				0				8903			
Split %	100.0%		100.0%		.0%		.0%						

Peak Hour	07:15	04:30	07:15	04:30
Volume	768	701	768	701
P.H.F.	.94	.88	.94	.88

Florida Transportation Engineering, Inc.
8250 Pascal Drive
Punta Gorda, Florida 33950

CHARLOTTE
SR-776 BTW GILLOT RD & CR-771

Site Code : 010003511100
Start Date: 09/25/2001
File I.D. : D0925009

West Bound

Begin Time	1 A.M.		1 P.M.		2 A.M.		2 P.M.		Combined A.M.		Combined P.M.		Wednesday
12:00 09/26	12		159		0		0		12		159		
12:15	6		140		0		0		6		140		
12:30	12		158		0		0		12		158		
12:45	9	39	156	613	0	*	0	*	9	39	156	613	
01:00	6		144		0		0		6		144		
01:15	4		154		0		0		4		154		
01:30	2		157		0		0		2		157		
01:45	8	20	125	580	0	*	0	*	8	20	125	580	
02:00	5		148		0		0		5		148		
02:15	4		124		0		0		4		124		
02:30	1		184		0		0		1		184		
02:45	2	12	155	611	0	*	0	*	2	12	155	611	
03:00	3		159		0		0		3		159		
03:15	5		168		0		0		5		168		
03:30	4		179		0		0		4		179		
03:45	6	18	190	696	0	*	0	*	6	18	190	696	
04:00	1		156		0		0		1		156		
04:15	0		177		0		0		0		177		
04:30	12		148		0		0		12		148		
04:45	9	22	135	616	0	*	0	*	9	22	135	616	
05:00	18		169		0		0		18		169		
05:15	22		177		0		0		22		177		
05:30	33		147		0		0		33		147		
05:45	40	113	174	667	0	*	0	*	40	113	174	667	
06:00	68		112		0		0		68		112		
06:15	96		95		0		0		96		95		
06:30	145		86		0		0		145		86		
06:45	168	477	105	398	0	*	0	*	168	477	105	398	
07:00	169		72		0		0		169		72		
07:15	202		88		0		0		202		88		
07:30	183		63		0		0		183		63		
07:45	186	740	72	295	0	*	0	*	186	740	72	295	
08:00	199		77		0		0		199		77		
08:15	175		75		0		0		175		75		
08:30	162		78		0		0		162		78		
08:45	148	684	64	294	0	*	0	*	148	684	64	294	
09:00	135		54		0		0		135		54		
09:15	136		49		0		0		136		49		
09:30	165		47		0		0		165		47		
09:45	149	585	41	191	0	*	0	*	149	585	41	191	
10:00	121		33		0		0		121		33		
10:15	128		65		0		0		128		65		
10:30	130		23		0		0		130		23		
10:45	137	516	21	142	0	*	0	*	137	516	21	142	
11:00	146		16		0		0		146		16		
11:15	131		4		0		0		131		4		
11:30	151		11		0		0		151		11		
11:45	156	584	20	51	0	*	0	*	156	584	20	51	
Totals	3810		5154		0		0		3810		5154		
Day Totals		8964				0				8964			
Split %	100.0%		100.0%		.0%		.0%						
Peak Hour	07:15		03:30						07:15		03:30		
Volume	770		702						770		702		
P.H.F.	.95		.92						.95		.92		

Florida Transportation Engineering, Inc.
8250 Pascal Drive
Punta Gorda, Florida 33950

ARLOTTE
-776 BTW DAVID BLVD @ OCEANSPRAY BLVD

Site Code : 010004311100
Start Date: 09/18/2001
File I.D. : D0918001
Page : 1

East Bound

gin <------ 1 ------><------ 2 ------><------Combined ------> Tuesday

Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.	
12:00 09/18	5		114		0		0		5		114	
:15	7		126		0		0		7		126	
:30	7		102		0		0		7		102	
12:45	10	29	90	432	0	*	0	*	10	29	90	432
:00	2		111		0		0		2		111	
:15	6		132		0		0		6		132	
:30	2		111		0		0		2		111	
01:45	0	10	99	453	0	*	0	*	0	10	99	453
:00	3		125		0		0		3		125	
:15	1		111		0		0		1		111	
02:30	3		115		0		0		3		115	
02:45	1	8	107	458	0	*	0	*	1	8	107	458
:00	4		130		0		0		4		130	
:15	5		139		0		0		5		139	
03:30	7		126		0		0		7		126	
:45	6	22	160	555	0	*	0	*	6	22	160	555
:00	8		151		0		0		8		151	
:15	2		148		0		0		2		148	
04:30	4		121		0		0		4		121	
:45	11	25	152	572	0	*	0	*	11	25	152	572
:00	12		200		0		0		12		200	
05:15	25		121		0		0		25		121	
05:30	29		119		0		0		29		119	
:45	34	100	104	544	0	*	0	*	34	100	104	544
:00	55		121		0		0		55		121	
06:15	57		78		0		0		57		78	
06:30	58		82		0		0		58		82	
:45	86	256	88	369	0	*	0	*	86	256	88	369
:00	105		78		0		0		105		78	
07:15	79		63		0		0		79		63	
:30	99		44		0		0		99		44	
:45	97	380	63	248	0	*	0	*	97	380	63	248
08:00	89		49		0		0		89		49	
08:15	99		61		0		0		99		61	
:30	92		54		0		0		92		54	
:45	97	377	29	193	0	*	0	*	97	377	29	193
09:00	78		33		0		0		78		33	
09:15	86		44		0		0		86		44	
:30	86		31		0		0		86		31	
:45	85	335	38	146	0	*	0	*	85	335	38	146
10:00	106		28		0		0		106		28	
10:15	92		16		0		0		92		16	
10:30	112		21		0		0		112		21	
10:45	112	422	12	77	0	*	0	*	112	422	12	77
11:00	92		16		0		0		92		16	
11:15	90		10		0		0		90		10	
11:30	88		5		0		0		88		5	
11:45	108	378	11	42	0	*	0	*	108	378	11	42
Totals	2342		4089		0		0		2342		4089	
Day Totals		6431				0				6431		
Split %	100.0%		100.0%		.0%		.0%					

Peak Hour	10:00		04:15				10:00	04:15
Volume	422		621				422	621
P.H.F.	.94		.77				.94	.77

Florida Transportation Engineering, Inc.

HARLOTTE
R-776 BTW DAVID BLVD @ OCEANSPRAY BLVD

8250 Pascal Drive
Punta Gorda, Florida 33950

Site Code : 010004711100
Start Date: 09/18/2001
File I.D. : D0918004

West Bound

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Begin Time	<------ 1 ------> A.M.		P.M.		<------ 2 ------> A.M.		P.M.		<------Combined------> A.M.		P.M.		Tuesday
12:00 09/18	5		88		0		0		5		88		
12:15	5		100		0		0		5		100		
12:30	3		102		0		0		3		102		
12:45	3	16	109	399	0	*	0	*	3	16	109	399	
01:00	6		95		0		0		6		95		
01:15	5		107		0		0		5		107		
01:30	4		94		0		0		4		94		
01:45	6	21	132	428	0	*	0	*	6	21	132	428	
02:00	3		112		0		0		3		112		
02:15	2		105		0		0		2		105		
02:30	0		104		0		0		0		104		
02:45	2	7	126	447	0	*	0	*	2	7	126	447	
03:00	6		108		0		0		6		108		
03:15	2		106		0		0		2		106		
03:30	5		133		0		0		5		133		
03:45	3	16	121	468	0	*	0	*	3	16	121	468	
04:00	4		100		0		0		4		100		
04:15	9		134		0		0		9		134		
04:30	7		117		0		0		7		117		
04:45	10	30	116	467	0	*	0	*	10	30	116	467	
05:00	7		120		0		0		7		120		
05:15	14		117		0		0		14		117		
05:30	31		122		0		0		31		122		
05:45	29	81	110	469	0	*	0	*	29	81	110	469	
06:00	41		88		0		0		41		88		
06:15	53		105		0		0		53		105		
06:30	90		68		0		0		90		68		
06:45	90	274	76	337	0	*	0	*	90	274	76	337	
07:00	105		62		0		0		105		62		
07:15	128		59		0		0		128		59		
07:30	158		69		0		0		158		69		
07:45	162	553	64	254	0	*	0	*	162	553	64	254	
08:00	119		54		0		0		119		54		
08:15	111		53		0		0		111		53		
08:30	134		40		0		0		134		40		
08:45	103	467	37	184	0	*	0	*	103	467	37	184	
09:00	106		42		0		0		106		42		
09:15	104		41		0		0		104		41		
09:30	99		31		0		0		99		31		
09:45	94	403	29	143	0	*	0	*	94	403	29	143	
10:00	98		25		0		0		98		25		
10:15	103		17		0		0		103		17		
10:30	109		23		0		0		109		23		
10:45	99	409	23	88	0	*	0	*	99	409	23	88	
11:00	122		17		0		0		122		17		
11:15	90		19		0		0		90		19		
11:30	107		13		0		0		107		13		
11:45	115	434	2	51	0	*	0	*	115	434	2	51	
Totals	2711		3735		0		0		2711		3735		
Day Totals		6446				0				6446			
Split %	100.0%		100.0%		.0%		.0%						
Peak Hour	07:15		03:30						07:15		03:30		
Volume	567		488						567		488		
P.H.F.	.87		.91						.87		.91		

Florida Transportation Engineering, Inc.

CHARLOTTE
SR-776 BTW DAVID BLVD @ OCRANSPRAY BLVD

8250 Pascal Drive
Punta Gorda, Florida 33950

Site Code : 010004311100
Start Date: 09/18/2001
File I.D. : D0918001

East Bound

Begin Time	1 A.M.		1 P.M.		2 A.M.		2 P.M.		Combined A.M.		Combined P.M.		Wednesday
12:00 09/19	9		116		0		0		9		116		
12:15	4		98		0		0		4		98		
12:30	7		104		0		0		7		104		
12:45	7	27	106	424	0	*	0	*	7	27	106	424	
01:00	7		116		0		0		7		116		
01:15	4		140		0		0		4		140		
01:30	5		116		0		0		5		116		
01:45	4	20	135	507	0	*	0	*	4	20	135	507	
02:00	2		129		0		0		2		129		
02:15	5		103		0		0		5		103		
02:30	2		103		0		0		2		103		
02:45	7	16	106	441	0	*	0	*	7	16	106	441	
03:00	1		136		0		0		1		136		
03:15	3		125		0		0		3		125		
03:30	3		134		0		0		3		134		
03:45	3	10	143	538	0	*	0	*	3	10	143	538	
04:00	2		127		0		0		2		127		
04:15	1		133		0		0		1		133		
04:30	14		150		0		0		14		150		
04:45	6	23	130	540	0	*	0	*	6	23	130	540	
05:00	10		137		0		0		10		137		
05:15	24		141		0		0		24		141		
05:30	18		122		0		0		18		122		
05:45	23	75	103	503	0	*	0	*	23	75	103	503	
06:00	50		102		0		0		50		102		
06:15	58		87		0		0		58		87		
06:30	71		84		0		0		71		84		
06:45	72	251	51	324	0	*	0	*	72	251	51	324	
07:00	102		89		0		0		102		89		
07:15	102		53		0		0		102		53		
07:30	96		67		0		0		96		67		
07:45	75	375	61	270	0	*	0	*	75	375	61	270	
08:00	101		54		0		0		101		54		
08:15	78		59		0		0		78		59		
08:30	80		57		0		0		80		57		
08:45	83	342	38	208	0	*	0	*	83	342	38	208	
09:00	78		46		0		0		78		46		
09:15	73		35		0		0		73		35		
09:30	91		35		0		0		91		35		
09:45	89	331	29	145	0	*	0	*	89	331	29	145	
10:00	85		25		0		0		85		25		
10:15	93		19		0		0		93		19		
10:30	96		20		0		0		96		20		
10:45	80	354	11	75	0	*	0	*	80	354	11	75	
11:00	102		19		0		0		102		19		
11:15	104		13		0		0		104		13		
11:30	104		12		0		0		104		12		
11:45	117	427	6	50	0	*	0	*	117	427	6	50	
Totals	2251		4025		0		0		2251		4025		
Day Totals		6276				0				6276			
Split %	100.0%		100.0%		.0%		.0%						
Peak Hour	11:00		04:30						11:00		04:30		
Volume	427		558						427		558		
P.H.F.	.91		.93						.91		.93		

Florida Transportation Engineering, Inc.

CHARLOTTE
SR-776 BTW DAVID BLVD @ OCEANSPRAY BLVD

8250 Pascal Drive
Punta Gorda, Florida 33950

Site Code : 010004711100
Start Date: 09/18/2001
File I.D. : D0918004

West Bound

Begin Time	1 A.M.		1 P.M.		2 A.M.		2 P.M.		Combined A.M.		Combined P.M.		Wednesday
12:00 09/19	4		105		0		0		4		105		
12:15	4		102		0		0		4		102		
12:30	8		101		0		0		8		101		
12:45	5	21	96	404	0	*	0	*	5	21	96	404	
01:00	9		84		0		0		9		84		
01:15	5		88		0		0		5		88		
01:30	4		103		0		0		4		103		
01:45	6	24	111	386	0	*	0	*	6	24	111	386	
02:00	3		117		0		0		3		117		
02:15	3		108		0		0		3		108		
02:30	3		83		0		0		3		83		
02:45	4	13	119	427	0	*	0	*	4	13	119	427	
03:00	2		117		0		0		2		117		
03:15	2		109		0		0		2		109		
03:30	3		111		0		0		3		111		
03:45	4	11	125	462	0	*	0	*	4	11	125	462	
04:00	8		103		0		0		8		103		
04:15	6		112		0		0		6		112		
04:30	8		123		0		0		8		123		
04:45	11	33	117	455	0	*	0	*	11	33	117	455	
05:00	10		130		0		0		10		130		
05:15	19		122		0		0		19		122		
05:30	17		143		0		0		17		143		
05:45	22	68	85	480	0	*	0	*	22	68	85	480	
06:00	30		93		0		0		30		93		
06:15	52		87		0		0		52		87		
06:30	86		92		0		0		86		92		
06:45	102	270	85	357	0	*	0	*	102	270	85	357	
07:00	99		56		0		0		99		56		
07:15	117		66		0		0		117		66		
07:30	137		59		0		0		137		59		
07:45	167	520	65	246	0	*	0	*	167	520	65	246	
08:00	122		45		0		0		122		45		
08:15	120		56		0		0		120		56		
08:30	117		48		0		0		117		48		
08:45	115	474	43	192	0	*	0	*	115	474	43	192	
09:00	112		50		0		0		112		50		
09:15	78		45		0		0		78		45		
09:30	117		38		0		0		117		38		
09:45	90	397	35	168	0	*	0	*	90	397	35	168	
10:00	88		24		0		0		88		24		
10:15	93		30		0		0		93		30		
10:30	126		19		0		0		126		19		
10:45	100	407	23	96	0	*	0	*	100	407	23	96	
11:00	98		21		0		0		98		21		
11:15	98		8		0		0		98		8		
11:30	108		7		0		0		108		7		
11:45	98	402	10	46	0	*	0	*	98	402	10	46	
Totals	2640		3719		0		0		2640		3719		
Day Totals		6359				0				6359			
Split %	100.0%		100.0%		.0%		.0%						
Peak Hour	07:30		04:45						07:30		04:45		
Volume	546		512						546		512		
P.H.F.	.81		.89						.81		.89		

Florida Transportation Engineering, Inc.

8250 Pascal Drive

Punta Gorda, Florida 33950

CHARLOTTE

R-776 BTW SAN CASA RD & PINE ST

Site Code : 010005711100

Start Date: 09/25/2001

File I.D. : D0925006

West Bound

Begin Time	1 <------ A.M.		1 ------> P.M.		2 <------ A.M.		2 ------> P.M.		Combined <------ A.M.		Combined ------> P.M.		Tuesday
12:00 09/25	9		252		0		0		9		252		
12:15	11		228		0		0		11		228		
12:30	7		226		0		0		7		226		
12:45	6	33	264	970	0	*	0	*	6	33	264	970	
01:00	5		237		0		0		5		237		
01:15	17		294		0		0		17		294		
01:30	7		239		0		0		7		239		
01:45	3	32	239	1009	0	*	0	*	3	32	239	1009	
02:00	4		294		0		0		4		294		
02:15	8		266		0		0		8		266		
02:30	6		283		0		0		6		283		
02:45	7	25	249	1092	0	*	0	*	7	25	249	1092	
03:00	5		270		0		0		5		270		
03:15	11		212		0		0		11		212		
03:30	13		243		0		0		13		243		
03:45	4	33	291	1016	0	*	0	*	4	33	291	1016	
04:00	23		248		0		0		23		248		
04:15	17		260		0		0		17		260		
04:30	24		238		0		0		24		238		
04:45	24	88	233	979	0	*	0	*	24	88	233	979	
05:00	26		255		0		0		26		255		
05:15	43		239		0		0		43		239		
05:30	68		245		0		0		68		245		
05:45	80	217	229	968	0	*	0	*	80	217	229	968	
06:00	104		198		0		0		104		198		
06:15	131		189		0		0		131		189		
06:30	189		170		0		0		189		170		
06:45	215	639	194	751	0	*	0	*	215	639	194	751	
07:00	244		143		0		0		244		143		
07:15	310		151		0		0		310		151		
07:30	389		110		0		0		389		110		
07:45	425	1368	124	528	0	*	0	*	425	1368	124	528	
08:00	363		118		0		0		363		118		
08:15	331		99		0		0		331		99		
08:30	333		87		0		0		333		87		
08:45	291	1318	58	362	0	*	0	*	291	1318	58	362	
09:00	308		55		0		0		308		55		
09:15	251		87		0		0		251		87		
09:30	206		63		0		0		206		63		
09:45	286	1051	42	247	0	*	0	*	286	1051	42	247	
10:00	250		42		0		0		250		42		
10:15	258		37		0		0		258		37		
10:30	291		34		0		0		291		34		
10:45	291	1090	25	138	0	*	0	*	291	1090	25	138	
11:00	261		27		0		0		261		27		
11:15	248		17		0		0		248		17		
11:30	264		20		0		0		264		20		
11:45	267	1040	13	77	0	*	0	*	267	1040	13	77	
Totals	6934		8137		0		0		6934		8137		
Day Totals		15071				0				15071			
Split %	100.0%		100.0%		.0%		.0%						

Peak Hour	07:30		02:00				07:30	02:00
Volume	1508		1092				1508	1092
P.H.F.	.88		.92				.88	.92

Florida Transportation Engineering, Inc.
8250 Pascal Drive
Punta Gorda, Florida 33950

CHARLOTTE
SR-776 BTW SAN CASA RD & PINE ST

Site Code : 010005711100
Start Date: 09/25/2001
File I.D. : D0925006

West Bound

Begin Time	1 A.M.		1 P.M.		2 A.M.		2 P.M.		Combined A.M.		Combined P.M.		Wednesday
12:00 09/26	14		279		0		0		14		279		
12:15	11		292		0		0		11		292		
12:30	8		225		0		0		8		225		
12:45	5	38	272	1068	0	*	0	*	5	38	272	1068	
01:00	3		272		0		0		3		272		
01:15	4		270		0		0		4		270		
01:30	9		200		0		0		9		200		
01:45	9	25	248	990	0	*	0	*	9	25	248	990	
02:00	9		265		0		0		9		265		
02:15	8		249		0		0		8		249		
02:30	3		328		0		0		3		328		
02:45	3	23	265	1107	0	*	0	*	3	23	265	1107	
03:00	6		234		0		0		6		234		
03:15	12		260		0		0		12		260		
03:30	11		279		0		0		11		279		
03:45	8	37	288	1061	0	*	0	*	8	37	288	1061	
04:00	17		255		0		0		17		255		
04:15	18		261		0		0		18		261		
04:30	20		213		0		0		20		213		
04:45	19	74	242	971	0	*	0	*	19	74	242	971	
05:00	34		259		0		0		34		259		
05:15	42		240		0		0		42		240		
05:30	69		209		0		0		69		209		
05:45	90	235	211	919	0	*	0	*	90	235	211	919	
06:00	115		198		0		0		115		198		
06:15	124		191		0		0		124		191		
06:30	172		190		0		0		172		190		
06:45	211	622	167	746	0	*	0	*	211	622	167	746	
07:00	252		134		0		0		252		134		
07:15	310		137		0		0		310		137		
07:30	385		99		0		0		385		99		
07:45	419	1366	94	464	0	*	0	*	419	1366	94	464	
08:00	346		102		0		0		346		102		
08:15	325		80		0		0		325		80		
08:30	348		83		0		0		348		83		
08:45	286	1305	77	342	0	*	0	*	286	1305	77	342	
09:00	277		65		0		0		277		65		
09:15	274		52		0		0		274		52		
09:30	275		40		0		0		275		40		
09:45	266	1092	34	191	0	*	0	*	266	1092	34	191	
10:00	285		53		0		0		285		53		
10:15	247		36		0		0		247		36		
10:30	266		59		0		0		266		59		
10:45	276	1074	19	167	0	*	0	*	276	1074	19	167	
11:00	270		25		0		0		270		25		
11:15	241		19		0		0		241		19		
11:30	276		14		0		0		276		14		
11:45	238	1025	15	73	0	*	0	*	238	1025	15	73	
Totals	6916		8099		0		0		6916		8099		
Day Totals		15015				0				15015			
Split %	100.0%		100.0%		.0%		.0%						
Peak Hour	07:30		02:00						07:30		02:00		
Volume	1475		1107						1475		1107		
P.H.F.	.88		.84						.88		.84		

Florida Transportation Engineering, Inc.
8250 Pascal Drive
Punta Gorda, Florida 33950

CHARLOTTE
R-776 BTW SAN CASA RD & PINE ST

Site Code : 010005311100
Start Date: 09/25/2001
File I.D. : D0925001

East Bound

Begin Time	1 A.M.		1 P.M.		2 A.M.		2 P.M.		Combined A.M.		Combined P.M.		Tuesday
12:00 09/25	38		273		0		0		38		273		
12:15	13		289		0		0		13		289		
12:30	12		289		0		0		12		289		
12:45	15	78	264	1115	0	*	0	*	15	78	264	1115	
01:00	8		279		0		0		8		279		
01:15	11		276		0		0		11		276		
01:30	11		260		0		0		11		260		
01:45	3	33	286	1101	0	*	0	*	3	33	286	1101	
02:00	2		264		0		0		2		264		
02:15	5		311		0		0		5		311		
02:30	10		280		0		0		10		280		
02:45	8	25	270	1125	0	*	0	*	8	25	270	1125	
03:00	5		317		0		0		5		317		
03:15	8		347		0		0		8		347		
03:30	7		303		0		0		7		303		
03:45	6	26	314	1281	0	*	0	*	6	26	314	1281	
04:00	11		342		0		0		11		342		
04:15	6		302		0		0		6		302		
04:30	10		321		0		0		10		321		
04:45	13	40	351	1316	0	*	0	*	13	40	351	1316	
05:00	6		331		0		0		6		331		
05:15	13		354		0		0		13		354		
05:30	27		332		0		0		27		332		
05:45	34	80	324	1341	0	*	0	*	34	80	324	1341	
06:00	41		264		0		0		41		264		
06:15	59		232		0		0		59		232		
06:30	108		229		0		0		108		229		
06:45	93	301	227	952	0	*	0	*	93	301	227	952	
07:00	158		194		0		0		158		194		
07:15	119		187		0		0		119		187		
07:30	174		185		0		0		174		185		
07:45	198	649	181	747	0	*	0	*	198	649	181	747	
08:00	208		163		0		0		208		163		
08:15	210		175		0		0		210		175		
08:30	214		128		0		0		214		128		
08:45	198	830	121	587	0	*	0	*	198	830	121	587	
09:00	175		109		0		0		175		109		
09:15	188		92		0		0		188		92		
09:30	205		97		0		0		205		97		
09:45	230	798	69	367	0	*	0	*	230	798	69	367	
10:00	209		81		0		0		209		81		
10:15	247		69		0		0		247		69		
10:30	251		61		0		0		251		61		
10:45	265	972	51	262	0	*	0	*	265	972	51	262	
11:00	227		34		0		0		227		34		
11:15	284		36		0		0		284		36		
11:30	306		36		0		0		306		36		
11:45	286	1103	28	134	0	*	0	*	286	1103	28	134	
Totals	4935		10328		0		0		4935		10328		
Day Totals		15263				0				15263			
Split %	100.0%		100.0%		.0%		.0%						
Peak Hour	11:00		04:45						11:00		04:45		
Volume	1103		1368						1103		1368		
P.H.F.	.90		.96						.90		.96		

Florida Transportation Engineering, Inc.
8250 Pascal Drive
Punta Gorda, Florida 33950

CHARLOTTE
SR-776 BTW SAN CASA RD & PINE ST

Site Code : 010005311100
Start Date: 09/25/2001
File I.D. : D0925001

East Bound

Begin Time	1 A.M.		1 P.M.		2 A.M.		2 P.M.		Combined A.M.		Combined P.M.		Wednesday
12:00 09/26	20		290		0		0		20		290		
12:15	13		293		0		0		13		293		
12:30	21		284		0		0		21		284		
12:45	10	64	294	1161	0	*	0	*	10	64	294	1161	
01:00	10		270		0		0		10		270		
01:15	8		275		0		0		8		275		
01:30	14		288		0		0		14		288		
01:45	4	36	255	1088	0	*	0	*	4	36	255	1088	
02:00	4		266		0		0		4		266		
02:15	6		300		0		0		6		300		
02:30	14		271		0		0		14		271		
02:45	7	31	320	1157	0	*	0	*	7	31	320	1157	
03:00	6		328		0		0		6		328		
03:15	5		368		0		0		5		368		
03:30	14		351		0		0		14		351		
03:45	9	34	315	1362	0	*	0	*	9	34	315	1362	
04:00	6		331		0		0		6		331		
04:15	9		355		0		0		9		355		
04:30	6		307		0		0		6		307		
04:45	8	29	321	1314	0	*	0	*	8	29	321	1314	
05:00	12		335		0		0		12		335		
05:15	15		362		0		0		15		362		
05:30	17		320		0		0		17		320		
05:45	34	78	305	1322	0	*	0	*	34	78	305	1322	
06:00	48		294		0		0		48		294		
06:15	54		219		0		0		54		219		
06:30	103		211		0		0		103		211		
06:45	104	309	220	944	0	*	0	*	104	309	220	944	
07:00	140		177		0		0		140		177		
07:15	140		202		0		0		140		202		
07:30	171		152		0		0		171		152		
07:45	184	635	141	672	0	*	0	*	184	635	141	672	
08:00	223		124		0		0		223		124		
08:15	236		134		0		0		236		134		
08:30	216		135		0		0		216		135		
08:45	212	887	142	535	0	*	0	*	212	887	142	535	
09:00	197		125		0		0		197		125		
09:15	192		102		0		0		192		102		
09:30	200		83		0		0		200		83		
09:45	217	806	57	367	0	*	0	*	217	806	57	367	
10:00	233		63		0		0		233		63		
10:15	270		72		0		0		270		72		
10:30	262		49		0		0		262		49		
10:45	247	1012	38	222	0	*	0	*	247	1012	38	222	
11:00	272		68		0		0		272		68		
11:15	241		39		0		0		241		39		
11:30	234		31		0		0		234		31		
11:45	275	1022	29	167	0	*	0	*	275	1022	29	167	
Totals	4943		10311		0		0		4943		10311		
Day Totals		15254				0				15254			
Split %	100.0%		100.0%		.0%		.0%						
Peak Hour	10:15		02:45						10:15		02:45		
Volume	1051		1367						1051		1367		
P.H.F.	.96		.92						.96		.92		

Florida Transportation Engineering, Inc.
8250 Pascal Drive
Punta Gorda, Florida 33950

CHARLOTTE
TOLEDO BLADE BTW LAKEVIEW @ PELLAM

Site Code : 010001311100
Start Date: 09/18/2001
File I.D. : D0918002
Page : 1

East Bound

Begin Time	1 A.M.		1 P.M.		2 A.M.		2 P.M.		Combined A.M.		Combined P.M.		Tuesday
12:00 09/18	9		101		0		0		9		101		
12:15	11		108		0		0		11		108		
12:30	2		131		0		0		2		131		
12:45	5	27	118	458	0	*	0	*	5	27	118	458	
01:00	2		116		0		0		2		116		
01:15	6		142		0		0		6		142		
01:30	2		114		0		0		2		114		
01:45	2	12	95	467	0	*	0	*	2	12	95	467	
02:00	2		102		0		0		2		102		
02:15	4		82		0		0		4		82		
02:30	2		102		0		0		2		102		
02:45	1	9	123	409	0	*	0	*	1	9	123	409	
03:00	2		181		0		0		2		181		
03:15	4		148		0		0		4		148		
03:30	2		143		0		0		2		143		
03:45	4	12	132	604	0	*	0	*	4	12	132	604	
04:00	0		150		0		0		0		150		
04:15	1		131		0		0		1		131		
04:30	5		151		0		0		5		151		
04:45	10	16	134	566	0	*	0	*	10	16	134	566	
05:00	7		158		0		0		7		158		
05:15	12		132		0		0		12		132		
05:30	15		136		0		0		15		136		
05:45	21	55	127	553	0	*	0	*	21	55	127	553	
06:00	18		92		0		0		18		92		
06:15	26		108		0		0		26		108		
06:30	49		115		0		0		49		115		
06:45	62	155	87	402	0	*	0	*	62	155	87	402	
07:00	81		81		0		0		81		81		
07:15	116		64		0		0		116		64		
07:30	120		86		0		0		120		86		
07:45	149	466	67	298	0	*	0	*	149	466	67	298	
08:00	131		66		0		0		131		66		
08:15	140		78		0		0		140		78		
08:30	89		69		0		0		89		69		
08:45	105	465	90	303	0	*	0	*	105	465	90	303	
09:00	110		63		0		0		110		63		
09:15	85		31		0		0		85		31		
09:30	86		33		0		0		86		33		
09:45	94	375	24	151	0	*	0	*	94	375	24	151	
10:00	87		19		0		0		87		19		
10:15	78		30		0		0		78		30		
10:30	91		13		0		0		91		13		
10:45	135	391	13	75	0	*	0	*	135	391	13	75	
11:00	106		19		0		0		106		19		
11:15	102		10		0		0		102		10		
11:30	108		9		0		0		108		9		
11:45	87	403	12	50	0	*	0	*	87	403	12	50	
Totals	2386		4336		0		0		2386		4336		
Day Totals		6722				0				6722			
Split %	100.0%		100.0%		.0%		.0%						

Peak Hour	07:30	03:00	07:30	03:00
Volume	540	604	540	604
P.H.F.	.90	.83	.90	.83

Florida Transportation Engineering, Inc.
8250 Pascal Drive
Punta Gorda, Florida 33950

CHARLOTTE
TOLEDO BLADE BTW LAKEVIEW @ PELLAN

Site Code : 010001311100
Start Date: 09/18/2001
File I.D. : D0918002

East Bound

Begin Time	1 A.M.		1 P.M.		2 A.M.		2 P.M.		Combined A.M.		Combined P.M.		Wednesday
12:00 09/19	5		89		0		0		5		89		
12:15	3		99		0		0		3		99		
12:30	5		103		0		0		5		103		
12:45	6	19	115	406	0	*	0	*	6	19	115	406	
01:00	5		126		0		0		5		126		
01:15	3		149		0		0		3		149		
01:30	2		114		0		0		2		114		
01:45	1	11	114	503	0	*	0	*	1	11	114	503	
02:00	4		82		0		0		4		82		
02:15	4		94		0		0		4		94		
02:30	4		90		0		0		4		90		
02:45	3	15	126	392	0	*	0	*	3	15	126	392	
03:00	2		205		0		0		2		205		
03:15	3		145		0		0		3		145		
03:30	2		156		0		0		2		156		
03:45	5	12	167	673	0	*	0	*	5	12	167	673	
04:00	1		161		0		0		1		161		
04:15	5		119		0		0		5		119		
04:30	3		143		0		0		3		143		
04:45	9	18	128	551	0	*	0	*	9	18	128	551	
05:00	4		146		0		0		4		146		
05:15	8		117		0		0		8		117		
05:30	12		98		0		0		12		98		
05:45	27	51	121	482	0	*	0	*	27	51	121	482	
06:00	15		80		0		0		15		80		
06:15	34		145		0		0		34		145		
06:30	45		83		0		0		45		83		
06:45	68	162	100	408	0	*	0	*	68	162	100	408	
07:00	87		116		0		0		87		116		
07:15	111		66		0		0		111		66		
07:30	156		61		0		0		156		61		
07:45	136	490	73	316	0	*	0	*	136	490	73	316	
08:00	122		96		0		0		122		96		
08:15	144		73		0		0		144		73		
08:30	101		75		0		0		101		75		
08:45	111	478	68	312	0	*	0	*	111	478	68	312	
09:00	81		65		0		0		81		65		
09:15	84		59		0		0		84		59		
09:30	93		39		0		0		93		39		
09:45	99	357	32	195	0	*	0	*	99	357	32	195	
10:00	98		27		0		0		98		27		
10:15	95		33		0		0		95		33		
10:30	93		22		0		0		93		22		
10:45	110	396	15	97	0	*	0	*	110	396	15	97	
11:00	99		26		0		0		99		26		
11:15	126		11		0		0		126		11		
11:30	104		15		0		0		104		15		
11:45	95	424	9	61	0	*	0	*	95	424	9	61	
Totals	2433		4396		0		0		2433		4396		
Day Totals		6829				0				6829			
Split %	100.0%		100.0%		.0%		.0%						
Peak Hour	07:30		03:00						07:30		03:00		
Volume	558		673						558		673		
P.H.F.	.89		.82						.89		.82		

Florida Transportation Engineering, Inc.
8250 Pascal Drive
Punta Gorda, Florida 33950

CHARLOTTE
TOLEDO BLADE BTW LAKEVIEW @ PELLAM

Site Code : 010001711100
Start Date: 09/18/2001
File I.D. : D0901803

West Bound

Begin Time	<------ 1 A.M.		1 P.M.		------><------ 2 A.M.		2 P.M.		------><------Combined A.M.		Combined P.M.		------> Tuesday
12:00 09/18	8		118		0		0		8		118		
12:15	8		123		0		0		8		123		
12:30	7		109		0		0		7		109		
12:45	8	31	125	475	0	*	0	*	8	31	125	475	
01:00	7		113		0		0		7		113		
01:15	3		119		0		0		3		119		
01:30	7		104		0		0		7		104		
01:45	4	21	120	456	0	*	0	*	4	21	120	456	
02:00	2		127		0		0		2		127		
02:15	6		138		0		0		6		138		
02:30	2		122		0		0		2		122		
02:45	2	12	167	554	0	*	0	*	2	12	167	554	
03:00	2		155		0		0		2		155		
03:15	4		125		0		0		4		125		
03:30	1		141		0		0		1		141		
03:45	2	9	106	527	0	*	0	*	2	9	106	527	
04:00	2		132		0		0		2		132		
04:15	6		122		0		0		6		122		
04:30	4		146		0		0		4		146		
04:45	3	15	154	554	0	*	0	*	3	15	154	554	
05:00	2		131		0		0		2		131		
05:15	7		153		0		0		7		153		
05:30	10		150		0		0		10		150		
05:45	12	31	142	576	0	*	0	*	12	31	142	576	
06:00	19		136		0		0		19		136		
06:15	25		119		0		0		25		119		
06:30	52		114		0		0		52		114		
06:45	59	155	106	475	0	*	0	*	59	155	106	475	
07:00	70		96		0		0		70		96		
07:15	118		92		0		0		118		92		
07:30	169		96		0		0		169		96		
07:45	187	544	96	380	0	*	0	*	187	544	96	380	
08:00	229		86		0		0		229		86		
08:15	197		70		0		0		197		70		
08:30	104		69		0		0		104		69		
08:45	122	652	49	274	0	*	0	*	122	652	49	274	
09:00	105		40		0		0		105		40		
09:15	76		48		0		0		76		48		
09:30	94		39		0		0		94		39		
09:45	98	373	35	162	0	*	0	*	98	373	35	162	
10:00	84		31		0		0		84		31		
10:15	108		22		0		0		108		22		
10:30	97		22		0		0		97		22		
10:45	106	395	20	95	0	*	0	*	106	395	20	95	
11:00	110		20		0		0		110		20		
11:15	103		20		0		0		103		20		
11:30	120		13		0		0		120		13		
11:45	103	436	15	68	0	*	0	*	103	436	15	68	
Totals	2674		4596		0		0		2674		4596		
Day Totals		7270				0				7270			
Split %	100.0%		100.0%		.0%		.0%						
Peak Hour	07:30		02:45						07:30		02:45		
Volume	782		588						782		588		
P.H.F.	.85		.88						.85		.88		

Florida Transportation Engineering, Inc.
8250 Pascal Drive
Punta Gorda, Florida 33950

CHARLOTTE
TOLEDO BLADE BTW LAKEVIEW @ PELLAM

Site Code : 010001711100
Start Date: 09/18/2001
File I.D. : D0901803

West Bound

Begin Time	1 A.M.		1 P.M.		2 A.M.		2 P.M.		Combined A.M.		Combined P.M.		Wednesday
12:00 09/19	12		123		0		0		12		123		
12:15	7		127		0		0		7		127		
12:30	11		115		0		0		11		115		
12:45	3	33	115	480	0	*	0	*	3	33	115	480	
01:00	7		124		0		0		7		124		
01:15	4		106		0		0		4		106		
01:30	2		107		0		0		2		107		
01:45	1	14	118	455	0	*	0	*	1	14	118	455	
02:00	6		154		0		0		6		154		
02:15	3		129		0		0		3		129		
02:30	4		112		0		0		4		112		
02:45	1	14	152	547	0	*	0	*	1	14	152	547	
03:00	0		138		0		0		0		138		
03:15	2		128		0		0		2		128		
03:30	5		129		0		0		5		129		
03:45	2	9	148	543	0	*	0	*	2	9	148	543	
04:00	2		141		0		0		2		141		
04:15	4		144		0		0		4		144		
04:30	6		153		0		0		6		153		
04:45	2	14	132	570	0	*	0	*	2	14	132	570	
05:00	1		142		0		0		1		142		
05:15	7		162		0		0		7		162		
05:30	7		129		0		0		7		129		
05:45	17	32	143	576	0	*	0	*	17	32	143	576	
06:00	18		130		0		0		18		130		
06:15	29		113		0		0		29		113		
06:30	36		108		0		0		36		108		
06:45	49	132	118	469	0	*	0	*	49	132	118	469	
07:00	75		104		0		0		75		104		
07:15	115		78		0		0		115		78		
07:30	180		79		0		0		180		79		
07:45	201	571	97	358	0	*	0	*	201	571	97	358	
08:00	238		106		0		0		238		106		
08:15	193		81		0		0		193		81		
08:30	110		82		0		0		110		82		
08:45	111	652	53	322	0	*	0	*	111	652	53	322	
09:00	92		44		0		0		92		44		
09:15	77		65		0		0		77		65		
09:30	86		40		0		0		86		40		
09:45	102	357	42	191	0	*	0	*	102	357	42	191	
10:00	93		34		0		0		93		34		
10:15	94		28		0		0		94		28		
10:30	92		25		0		0		92		25		
10:45	103	382	34	121	0	*	0	*	103	382	34	121	
11:00	107		21		0		0		107		21		
11:15	104		16		0		0		104		16		
11:30	102		20		0		0		102		20		
11:45	143	456	9	66	0	*	0	*	143	456	9	66	
Totals	2666		4698		0		0		2666		4698		
Day Totals		7364				0				7364			
Split %	100.0%		100.0%		.0%		.0%						
Peak Hour	07:30		04:30						07:30		04:30		
Volume	812		589						812		589		
P.H.F.	.85		.90						.85		.90		

Florida Transportation Engineering, Inc.
8250 Pascal Drive
Punta Gorda, Florida 33950

CHARLOTTE
RIVERWOOD DR (PROJECT ENTRANCE EAST)

Site Code : 010006311100
Start Date: 09/25/2001
File I.D. : D0925010
Page : 1

SOUTH BOUND

Begin Time	1 A.M.		1 P.M.		2 A.M.		2 P.M.		Combined A.M.		Combined P.M.		Tuesday
12:00 09/25	1		12		0		0		1		12		
12:15	1		15		0		0		1		15		
12:30	0		9		0		0		0		9		
12:45	0	2	15	51	0	*	0	*	0	2	15	51	
01:00	0		8		0		0		0		8		
01:15	0		10		0		0		0		10		
01:30	0		13		0		0		0		13		
01:45	1	1	9	40	0	*	0	*	1	1	9	40	
02:00	0		9		0		0		0		9		
02:15	0		9		0		0		0		9		
02:30	0		10		0		0		0		10		
02:45	0	*	22	50	0	*	0	*	0	*	22	50	
03:00	0		18		0		0		0		18		
03:15	0		9		0		0		0		9		
03:30	0		17		0		0		0		17		
03:45	0	*	22	66	0	*	0	*	0	*	22	66	
04:00	1		10		0		0		1		10		
04:15	0		1		0		0		0		1		
04:30	0		11		0		0		0		11		
04:45	0	1	10	32	0	*	0	*	0	1	10	32	
05:00	0		6		0		0		0		6		
05:15	3		7		0		0		3		7		
05:30	1		5		0		0		1		5		
05:45	1	5	6	24	0	*	0	*	1	5	6	24	
06:00	2		8		0		0		2		8		
06:15	1		11		0		0		1		11		
06:30	2		13		0		0		2		13		
06:45	2	7	5	37	0	*	0	*	2	7	5	37	
07:00	5		1		0		0		5		1		
07:15	7		3		0		0		7		3		
07:30	2		1		0		0		2		1		
07:45	16	30	2	7	0	*	0	*	16	30	2	7	
08:00	12		2		0		0		12		2		
08:15	8		0		0		0		8		0		
08:30	16		0		0		0		16		0		
08:45	2	38	0	2	0	*	0	*	2	38	0	2	
09:00	11		1		0		0		11		1		
09:15	10		1		0		0		10		1		
09:30	13		0		0		0		13		0		
09:45	17	51	0	2	0	*	0	*	17	51	0	2	
10:00	13		0		0		0		13		0		
10:15	8		1		0		0		8		1		
10:30	12		0		0		0		12		0		
10:45	14	47	0	1	0	*	0	*	14	47	0	1	
11:00	12		0		0		0		12		0		
11:15	36		3		0		0		36		3		
11:30	21		0		0		0		21		0		
11:45	7	76	0	3	0	*	0	*	7	76	0	3	
Totals	258		315		0		0		258		315		
Day Totals		573				0				573			
Split %	100.0%		100.0%		.0%		.0%						
Peak Hour	10:45		02:45						10:45		02:45		
Volume	83		66						83		66		
P.H.F.	.57		.75						.57		.75		

Florida Transportation Engineering, Inc.
8250 Pascal Drive
Punta Gorda, Florida 33950

CHARLOTTE
RIVERWOOD DR (PROJECT ENTRANCE EAST)

Site Code : 010006311100
Start Date: 09/25/2001
File I.D. : D0925010
Page : 2

SOUTH BOUND

Begin Time	1 A.M.		1 P.M.		2 A.M.		2 P.M.		Combined A.M.		Combined P.M.		Wednesday
12:00 09/26	0		11		0		0		0		11		
12:15	0		9		0		0		0		9		
12:30	0		11		0		0		0		11		
12:45	0	*	8	39	0	*	0	*	0	*	8	39	
01:00	0		21		0		0		0		21		
01:15	0		9		0		0		0		9		
01:30	0		13		0		0		0		13		
01:45	0	*	6	49	0	*	0	*	0	*	6	49	
02:00	1		16		0		0		1		16		
02:15	0		7		0		0		0		7		
02:30	0		16		0		0		0		16		
02:45	0	1	19	58	0	*	0	*	0	1	19	58	
03:00	0		16		0		0		0		16		
03:15	0		18		0		0		0		18		
03:30	0		13		0		0		0		13		
03:45	0	*	18	65	0	*	0	*	0	*	18	65	
04:00	0		18		0		0		0		18		
04:15	1		9		0		0		1		9		
04:30	0		16		0		0		0		16		
04:45	0	1	16	59	0	*	0	*	0	1	16	59	
05:00	0		8		0		0		0		8		
05:15	1		9		0		0		1		9		
05:30	1		12		0		0		1		12		
05:45	1	3	9	38	0	*	0	*	1	3	9	38	
06:00	2		7		0		0		2		7		
06:15	0		8		0		0		0		8		
06:30	4		7		0		0		4		7		
06:45	4	10	6	28	0	*	0	*	4	10	6	28	
07:00	4		5		0		0		4		5		
07:15	4		3		0		0		4		3		
07:30	6		1		0		0		6		1		
07:45	8	22	2	11	0	*	0	*	8	22	2	11	
08:00	10		2		0		0		10		2		
08:15	9		1		0		0		9		1		
08:30	8		2		0		0		8		2		
08:45	8	35	1	6	0	*	0	*	8	35	1	6	
09:00	10		1		0		0		10		1		
09:15	4		0		0		0		4		0		
09:30	11		0		0		0		11		0		
09:45	8	33	1	2	0	*	0	*	8	33	1	2	
10:00	11		0		0		0		11		0		
10:15	14		1		0		0		14		1		
10:30	15		1		0		0		15		1		
10:45	7	47	0	2	0	*	0	*	7	47	0	2	
11:00	16		1		0		0		16		1		
11:15	27		1		0		0		27		1		
11:30	12		0		0		0		12		0		
11:45	14	69	0	2	0	*	0	*	14	69	0	2	
Totals	221		359		0		0		221		359		
Day Totals		580				0				580			
Split %	100.0%		100.0%		.0%		.0%						
Peak Hour	11:00		02:30						11:00		02:30		
Volume	69		69						69		69		
P.H.F.	.63		.90						.63		.90		

Florida Transportation Engineering, Inc.
8250 Pascal Drive
Punta Gorda, Florida 33950

ARLOTTE
VERWOOD DR (PROJECT ENTRANCE EAST

Site Code : 010005711100
Start Date: 09/25/2001
File I.D. : D0925005
Page : 1

North Bound

Begin	<------ 1 ------>				<------ 2 ------>				<------ Combined ------>				Tuesday
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		
12:00 09/25	0		13		0		0		0		13		
:15	0		15		0		0		0		15		
:30	0		16		0		0		0		16		
12:45	0	*	9	53	0	*	0	*	0	*	9	53	
:00	0		19		0		0		0		19		
:15	0		11		0		0		0		11		
:30	0		15		0		0		0		15		
01:45	0	*	13	58	0	*	0	*	0	*	13	58	
:00	0		12		0		0		0		12		
:15	1		11		0		0		1		11		
02:30	0		12		0		0		0		12		
02:45	0	1	8	43	0	*	0	*	0	1	8	43	
:00	1		17		0		0		1		17		
:15	1		12		0		0		1		12		
03:30	0		8		0		0		0		8		
:45	2	4	12	49	0	*	0	*	2	4	12	49	
:00	1		5		0		0		1		5		
04:15	0		7		0		0		0		7		
04:30	0		8		0		0		0		8		
:45	0	1	5	25	0	*	0	*	0	1	5	25	
:00	0		5		0		0		0		5		
05:15	3		15		0		0		3		15		
05:30	4		7		0		0		4		7		
:45	3	10	8	35	0	*	0	*	3	10	8	35	
:00	2		6		0		0		2		6		
06:15	2		5		0		0		2		5		
:30	4		6		0		0		4		6		
:45	14	22	5	22	0	*	0	*	14	22	5	22	
07:00	9		5		0		0		9		5		
07:15	18		3		0		0		18		3		
:30	16		4		0		0		16		4		
:45	23	66	3	15	0	*	0	*	23	66	3	15	
08:00	16		1		0		0		16		1		
08:15	21		5		0		0		21		5		
:30	30		2		0		0		30		2		
:45	19	86	3	11	0	*	0	*	19	86	3	11	
09:00	10		6		0		0		10		6		
09:15	19		4		0		0		19		4		
:30	14		1		0		0		14		1		
:45	15	58	4	15	0	*	0	*	15	58	4	15	
10:00	13		1		0		0		13		1		
10:15	7		0		0		0		7		0		
10:30	9		1		0		0		9		1		
10:45	11	40	1	3	0	*	0	*	11	40	1	3	
11:00	11		1		0		0		11		1		
11:15	14		0		0		0		14		0		
11:30	10		1		0		0		10		1		
11:45	13	48	2	4	0	*	0	*	13	48	2	4	
Totals	336		333		0		0		336		333		
Day Totals		669				0				669			
Split %	100.0%		100.0%		.0%		.0%						

Peak Hour	07:45	12:15	07:15	12:15
Volume	90	59	90	59
P.H.F.	.75	.77	.75	.77

Florida Transportation Engineering, Inc.
8250 Pascal Drive
Punta Gorda, Florida 33950

HARLOTTE
IVERWOOD DR (PROJECT ENTRANCE EAST

Site Code : 010006711100
Start Date: 09/25/2001
File I.D. : D0925005

North Bound

egin <------ 1 ------><------ 2 ------><------Combined ------> Wednesday

Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.	
12:00 09/26	0		13		0		0		0		13	
2:15	0		11		0		0		0		11	
2:30	1		17		0		0		1		17	
12:45	0	1	19	60	0	*	0	*	0	1	19	60
1:00	0		10		0		0		0		10	
1:15	0		11		0		0		0		11	
1:30	0		8		0		0		0		8	
01:45	0	*	13	42	0	*	0	*	0	*	13	42
2:00	0		11		0		0		0		11	
2:15	1		18		0		0		1		18	
02:30	0		13		0		0		0		13	
02:45	0	1	15	57	0	*	0	*	0	1	15	57
3:00	1		9		0		0		1		9	
3:15	1		14		0		0		1		14	
03:30	0		14		0		0		0		14	
3:45	1	3	16	53	0	*	0	*	1	3	16	53
4:00	0		11		0		0		0		11	
4:15	1		9		0		0		1		9	
04:30	1		3		0		0		1		3	
4:45	0	2	8	31	0	*	0	*	0	2	8	31
5:00	0		14		0		0		0		14	
05:15	4		13		0		0		4		13	
05:30	6		4		0		0		6		4	
05:45	8	18	10	41	0	*	0	*	8	18	10	41
06:00	3		8		0		0		3		8	
06:15	3		2		0		0		3		2	
06:30	5		3		0		0		5		3	
06:45	16	27	4	17	0	*	0	*	16	27	4	17
07:00	9		3		0		0		9		3	
07:15	10		6		0		0		10		6	
07:30	16		11		0		0		16		11	
07:45	12	47	6	26	0	*	0	*	12	47	6	26
08:00	26		3		0		0		26		3	
08:15	13		3		0		0		13		3	
08:30	20		5		0		0		20		5	
08:45	19	78	5	16	0	*	0	*	19	78	5	16
09:00	8		2		0		0		8		2	
09:15	17		2		0		0		17		2	
09:30	18		1		0		0		18		1	
09:45	11	54	3	8	0	*	0	*	11	54	3	8
10:00	20		0		0		0		20		0	
10:15	5		1		0		0		5		1	
10:30	14		3		0		0		14		3	
10:45	10	49	0	4	0	*	0	*	10	49	0	4
11:00	11		0		0		0		11		0	
11:15	20		1		0		0		20		1	
11:30	10		0		0		0		10		0	
11:45	12	53	0	1	0	*	0	*	12	53	0	1
Totals	333		356		0		0		333		356	
Day Totals		689				0				689		
Split %	100.0%		100.0%		.0%		.0%					

Peak Hour	08:00	12:00	08:00	1_:00
Volume	78	60	78	60
P.H.F.	.75	.78	.75	.78

Florida Transportation Engineering, Inc.
8250 Pascal Drive
Punta Gorda, Florida 33950

CHARLOTTE
WILLOWBEND DR (PROJECT ENTRANCE WEST)

Site Code : 010007311100
Start Date: 09/25/2001
File I.D. : D0925008
Page : 1

SOUTH BOUND

Begin Time	<------ 1 ------> A.M.		P.M.		<------ 2 ------> A.M.		P.M.		<------ Combined ------> A.M.		P.M.		Tuesday
12:00 09/25	0		3		0		0		0		3		
12:15	0		1		0		0		0		1		
12:30	0		1		0		0		0		1		
12:45	0	*	1	6	0	*	0	*	0	*	1	6	
01:00	0		2		0		0		0		2		
01:15	0		3		0		0		0		3		
01:30	0		4		0		0		0		4		
01:45	0	*	1	10	0	*	0	*	0	*	1	10	
02:00	0		4		0		0		0		4		
02:15	0		2		0		0		0		2		
02:30	0		2		0		0		0		2		
02:45	0	*	1	9	0	*	0	*	0	*	1	9	
03:00	0		0		0		0		0		0		
03:15	0		0		0		0		0		0		
03:30	0		1		0		0		0		1		
03:45	2	2	4	5	0	*	0	*	2	2	4	5	
04:00	1		0		0		0		1		0		
04:15	1		2		0		0		1		2		
04:30	0		2		0		0		0		2		
04:45	0	2	0	4	0	*	0	*	0	2	0	4	
05:00	0		1		0		0		0		1		
05:15	0		4		0		0		0		4		
05:30	0		0		0		0		0		0		
05:45	0	*	1	6	0	*	0	*	0	*	1	6	
06:00	2		0		0		0		2		0		
06:15	1		1		0		0		1		1		
06:30	0		0		0		0		0		0		
06:45	1	4	0	1	0	*	0	*	1	4	0	1	
07:00	2		1		0		0		2		1		
07:15	0		0		0		0		0		0		
07:30	1		3		0		0		1		3		
07:45	2	5	1	5	0	*	0	*	2	5	1	5	
08:00	1		0		0		0		1		0		
08:15	3		0		0		0		3		0		
08:30	1		0		0		0		1		0		
08:45	1	6	1	1	0	*	0	*	1	6	1	1	
09:00	3		0		0		0		3		0		
09:15	1		0		0		0		1		0		
09:30	4		0		0		0		4		0		
09:45	0	8	0	*	0	*	0	*	0	8	0	*	
10:00	7		0		0		0		7		0		
10:15	3		0		0		0		3		0		
10:30	3		0		0		0		3		0		
10:45	2	15	0	*	0	*	0	*	2	15	0	*	
11:00	1		0		0		0		1		0		
11:15	3		0		0		0		3		0		
11:30	4		0		0		0		4		0		
11:45	1	9	0	*	0	*	0	*	1	9	0	*	
Totals	51		47		0		0		51		47		
Day Totals		98				0				98			
Split %	100.0%		100.0%		.0%		.0%						

Peak Hour	10:00	01:15			10:00	01:15		
Volume	15	12			15	12		
P.H.F.	.53	.75			.53	.75		

Florida Transportation Engineering, Inc.
8250 Pascal Drive
Punta Gorda, Florida 33950

CHARLOTTE
WILLOWBEND DR (PROJECT ENTRANCE WEST)

Site Code : 010007311100
Start Date: 09/25/2001
File I.D. : D0925008
Page : 2

SOUTH BOUND

Begin Time	1 A.M.		1 P.M.		2 A.M.		2 P.M.		Combined A.M.		Combined P.M.		Wednesday
12:00 09/26	0		3		0		0		0		3		
12:15	0		3		0		0		0		3		
12:30	0		1		0		0		0		1		
12:45	0	*	1	8	0	*	0	*	0	*	1	8	
01:00	0		4		0		0		0		4		
01:15	0		2		0		0		0		2		
01:30	0		1		0		0		0		1		
01:45	0	*	2	9	0	*	0	*	0	*	2	9	
02:00	0		0		0		0		0		0		
02:15	0		1		0		0		0		1		
02:30	0		4		0		0		0		4		
02:45	0	*	5	10	0	*	0	*	0	*	5	10	
03:00	0		2		0		0		0		2		
03:15	1		4		0		0		1		4		
03:30	1		3		0		0		1		3		
03:45	1	3	3	12	0	*	0	*	1	3	3	12	
04:00	0		1		0		0		0		1		
04:15	0		1		0		0		0		1		
04:30	1		2		0		0		1		2		
04:45	0	1	0	4	0	*	0	*	0	1	0	4	
05:00	0		2		0		0		0		2		
05:15	1		1		0		0		1		1		
05:30	0		4		0		0		0		4		
05:45	0	1	3	10	0	*	0	*	0	1	3	10	
06:00	2		0		0		0		2		0		
06:15	1		1		0		0		1		1		
06:30	1		1		0		0		1		1		
06:45	0	4	0	2	0	*	0	*	0	4	0	2	
07:00	0		1		0		0		0		1		
07:15	0		1		0		0		0		1		
07:30	1		1		0		0		1		1		
07:45	1	2	0	3	0	*	0	*	1	2	0	3	
08:00	2		0		0		0		2		0		
08:15	1		2		0		0		1		2		
08:30	3		0		0		0		3		0		
08:45	1	7	1	3	0	*	0	*	1	7	1	3	
09:00	4		1		0		0		4		1		
09:15	5		0		0		0		5		0		
09:30	1		0		0		0		1		0		
09:45	0	10	0	1	0	*	0	*	0	10	0	1	
10:00	2		0		0		0		2		0		
10:15	5		0		0		0		5		0		
10:30	3		0		0		0		3		0		
10:45	0	10	0	*	0	*	0	*	0	10	0	*	
11:00	0		0		0		0		0		0		
11:15	5		0		0		0		5		0		
11:30	2		0		0		0		2		0		
11:45	3	10	0	*	0	*	0	*	3	10	0	*	
Totals	48		62		0		0		48		62		
Day Totals		110				0				110			
Split %	100.0%		100.0%		.0%		.0%						
Peak Hour	08:30		02:30						08:30		02:30		
Volume	13		15						13		15		
P.H.F.	.65		.75						.65		.75		

Florida Transportation Engineering, Inc.

CHARLOTTE
WILLOWBEND DR (PROJECT ENTRANCE WEST)

8250 Pascal Drive
Punta Gorda, Florida 33950

Site Code : 010007711100
Start Date: 09/25/2001
File I.D. : D0925003

North Bound

Page : 1

Begin Time	<------ 1 ------> A.M.		P.M.		<------ 2 ------> A.M.		P.M.		<------ Combined ------> A.M.		P.M.		Tuesday
12:00 09/25	0		0		0		0		0		0		
12:15	0		0		0		0		0		0		
12:30	0		0		0		0		0		0		
12:45	0	*	1	1	0	*	0	*	0	*	1	1	
01:00	0		0		0		0		0		0		
01:15	0		0		0		0		0		0		
01:30	0		0		0		0		0		0		
01:45	0	*	0	*	0	*	0	*	0	*	0	*	
02:00	0		0		0		0		0		0		
02:15	0		1		0		0		0		1		
02:30	0		0		0		0		0		0		
02:45	0	*	1	2	0	*	0	*	0	*	1	2	
03:00	0		1		0		0		0		1		
03:15	0		0		0		0		0		0		
03:30	0		0		0		0		0		0		
03:45	0	*	0	1	0	*	0	*	0	*	0	1	
04:00	0		0		0		0		0		0		
04:15	0		0		0		0		0		0		
04:30	0		0		0		0		0		0		
04:45	0	*	0	*	0	*	0	*	0	*	0	*	
05:00	0		1		0		0		0		1		
05:15	0		0		0		0		0		0		
05:30	0		0		0		0		0		0		
05:45	0	*	0	1	0	*	0	*	0	*	0	1	
06:00	0		0		0		0		0		0		
06:15	0		0		0		0		0		0		
06:30	0		0		0		0		0		0		
06:45	0	*	0	*	0	*	0	*	0	*	0	*	
07:00	0		1		0		0		0		1		
07:15	0		0		0		0		0		0		
07:30	0		0		0		0		0		0		
07:45	1	1	0	1	0	*	0	*	1	1	0	1	
08:00	0		0		0		0		0		0		
08:15	2		0		0		0		2		0		
08:30	0		0		0		0		0		0		
08:45	0	2	0	*	0	*	0	*	0	2	0	*	
09:00	0		0		0		0		0		0		
09:15	0		0		0		0		0		0		
09:30	2		0		0		0		2		0		
09:45	1	3	0	*	0	*	0	*	1	3	0	*	
10:00	1		0		0		0		1		0		
10:15	1		0		0		0		1		0		
10:30	3		0		0		0		3		0		
10:45	0	5	0	*	0	*	0	*	0	5	0	*	
11:00	0		0		0		0		0		0		
11:15	0		0		0		0		0		0		
11:30	0		0		0		0		0		0		
11:45	0	*	0	*	0	*	0	*	0	*	0	*	
Totals	11		6		0		0		11		6		
Day Totals	17				0				17				
Split %	100.0%		100.0%		.0%		.0%						
Peak Hour	09:45		02:15						09:45		02:15		
Volume	6		3						6		3		
P.H.F.	.5		.75						.5		.75		

Florida Transportation Engineering, Inc.
8250 Pascal Drive
Punta Gorda, Florida 33950

CHARLOTTE
WILLOWBEND DR (PROJECT ENTRANCE WEST)

Site Code : 010007711100
Start Date: 09/25/2001
File I.D. : D0925003

North Bound

Begin	<------ 1 ------>				<------ 2 ------>				<------Combined ------>				Wednesday
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		
12:00 09/26	0		0		0		0		0		0		
12:15	0		1		0		0		0		1		
12:30	0		1		0		0		0		1		
12:45	0	*	1	3	0	*	0	*	0	*	1	3	
01:00	0		0		0		0		0		0		
01:15	0		3		0		0		0		3		
01:30	0		0		0		0		0		0		
01:45	0	*	0	3	0	*	0	*	0	*	0	3	
02:00	0		0		0		0		0		0		
02:15	0		1		0		0		0		1		
02:30	0		0		0		0		0		0		
02:45	0	*	1	2	0	*	0	*	0	*	1	2	
03:00	0		0		0		0		0		0		
03:15	0		0		0		0		0		0		
03:30	0		0		0		0		0		0		
03:45	0	*	0	*	0	*	0	*	0	*	0	*	
04:00	0		2		0		0		0		2		
04:15	0		0		0		0		0		0		
04:30	0		0		0		0		0		0		
04:45	0	*	0	2	0	*	0	*	0	*	0	2	
05:00	0		0		0		0		0		0		
05:15	0		0		0		0		0		0		
05:30	0		0		0		0		0		0		
05:45	0	*	0	*	0	*	0	*	0	*	0	*	
06:00	0		0		0		0		0		0		
06:15	0		0		0		0		0		0		
06:30	0		0		0		0		0		0		
06:45	0	*	0	*	0	*	0	*	0	*	0	*	
07:00	0		0		0		0		0		0		
07:15	2		0		0		0		2		0		
07:30	0		0		0		0		0		0		
07:45	1	3	0	*	0	*	0	*	1	3	0	*	
08:00	0		0		0		0		0		0		
08:15	1		0		0		0		1		0		
08:30	0		0		0		0		0		0		
08:45	3	4	0	*	0	*	0	*	3	4	0	*	
09:00	1		0		0		0		1		0		
09:15	0		0		0		0		0		0		
09:30	1		0		0		0		1		0		
09:45	0	2	0	*	0	*	0	*	0	2	0	*	
10:00	0		0		0		0		0		0		
10:15	1		0		0		0		1		0		
10:30	0		0		0		0		0		0		
10:45	0	1	0	*	0	*	0	*	0	1	0	*	
11:00	1		0		0		0		1		0		
11:15	0		0		0		0		0		0		
11:30	0		0		0		0		0		0		
11:45	0	1	0	*	0	*	0	*	0	1	0	*	
Totals	11		10		0		0		11		10		
Day Totals		21				0				21			
Split %	100.0%		100.0%		.0%		.0%						
Peak Hour	08:15		12:30						08:15		12:30		
Volume	5		5						5		5		
P.H.F.	.41		.41						.41		.41		

APPENDIX B

Condition Diagrams
Turning Movement Counts

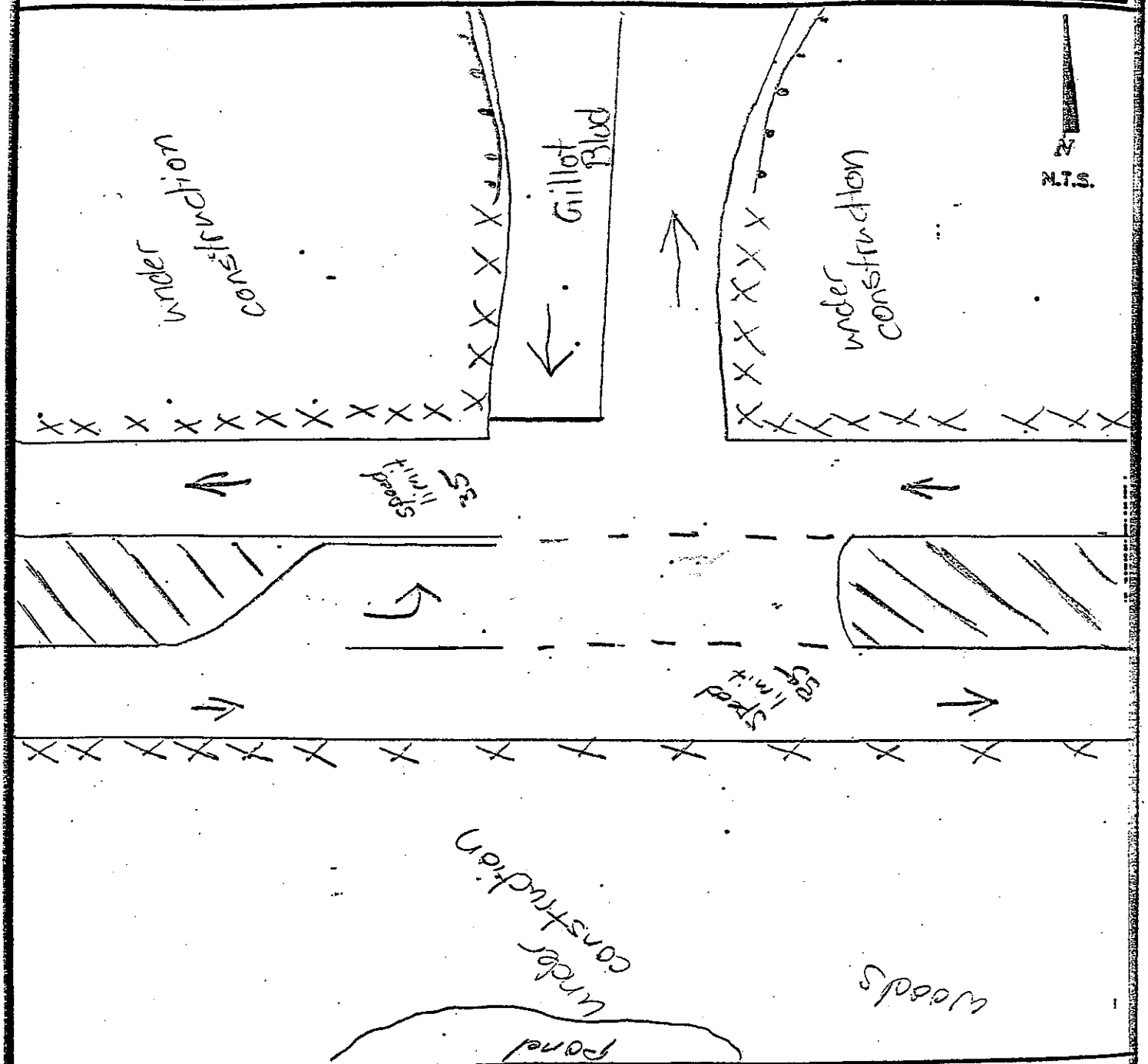
FLORIDA TRANSPORTATION ENGINEERING (FTE), INC.

CONDITION DIAGRAM

LOCATION I.D. SR 776 @ Gillot Rd.

COUNTY Charlotte CITY

DATE 9/21/01 PREPARED BY: [redacted]



SYMBOLS

TREES	STREET LIGHT	X barricades	SIGN (1 POST)
SHRUBS	POWER POLE		SIGN (2 POST)
HEDGE	TELEPHONE POLE		SIGN (O'HEAD)
BUILDING	COMBINATION POLE		SIGNAL HEAD
RIGHT OF WAY	TRAFFIC SIGNAL POLE		PED HEAD
FENCE	FIRE HYDRANT		PED BUTTON
GUARDRAIL	CONTROLLER CABINET		R.R. SIGNAL

Florida Transportation Engineering, Inc.
8250 Pascal Drive
Punta Gorda, Florida 33950
(941) 639-2818

Weather : GOOD
Counted by: Todd Beatty
Board # : 2084
Other :

Study Name: 776@GILB
Site Code : 20840003
Start Date: 09/19/01
Page : 1

Cars, Trucks, Peds

Start Time	Gillot Blvd Southbound Left	Right	Peds	SR-776 Westbound Thru	Right	Peds	SR-776 Eastbound Left	Thru	Peds	Intrvl. Total
09/19/01										
07:00	38	16	0	163	10	0	1	123	0	351
07:15	49	9	0	146	17	0	2	146	0	369
07:30	46	7	0	141	10	0	2	147	0	353
07:45	20	5	0	137	12	0	0	111	0	285
Hour	153	37	0	587	49	0	5	527	0	1358
08:00	36	7	0	133	16	0	7	113	0	312
08:15	15	8	0	91	8	0	4	113	0	239
08:30	38	8	0	107	14	0	2	93	0	262
08:45	18	7	0	139	9	0	2	105	0	280
Hour	107	30	0	470	47	0	15	424	0	1093
[BREAK]										
16:00	0	34	0	0	0	0	17	0	0	51
16:15	0	35	0	0	0	0	29	0	0	64
16:30	0	35	0	0	0	0	14	0	0	49
16:45	0	42	0	0	0	0	25	0	0	67
Hour	0	146	0	0	0	0	85	0	0	231
17:00	0	33	0	0	0	0	11	0	0	44
17:15	0	52	0	0	0	0	11	0	0	63
17:30	0	38	0	0	0	0	22	1	0	61
17:45	0	25	0	0	0	0	58	7	0	90
Hour	0	148	0	0	0	0	102	8	0	258
Total	260	361	0	1057	96	0	207	959	0	2940
% Apr.	41.8	58.1	-	91.6	8.3	-	17.7	82.2	-	-
% Int.	8.8	12.2	-	35.9	3.2	-	7.0	32.6	-	-

Florida Transportation Engineering, Inc.
8250 Pascal Drive
Punta Gorda, Florida 33950
(941) 639-2818

Weather : GOOD
Counted by: Todd Beatty
Board # : 2084
Other :

Study Name: 776@GILB
Site Code : 20840003
Start Date: 09/19/01

Cars, Trucks, Peds

Start Time	Gillot Blvd Southbound			SR-776 Westbound			SR-776 Eastbound			Intrvl. Total
	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds	
Peak Hour Analysis By Entire Intersection for the Period: 07:00 on 09/19/01 to 08:45 on 09/19/01										
Time	07:00			07:00			07:00			
Vol.	153	37	0	587	49	0	5	527	0	
Pct.	80.5	19.4	0.0	92.2	7.7	0.0	0.9	99.0	0.0	
Total	190			636			532			
High	07:15			07:00			07:30			
Vol.	49	9	0	163	10	0	2	147	0	
Total	58			173			149			
PHF	0.819			0.919			0.893			
Peak Hour Analysis By Entire Intersection for the Period: 16:00 on 09/19/01 to 17:45 on 09/19/01										
Time	17:00			17:00			17:00			
Vol.	0	148	0	0	0	0	102	8	0	
Pct.	0.0	100.0	0.0	0.0	0.0	0.0	92.7	7.2	0.0	
Total	148			0			110			
High	17:15			17:15			17:45			
Vol.	0	52	0	0	0	0	58	7	0	
Total	52			0			65			
PHF	0.712			0.000			0.423			

Florida Transportation Engineering, Inc.
8250 Pascal Drive
Punta Gorda, Florida 33950
(941) 639-2818

Weather : GOOD
Counted by: Todd Beatty
Board # : 2084
Other :

Study Name: 776@GILB
Site Code : 20840003
Start Date: 09/19/01

Trucks, Bikes

Start	Gillot Blvd Southbound			SR-776 Westbound			SR-776 Eastbound			Intrvl.
Time	Left	Right	Bikes	Thru	Right	Bikes	Left	Thru	Bikes	Total
09/19/01										
07:00	0	0	0	8	3	0	0	2	0	13
07:15	0	0	0	4	0	0	0	8	0	12
07:30	1	0	0	5	0	0	0	9	0	15
07:45	0	0	0	10	1	0	0	4	0	15
Hour	1	0	0	27	4	0	0	23	0	55
08:00	0	0	0	17	2	0	1	8	0	28
08:15	0	0	0	8	3	0	0	9	0	20
08:30	1	0	0	10	4	0	0	7	0	22
08:45	0	0	0	24	1	0	0	10	0	35
Hour	1	0	0	59	10	0	1	34	0	105
[BREAK]										
16:00	2	1	0	7	0	0	1	14	0	25
16:15	0	0	0	11	1	0	0	10	0	22
16:30	0	0	0	8	0	0	0	5	0	13
16:45	1	0	0	3	0	0	1	15	0	20
Hour	3	1	0	29	1	0	2	44	0	80
17:00	0	1	0	8	1	0	0	3	0	13
17:15	0	0	0	4	0	0	0	4	0	8
17:30	0	0	0	6	1	0	0	2	0	9
17:45	0	2	0	9	2	0	0	7	0	20
Hour	0	3	0	27	4	0	0	16	0	50
Total	5	4	0	142	19	0	3	117	0	290
% Apr.	55.5	44.4	-	38.1	11.8	-	2.5	97.5	-	-
% Int.	1.7	1.3	-	48.9	6.5	-	1.0	40.3	-	-

Florida Transportation Engineering, Inc.
8250 Pascal Drive
Punta Gorda, Florida 33950
(941) 639-2818

Weather : GOOD
Counted by: Todd Beatty
Board # : 2084
Other :

Study Name: 776@GILB
Site Code : 20840003
Start Date: 09/19/01

Trucks, Bikes

Start Time	Gillot Blvd Southbound			SR-776 Westbound			SR-776 Eastbound			Intrvl. Total
	Left	Right	Bikes	Thru	Right	Bikes	Left	Thru	Bikes	
Peak Hour Analysis By Entire Intersection for the Period: 07:00 on 09/19/01 to 17:45 on 09/19/01										
Time	08:00			08:00			08:00			
Vol.	1	0	0	59	10	0	1	34	0	
Pct.	100.0	0.0	0.0	85.5	14.4	0.0	2.8	97.1	0.0	
Total	1			69			35			
High	08:30			08:45			08:45			
Vol.	1	0	0	24	1	0	0	10	0	
Total	1			25			10			
PHF	0.250			0.690			0.875			

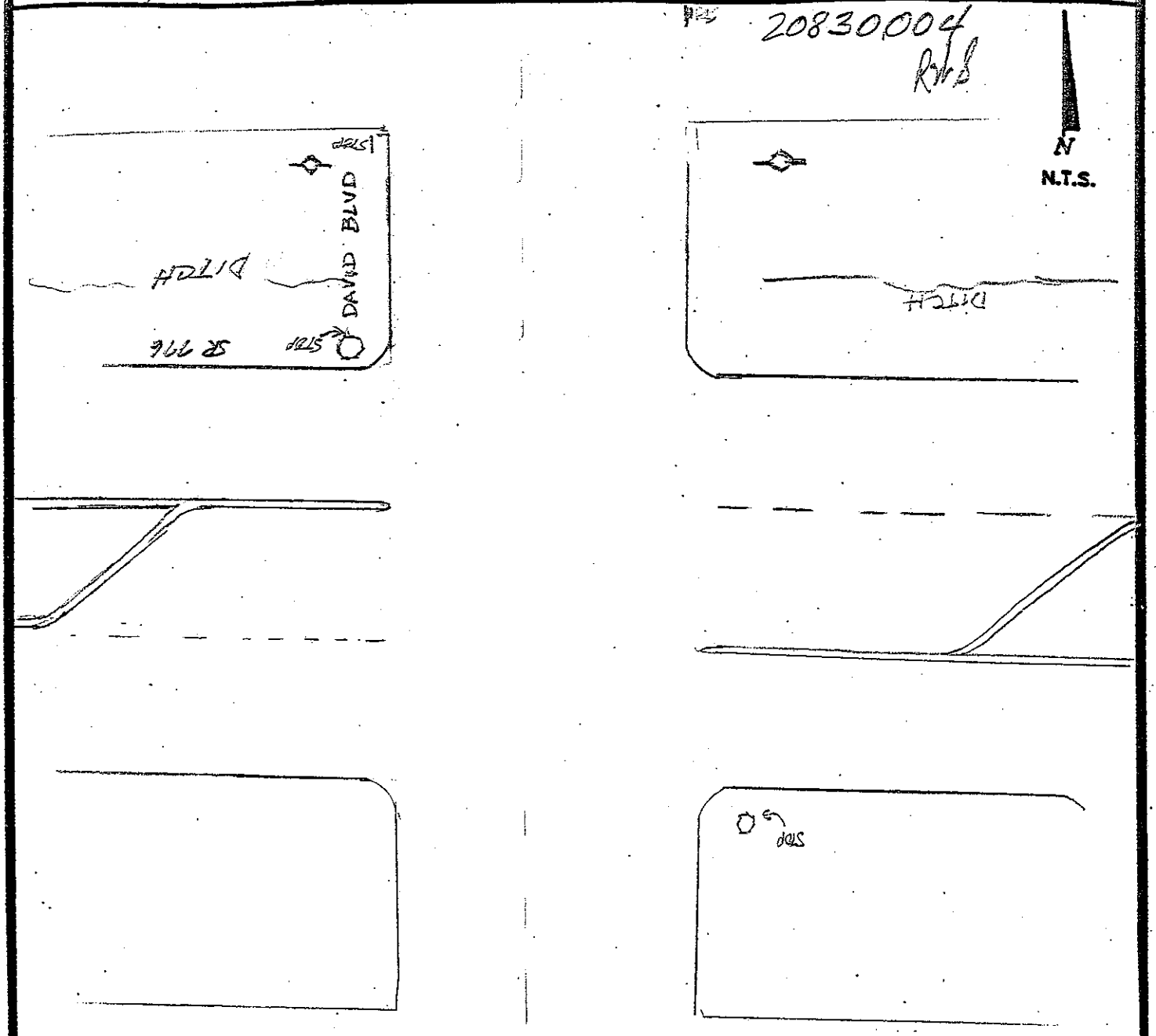
FLORIDA TRANSPORTATION ENGINEERING (FTE), INC.

CONDITION DIAGRAM

LOCATION I.D. SR 776 and DAVID BLVD

COUNTY Charlotte Co. CITY

DATE 9/18/01 PREPARED BY: [redacted]



SYMBOLS

	TREES		STREET LIGHT		SIGN (1 POST)
	SHRUBS		POWER POLE		SIGN (2 POST)
	HEDGE		TELEPHONE POLE		SIGN (O'HEAD)
	BUILDING		COMBINATION POLE		SIGNAL HEAD
	RIGHT OF WAY		TRAFFIC SIGNAL POLE		PED HEAD
	FENCE		FIRE HYDRANT		PED BUTTON
	GUARDRAIL		CONTROLLER CABINET		R.R. SIGNAL

Florida Transportation Engineering, Inc.
8250 Pascal Drive
Punta Gorda, Florida 33950
(941) 639-2818

Weather : GOOD
Counted by: Robert Snow
Board # : 2083
Other :

Study Name: SR776@DB
Site Code : 20830004
Start Date: 09/18/01

Cars, Trucks, Peds

Start	David Blvd Southbound				SR 776 Westbound				David Blvd Northbound				SR 776 Eastbound				Intvl.
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Total
09/18/01																	
07:00	1	6	12	0	0	91	0	0	3	0	4	0	5	69	2	0	193
07:15	3	6	12	0	0	107	2	0	4	4	6	0	4	51	5	0	204
07:30	5	3	10	0	1	126	2	0	9	1	3	0	6	76	2	0	244
07:45	2	3	7	0	1	152	3	0	6	3	1	0	6	63	4	0	251
Hour	11	18	41	0	2	476	7	0	22	8	14	0	21	259	13	0	892
08:00	5	2	2	0	0	91	5	0	5	1	4	0	5	76	0	0	196
08:15	7	1	9	0	1	91	6	0	3	0	1	0	6	57	4	0	186
08:30	2	1	7	0	3	105	3	0	3	0	1	0	6	58	1	0	190
08:45	1	4	3	0	0	80	3	0	4	4	2	0	4	60	2	0	167
Hour	15	8	21	0	4	367	17	0	15	5	8	0	21	251	7	0	739
[BREAK]																	
16:00	1	1	6	0	2	88	1	0	3	5	1	0	12	107	9	0	236
16:15	2	0	5	0	1	124	3	0	3	0	2	0	9	128	4	0	281
16:30	0	1	0	0	1	99	2	0	5	5	3	0	10	85	6	0	217
16:45	4	2	5	0	2	91	3	0	2	3	3	0	8	123	5	0	251
Hour	7	4	16	0	6	402	9	0	13	13	9	0	39	443	24	0	985
17:00	2	2	2	0	1	112	2	0	0	1	3	0	12	128	6	0	271
17:15	4	8	7	0	3	102	5	0	1	4	2	0	17	124	10	0	287
17:30	3	2	8	0	1	107	4	0	3	0	2	0	8	99	5	0	242
17:45	1	1	2	0	5	95	3	0	4	2	1	0	10	80	5	0	209
Hour	10	13	19	0	10	416	14	0	8	7	8	0	47	431	26	0	1009
Total	43	43	97	0	22	1661	47	0	58	33	39	0	128	1384	70	0	3625
% Apr.	23.4	23.4	53.0	-	1.2	96.0	2.7	-	44.6	28.3	30.0	-	8.0	87.4	4.4	-	-
% Int.	1.1	1.1	2.6	-	0.6	45.8	1.2	-	1.6	0.9	1.0	-	3.5	38.1	1.9	-	-

Florida Transportation Engineering, Inc.

8250 Pascal Drive

Punta Gorda, Florida 33950

(941) 639-2818

Weather : GOOD
Counted by: Robert Snow
Board # : 2083
Other :

Study Name: SR776@DB
Site Code : 20830004
Start Date: 09/18/01

Cars, Trucks, Peds

Start	David Blvd Southbound				SR 776 Westbound				David Blvd Northbound				SR 776 Eastbound				Intvl.
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Total
Peak Hour Analysis By Entire Intersection for the Period: 07:00 on 09/18/01 to 08:45 on 09/18/01																	
Time	07:15				07:15				07:15				07:15				
Vol.	15	14	31	0	2	476	12	0	24	9	14	0	21	266	11	0	
Pct.	25.0	23.3	51.6	0.0	0.4	97.1	2.4	0.0	51.0	19.1	29.7	0.0	7.0	89.2	3.6	0.0	
Total	60				490				47				298				
High	07:15				07:45				07:15				07:30				
Vol.	3	6	12	0	1	152	3	0	4	4	6	0	6	76	2	0	
Total	21				156				14				84				
PHF	0.714				0.785				0.839				0.887				
Peak Hour Analysis By Entire Intersection for the Period: 16:00 on 09/18/01 to 17:45 on 09/18/01																	
Time	16:45				16:45				16:45				16:45				
Vol.	13	14	22	0	7	412	14	0	6	8	10	0	45	474	26	0	
Pct.	26.5	28.5	44.8	0.0	1.6	95.1	3.2	0.0	25.0	33.3	41.6	0.0	8.2	86.9	4.7	0.0	
Total	49				433				24				545				
High	17:15				17:00				16:45				17:15				
Vol.	4	8	7	0	1	112	2	0	2	3	3	0	17	124	10	0	
Total	19				115				8				151				
PHF	0.645				0.941				0.750				0.902				

Florida Transportation Engineering, Inc.

8250 Pascal Drive

Punta Gorda, Florida 33950

(941) 639-2818

Weather : GOOD

Counted by: Robert Snow

Board # : 2083

Other :

Study Name: SR776@DB

Site Code : 20830004

Start Date: 09/18/01

Trucks, Bikes

	David Blvd Southbound				SR 776 Westbound				David Blvd Northbound				SR 776 Eastbound				
Start Time	Left	Thru	Right	Bikes	Left	Thru	Right	Bikes	Left	Thru	Right	Bikes	Left	Thru	Right	Bikes	Intvl. Total
09/18/01																	
07:00	0	0	0	0	0	5	0	0	0	0	0	0	0	5	0	0	10
07:15	0	0	0	0	0	9	0	0	0	0	0	0	0	4	0	0	13
07:30	1	0	1	0	0	6	0	0	0	0	0	0	0	6	1	0	15
07:45	0	0	0	0	0	9	0	0	0	0	0	0	0	1	0	0	10
Hour	1	0	1	0	0	29	0	0	0	0	0	0	0	16	1	0	48
08:00	1	0	0	0	0	5	1	0	0	1	0	0	1	6	0	0	15
08:15	0	1	0	0	0	7	1	0	0	0	0	0	1	4	1	0	15
08:30	0	1	1	0	0	16	0	0	0	0	0	0	1	10	0	0	29
08:45	0	0	0	0	0	6	0	0	0	0	0	0	0	8	0	0	14
Hour	1	2	1	0	0	34	2	0	0	1	0	0	3	28	1	0	73
[BREAK]																	
16:00	0	1	2	0	0	5	0	0	0	0	0	0	0	5	1	0	14
16:15	0	0	0	0	0	8	1	0	0	0	0	0	1	10	0	0	20
16:30	0	0	0	0	0	7	0	0	0	0	0	0	0	1	0	0	8
16:45	0	0	0	0	0	6	0	0	0	0	0	0	0	7	0	0	13
Hour	0	1	2	0	0	26	1	0	0	0	0	0	1	23	1	0	55
17:00	0	0	0	0	0	6	0	0	0	0	0	0	0	6	0	0	12
17:15	0	0	0	0	0	5	0	0	0	0	0	0	1	3	0	0	9
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6
17:45	0	0	0	0	0	4	0	0	0	0	0	0	0	8	0	0	12
Hour	0	0	0	0	0	15	0	0	0	0	0	0	1	23	0	0	39
Total	2	3	4	0	0	104	3	0	0	1	0	0	5	90	3	0	215
% Apr.	22.2	33.3	44.4	-	-	97.1	2.8	-	-	100.0	-	-	5.1	91.9	3.0	-	-
% Int.	0.9	1.3	1.8	-	-	48.3	1.3	-	-	0.4	-	-	2.3	41.8	1.3	-	-

Florida Transportation Engineering, Inc.

Weather : GOOD
Counted by: Robert Snow
Board # : 2083
Other :

8250 Pascal Drive
Punta Gorda, Florida 33950
(941) 639-2818

Study Name: SR776@DB
Site Code : 20830004
Start Date: 09/18/01

Trucks, Bikes

Start	David Blvd Southbound				SR 776 Westbound				David Blvd Northbound				SR 776 Eastbound				Intvl.
Time	Left	Thru	Right	Bikes	Left	Thru	Right	Bikes	Left	Thru	Right	Bikes	Left	Thru	Right	Bikes	Total
Peak Hour Analysis By Entire Intersection for the Period: 07:00 on 09/18/01 to 17:45 on 09/18/01																	
Time	08:00				08:00				08:00				08:00				
Vol.	1	2	1	0	0	34	2	0	0	1	0	0	3	28	1	0	
Pct.	25.0	50.0	25.0	0.0	0.0	94.4	5.5	0.0	0.0	100.0	0.0	0.0	9.3	87.5	3.1	0.0	
Total	4				36				1				32				
High	08:30				08:30				08:00				08:30				
Vol.	0	1	1	0	0	16	0	0	0	1	0	0	1	10	0	0	
Total	2				16				1				11				
PHF	0.500				0.562				0.250				0.727				

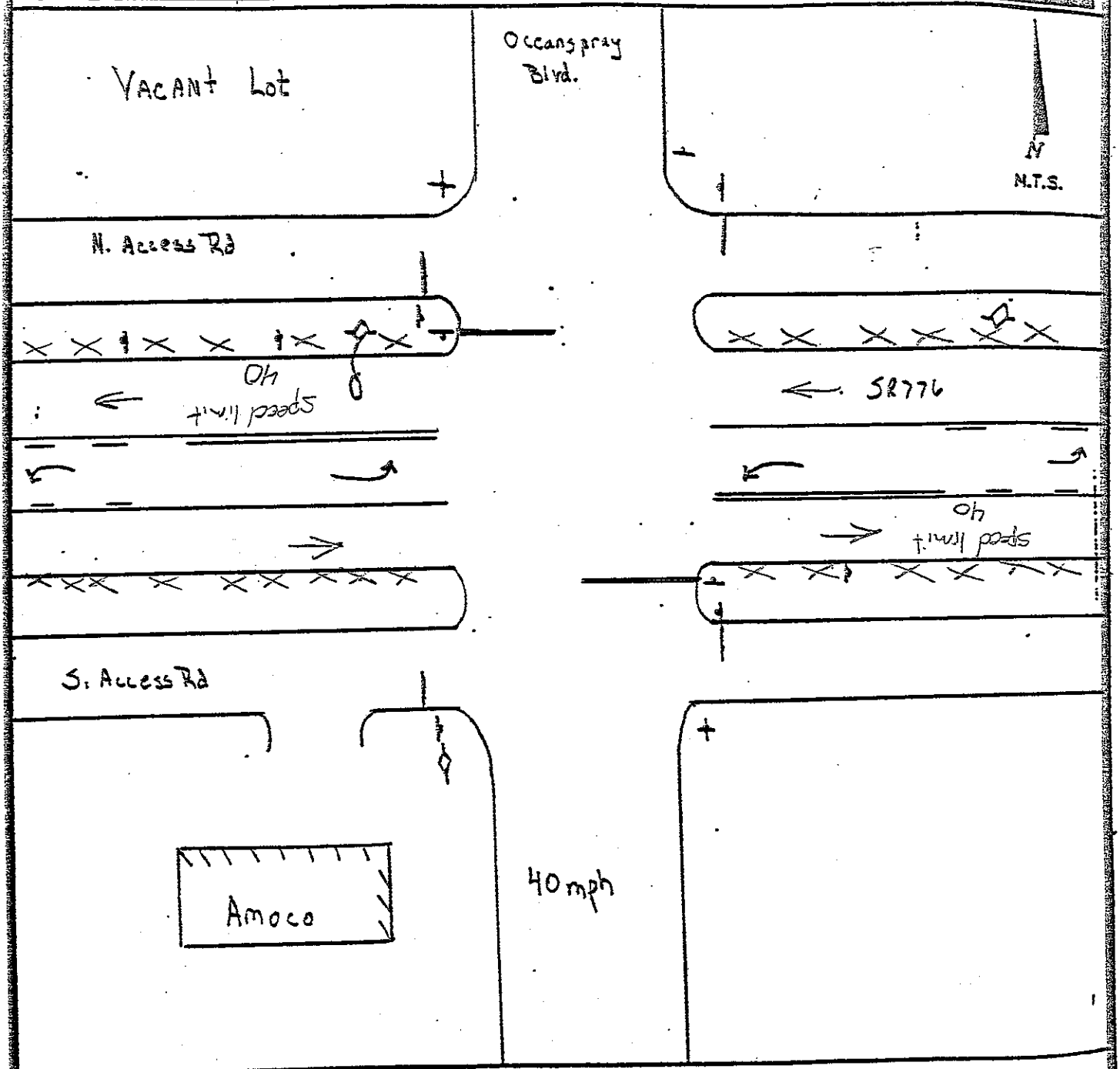
FLORIDA TRANSPORTATION ENGINEERING (FTE), INC.

CONDITION DIAGRAM

LOCATION I.D. SR776 & Occanaprag Blvd.

COUNTY Charlotte CITY

DATE 9/10/96 PREPARED BY: [redacted]



SYMBOLS

TREES	STREET LIGHT	X Baricades	SIGN (1 POST)
SHRUBS	POWER POLE		SIGN (2 POST)
HEDGE	TELEPHONE POLE		SIGN (O'HEAD)
BUILDING	COMBINATION POLE		SIGNAL HEAD
RIGHT OF WAY	TRAFFIC SIGNAL POLE		PED HEAD
FENCE	FIRE HYDRANT		PED BUTTON
GUARDRAIL	CONTROLLER CABINET		R.R. SIGNAL

Florida Transportation Engineering, Inc.

8250 Pascal Drive

Punta Gorda, Florida 33950

(941) 639-2818

Weather : GOOD
Counted by: Todd Beatty
Board # : 2084
Other :

Study Name: 776@OCSB
Site Code : 20840005
Start Date: 09/18/01
Page : 1

Cars, Trucks, Peds

	Ocean Spray Blvd Southbound				SR 776 Westbound				Ocean Spray Blvd Northbound				SR 776 Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Intvl. Total
09/18/01																	
07:00	4	8	5	0	10	85	5	0	4	1	22	0	1	59	3	0	207
07:15	6	14	4	0	8	105	3	0	4	6	13	0	3	67	3	0	236
07:30	7	5	5	0	14	115	5	0	12	3	10	0	2	76	4	2	260
07:45	2	7	5	0	9	116	5	0	3	3	10	0	1	52	2	0	215
Hour	19	34	19	0	41	421	18	0	23	13	55	0	7	254	12	2	918
08:00	3	8	6	0	6	95	1	0	5	2	14	0	3	69	1	1	214
08:15	3	6	3	0	7	67	0	0	6	3	9	0	5	54	3	0	166
08:30	1	3	5	0	2	80	2	0	2	2	7	0	0	41	1	0	146
08:45	4	2	7	0	6	95	4	0	2	1	7	0	3	73	3	0	207
Hour	11	19	21	0	21	337	7	0	15	8	37	0	11	237	8	1	733
[BREAK]																	
16:00	1	3	3	0	11	87	3	0	5	11	15	0	7	129	7	1	283
16:15	2	2	1	0	7	91	2	0	2	3	10	0	5	106	1	0	232
16:30	3	2	2	0	6	89	2	0	1	2	9	0	6	102	2	0	226
16:45	1	4	4	0	8	91	3	0	0	3	6	0	8	100	1	0	229
Hour	7	11	10	0	32	358	10	0	8	19	40	0	26	437	11	1	970
17:00	5	5	7	0	10	94	2	0	4	10	10	0	9	135	6	0	297
17:15	5	5	7	0	11	77	2	0	8	7	16	0	13	116	13	0	280
17:30	8	8	12	0	9	85	4	0	7	12	19	0	10	94	12	0	280
17:45	4	10	7	0	13	73	3	0	16	13	13	0	11	80	8	0	251
Hour	22	28	33	0	43	329	11	0	35	42	58	0	43	425	39	0	1108
Total	59	92	83	0	137	1445	46	0	81	82	190	0	87	1333	70	4	3729
% Apr.	25.2	39.3	35.4	-	8.4	88.7	2.8	-	22.9	23.2	53.8	-	5.7	89.3	4.6	0.2	-
% Int.	1.5	2.4	2.2	-	3.6	38.7	1.2	-	2.1	2.1	5.0	-	2.3	36.2	1.8	0.1	-

Florida Transportation Engineering, Inc.

Weather : GOOD
Counted by: Todd Beatty
Board # : 2084
Other :

8250 Pascal Drive
Punta Gorda, Florida 33950
(941) 639-2818

Study Name: 776@CCSB
Site Code : 20840005
Start Date: 09/18/01

Cars, Trucks, Peds

Start	Ocean Spray Blvd Southbound				SR 776 Westbound				Ocean Spray Blvd Northbound				SR 776 Eastbound				Intvl.
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Total
Peak Hour Analysis By Entire Intersection for the Period: 07:00 on 09/18/01 to 08:45 on 09/18/01																	
Time	07:15				07:15				07:15				07:15				
Vol.	18	34	20	0	37	431	14	0	24	14	47	0	9	264	10	3	
Pct.	25.0	47.2	27.7	0.0	7.6	89.4	2.9	0.0	28.2	16.4	55.2	0.0	3.1	92.3	3.4	1.0	
Total	72				482				85				286				
High	07:15				07:30				07:30				07:30				
Vol.	6	14	4	0	14	115	5	0	12	3	10	0	2	76	4	2	
Total	24				134				25				84				
PHF	0.750				0.899				0.850				0.851				
Peak Hour Analysis By Entire Intersection for the Period: 14:00 on 09/18/01 to 17:45 on 09/18/01																	
Time	17:00				17:00				17:00				17:00				
Vol.	22	28	33	0	43	329	11	0	35	42	58	0	43	425	39	0	
Pct.	26.5	33.7	39.7	0.0	11.2	85.9	2.8	0.0	25.9	31.1	42.9	0.0	8.4	83.8	7.6	0.0	
Total	83				383				135				507				
High	17:30				17:00				17:45				17:00				
Vol.	8	8	12	0	10	94	2	0	16	13	13	0	9	135	6	0	
Total	28				106				42				150				
PHF	0.741				0.903				0.804				0.845				

Florida Transportation Engineering, Inc.

8250 Pascal Drive

Punta Gorda, Florida 33950

(941) 639-2818

Weather : GOOD

Counted by: Todd Beatty

Board # : 2084

Other :

Study Name: 776@CCSB

Site Code : 20840005

Start Date: 09/18/01

Trucks, Bikes

Start Time	Ocean Spray Blvd Southbound				SR 776 Westbound				Ocean Spray Blvd Northbound				SR 776 Eastbound				Intvl. Total
	Left	Thru	Right	Bikes	Left	Thru	Right	Bikes	Left	Thru	Right	Bikes	Left	Thru	Right	Bikes	
09/18/01																	
07:00	0	1	0	0	0	4	0	0	0	0	0	0	0	5	0	0	10
07:15	0	0	0	0	0	4	0	0	0	0	2	0	0	1	0	0	7
07:30	0	0	0	0	1	3	0	0	0	0	2	0	0	6	1	0	13
07:45	0	1	0	0	0	4	0	0	0	1	0	0	0	1	0	0	7
Hour	0	2	0	0	1	15	0	0	0	1	4	0	0	13	1	0	37
08:00	0	0	0	0	0	3	0	0	0	0	0	0	0	5	0	0	8
08:15	0	0	0	0	0	4	0	0	0	0	2	0	0	3	0	0	9
08:30	1	0	1	0	0	4	0	0	0	0	0	0	0	4	0	0	10
08:45	0	0	0	0	0	11	0	0	1	0	0	0	0	8	0	0	20
Hour	1	0	1	0	0	22	0	0	1	0	2	0	0	20	0	0	47
[BREAK]																	
16:00	0	0	0	0	1	4	0	0	0	1	1	0	0	1	1	1	10
16:15	0	0	0	0	0	2	0	0	0	0	0	0	0	5	0	0	7
16:30	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0	0	4
16:45	0	0	0	0	0	3	0	0	0	1	0	0	0	4	0	0	8
Hour	0	0	0	0	1	10	0	0	0	2	1	0	0	13	1	1	29
17:00	0	0	0	0	0	3	0	0	0	0	0	0	0	2	0	0	5
17:15	0	0	0	0	1	3	0	0	0	0	0	0	0	1	0	0	5
17:30	0	0	0	0	0	5	0	0	0	0	0	0	0	8	0	0	13
17:45	0	0	0	0	0	4	0	0	0	0	0	0	0	3	0	0	7
Hour	0	0	0	0	1	15	0	0	0	0	0	0	0	14	0	0	30
Total	1	2	1	0	3	62	0	0	1	3	7	0	0	60	2	1	143
% Apr.	25.0	50.0	25.0	-	4.6	95.3	-	-	9.0	27.2	63.6	-	-	95.2	3.1	1.5	-
% Int.	0.6	1.3	0.6	-	2.0	43.3	-	-	0.6	2.0	4.8	-	-	41.9	1.3	0.6	-

Florida Transportation Engineering, Inc.

Weather : GOOD
Counted by: Todd Beatty
Board # : 2084
Other :

8250 Pascal Drive
Punta Gorda, Florida 33950
(941) 639-2818

Study Name: 776@CCSB
Site Code : 20840005
Start Date: 09/18/01
Page : 2

Trucks, Bikes

Start Time	Ocean Spray Blvd Southbound Left	Thru	Right	Bikes	SR 776 Westbound Left	Thru	Right	Bikes	Ocean Spray Blvd Northbound Left	Thru	Right	Bikes	SR 776 Eastbound Left	Thru	Right	Bikes	Intvl. Total
Peak Hour Analysis By Entire Intersection for the Period: 07:00 on 09/18/01 to 08:45 on 09/18/01																	
Time	08:00				08:00				08:00				08:00				
Vol.	1	0	1	0	0	22	0	0	1	0	2	0	0	20	0	0	
Pct.	50.0	0.0	50.0	0.0	0.0	100.0	0.0	0.0	33.3	0.0	66.6	0.0	0.0	100.0	0.0	0.0	
Total	2				22				3				20				
High	08:30				08:45				08:15				08:45				
Vol.	1	0	1	0	0	11	0	0	0	0	2	0	0	8	0	0	
Total	2				11				2				8				
PHF	0.250				0.500				0.375				0.625				
Peak Hour Analysis By Entire Intersection for the Period: 14:00 on 09/18/01 to 17:45 on 09/18/01																	
Time	16:45				16:45				16:45				16:45				
Vol.	0	0	0	0	1	14	0	0	0	1	0	0	0	15	0	0	
Pct.	0.0	0.0	0.0	0.0	6.6	93.3	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	0.0	0.0	
Total	0				15				1				15				
High	08:45				17:30				16:45				17:30				
Vol.	0	0	0	0	0	5	0	0	0	1	0	0	0	8	0	0	
Total	0				5				1				8				
PHF	0.000				0.750				0.250				0.469				

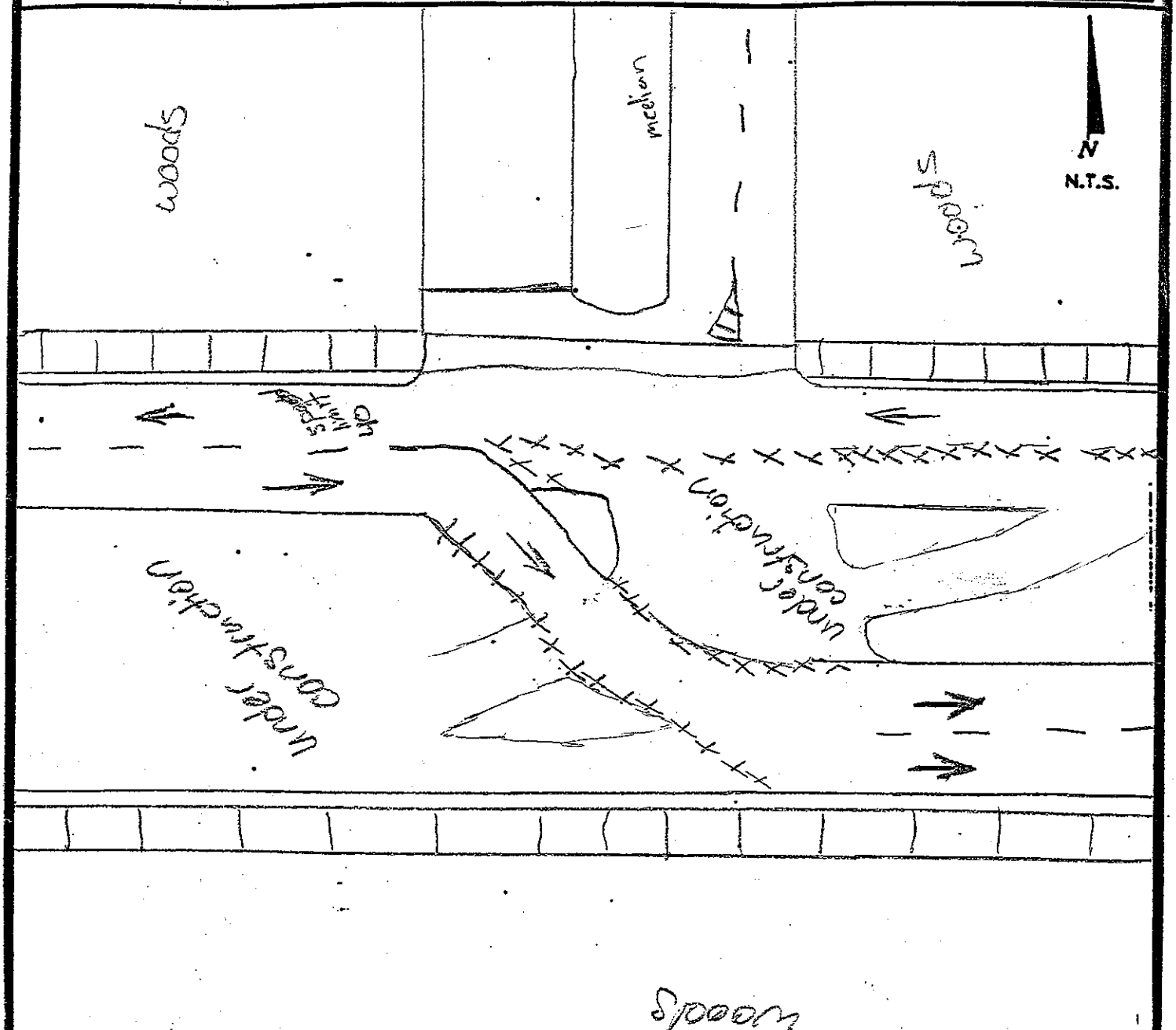
FLORIDA TRANSPORTATION ENGINEERING (FTE), INC.

CONDITION DIAGRAM

LOCATION I.D. SR 776 & Willowbend Dr

COUNTY Charlotte CITY

DATE 9/21/01 PREPARED BY: [redacted]



SYMBOLS

TREES	STREET LIGHT	Barricades	SIGN (1 POST)
SHRUBS	POWER POLE		SIGN (2 POST)
HEDGE	TELEPHONE POLE		SIGN (O'HEAD)
BUILDING	COMBINATION POLE		SIGNAL HEAD
RIGHT OF WAY	TRAFFIC SIGNAL POLE		PED HEAD
FENCE	FIRE HYDRANT		PED BUTTON
GUARDRAIL	CONTROLLER CABINET		R.R. SIGNAL

Florida Transportation Engineering, Inc.
3250 Pascal Drive
Punta Gorda, Florida 33950
(941) 639-2818

Weather : GOOD
Counted by: Robert Snow
Board # : 2136
Other :

Study Name: WBDR@776
Site Code : 20830002
Start Date: 09/19/01
Page : 1

Cars, Trucks, Peds

	Willobend Drive Southbound				SR-776 Westbound				Willobend Drive Northbound				SR-776 Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Intvl. Total
09/19/01																	
07:00	0	0	0	0	0	172	0	0	0	0	0	0	0	133	0	0	305
07:15	0	0	1	0	0	150	0	0	0	0	0	0	0	172	0	0	323
07:30	0	0	0	0	0	167	1	0	0	0	0	0	0	194	0	0	362
07:45	0	0	1	0	0	159	2	0	0	0	0	0	0	213	0	0	375
Hour	0	0	2	0	0	648	3	0	0	0	0	0	0	712	0	0	1365
08:00	0	0	1	0	0	143	0	0	0	0	0	0	0	166	0	0	310
08:15	0	0	0	0	0	140	1	0	0	0	0	0	0	163	0	0	304
08:30	0	0	0	0	0	134	0	0	0	0	0	0	0	172	0	0	306
08:45	0	0	1	0	0	121	4	0	0	0	0	0	0	130	0	0	256
Hour	0	0	2	0	0	538	5	0	0	0	0	0	0	631	0	0	1176
[BREAK]																	
16:00	0	0	2	0	0	201	1	0	0	0	0	0	0	178	0	0	382
16:15	0	0	1	0	0	168	1	0	0	0	0	0	0	168	0	0	338
16:30	0	0	1	0	0	197	0	0	0	0	0	0	0	192	0	0	390
16:45	0	0	2	0	0	186	0	0	0	0	0	0	0	192	0	0	380
Hour	0	0	6	0	0	752	2	0	0	0	0	0	0	730	0	0	1490
17:00	0	0	1	0	0	227	0	0	0	0	0	0	0	183	0	0	411
17:15	0	0	3	0	0	239	0	0	0	0	0	0	0	175	0	0	417
17:30	0	0	2	0	0	192	0	0	0	0	0	0	0	169	0	0	363
17:45	0	0	0	0	0	147	0	0	0	0	0	0	0	157	0	0	304
Hour	0	0	6	0	0	805	0	0	0	0	0	0	0	684	0	0	1495
Total	0	0	16	0	0	2743	10	0	0	0	0	0	0	2757	0	0	5526
% Apr.	-	-	100.0	-	-	99.6	0.3	-	-	-	-	-	-	100.0	-	-	-
% Int.	-	-	0.2	-	-	49.6	0.1	-	-	-	-	-	-	49.8	-	-	-

Florida Transportation Engineering, Inc.

Weather : GOOD
Counted by: Robert Snow
Board # : 2136
Other :

8250 Pascal Drive
Punta Gorda, Florida 33950
(941) 639-2818

Study Name: WBDR@776
Site Code : 20830002
Start Date: 09/19/01

Cars, Trucks, Peds

	Willobend Drive Southbound				SR-776 Westbound				Willobend Drive Northbound				SR-776 Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Intvl. Total
Peak Hour Analysis By Entire Intersection for the Period: 07:00 on 09/19/01 to 08:45 on 09/19/01																	
Time	07:15				07:15				07:15				07:15				
Vol.	0	0	3	0	0	619	3	0	0	0	0	0	0	745	0	0	
Pct.	0.0	0.0	100.0	0.0	0.0	99.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	
Total	3				622				0				745				
High	07:15				07:30				07:30				07:45				
Vol.	0	0	1	0	0	167	1	0	0	0	0	0	0	213	0	0	
Total	1				168				0				213				
PHF	0.750				0.926				0.000				0.874				
Peak Hour Analysis By Entire Intersection for the Period: 16:00 on 09/19/01 to 17:45 on 09/19/01																	
Time	16:30				16:30				16:30				16:30				
Vol.	0	0	7	0	0	849	0	0	0	0	0	0	0	742	0	0	
Pct.	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	
Total	7				849				0				742				
High	17:15				17:15				17:15				16:30				
Vol.	0	0	3	0	0	239	0	0	0	0	0	0	0	192	0	0	
Total	3				239				0				192				
PHF	0.583				0.888				0.000				0.956				

Florida Transportation Engineering, Inc.
8250 Pascal Drive
Punta Gorda, Florida 33950
(941) 639-2818

Weather : GOOD
Counted by: Robert Snow
Board # : 2136
Other :

Study Name: WBDR@776
Site Code : 20830002
Start Date: 09/19/01
Page : 1

Trucks, Bikes

Start Time	Willobend Drive Southbound Left	Thru	Right	Bikes	SR-776 Westbound Left	Thru	Right	Bikes	Willobend Drive Northbound Left	Thru	Right	Bikes	SR-776 Eastbound Left	Thru	Right	Bikes	Intvl. Total
09/19/01																	
07:00	0	0	0	0	0	15	0	0	0	0	0	0	0	2	0	0	17
07:15	0	0	0	0	0	9	0	0	0	0	0	0	0	11	0	0	20
07:30	0	0	0	0	0	18	0	0	0	0	0	0	0	7	0	0	25
07:45	0	0	0	0	0	21	0	0	0	0	0	0	0	8	0	0	29
Hour	0	0	0	0	0	63	0	0	0	0	0	0	0	28	0	0	91
08:00	0	0	0	0	0	10	0	0	0	0	0	0	0	4	0	0	14
08:15	0	0	0	0	0	20	0	0	0	0	0	0	0	17	0	0	37
08:30	0	0	0	0	0	17	0	0	0	0	0	0	0	4	0	0	21
08:45	0	0	0	0	0	25	0	0	0	0	0	0	0	11	0	0	36
Hour	0	0	0	0	0	72	0	0	0	0	0	0	0	36	0	0	108
[BREAK]																	
16:00	0	0	0	0	0	11	0	0	0	0	0	0	0	13	0	0	24
16:15	0	0	0	0	0	16	0	0	0	0	0	0	0	12	0	0	28
16:30	0	0	0	0	0	4	0	0	0	0	0	0	0	8	0	0	12
16:45	0	0	0	0	0	12	0	0	0	0	0	0	0	20	0	0	32
Hour	0	0	0	0	0	43	0	0	0	0	0	0	0	53	0	0	96
17:00	0	0	0	0	0	8	0	0	0	0	0	0	0	12	0	0	20
17:15	0	0	1	0	0	7	0	0	0	0	0	0	0	5	0	0	14
17:30	0	0	0	0	0	11	0	0	0	0	0	0	0	6	0	0	17
17:45	0	0	0	0	0	3	0	0	0	0	0	0	0	13	0	0	16
Hour	0	0	1	0	0	29	0	0	0	0	0	0	0	36	0	0	66
Total	0	0	1	0	0	207	0	0	0	0	0	0	0	153	0	0	361
% Apr.	-	-	100.0	-	-	100.0	-	-	-	-	-	-	-	100.0	-	-	-
% Int.	-	-	0.2	-	-	57.3	-	-	-	-	-	-	-	42.3	-	-	-

Florida Transportation Engineering, Inc.
8250 Pascal Drive
Punta Gorda, Florida 33950
(941) 639-2818

Weather : GOOD
Counted by: Robert Snow
Board # : 2136
Other :

Study Name: WBDR@776
Site Code : 20830002
Start Date: 09/19/01

Trucks, Bikes

Start Time	Willobend Drive Southbound Left	Thru	Right	Bikes	SR-776 Westbound Left	Thru	Right	Bikes	Willobend Drive Northbound Left	Thru	Right	Bikes	SR-776 Eastbound Left	Thru	Right	Bikes	Intvl. Total
Peak Hour Analysis By Entire Intersection for the Period: 07:00 on 09/19/01 to 17:45 on 09/19/01																	
Time	08:00				08:00				08:00				08:00				
Vol.	0	0	0	0	0	72	0	0	0	0	0	0	0	36	0	0	
Pct.	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	
Total	0				72				0				36				
High	07:-1				08:45				08:45				08:15				
Vol.	0	0	0	0	0	25	0	0	0	0	0	0	0	17	0	0	
Total	0				25				0				17				
PHF	0.000				0.720				0.000				0.529				

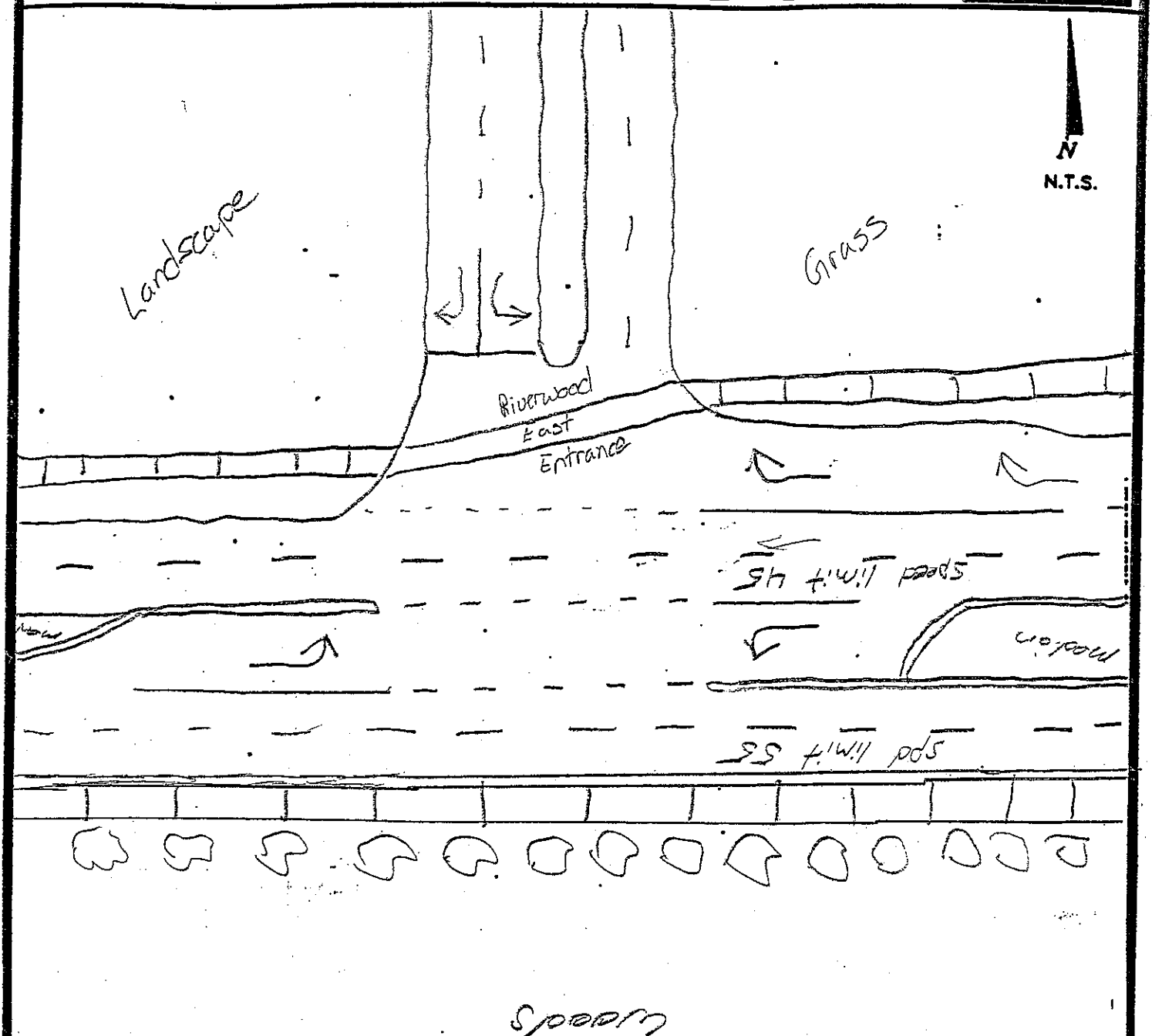
FLORIDA TRANSPORTATION ENGINEERING (FTE), INC.

CONDITION DIAGRAM

LOCATION I.D. SR-776 @ Riverwood

COUNTY Charlotte CITY

DATE 9/21/01 PREPARED BY: FTE



SYMBOLS

TREES	STREET LIGHT	SIGN (1 POST)
SHRUBS	POWER POLE	SIGN (2 POST)
HEDGE	TELEPHONE POLE	SIGN (O'HEAD)
BUILDING	COMBINATION POLE	SIGNAL HEAD
RIGHT OF WAY	TRAFFIC SIGNAL POLE	PED HEAD
FENCE	FIRE HYDRANT	PED BUTTON
GUARDRAIL	CONTROLLER CABINET	R.R. SIGNAL

Florida Transportation Engineering, Inc.
8250 Pascal Drive
Punta Gorda, Florida 33950
(941) 639-2818

Weather : GOOD
Counted by: Erin Barnes
Board # : 2136
Other :

Study Name: 776@RWDR
Site Code : 21360001
Start Date: 09/19/01
Page : 1

Cars, Trucks, Peds

Start Time	Riverwood Drive Southbound				SR-776 Westbound				Riverwood Drive Northbound				SR-776 Eastbound				Intvl. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
09/19/01																	
07:00	4	0	0	0	1	180	11	0	0	0	0	0	1	166	0	0	363
07:15	6	0	0	0	1	150	13	0	0	0	0	0	0	184	0	0	354
07:30	4	0	1	0	2	154	5	0	0	0	0	0	0	192	0	0	358
07:45	7	0	1	0	2	157	10	0	0	0	0	0	1	195	0	0	373
Hour	21	0	2	0	6	641	39	0	0	0	0	0	2	737	0	0	1448
08:00	8	0	1	0	0	120	6	0	0	0	0	0	6	144	0	0	285
08:15	8	0	1	0	2	117	13	0	0	0	0	0	4	170	0	0	315
08:30	7	0	1	0	0	138	14	0	0	0	0	0	0	138	0	0	298
08:45	5	0	2	0	2	125	19	0	0	0	0	0	2	141	0	0	296
Hour	28	0	5	0	4	500	52	0	0	0	0	0	12	593	0	0	1194
[BREAK]																	
16:00	10	0	1	0	1	180	11	0	0	0	0	0	1	177	0	0	381
16:15	4	0	0	0	1	150	13	0	0	0	0	0	0	181	0	0	349
16:30	8	0	1	0	2	154	5	0	0	0	0	0	1	200	0	0	371
16:45	10	0	0	0	2	157	10	0	0	0	0	0	0	194	0	0	373
Hour	32	0	2	0	6	641	39	0	0	0	0	0	2	752	0	0	1474
17:00	10	0	2	0	0	120	6	0	0	0	0	0	2	200	0	0	340
17:15	12	0	0	0	2	117	13	0	0	0	0	0	0	212	0	0	356
17:30	8	0	2	0	0	138	14	0	0	0	0	0	0	175	0	0	337
17:45	1	0	0	0	2	125	19	0	0	0	0	0	1	239	0	0	377
Hour	31	0	4	0	4	500	52	0	0	0	0	0	3	816	0	0	1410
Total	112	0	13	0	20	2282	182	0	0	0	0	0	19	2898	0	0	5526
% Apr.	89.6	-	10.4	-	0.8	91.8	7.3	-	-	-	-	-	0.6	99.3	-	-	-
% Int.	2.0	-	0.2	-	0.3	41.2	3.2	-	-	-	-	-	0.3	52.4	-	-	-

APPENDIX C

FDOT Adjustment Factors
2001 Adjusted Turning Movement Volumes

Print Date: September 24, 001

Florida Department of Transportation

Transportation Statistics Office

2000 Weekly Axle Factor Category Report

County: 01 - CHARLOTTE

Week	Dates	0105 SR776, CR771 - US 41
1	01/01/2000 - 01/01/2000	0.97
2	01/02/2000 - 01/08/2000	0.97
3	01/09/2000 - 01/15/2000	0.97
4	01/16/2000 - 01/22/2000	0.97
5	01/23/2000 - 01/29/2000	0.97
6	01/30/2000 - 02/05/2000	0.97
7	02/06/2000 - 02/12/2000	0.97
8	02/13/2000 - 02/19/2000	0.97
9	02/20/2000 - 02/26/2000	0.97
10	02/27/2000 - 03/04/2000	0.97
11	03/05/2000 - 03/11/2000	0.97
12	03/12/2000 - 03/18/2000	0.97
13	03/19/2000 - 03/25/2000	0.97
14	03/26/2000 - 04/01/2000	0.97
15	04/02/2000 - 04/08/2000	0.97
16	04/09/2000 - 04/15/2000	0.97
17	04/16/2000 - 04/22/2000	0.97
18	04/23/2000 - 04/29/2000	0.97
19	04/30/2000 - 05/06/2000	0.97
20	05/07/2000 - 05/13/2000	0.97
21	05/14/2000 - 05/20/2000	0.97
22	05/21/2000 - 05/27/2000	0.97
23	05/28/2000 - 06/03/2000	0.97
24	06/04/2000 - 06/10/2000	0.97
25	06/11/2000 - 06/17/2000	0.97
26	06/18/2000 - 06/24/2000	0.97
27	06/25/2000 - 07/01/2000	0.97
28	07/02/2000 - 07/08/2000	0.97
29	07/09/2000 - 07/15/2000	0.97
30	07/16/2000 - 07/22/2000	0.97
31	07/23/2000 - 07/29/2000	0.97
32	07/30/2000 - 08/05/2000	0.97
33	08/06/2000 - 08/12/2000	0.97
34	08/13/2000 - 08/19/2000	0.97
35	08/20/2000 - 08/26/2000	0.97
36	08/27/2000 - 09/02/2000	0.97
37	09/03/2000 - 09/09/2000	0.97
38	09/10/2000 - 09/16/2000	0.97
39	09/17/2000 - 09/23/2000	0.97
40	09/24/2000 - 09/30/2000	0.97
41	10/01/2000 - 10/07/2000	0.97
42	10/08/2000 - 10/14/2000	0.97
43	10/15/2000 - 10/21/2000	0.97
44	10/22/2000 - 10/28/2000	0.97
45	10/29/2000 - 11/04/2000	0.97
46	11/05/2000 - 11/11/2000	0.97
47	11/12/2000 - 11/18/2000	0.97
48	11/19/2000 - 11/25/2000	0.97
49	11/26/2000 - 12/02/2000	0.97

Print Date: Nov/15/2001

Florida Department of Transportation
Transportation Statistics Office
2000 Peak Season Factor Category Report

CHARLOTTE COUNTYWIDE
Category: 0100

MOCF = 0.86

	Week	Dates	SF	PSCF
	1	01/01/2000 - 01/01/2000	0.96	1.12
	2	01/02/2000 - 01/08/2000	0.94	1.09
*	3	01/09/2000 - 01/15/2000	0.92	1.07
*	4	01/16/2000 - 01/22/2000	0.90	1.05
*	5	01/23/2000 - 01/29/2000	0.88	1.02
*	6	01/30/2000 - 02/05/2000	0.86	1.00
*	7	02/06/2000 - 02/12/2000	0.85	0.99
*	8	02/13/2000 - 02/19/2000	0.83	0.97
*	9	02/20/2000 - 02/26/2000	0.83	0.97
*	10	02/27/2000 - 03/04/2000	0.83	0.97
*	11	03/05/2000 - 03/11/2000	0.83	0.97
*	12	03/12/2000 - 03/18/2000	0.83	0.97
*	13	03/19/2000 - 03/25/2000	0.86	1.00
*	14	03/26/2000 - 04/01/2000	0.88	1.02
*	15	04/02/2000 - 04/08/2000	0.91	1.06
	16	04/09/2000 - 04/15/2000	0.93	1.08
	17	04/16/2000 - 04/22/2000	0.95	1.10
	18	04/23/2000 - 04/29/2000	0.97	1.13
	19	04/30/2000 - 05/06/2000	0.99	1.15
	20	05/07/2000 - 05/13/2000	1.00	1.16
	21	05/14/2000 - 05/20/2000	1.02	1.19
	22	05/21/2000 - 05/27/2000	1.04	1.21
	23	05/28/2000 - 06/03/2000	1.06	1.23
	24	06/04/2000 - 06/10/2000	1.08	1.26
	25	06/11/2000 - 06/17/2000	1.10	1.28
	26	06/18/2000 - 06/24/2000	1.12	1.30
	27	06/25/2000 - 07/01/2000	1.13	1.31
	28	07/02/2000 - 07/08/2000	1.14	1.33
	29	07/09/2000 - 07/15/2000	1.15	1.34
	30	07/16/2000 - 07/22/2000	1.15	1.34
	31	07/23/2000 - 07/29/2000	1.15	1.34
	32	07/30/2000 - 08/05/2000	1.14	1.33
	33	08/06/2000 - 08/12/2000	1.14	1.33
	34	08/13/2000 - 08/19/2000	1.14	1.33
	35	08/20/2000 - 08/26/2000	1.14	1.33
	36	08/27/2000 - 09/02/2000	1.15	1.34
	37	09/03/2000 - 09/09/2000	1.15	1.34
	38	09/10/2000 - 09/16/2000	1.16	1.35
	39	09/17/2000 - 09/23/2000	1.14	1.33
	40	09/24/2000 - 09/30/2000	1.12	1.30
	41	10/01/2000 - 10/07/2000	1.10	1.28
	42	10/08/2000 - 10/14/2000	1.08	1.26
	43	10/15/2000 - 10/21/2000	1.06	1.23
	44	10/22/2000 - 10/28/2000	1.04	1.21
	45	10/29/2000 - 11/04/2000	1.02	1.19
	46	11/05/2000 - 11/11/2000	1.00	1.16
	47	11/12/2000 - 11/18/2000	0.98	1.14

PSF = 1/.862 = 1.16

AVE 13 WKS

11.21 / 13 = .862

Note: "*" indicates peak season week

Florida Department of Transportation
Transportation Statistics Office
2000 Peak Season Factor Category Report

48	11/19/2000 - 11/25/2000	0.98	1.14
49	11/26/2000 - 12/02/2000	0.97	1.13
50	12/03/2000 - 12/09/2000	0.96	1.12
51	12/10/2000 - 12/16/2000	0.96	1.12
52	12/17/2000 - 12/23/2000	0.94	1.09
53	12/24/2000 - 12/30/2000	0.93	1.08
54	12/31/2000 - 12/31/2000	0.92	1.07

Note: "*" indicates peak season week

Project: Riverwood AMR
Turning Movement Volume Adjustment Worksheet FTE No.: 101046-01

Base Year: 2001
Adjustment Factor: 1.32 (1.16*1.14)

Location: SR 776 and Riverwood Drive

2001 RAW TURNING MOVEMENT VOLUMES
AM PEAK 7:00-8:00AM

	Left	Thru	Right
Eastbound	2	737	0
Westbound	6	641	39
Northbound	0	0	0
Southbound	21	0	2

2001 TURNING MOVEMENT VOLUMES

	Left	Thru	Right
Eastbound	3	975	0
Westbound	8	848	52
Northbound	0	0	0
Southbound	28	0	3

PM PEAK 4:00-5:00

	Left	Thru	Right
Eastbound	2	752	0
Westbound	6	641	39
Northbound	0	0	0
Southbound	32	0	2

	Left	Thru	Right
Eastbound	3	994	0
Westbound	8	848	52
Northbound	0	0	0
Southbound	42	0	3

Project: Riverwood AMR
FTE No.: 101046-01

Turning Movement Volume Adjustment Worksheet

Base Year: 2001
Adjustment Factor: 1.32 (1.16*1.14)

Location: SR 776 and Willowbend Drive

2001 RAW TURNING MOVEMENT VOLUMES

AM PEAK 7:15-8:15AM

	Left	Thru	Right
Eastbound	0	745	0
Westbound	0	619	3
Northbound	0	0	0
Southbound	0	0	3

PM PEAK 4:30-5:30

	Left	Thru	Right
Eastbound	0	742	0
Westbound	0	849	0
Northbound	0	0	0
Southbound	0	0	7

2001 TURNING MOVEMENT VOLUMES

	Left	Thru	Right
Eastbound	0	985	0
Westbound	0	819	4
Northbound	0	0	0
Southbound	0	0	4

	Left	Thru	Right
Eastbound	0	981	0
Westbound	0	1123	0
Northbound	0	0	0
Southbound	0	0	9

Project: Riverwood AMR
FTE No.: 101046-01

Turning Movement Volume Adjustment Worksheet

Base Year: 2001
Adjustment Factor: 1.32 (1.16*1.14)

Location: SR 776 and Oceanspray Blvd.

2001 RAW TURNING MOVEMENT VOLUMES

AM PEAK 7:15-8:15AM

	Left	Thru	Right
Eastbound	9	264	10
Westbound	37	431	14
Northbound	24	14	47
Southbound	18	34	20

PM PEAK 5:00-6:00

	Left	Thru	Right
Eastbound	43	425	39
Westbound	43	329	11
Northbound	35	42	58
Southbound	22	28	33

2001 TURNING MOVEMENT VOLUMES

	Left	Thru	Right
Eastbound	12	349	13
Westbound	49	570	19
Northbound	32	19	62
Southbound	24	45	26

	Left	Thru	Right
Eastbound	57	562	52
Westbound	57	435	15
Northbound	46	56	77
Southbound	29	37	44

Project: Riverwood AMR
FTE No.: 101046-01

Turning Movement Volume Adjustment Worksheet

Base Year:	2001	
Adjustment Factor:	1.32	(1.16*1.14)

Location: SR 776 and David Blvd.

2001 RAW TURNING MOVEMENT VOLUMES

AM PEAK 7:15-8:15AM

	Left	Thru	Right
Eastbound	21	266	11
Westbound	2	476	12
Northbound	24	9	14
Southbound	15	14	31

PM PEAK 4:45-5:45

	Left	Thru	Right
Eastbound	45	474	26
Westbound	7	412	14
Northbound	6	8	10
Southbound	13	14	22

2001 TURNING MOVEMENT VOLUMES

	Left	Thru	Right
Eastbound	28	352	15
Westbound	3	629	16
Northbound	32	12	19
Southbound	20	19	41

	Left	Thru	Right
Eastbound	60	627	34
Westbound	9	545	19
Northbound	8	11	13
Southbound	17	19	29

Project: Riverwood AMR
Turning Movement Volume Adjustment Worksheet FTE No.: 101046-01

Base Year: 2001
Adjustment Factor: 1.32 (1.16*1.14)

Location: SR 776 and Gillot Blvd.

2001 RAW TURNING MOVEMENT VOLUMES

AM PEAK 7:00-8:00AM

	Left	Thru	Right
Eastbound	5	527	0
Westbound	0	587	49
Northbound	0	0	0
Southbound	153	0	37

PM PEAK 4:45-5:45

	Left	Thru	Right
Eastbound	49	620	0
Westbound	0	621	165
Northbound	0	0	0
Southbound	69	0	31

2001 TURNING MOVEMENT VOLUMES

	Left	Thru	Right
Eastbound	7	697	0
Westbound	0	776	65
Northbound	0	0	0
Southbound	202	0	49

	Left	Thru	Right
Eastbound	65	820	0
Westbound	0	821	218
Northbound	0	0	0
Southbound	91	0	41

APPENDIX D

Charlotte County LOS Tables

Two Way Peak Hour Volumes

2 Lane	A	B	C	D	E
High	1	1000	1450	1550	1550
Mid	1	500	1115	1440	1500
Low	1	1	780	1330	1450

4 Lane	A	B	C	D	E
High	1	2190	3080	3260	3260
Mid	1	1642	2445	3070	3170
Low	1	1	1810	2880	3080
2 lane one	*1*	*1314*	*1848*	*1956*	*1956*

6 Lane	A	B	C	D	E
High	1	3330	4640	4890	4890
Mid	1	2497	3720	4620	4765
Low	1	1	2800	4350	4640
3 lane one	*1*	*1998*	*2784*	*2934*	*2934*

These values apply to collector and Arterial Roadways that are normally controlled with either signals or stop signs.

These values do not include freeways.

Service levels for 2 way peak hour volumes in urbanized areas

The County will be using the Mid level unless otherwise indicated

APPENDIX E

Percent Trucks
Peak Hour Factors
2001 HCS Analyses

Percent Truck Worksheet

Project: Riverwood AMR
FTE No.: 101046-01

Location: SR 776 and Gillot Blvd.

2001 TRUCKS

AM PEAK 7:00-8:00AM

	Left	Thru	Right
Eastbound	0	23	0
Westbound	0	27	4
Northbound	0	0	0
Southbound	1	0	0

PM PEAK 4:45-5:45

	Left	Thru	Right
Eastbound	1	24	0
Westbound	0	21	2
Northbound	0	0	0
Southbound	1	0	1

2001 TRUCKS (%)

AM PEAK 7:00-8:00AM

	Left	Thru	Right
Eastbound	0.00%	4.36%	
Westbound		4.60%	8.16%
Northbound			
Southbound	0.65%		0.00%

PM PEAK 4:45-5:45

	Left	Thru	Right
Eastbound	2.04%	3.87%	
Westbound		3.38%	1.21%
Northbound			
Southbound	1.45%		3.23%

Project: Riverwood AMR
FTE No.: 101046-01

Percent Truck Worksheet

Location: SR 776 and David Blvd.

2001 TRUCKS

AM PEAK 7:15-8:15AM

	Left	Thru	Right
Eastbound	1	17	1
Westbound	0	29	1
Northbound	0	1	0
Southbound	2	0	1

PM PEAK 4:45-5:45

	Left	Thru	Right
Eastbound	1	22	0
Westbound	0	17	0
Northbound	0	0	0
Southbound	0	0	0

2001 TRUCKS (%)

AM PEAK 7:15-8:15AM

	Left	Thru	Right
Eastbound	4.76%	6.39%	9.09%
Westbound	0.00%	6.09%	8.33%
Northbound	0.00%	11.11%	0.00%
Southbound	13.33%	0.00%	3.23%

PM PEAK 4:45-5:45

	Left	Thru	Right
Eastbound	2.22%	4.64%	0.00%
Westbound	0.00%	4.13%	0.00%
Northbound	0.00%	0.00%	0.00%
Southbound	0.00%	0.00%	0.00%

Percent Truck Worksheet

Project: Riverwood AMR
FTE No.: 101046-01

Location: SR 776 and Oceanspray Blvd.

2001 TRUCKS

AM PEAK 7:15-8:15AM

	Left	Thru	Right
Eastbound	0	13	1
Westbound	1	14	0
Northbound	0	1	4
Southbound	0	1	0

PM PEAK 5:00-6:00

	Left	Thru	Right
Eastbound	0	14	0
Westbound	1	15	0
Northbound	0	0	0
Southbound	0	0	0

2001 TRUCKS (%)

AM PEAK 7:15-8:15AM

	Left	Thru	Right
Eastbound	0.00%	4.92%	10.00%
Westbound	2.70%	3.25%	0.00%
Northbound	0.00%	7.14%	8.51%
Southbound	0.00%	2.94%	0.00%

PM PEAK 5:00-6:00

	Left	Thru	Right
Eastbound	0.00%	3.29%	0.00%
Westbound	2.33%	4.56%	0.00%
Northbound	0.00%	0.00%	0.00%
Southbound	0.00%	0.00%	0.00%

Project: Riverwood AMR
FTE No.: 101046-01

Percent Truck Worksheet

Location: SR 776 and Willowbend Drive

2001 TRUCKS

AM PEAK 7:15-8:15AM

	Left	Thru	Right
Eastbound	0	30	0
Westbound	0	58	0
Northbound	0	0	0
Southbound	0	0	0

PM PEAK 4:30-5:30

	Left	Thru	Right
Eastbound	0	46	0
Westbound	0	31	0
Northbound	0	0	0
Southbound	0	0	1

2001 TRUCKS (%)

AM PEAK 7:15-8:15AM

	Left	Thru	Right
Eastbound		4.03%	
Westbound		9.37%	0.00%
Northbound			
Southbound			0.00%

PM PEAK 4:30-5:30

	Left	Thru	Right
Eastbound		6.20%	
Westbound		3.65%	
Northbound			
Southbound			14.29%

Project: Riverwood AMR
Percent Truck Worksheet FTE No.: 101046-01

Location: SR 776 and Riverwood Drive

2001 TRUCKS

AM PEAK 7:00-8:00AM

	Left	Thru	Right
Eastbound	3	17	0
Westbound	0	26	2
Northbound	0	0	0
Southbound	3	0	0

PM PEAK 4:00-5:00

	Left	Thru	Right
Eastbound	0	24	0
Westbound	0	15	1
Northbound	0	0	0
Southbound	2	0	0

2001 TRUCKS (%)

AM PEAK 7:00-8:00AM

	Left	Thru	Right
Eastbound	150.00%	2.31%	
Westbound	0.00%	4.06%	5.13%
Northbound			
Southbound	14.29%		0.00%

PM PEAK 4:00-5:00

	Left	Thru	Right
Eastbound	0.00%	3.19%	
Westbound	0.00%	2.34%	2.56%
Northbound			
Southbound	6.25%		0.00%

Peak Hour Factor Worksheet

Project: Riverwood AMR
FTE No.: 101046-01

Location: SR 776 and Gillot Blvd.

PEAK 15 MIN VOLUMES

AM PEAK 7:00-8:00AM

	Left	Thru	Right
Eastbound	2	147	0
Westbound	0	163	17
Northbound	0	0	0
Southbound	49	0	16

PM PEAK 4:45-5:45

	Left	Thru	Right
Eastbound	14	180	0
Westbound	0	195	52
Northbound	0	0	0
Southbound	25	0	9

PEAK HOUR FACTORS

AM PEAK 7:00-8:00AM

	Left	Thru	Right
Eastbound	0.63	0.90	
Westbound		0.90	0.72
Northbound			
Southbound	0.78		0.58

PM PEAK 4:45-5:45

	Left	Thru	Right
Eastbound	0.88	0.86	
Westbound		0.80	0.79
Northbound			
Southbound	0.69		0.86

Peak Hour Factor Worksheet

Project: Riverwood AMR
FTE No.: 101046-01

Location: SR 776 and David Blvd.

PEAK 15 MIN VOLUMES

AM PEAK 7:15-8:15AM

	Left	Thru	Right
Eastbound	6	76	5
Westbound	1	152	5
Northbound	9	4	6
Southbound	5	6	12

PM PEAK 4:45-5:45

	Left	Thru	Right
Eastbound	17	128	10
Westbound	3	112	5
Northbound	3	4	3
Southbound	4	8	8

PEAK HOUR FACTORS

AM PEAK 7:15-8:15AM

	Left	Thru	Right
Eastbound	0.88	0.88	0.55
Westbound	0.50	0.78	0.60
Northbound	0.67	0.56	0.58
Southbound	0.75	0.58	0.65

PM PEAK 4:45-5:45

	Left	Thru	Right
Eastbound	0.66	0.93	0.65
Westbound	0.58	0.92	0.70
Northbound	0.50	0.50	0.83
Southbound	0.81	0.44	0.69

Peak Hour Factor Worksheet

FTE No.: 101046-01

Location: SR 776 and Oceanspray Blvd.

PEAK 15 MIN VOLUMES

AM PEAK 7:15-8:15AM

	Left	Thru	Right
Eastbound	3	76	4
Westbound	14	116	5
Northbound	12	6	14
Southbound	7	14	6

PM PEAK 5:00-6:00

	Left	Thru	Right
Eastbound	13	135	13
Westbound	13	94	4
Northbound	16	13	19
Southbound	8	10	12

PEAK HOUR FACTORS

AM PEAK 7:15-8:15AM

	Left	Thru	Right
Eastbound	0.75	0.87	0.63
Westbound	0.66	0.93	0.70
Northbound	0.50	0.58	0.84
Southbound	0.64	0.61	0.83

PM PEAK 5:00-6:00

	Left	Thru	Right
Eastbound	0.83	0.79	0.75
Westbound	0.83	0.88	0.69
Northbound	0.55	0.81	0.76
Southbound	0.69	0.70	0.69

Peak Hour Factor Worksheet

Project: Riverwood AMR
FTE No.: 101046-01

Location: SR 776 and Willowbend Drive

PEAK 15 MIN VOLUMES

AM PEAK 7:15-8:15AM

	Left	Thru	Right
Eastbound	0	213	0
Westbound	0	167	2
Northbound	0	0	0
Southbound	0	0	1

PM PEAK 4:30-5:30

	Left	Thru	Right
Eastbound	0	192	0
Westbound	0	239	0
Northbound	0	0	0
Southbound	0	0	3

PEAK HOUR FACTORS

AM PEAK 7:15-8:15AM

	Left	Thru	Right
Eastbound		0.87	
Westbound		0.93	0.38
Northbound			
Southbound			0.75

PM PEAK 4:30-5:30

	Left	Thru	Right
Eastbound		0.97	
Westbound		0.89	
Northbound			
Southbound			0.58

Peak Hour Factor Worksheet

Project: Riverwood AMR
FTE No.: 101046-01

Location: SR 776 and Riverwood Drive

PEAK 15 MIN VOLUMES

AM PEAK 7:00-8:00AM

	Left	Thru	Right
Eastbound	1	195	0
Westbound	2	180	13
Northbound	0	0	0
Southbound	7	0	1

PM PEAK 4:00-5:00

	Left	Thru	Right
Eastbound	1	200	0
Westbound	2	180	13
Northbound	0	0	0
Southbound	10	0	1

PEAK HOUR FACTORS

AM PEAK 7:00-8:00AM

	Left	Thru	Right
Eastbound	0.50	0.94	
Westbound	0.75	0.89	0.75
Northbound			
Southbound	0.75		0.50

PM PEAK 4:00-5:00

	Left	Thru	Right
Eastbound	0.50	0.94	
Westbound	0.75	0.89	0.75
Northbound			
Southbound	0.80		0.50

HCS: Unsignalized Intersections Release 3.2

TWO-WAY STOP CONTROL SUMMARY

Intersection:	SR 776 & Gillot Blvd.
Analyst:	FTE
Project No.:	101046-01
Date:	9/28/2001
East/West Street:	SR 776
North/South Street:	Gillot Blvd
Intersection Orientation:	EW
Study period (hrs):	0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	7	697			776	65
Hourly Flow Rate, HFR	7	697			862	90
Percent Heavy Vehicles	0	--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes	1	1			1	0
Configuration	L	T				TR
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				202		49
Hourly Flow Rate, HFR				258		84
Percent Heavy Vehicles				1		0
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes				1		1
Configuration				L		R

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L					L		R
v (vph)	7					258		84
C(m) (vph)	730					113		337
v/c	0.01					2.28		0.25
95% queue length	0.00					20.00		1.01
Control Delay	10.0-					666.3		19.2
LOS	A					F		C
Approach Delay							507.4	
Approach LOS							F	

HCS: Unsignalized Intersections Release 3.2

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Intersection:	SR 776 & Gillot Blvd.
City/State:	

Analyst: FTE
Project No.: 101046-01
Time period Analyzed: AM Peak
Date: 9/28/2001
East/West Street: SR 776
North/South Street: Gillot Blvd
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	7	697			776	65
Peak-Hour Factor, PHF	1.00	1.00			0.90	0.72
Peak-15 Minute Volume	2	174			216	23
Hourly Flow Rate, HFR	7	697			862	90
Percent Heavy Vehicles	0	--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes	1	1			1	0
Configuration	L	T				TR
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume				202		49
Peak Hour Factor, PHF				0.78		0.58
Peak-15 Minute Volume				65		21
Hourly Flow Rate, HFR				258		84
Percent Heavy Vehicles				1		0
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes				1		1
Configuration				L		R

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		
Shared ln volume, major rt vehicles:		
Sat flow rate, major th vehicles:		
Sat flow rate, major rt vehicles:		
Number of major street through lanes:		

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement		1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1					7.1		6.2
t(c,hv)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		0					1		0
t(c,g)				0.20	0.20	0.10	0.20	0.20	0.10
Grade/100				0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00					0.70		0.00
t(c,T):	1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c)	1-stage	4.1					6.4		6.2
	2-stage	4.1					5.4		6.2

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)	2.20					3.50		3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)	0					1		0
t(f)	2.2					3.5		3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from table 9-2)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p	0.000		0.000	

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)			
p(4)			
p(7)			
p(8)			

p(9)
p(10)
p(11)
p(12)

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x	952					1618		907
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7		8		10		11	
	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2
V(c,x)					907	711		
s						1700		
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows		907
Potential Capacity		337
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		337
Probability of Queue free St.	1.00	0.75

Step 2: LT from Major St.	4	1
Conflicting Flows		952
Potential Capacity		730
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		730
Probability of Queue free St.	1.00	0.99
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows		1618
Potential Capacity		114
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	0.99	0.99
Maj. L, Min T Adj. Imp Factor.	0.99	0.99
Cap. Adj. factor due to Impeding mvmnt	0.75	0.99
Movement Capacity		113

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11

Part 1 - First Stage		
Conflicting Flows		
Potential Capacity	439	357
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	1.00
Movement Capacity	435	357
Probability of Queue free St.	1.00	1.00
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity	341	439
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	0.99
Movement Capacity	341	435
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Result for 2 stage process:		
a	0.00	0.00
Y	0.00	0.00
C t		
Probability of Queue free St.	1.00	1.00
Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		907
Potential Capacity	490	395
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	1.00
Movement Capacity	485	395
Part 2 - Second Stage		
Conflicting Flows		711
Potential Capacity	379	489
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.75	0.99
Movement Capacity	285	484
Part 3 - Single Stage		
Conflicting Flows		1618
Potential Capacity		114
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	0.99	0.99
Maj. L, Min T Adj. Imp Factor.	0.99	0.99
Cap. Adj. factor due to Impeding mvmnt	0.75	0.99
Movement Capacity		113
Results for Two-stage process:		
a	0.00	0.00
Y	0.00	0.00
C t		113

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)				258		84
Movement Capacity (vph)				113		337
Shared Lane Capacity (vph)						

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7	8	9	10	11	12

	L	T	R	L	T	R
C sep				113		337
Volume				258		84
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						

n max	
C sh	
SUM C sep	
n	
C act	

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config	L					L		R
v (vph)	7					258		84
C(m) (vph)	730					113		337
v/c	0.01					2.28		0.25
95% queue length	0.00					20.00		1.01
Control Delay	10.0-					666.3		19.2
LOS	A					F		C
Approach Delay							507.4	
Approach LOS							F	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	0.99	1.00
v(il), Volume for stream 2 or 5		
v(i2), Volume for stream 3 or 6		
s(il), Saturation flow rate for stream 2 or 5		
s(i2), Saturation flow rate for stream 3 or 6		
P*(oj)		
d(M,LT), Delay for stream 1 or 4	10.0-	
N, Number of major street through lanes		
d(rank,1) Delay for stream 2 or 5		

HCS: Unsignalized Intersections Release 3.2

TWO-WAY STOP CONTROL SUMMARY

Intersection:	SR 776 & Gillot
Analyst:	FTE
Project No.:	101046-01
Date:	10/1/2001
East/West Street:	SR 776
North/South Street:	Gillot
Intersection Orientation:	EW
Study period (hrs):	0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	65	820			821	218
Hourly Flow Rate, HFR	103	911			912	302
Percent Heavy Vehicles	2	--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes	1	1			1	0
Configuration	L	T				TR
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				91		41
Hourly Flow Rate, HFR				116		70
Percent Heavy Vehicles				1		3
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes				1		1
Configuration				L		R

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L					L		R
v (vph)	103					116		70
C(m) (vph)	575					44		270
v/c	0.18					2.64		0.26
95% queue length	0.69					10.28		1.03
Control Delay	12.6					937.3		22.9
LOS	B					F		C
Approach Delay							593.2	
Approach LOS							F	

HCS: Unsignalized Intersections Release 3.2

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Intersection:	SR 776 & Gillot
City/State:	

Analyst: FTE
Project No.: 101046-01
Time period Analyzed: PM Peak
Date: 10/1/2001
East/West Street: SR 776
North/South Street: Gillot
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	65	820			821	218
Peak-Hour Factor, PHF	0.63	0.90			0.90	0.72
Peak-15 Minute Volume	26	228			228	76
Hourly Flow Rate, HFR	103	911			912	302
Percent Heavy Vehicles	2	--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes	1	1			1	0
Configuration	L	T				TR
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume				91		41
Peak Hour Factor, PHF				0.78		0.58
Peak-15 Minute Volume				29		18
Hourly Flow Rate, HFR				116		70
Percent Heavy Vehicles				1		3
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes				1		1
Configuration				L		R

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		
Shared ln volume, major rt vehicles:		
Sat flow rate, major th vehicles:		
Sat flow rate, major rt vehicles:		
Number of major street through lanes:		

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement		1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1					7.1		6.2
t(c,hv)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2					1		3
t(c,g)				0.20	0.20	0.10	0.20	0.20	0.10
Grade/100				0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00					0.70		0.00
t(c,T):	1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c)	1-stage	4.1					6.4		6.2
	2-stage	4.1					5.4		6.2

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)	2.20					3.50		3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)	2					1		3
t(f)	2.2					3.5		3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from table 9-2)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p	0.000		0.000	

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)			
p(4)			
p(7)			
p(8)			

p(9)
p(10)
p(11)
p(12)

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x	1214					2180		1063
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7		8		10		11	
	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2
V(c,x)					1063	1117		
s						1700		
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows		1063
Potential Capacity		270
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		270
Probability of Queue free St.	1.00	0.74

Step 2: LT from Major St.	4	1
Conflicting Flows		1214
Potential Capacity		575
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		575
Probability of Queue free St.	1.00	0.82
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.82	0.82
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows		2180
Potential Capacity		51
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	0.82	0.82
Maj. L, Min T Adj. Imp Factor.	0.86	0.86
Cap. Adj. factor due to Impeding mvmnt	0.64	0.86
Movement Capacity		44

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11

Part 1 - First Stage		
Conflicting Flows		
Potential Capacity	285	302
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.82	1.00
Movement Capacity	234	302
Probability of Queue free St.	1.00	1.00
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity	257	285
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	0.82
Movement Capacity	257	234
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.82	0.82
Movement Capacity		
Result for 2 stage process:		
a	0.00	0.00
y	0.00	0.00
C t		
Probability of Queue free St.	1.00	1.00
Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		1063
Potential Capacity	316	333
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.82	1.00
Movement Capacity	259	333
Part 2 - Second Stage		
Conflicting Flows		1117
Potential Capacity	322	314
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.74	0.82
Movement Capacity	239	258
Part 3 - Single Stage		
Conflicting Flows		2180
Potential Capacity		51
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	0.82	0.82
Maj. L, Min T Adj. Imp Factor.	0.86	0.86
Cap. Adj. factor due to Impeding mvmnt	0.64	0.86
Movement Capacity		44
Results for Two-stage process:		
a	0.00	0.00
y	0.00	0.00
C t		44

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)				116		70
Movement Capacity (vph)				44		270
Shared Lane Capacity (vph)						

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7	8	9	10	11	12

	L	T	R	L	T	R
: sep				44		270
Volume				116		70
Delay						
) sep						
) sep +1						
round (Qsep +1)						

ı max	
: sh	
SUM C sep	
n	
: act	

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config	L					L		R
⁄ (vph)	103					116		70
:(m) (vph)	575					44		270
v/c	0.18					2.64		0.26
95% queue length	0.69					10.28		1.03
Control Delay	12.6					937.3		22.9
LOS	B					F		C
Approach Delay							593.2	
Approach LOS							F	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	0.82	1.00
v(il), Volume for stream 2 or 5		
v(i2), Volume for stream 3 or 6		
s(il), Saturation flow rate for stream 2 or 5		
s(i2), Saturation flow rate for stream 3 or 6		
P*(oj)		
d(M,LT), Delay for stream 1 or 4	12.6	
N, Number of major street through lanes		
d(rank,1) Delay for stream 2 or 5		

HCS: Unsignalized Intersections Release 3.2

TWO-WAY STOP CONTROL SUMMARY

Intersection:	SR 776 & David Blvd.
Analyst:	FTE
Project No.:	101046-01
Date:	10/1/2001
East/West Street:	SR 776
North/South Street:	David Blvd.
Intersection Orientation: EW	Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	28	352	15	3	629	16
Hourly Flow Rate, HFR	31	400	27	6	806	26
Percent Heavy Vehicles	5	--	--	0	--	--
Median Type	Undivided					
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L		TR	L		TR
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	32	12	19	20	19	41
Hourly Flow Rate, HFR	47	21	32	26	32	63
Percent Heavy Vehicles	0	11	0	13	0	3
Percent Grade (%)		0			0	
Median Storage 1						
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	31	6		100			121	
C(m) (vph)	788	1143		135			190	
v/c	0.04	0.01		0.74			0.64	
95% queue length	0.00	0.00		3.65			3.30	
Control Delay	9.8	8.2		84.2			52.3	
LOS	A	A		F			F	
Approach Delay				84.2			52.3	
Approach LOS				F			F	

HCS: Unsignalized Intersections Release 3.2

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Intersection: SR 776 & David Blvd.
City/State:

Analyst: FTE
Project No.: 101046-01
Time period Analyzed: AM Peak
Date: 10/1/2001
East/West Street: SR 776
North/South Street: David Blvd.
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	28	352	15	3	629	16
Peak-Hour Factor, PHF	0.88	0.88	0.55	0.50	0.78	0.60
Peak-15 Minute Volume	8	100	7	2	202	7
Hourly Flow Rate, HFR	31	400	27	6	806	26
Percent Heavy Vehicles	5	--	--	0	--	--
Median Type	Undivided					
RT Channelized?						
Lanes	1	1 0		1	1 0	
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	32	12	19	20	19	41
Peak Hour Factor, PHF	0.67	0.56	0.58	0.75	0.58	0.65
Peak-15 Minute Volume	12	5	8	7	8	16
Hourly Flow Rate, HFR	47	21	32	26	32	63
Percent Heavy Vehicles	0	11	0	13	0	3
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0	1 0		0	1 0	
Configuration		LTR			LTR	

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2	Left-Turn						
	Through						
S5	Left-Turn						
	Through						

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		
Shared ln volume, major rt vehicles:		
Sat flow rate, major th vehicles:		
Sat flow rate, major rt vehicles:		
Number of major street through lanes:		

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement		1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	4.1	7.1	6.5	6.2	7.1	6.5	6.2
(c,hv)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
(hv)		5	0	0	11	0	13	0	3
t(c,g)				0.20	0.20	0.10	0.20	0.20	0.10
Grade/100				0.00	0.00	0.00	0.00	0.00	0.00
(3,lt)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(c,T):	1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c)	1-stage	4.2	4.1	7.1	6.6	6.2	7.2	6.5	6.2
	2-stage	4.2	4.1	6.1	5.6	6.2	6.2	5.5	6.2

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)	2.20	2.20	3.50	4.00	3.30	3.50	4.00	3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
(HV)	5	0	0	11	0	13	0	3
(f)	2.2	2.2	3.5	4.1	3.3	3.6	4.0	3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(1,prot)	Movement 5 V(t)	Movement 5 V(1,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from table 9-2)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(1,prot)	Movement 5 V(t)	Movement 5 V(1,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p	0.000		0.000	

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)			
p(4)			
p(7)			
p(8)			

p(9)
p(10)
p(11)
p(12)

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
v c,x	832	427	1354	1320	414	1333	1320	819
s								
Px								
v c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7		8		10		11	
	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2
v(c,x)	476	878	476	844	831	502	831	489
s		1700		1700		1700		1700
P(x)								
v(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	414	819
Potential Capacity	643	374
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	643	374
Probability of Queue free St.	0.95	0.83

Step 2: LT from Major St.	4	1
Conflicting Flows	427	832
Potential Capacity	1143	788
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1143	788
Probability of Queue free St.	0.99	0.96
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
Conflicting Flows	1320	1320
Potential Capacity	150	158
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.96	0.96
Movement Capacity	143	151
Probability of Queue free St.	0.85	0.79

Step 4: LT from Minor St.	7	10
Conflicting Flows	1354	1333
Potential Capacity	128	124
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	0.75	0.82
Maj. L, Min T Adj. Imp Factor.	0.81	0.86
Cap. Adj. factor due to Impeding mvmnt	0.67	0.82
Movement Capacity	86	101

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	**8**	**11**

art 1 - First Stage		
onflicting Flows	476	831
Potential Capacity	542	387
Pedestrian Impedance Factor	1.00	1.00
ap. Adj. factor due to Impeding mvmnt	0.96	0.99
ovement Capacity	521	385
Probability of Queue free St.	0.96	0.92

art 2 - Second Stage		
onflicting Flows	844	489
Potential Capacity	367	553
Pedestrian Impedance Factor	1.00	1.00
ap. Adj. factor due to Impeding mvmnt	0.99	0.96
ovement Capacity	365	531

Part 3 - Single Stage		
onflicting Flows	1320	1320
otential Capacity	150	158
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.96	0.96
ovement Capacity	143	151

Result for 2 stage process:		
a	0.00	0.00
	0.00	0.00
t	143	151
Probability of Queue free St.	0.85	0.79

tep 4: LT from Minor St.	7	10

Part 1 - First Stage		
Conflicting Flows	476	831
Potential Capacity	574	348
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.96	0.99
Movement Capacity	551	346

Part 2 - Second Stage		
Conflicting Flows	878	502
Potential Capacity	345	532
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.76	0.88
Movement Capacity	262	466

Part 3 - Single Stage		
Conflicting Flows	1354	1333
Potential Capacity	128	124
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	0.75	0.82
Maj. L, Min T Adj. Imp Factor.	0.81	0.86
Cap. Adj. factor due to Impeding mvmnt	0.67	0.82
Movement Capacity	86	101

Results for Two-stage process:		
a	0.00	0.00
y	0.00	0.00
C t	86	101

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	47	21	32	26	32	53
Movement Capacity (vph)	86	143	643	101	151	374
Shared Lane Capacity (vph)		135			190	

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7	8	9	10	11	12

	L	T	R	L	T	R
c sep	86	143	643	101	151	374
Volume	47	21	32	26	32	63
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						

c max						
c sh		135			190	
SUM C sep						
n						
c act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	31	6		100			121	
c(m) (vph)	788	1143		135			190	
v/c	0.04	0.01		0.74			0.64	
95% queue length	0.00	0.00		3.65			3.30	
Control Delay	9.8	8.2		84.2			52.3	
LOS	A	A		F			F	
Approach Delay				84.2			52.3	
Approach LOS				F			F	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	0.96	0.99
v(il), Volume for stream 2 or 5		
v(i2), Volume for stream 3 or 6		
s(il), Saturation flow rate for stream 2 or 5		
s(i2), Saturation flow rate for stream 3 or 6		
P*(oj)		
d(M,LT), Delay for stream 1 or 4	9.8	8.2
N, Number of major street through lanes		
d(rank,1) Delay for stream 2 or 5		

HCS: Unsignalized Intersections Release 3.2

TWO-WAY STOP CONTROL SUMMARY

Intersection:	SR 776 & David Blvd.
Analyst:	FTE
Project No.:	101046-01
Date:	10/1/2001
East/West Street:	SR 776
North/South Street:	David Blvd.
Intersection Orientation: EW	Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	60	627	34	9	545	19
Hourly Flow Rate, HFR	90	674	52	15	592	27
Percent Heavy Vehicles	2	--	--	0	--	--
Median Type	Undivided					
RT Channelized?						
Lanes	1	1 0		1	1 0	
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	8	11	13	17	19	29
Hourly Flow Rate, HFR	16	22	15	20	43	42
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Median Storage 1						
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0	1 0		0	1 0	
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	90	15		53			105	
C(m) (vph)	961	886		96			135	
v/c	0.09	0.02		0.55			0.78	
95% queue length	0.25	0.00		2.08			3.93	
Control Delay	9.1	9.1		81.3			90.4	
LOS	A	A		F			F	
Approach Delay				81.3			90.4	
Approach LOS				F			F	

HCS: Unsignalized Intersections Release 3.2

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Intersection: SR 776 & David Blvd.
City/State:

Analyst: FTE
Project No.: 101046-01
Time period Analyzed: PM Peak
Date: 10/1/2001
East/West Street: SR 776
North/South Street: David Blvd.
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	60	627	34	9	545	19
Peak-Hour Factor, PHF	0.66	0.93	0.65	0.58	0.92	0.70
Peak-15 Minute Volume	23	169	13	4	148	7
Hourly Flow Rate, HFR	90	674	52	15	592	27
Percent Heavy Vehicles	2	--	--	0	--	--
Median Type	Undivided					
RT Channelized?						
Lanes	1	1 0		1	1 0	
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	8	11	13	17	19	29
Peak Hour Factor, PHF	0.50	0.50	0.83	0.81	0.44	0.69
Peak-15 Minute Volume	4	6	4	5	11	11
Hourly Flow Rate, HFR	16	22	15	20	43	42
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0	1 0		0	1 0	
Configuration		LTR			LTR	

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
32	Left-Turn						
	Through						
35	Left-Turn						
	Through						

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		
Shared ln volume, major rt vehicles:		
Sat flow rate, major th vehicles:		
Sat flow rate, major rt vehicles:		
Number of major street through lanes:		

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement		1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	4.1	7.1	6.5	6.2	7.1	6.5	6.2
t(c,hv)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		2	0	0	0	0	0	0	0
t(c,g)				0.20	0.20	0.10	0.20	0.20	0.10
Grade/100				0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
t(c,T):	1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c)	1-stage	4.1	4.1	7.1	6.5	6.2	7.1	6.5	6.2
	2-stage	4.1	4.1	6.1	5.5	6.2	6.1	5.5	6.2

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)	2.20	2.20	3.50	4.00	3.30	3.50	4.00	3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)	2	0	0	0	0	0	0	0
t(f)	2.2	2.2	3.5	4.0	3.3	3.5	4.0	3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(1,prot)	Movement 5 V(t)	Movement 5 V(1,prot)
v prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from table 9-2)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(1,prot)	Movement 5 V(t)	Movement 5 V(1,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)			
p(4)			
p(7)			
p(8)			

p(9)
p(10)
p(11)
p(12)

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x	619	726	1558	1529	700	1534	1542	606
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7		8		10		11	
	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2
V(c,x)	880	678	880	649	636	898	636	906
s		1700		1700		1700		1700
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	700	606
Potential Capacity	443	501
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	443	501
Probability of Queue free St.	0.97	0.92

Step 2: LT from Major St.	4	1
Conflicting Flows	726	619
Potential Capacity	886	961
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	886	961
Probability of Queue free St.	0.98	0.91
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
Conflicting Flows	1529	1542
Potential Capacity	118	116
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.89	0.89
Movement Capacity	105	103
Probability of Queue free St.	0.79	0.58

Step 4: LT from Minor St.	7	10
Conflicting Flows	1558	1534
Potential Capacity	92	96
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	0.52	0.70
Maj. L, Min T Adj. Imp Factor.	0.62	0.77
Cap. Adj. factor due to Impeding mvmnt	0.57	0.75
Movement Capacity	52	72

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11

Part 1 - First Stage		
Conflicting Flows	880	636
Potential Capacity	368	475
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.91	0.98
Movement Capacity	334	467
Probability of Queue free St.	0.93	0.91
Part 2 - Second Stage		
Conflicting Flows	649	906
Potential Capacity	469	358
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.98	0.91
Movement Capacity	461	324
Part 3 - Single Stage		
Conflicting Flows	1529	1542
Potential Capacity	118	116
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.89	0.89
Movement Capacity	105	103
Result for 2 stage process:		
a	0.00	0.00
y	0.00	0.00
C t	105	103
Probability of Queue free St.	0.79	0.58
Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows	880	636
Potential Capacity	345	469
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.91	0.98
Movement Capacity	313	461
Part 2 - Second Stage		
Conflicting Flows	678	898
Potential Capacity	445	337
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.82	0.82
Movement Capacity	364	276
Part 3 - Single Stage		
Conflicting Flows	1558	1534
Potential Capacity	92	96
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	0.52	0.70
Maj. L, Min T Adj. Imp Factor.	0.62	0.77
Cap. Adj. factor due to Impeding mvmnt	0.57	0.75
Movement Capacity	52	72
Results for Two-stage process:		
a	0.00	0.00
y	0.00	0.00
C t	52	72

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	16	22	15	20	43	42
Movement Capacity (vph)	52	105	443	72	103	501
Shared Lane Capacity (vph)		96			135	

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7	8	9	10	11	12

	L	T	R	L	T	R
C sep	52	105	443	72	103	501
Volume	16	22	15	20	43	42
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		96			135	
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	90	15		53			105	
C(m) (vph)	961	886		96			135	
v/c	0.09	0.02		0.55			0.78	
95% queue length	0.25	0.00		2.08			3.93	
Control Delay	9.1	9.1		81.3			90.4	
LOS	A	A		F			F	
Approach Delay				81.3			90.4	
Approach LOS				F			F	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	0.91	0.98
v(il), Volume for stream 2 or 5		
v(i2), Volume for stream 3 or 6		
s(il), Saturation flow rate for stream 2 or 5		
s(i2), Saturation flow rate for stream 3 or 6		
P*(oj)		
d(M,LT), Delay for stream 1 or 4	9.1	9.1
N, Number of major street through lanes		
d(rank,1) Delay for stream 2 or 5		

HCS: Unsignalized Intersections Release 3.2

TWO-WAY STOP CONTROL SUMMARY

Intersection:	SR 776 & Oceanspray Blvd.
Analyst:	FTE
Project No.:	101046-01
Date:	10/1/2001
East/West Street:	SR 776
North/South Street:	Oceanspray Blvd.
Intersection Orientation: EW	Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	12	349	13	49	570	19
Hourly Flow Rate, HFR	16	401	20	74	612	27
Percent Heavy Vehicles	0	--	--	3	--	--
Median Type	Undivided					
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L		TR	L		TR
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	32	19	62	24	45	26
Hourly Flow Rate, HFR	64	32	73	37	72	31
Percent Heavy Vehicles	0	7	9	0	3	0
Percent Grade (%)		0			0	
Median Storage 1						
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	16	74		169			140	
C(m) (vph)	955	1133		158			162	
v/c	0.02	0.07		1.07			0.86	
95% queue length	0.00	0.09		7.34			5.10	
Control Delay	8.8	8.4		149.3			94.5	
LOS	A	A		F			F	
Approach Delay				149.3			94.5	
Approach LOS				F			F	

HCS: Unsignalized Intersections Release 3.2

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Intersection: SR 776 & Oceanspray Blvd.
City/State:

Analyst: FTE
Project No.: 101046-01
Time period Analyzed: AM Peak
Date: 10/1/2001
East/West Street: SR 776
North/South Street: Oceanspray Blvd.
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	12	349	13	49	570	19
Peak-Hour Factor, PHF	0.75	0.87	0.63	0.66	0.93	0.70
Peak-15 Minute Volume	4	100	5	19	153	7
Hourly Flow Rate, HFR	16	401	20	74	612	27
Percent Heavy Vehicles	0	--	--	3	--	--
Median Type	Undivided					
RT Channelized?						
Lanes	1	1 0		1	1 0	
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	32	19	62	24	45	26
Peak Hour Factor, PHF	0.50	0.58	0.84	0.64	0.62	0.83
Peak-15 Minute Volume	16	8	18	9	18	8
Hourly Flow Rate, HFR	64	32	73	37	72	31
Percent Heavy Vehicles	0	7	9	0	3	0
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0	1 0		0	1 0	
Configuration		LTR			LTR	

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		
Shared ln volume, major rt vehicles:		
Sat flow rate, major th vehicles:		
Sat flow rate, major rt vehicles:		
Number of major street through lanes:		

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement		1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	4.1	7.1	6.5	6.2	7.1	6.5	6.2
t(c,hv)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		0	3	0	7	9	0	3	0
t(c,g)				0.20	0.20	0.10	0.20	0.20	0.10
Grade/100				0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
t(c,T):	1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c)	1-stage	4.1	4.1	7.1	6.6	6.3	7.1	6.5	6.2
	2-stage	4.1	4.1	6.1	5.6	6.3	6.1	5.5	6.2

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)	2.20	2.20	3.50	4.00	3.30	3.50	4.00	3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)	0	3	0	7	9	0	3	0
t(f)	2.2	2.2	3.5	4.1	3.4	3.5	4.0	3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(1,prot)	Movement 5 V(t)	Movement 5 V(1,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from table 9-2)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(1,prot)	Movement 5 V(t)	Movement 5 V(1,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)			
p(4)			
p(7)			
p(8)			

p(9)
p(10)
p(11)
p(12)

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
v c,x	639	421	1268	1230	411	1270	1227	626
s								
Px								
v c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7		8		10		11	
	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2
v(c,x)	443	825	443	787	774	496	774	453
s		1700		1700		1700		1700
P(x)								
v(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	411	626
Potential Capacity	626	488
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	626	488
Probability of Queue free St.	0.88	0.94

Step 2: LT from Major St.	4	1
Conflicting Flows	421	639
Potential Capacity	1133	955
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1133	955
Probability of Queue free St.	0.93	0.98
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
Conflicting Flows	1230	1227
Potential Capacity	174	178
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.92	0.92
Movement Capacity	160	164
Probability of Queue free St.	0.80	0.56

Step 4: LT from Minor St.	7	10
Conflicting Flows	1268	1270
Potential Capacity	147	146
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	0.52	0.74
Maj. L, Min T Adj. Imp Factor.	0.62	0.80
Cap. Adj. factor due to Impeding mvmnt	0.58	0.70
Movement Capacity	85	103

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11

Part 1 - First Stage		
Conflicting Flows	443	774
Potential Capacity	567	407
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.98	0.93
Movement Capacity	558	380
Probability of Queue free St.	0.94	0.81
Part 2 - Second Stage		
Conflicting Flows	787	453
Potential Capacity	396	568
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.93	0.98
Movement Capacity	370	558
Part 3 - Single Stage		
Conflicting Flows	1230	1227
Potential Capacity	174	178
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.92	0.92
Movement Capacity	160	164
Result for 2 stage process:		
a	0.00	0.00
y	0.00	0.00
C t	160	164
Probability of Queue free St.	0.80	0.56
Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows	443	774
Potential Capacity	598	394
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.98	0.93
Movement Capacity	588	368
Part 2 - Second Stage		
Conflicting Flows	825	496
Potential Capacity	370	559
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.71	0.82
Movement Capacity	263	458
Part 3 - Single Stage		
Conflicting Flows	1268	1270
Potential Capacity	147	146
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	0.52	0.74
Maj. L, Min T Adj. Imp Factor.	0.62	0.80
Cap. Adj. factor due to Impeding mvmnt	0.58	0.70
Movement Capacity	85	103
Results for Two-stage process:		
a	0.00	0.00
y	0.00	0.00
C t	85	103

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	64	32	73	37	72	21
Movement Capacity (vph)	85	160	626	103	164	488
Shared Lane Capacity (vph)		158			162	

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7	8	9	10	11	12

	L	T	R	L	T	R
C sep	85	160	626	103	164	488
Volume	64	32	73	37	72	31
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
v max						
C sh		158			162	
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	16	74		169			140	
C(m) (vph)	955	1133		158			162	
v/c	0.02	0.07		1.07			0.86	
95% queue length	0.00	0.09		7.34			5.10	
Control Delay	8.8	8.4		149.3			94.5	
LOS	A	A		F			F	
Approach Delay				149.3			94.5	
Approach LOS				F			F	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	0.98	0.93
v(i1), Volume for stream 2 or 5		
v(i2), Volume for stream 3 or 6		
s(i1), Saturation flow rate for stream 2 or 5		
s(i2), Saturation flow rate for stream 3 or 6		
P*(oj)		
d(M,LT), Delay for stream 1 or 4	8.8	8.4
N, Number of major street through lanes		
d(rank,1) Delay for stream 2 or 5		

HCS: Unsignalized Intersections Release 3.2

TWO-WAY STOP CONTROL SUMMARY

Intersection:	SR 776 & Oceanspray Blvd.
Analyst:	FTE
Project No.:	101046-01
Date:	10/1/2001
East/West Street:	SR 776
North/South Street:	Oceanspray Blvd.
Intersection Orientation: EW	Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	57	562	52	57	435	15
Hourly Flow Rate, HFR	68	714	69	68	497	21
Percent Heavy Vehicles	0	--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes	1	1 0		1	1 0	
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	46	56	77	29	37	44
Hourly Flow Rate, HFR	83	69	101	42	52	63
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Median Storage 1						
Flared Approach: Exists?		No			No	
Storage						
RT Channelized?						
Lanes	0	1 0		0	1 0	
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	68	68		253			157	
C(m) (vph)	1058	835		86			69	
v/c	0.06	0.08		2.94			2.28	
95% queue length	0.09	0.18		22.18			12.69	
Control Delay	8.6	9.7		980.1			712.6	
LOS	A	A		F			F	
Approach Delay				980.1			712.6	
Approach LOS				F			F	

HCS: Unsignalized Intersections Release 3.2

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Intersection: SR 776 & Oceanspray Blvd.
City/State:

Analyst: FTE
Project No.: 101046-01
Time period Analyzed: PM Peak
Date: 10/1/2001
East/West Street: SR 776
North/South Street: Oceanspray Blvd.
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	57	562	52	57	435	15
Peak-Hour Factor, PHF	0.83	0.79	0.75	0.83	0.88	0.69
Peak-15 Minute Volume	17	179	17	17	124	5
Hourly Flow Rate, HFR	68	714	69	68	497	21
Percent Heavy Vehicles	0	--	--	2	--	--
Median Type	Undivided					
RT Channelized?						
Lanes	1	1 0		1	1 0	
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	46	56	77	29	37	44
Peak Hour Factor, PHF	0.55	0.81	0.76	0.69	0.70	0.69
Peak-15 Minute Volume	21	17	25	11	13	16
Hourly Flow Rate, HFR	83	69	101	42	52	63
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Median Storage Flared Approach: Exists?	1	No			No	
Storage						
RT Channelized?						
Lanes	0	1 0		0	1 0	
Configuration		LTR			LTR	

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		
Shared ln volume, major rt vehicles:		
Sat flow rate, major th vehicles:		
Sat flow rate, major rt vehicles:		
Number of major street through lanes:		

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement		1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	4.1	7.1	6.5	6.2	7.1	6.5	6.2
t(c,hv)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)		0	2	0	0	0	0	0	0
t(c,g)				0.20	0.20	0.10	0.20	0.20	0.10
Grade/100				0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
t(c,T):	1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c)	1-stage	4.1	4.1	7.1	6.5	6.2	7.1	6.5	6.2
	2-stage	4.1	4.1	6.1	5.5	6.2	6.1	5.5	6.2

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)	2.20	2.20	3.50	4.00	3.30	3.50	4.00	3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)	0	2	0	0	0	0	0	0
t(f)	2.2	2.2	3.5	4.0	3.3	3.5	4.0	3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from table 9-2)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)			
p(4)			
p(7)			
p(8)			

p(9)
p(10)
p(11)
p(12)

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x	518	783	1585	1538	748	1614	1563	508
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7		8		10		11	
	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2
V(c,x)	884	701	884	654	644	970	644	919
s		1700		1700		1700		1700
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	748	508
Potential Capacity	416	569
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	416	569
Probability of Queue free St.	0.76	0.89

Step 2: LT from Major St.	4	1
Conflicting Flows	783	518
Potential Capacity	835	1058
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	835	1058
Probability of Queue free St.	0.92	0.94
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
Conflicting Flows	1538	1563
Potential Capacity	117	113
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.86	0.86
Movement Capacity	101	97
Probability of Queue free St.	0.32	0.46

Step 4: LT from Minor St.	7	10
Conflicting Flows	1585	1614
Potential Capacity	89	85
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	0.40	0.27
Maj. L, Min T Adj. Imp Factor.	0.52	0.41
Cap. Adj. factor due to Impeding mvmnt	0.46	0.31
Movement Capacity	41	26

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	**8**	**11**

Part 1 - First Stage		
Conflicting Flows	884	644
Potential Capacity	366	471
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.94	0.92
Movement Capacity	342	433
Probability of Queue free St.	0.80	0.88
Part 2 - Second Stage		
Conflicting Flows	654	919
Potential Capacity	466	353
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.92	0.94
Movement Capacity	428	330
Part 3 - Single Stage		
Conflicting Flows	1538	1563
Potential Capacity	117	113
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.86	0.86
Movement Capacity	101	97
Result for 2 stage process:		
a	0.00	0.00
y	0.00	0.00
C t	101	97
Probability of Queue free St.	0.32	0.46
Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows	884	644
Potential Capacity	343	465
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.94	0.92
Movement Capacity	321	427
Part 2 - Second Stage		
Conflicting Flows	701	970
Potential Capacity	433	307
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.72	0.57
Movement Capacity	311	174
Part 3 - Single Stage		
Conflicting Flows	1585	1614
Potential Capacity	89	85
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	0.40	0.27
Maj. L, Min T Adj. Imp Factor.	0.52	0.41
Cap. Adj. factor due to Impeding mvmnt	0.46	0.31
Movement Capacity	41	26
Results for Two-stage process:		
a	0.00	0.00
y	0.00	0.00
C t	41	26

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	83	69	101	42	52	63
Movement Capacity (vph)	41	101	416	26	97	569
Shared Lane Capacity (vph)		86			69	

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7	8	9	10	11	12

	L	T	R	L	T	R
C sep	41	101	416	26	97	569
Volume	83	69	101	42	52	63
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						

n max						
C sh		86			69	
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	68	68		253			157	
C(m) (vph)	1058	835		86			69	
v/c	0.06	0.08		2.94			2.28	
95% queue length	0.09	0.18		22.18			12.69	
Control Delay	8.6	9.7		980.1			712.6	
LOS	A	A		F			F	
Approach Delay				980.1			712.6	
Approach LOS				F			F	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	0.94	0.92
v(il), Volume for stream 2 or 5		
v(i2), Volume for stream 3 or 6		
s(il), Saturation flow rate for stream 2 or 5		
s(i2), Saturation flow rate for stream 3 or 6		
P*(oj)		
d(M,LT), Delay for stream 1 or 4	8.6	9.7
N, Number of major street through lanes		
d(rank,1) Delay for stream 2 or 5		

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TWO-WAY STOP CONTROL SUMMARY

Intersection:	SR 776 & Willowbend
Analyst:	FTE
Project No.:	101046-01
Date:	10/1/2001
East/West Street:	SR 776
North/South Street:	Willowbend
Intersection Orientation: EW	Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		985			819	4
Hourly Flow Rate, HFR		1132			880	10
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1			1	0
Configuration		T				TR
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume						4
Hourly Flow Rate, HFR						5
Percent Heavy Vehicles						0
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes					1	
Configuration					R	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								5
C(m) (vph)								347
v/c								0.01
95% queue length								0.00
Control Delay								15.5
LOS								C
Approach Delay							15.5	
Approach LOS							C	

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Intersection: SR 776 & Willowbend
City/State:

Analyst: FTE
Project No.: 101046-01
Time period Analyzed: AM Peak
Date: 10/1/2001
East/West Street: SR 776
North/South Street: Willowbend
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		985			819	4
Peak-Hour Factor, PHF		0.87			0.93	0.38
Peak-15 Minute Volume		283			220	3
Hourly Flow Rate, HFR		1132			880	10
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1			1	0
Configuration		T				TR
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume						4
Peak Hour Factor, PHF						0.75
Peak-15 Minute Volume						1
Hourly Flow Rate, HFR						5
Percent Heavy Vehicles						0
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes						1
Configuration						R

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		
Shared ln volume, major rt vehicles:		
Sat flow rate, major th vehicles:		
Sat flow rate, major rt vehicles:		
Number of major street through lanes:		

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)								6.2
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)								0
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)								0.00
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage								6.2
2-stage								6.2

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)								3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)								0
t(f)								3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from table 9-2)				
Proportion vehicles arriving on green P				
P(q1)				
P(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
Alpha				
Beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p	0.000		0.000	

Computation 3-Platoon Event Periods	Result
P(2)	0.000
P(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)			
P(4)			
P(7)			
p(8)			

p(9)
p(10)
p(11)
p(12)

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
v c,x								885
s								
Px								
v c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7		8		10		11	
	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2
v(c,x)								
s								
P(x)								
v(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows		885
Potential Capacity		347
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		347
Probability of Queue free St.	1.00	0.99

Step 2: LT from Major St.	4	1
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	1.00
Maj. L, Min T Adj. Imp Factor.	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	1.00
Movement Capacity		

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11

Part 1 - First Stage		
Conflicting Flows		
Potential Capacity	281	366
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity	281	366
Probability of Queue free St.	1.00	1.00
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity	364	281
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity	364	281
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Result for 2 stage process:		
a	0.00	0.00
y	0.00	0.00
C t		
Probability of Queue free St.	1.00	1.00
Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity	311	407
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity	311	407
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity	405	311
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	1.00
Movement Capacity	399	311
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	1.00
Maj. L, Min T Adj. Imp Factor.	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	1.00
Movement Capacity		
Results for Two-stage process:		
a	0.00	0.00
y	0.00	0.00
C t		

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)						5
Movement Capacity (vph)						347
Shared Lane Capacity (vph)						

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7	8	9	10	11	12

	L	T	R	L	T	R
C sep						347
Volume						5
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						

n max	
C sh	
SUM C sep	
n	
C act	

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								5
C(m) (vph)								347
v/c								0.01
95% queue length								0.00
Control Delay								15.5
LOS								C
Approach Delay							15.5	
Approach LOS							C	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	1.00
v(il), Volume for stream 2 or 5		
v(i2), Volume for stream 3 or 6		
s(il), Saturation flow rate for stream 2 or 5		
s(i2), Saturation flow rate for stream 3 or 6		
P*(oj)		
d(M,LT), Delay for stream 1 or 4		
N, Number of major street through lanes		
d(rank,1) Delay for stream 2 or 5		

HCS: Unsignalized Intersections Release 3.2

TWO-WAY STOP CONTROL SUMMARY

Intersection:	SR 776 & Willowbend
Analyst:	FTE
Project No.:	101046-01
Date:	10/1/2001
East/West Street:	SR 776
North/South Street:	Willowbend
Intersection Orientation: EW	Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		981			1123	
Hourly Flow Rate, HFR		1011			1261	
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1			1	
Configuration		T			T	
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume						9
Hourly Flow Rate, HFR						15
Percent Heavy Vehicles						14
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes					1	
Configuration					R	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								15
C(m) (vph)								196
v/c								0.08
95% queue length								0.13
Control Delay								24.9
LOS								C
Approach Delay							24.9	
Approach LOS							C	

HCS: Unsignalized Intersections Release 3.2

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Intersection:	SR 776 & Willowbend
City/State:	

Analyst: FTE
Project No.: 101046-01
Time period Analyzed: PM Peak
Date: 10/1/2001
East/West Street: SR 776
North/South Street: Willowbend
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		981			1123	
Peak-Hour Factor, PHF		0.97			0.89	
Peak-15 Minute Volume		253			315	
Hourly Flow Rate, HFR		1011			1261	
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1			1	
Configuration		T			T	
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume						9
Peak Hour Factor, PHF						0.58
Peak-15 Minute Volume						4
Hourly Flow Rate, HFR						15
Percent Heavy Vehicles						14
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes					1	
Configuration					R	

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2	Left-Turn						
	Through						
S5	Left-Turn						
	Through						

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		
Shared ln volume, major rt vehicles:		
Sat flow rate, major th vehicles:		
Sat flow rate, major rt vehicles:		
Number of major street through lanes:		

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement		1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)									6.2
t(c,hv)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)									14
t(c,g)				0.20	0.20	0.10	0.20	0.20	0.10
Grade/100				0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)									0.00
t(c,T):	1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c)	1-stage								6.3
	2-stage								6.3

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)								3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)								14
t(f)								3.4

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(1,prot)	Movement 5 V(t)	Movement 5 V(1,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from table 9-2)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(1,prot)	Movement 5 V(t)	Movement 5 V(1,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)			
p(4)			
p(7)			
p(8)			

p(9)
p(10)
p(11)
p(12)

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x								1261
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7		8		10		11	
	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2
V(c,x)								
s								
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows		1261
Potential Capacity		196
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		196
Probability of Queue free St.	1.00	0.92

Step 2: LT from Major St.	4	1
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	1.00
Maj. L, Min T Adj. Imp Factor.	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.92	1.00
Movement Capacity		

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11

Part 1 - First Stage		
Conflicting Flows		
Potential Capacity	320	244
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity	320	244
Probability of Queue free St.	1.00	1.00
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity	244	320
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity	244	320
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity		
Result for 2 stage process:		
a	0.00	0.00
y	0.00	0.00
C t		
Probability of Queue free St.	1.00	1.00
Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity	355	269
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity	355	269
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity	267	355
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.92	1.00
Movement Capacity	247	355
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	1.00	1.00
Maj. L, Min T Adj. Imp Factor.	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.92	1.00
Movement Capacity		
Results for Two-stage process:		
a	0.00	0.00
y	0.00	0.00
C t		

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)						15
Movement Capacity (vph)						196
Shared Lane Capacity (vph)						

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7	8	9	10	11	12

	L	T	R	L	T	R
c sep						196
Volume						15
Delay						
q sep						
q sep +1						
round (Qsep +1)						

c max	
c sh	
SUM C sep	
n	
q act	

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								15
c(m) (vph)								196
v/c								0.08
95% queue length								0.13
Control Delay								24.9
LOS								C
Approach Delay							24.9	
Approach LOS							C	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	1.00

v(il), Volume for stream 2 or 5
v(i2), Volume for stream 3 or 6
s(il), Saturation flow rate for stream 2 or 5
s(i2), Saturation flow rate for stream 3 or 6
P*(oj)
d(M,LT), Delay for stream 1 or 4
N, Number of major street through lanes
d(rank,1) Delay for stream 2 or 5

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TWO-WAY STOP CONTROL SUMMARY

Intersection:	SR 776 & Riverwood
Analyst:	FTE
Project No.:	101046-01
Date:	10/1/2001
East/West Street:	SR 776
North/South Street:	Riverwood
Intersection Orientation: EW	Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	3	975		8	848	52
Hourly Flow Rate, HFR	6	1037		10	952	69
Percent Heavy Vehicles	100	--	--	0	--	--
Median Type	Undivided					
RT Channelized?						No
Lanes	1	2		1	2	1
Configuration	L	T		L	T	R
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				28		3
Hourly Flow Rate, HFR				37		6
Percent Heavy Vehicles				14		0
Percent Grade (%)		0			0	
Median Storage 1						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes				1		1
Configuration				L		R

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L				L		R
v (vph)	6	10				37		6
C(m) (vph)	303	678				97		541
v/c	0.02	0.01				0.38		0.01
95% queue length	0.00	0.00				1.31		0.00
Control Delay	17.1	10.4				63.4		11.7
LOS	C	B				F		B
Approach Delay							56.2	
Approach LOS							F	

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Intersection:	SR 776 & Riverwood
City/State:	

Analyst: FTE
Project No.: 101046-01
Time period Analyzed: AM Peak
Date: 10/1/2001
East/West Street: SR 776
North/South Street: Riverwood
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	3	975		8	848	52
Peak-Hour Factor, PHF	0.50	0.94		0.75	0.89	0.75
Peak-15 Minute Volume	2	259		3	238	17
Hourly Flow Rate, HFR	6	1037		10	952	69
Percent Heavy Vehicles	100	--	--	0	--	--
Median Type	Undivided					
RT Channelized?						No
Lanes	1	2		1	2	1
Configuration	L	T		L	T	R
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume				28		3
Peak Hour Factor, PHF				0.75		0.50
Peak-15 Minute Volume				9		2
Hourly Flow Rate, HFR				37		6
Percent Heavy Vehicles				14		0
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes				1		1
Configuration				L		R

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		
Shared ln volume, major rt vehicles:		
Sat flow rate, major th vehicles:		
Sat flow rate, major rt vehicles:		
Number of major street through lanes:		

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement		1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	4.1				7.5		6.9
t(c,hv)		2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
P(hv)		100	0				14		0
t(c,g)				0.20	0.20	0.10	0.20	0.20	0.10
Grade/100				0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.00				0.70		0.00
t(c,T):	1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c)	1-stage	6.1	4.1				7.1		6.9
	2-stage	6.1	4.1				6.1		6.9

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)	2.20	2.20				3.50		3.30
t(f,HV)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(HV)	100	0				14		0
t(f)	3.2	2.2				3.6		3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from table 9-2)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p	0.000		0.000	

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)			
p(4)			
p(7)			
p(8)			

p(9)
p(10)
p(11)
p(12)

Computation 4 and 5
Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x	1021	1037				1502		476
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7		8		10		11	
	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2
V(c,x)					972	530		
s						3400		
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows		476
Potential Capacity		541
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		541
Probability of Queue free St.	1.00	0.99

Step 2: LT from Major St.	4	1
Conflicting Flows	1037	1021
Potential Capacity	678	303
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	678	303
Probability of Queue free St.	0.99	0.98
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.97	0.97
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows		1502
Potential Capacity		100
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	0.97	0.97
Maj. L, Min T Adj. Imp Factor.	0.97	0.97
Cap. Adj. factor due to Impeding mvmnt	0.96	0.97
Movement Capacity		97

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11

Part 1 - First Stage		
Conflicting Flows		
Potential Capacity	307	333
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.98	0.99
Movement Capacity	301	328
Probability of Queue free St.	1.00	1.00
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity	310	307
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.98
Movement Capacity	305	301
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.97	0.97
Movement Capacity		
Result for 2 stage process:		
a	0.00	0.00
y	0.00	0.00
C t		
Probability of Queue free St.	1.00	1.00
Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		972
Potential Capacity	303	301
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.98	0.99
Movement Capacity	297	297
Part 2 - Second Stage		
Conflicting Flows		530
Potential Capacity	583	522
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.97	0.98
Movement Capacity	568	512
Part 3 - Single Stage		
Conflicting Flows		1502
Potential Capacity		100
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	0.97	0.97
Maj. L, Min T Adj. Imp Factor.	0.97	0.97
Cap. Adj. factor due to Impeding mvmnt	0.96	0.97
Movement Capacity		97
Results for Two-stage process:		
a	0.00	0.00
y	0.00	0.00
C t		97

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)				37		6
Movement Capacity (vph)				97		541
Shared Lane Capacity (vph)						

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7	8	9	10	11	12

	L	T	R	L	T	R
C sep				97		541
Volume				37		6
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						

C max	
C sh	
SUM C sep	
n	
C act	

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config	L	L				L		R
v (vph)	6	10				37		6
C(m) (vph)	303	678				97		541
v/c	0.02	0.01				0.38		0.01
95% queue length	0.00	0.00				1.31		0.00
Control Delay	17.1	10.4				63.4		11.7
LOS	C	B				F		B
Approach Delay							56.2	
Approach LOS							F	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	0.98	0.99
v(i1), Volume for stream 2 or 5		
v(i2), Volume for stream 3 or 6		
s(i1), Saturation flow rate for stream 2 or 5		
s(i2), Saturation flow rate for stream 3 or 6		
P*(oj)		
d(M,LT), Delay for stream 1 or 4	17.1	10.4
N, Number of major street through lanes		
d(rank,1) Delay for stream 2 or 5		

HCS: Unsignalized Intersections Release 3.2

TWO-WAY STOP CONTROL SUMMARY

Intersection:	SR 776 & Riverwood
Analyst:	FTE
Project No.:	101046-01
Date:	10/1/2001
East/West Street:	SR 776
North/South Street:	Riverwood
Intersection Orientation: EW	Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	3	994		8	848	52
Hourly Flow Rate, HFR	6	1057		10	952	69
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized?						No
Lanes	1	2		1	2	1
Configuration	L	T		L	T	R
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				42		3
Hourly Flow Rate, HFR				55		6
Percent Heavy Vehicles				6		0
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes				1		1
Configuration				L		R

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L				L		R
v (vph)	6	10				55		6
C(m) (vph)	688	667				105		541
v/c	0.01	0.01				0.52		0.01
95% queue length	0.00	0.00				2.02		0.00
Control Delay	10.3	10.5				72.0		11.7
LOS	B	B				F		B
Approach Delay							66.1	
Approach LOS							F	

HCS: Unsignalized Intersections Release 3.2

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Intersection:	SR 776 & Riverwood
City/State:	

Analyst: FTE
Project No.: 101046-01
Time period Analyzed: PM Peak
Date: 10/1/2001
East/West Street: SR 776
North/South Street: Riverwood
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	3	994		8	848	52
Peak-Hour Factor, PHF	0.50	0.94		0.75	0.89	0.75
Peak-15 Minute Volume	2	264		3	238	17
Hourly Flow Rate, HFR	6	1057		10	952	69
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized?						No
Lanes	1	2		1	2	1
Configuration	L	T		L	T	R
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume				42		3
Peak Hour Factor, PHF				0.76		0.50
Peak-15 Minute Volume				14		2
Hourly Flow Rate, HFR				55		6
Percent Heavy Vehicles				6		0
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes				1		1
Configuration				L		R

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0
Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		
Shared ln volume, major rt vehicles:		
Sat flow rate, major th vehicles:		
Sat flow rate, major rt vehicles:		
Number of major street through lanes:		

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement		1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)		4.1	4.1				7.5		6.9
t(c,hv)		2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
P(hv)		0	0				6		0
t(c,g)				0.20	0.20	0.10	0.20	0.20	0.10
Grade/100				0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.00				0.70		0.00
t(c,T):	1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c)	1-stage	4.1	4.1				6.9		6.9
	2-stage	4.1	4.1				5.9		6.9

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)	2.20	2.20				3.50		3.30
t(f,HV)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(HV)	0	0				6		0
t(f)	2.2	2.2				3.6		3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
V prog				
Total Saturation Flow Rate, s (vph)				
Arrival Type				
Effective Green, g (sec)				
Cycle Length, C (sec)				
Rp (from table 9-2)				
Proportion vehicles arriving on green P				
g(q1)				
g(q2)				
g(q)				

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2 V(t)	Movement 2 V(l,prot)	Movement 5 V(t)	Movement 5 V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p	0.000		0.000	

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Two-Stage Process Stage II
p(1)			
p(4)			
p(7)			
p(8)			

p(9)
p(10)
p(11)
p(12)

Computation 4 and 5

Single-Stage Process

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
v c,x	1021	1057				1512		476
s								
Px								
v c,u,x								
C r,x								
C plat,x								

Two-Stage Process

	7		8		10		11	
	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2
v(c,x)					972	540		
s						3400		
P(x)								
v(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows		476
Potential Capacity		541
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		541
Probability of Queue free St.	1.00	0.99

Step 2: LT from Major St.	4	1
Conflicting Flows	1057	1021
Potential Capacity	667	688
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	667	688
Probability of Queue free St.	0.99	0.99
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.98	0.98
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
Conflicting Flows		1512
Potential Capacity		107
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	0.98	0.98
Maj. L, Min T Adj. Imp Factor.	0.98	0.98
Cap. Adj. factor due to Impeding mvmnt	0.97	0.98
Movement Capacity		105

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11

Part 1 - First Stage		
Conflicting Flows		
Potential Capacity	300	333
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity	297	328
Probability of Queue free St.	1.00	1.00
Part 2 - Second Stage		
Conflicting Flows		
Potential Capacity	310	300
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity	305	297
Part 3 - Single Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.98	0.98
Movement Capacity		
Result for 2 stage process:		
a	0.00	0.00
y	0.00	0.00
C t		
Probability of Queue free St.	1.00	1.00
Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows		972
Potential Capacity	296	318
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity	293	313
Part 2 - Second Stage		
Conflicting Flows		540
Potential Capacity	583	537
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.97	0.99
Movement Capacity	568	532
Part 3 - Single Stage		
Conflicting Flows		1512
Potential Capacity		107
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	0.98	0.98
Maj. L, Min T Adj. Imp Factor.	0.98	0.98
Cap. Adj. factor due to Impeding mvmnt	0.97	0.98
Movement Capacity		105
Results for Two-stage process:		
a	0.00	0.00
y	0.00	0.00
C t		105

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)				55		6
Movement Capacity (vph)				105		541
Shared Lane Capacity (vph)						

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7	8	9	10	11	12

	L	T	R	L	T	R
: sep				105		541
Volume				55		6
Delay						
) sep						
) sep +1						
round (Qsep +1)						

ı max	
: sh	
SUM C sep	
n	
: act	

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config	L	L				L		R
; (vph)	6	10				55		6
:(m) (vph)	688	667				105		541
v/c	0.01	0.01				0.52		0.01
95% queue length	0.00	0.00				2.02		0.00
Control Delay	10.3	10.5				72.0		11.7
LOS	B	B				F		B
Approach Delay							66.1	
Approach LOS							F	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
ρ(oj)	0.99	0.99
v(i1), Volume for stream 2 or 5		
v(i2), Volume for stream 3 or 6		
s(i1), Saturation flow rate for stream 2 or 5		
s(i2), Saturation flow rate for stream 3 or 6		
P*(oj)		
d(M,LT), Delay for stream 1 or 4	10.3	10.5
N, Number of major street through lanes		
d(rank,1) Delay for stream 2 or 5		