

SIGNAL WARRANT ANALYSIS

US 17/92 @ I-4 Westbound Off-Ramp

Seminole County

Section 77010 – M.P. 16.816

Prepared For:



District 5 Traffic Operations
Florida Department of Transportation

Continuing Service Contract for Traffic Operations
237987-13207
Work Order 9
Metric Project No. 4.1522

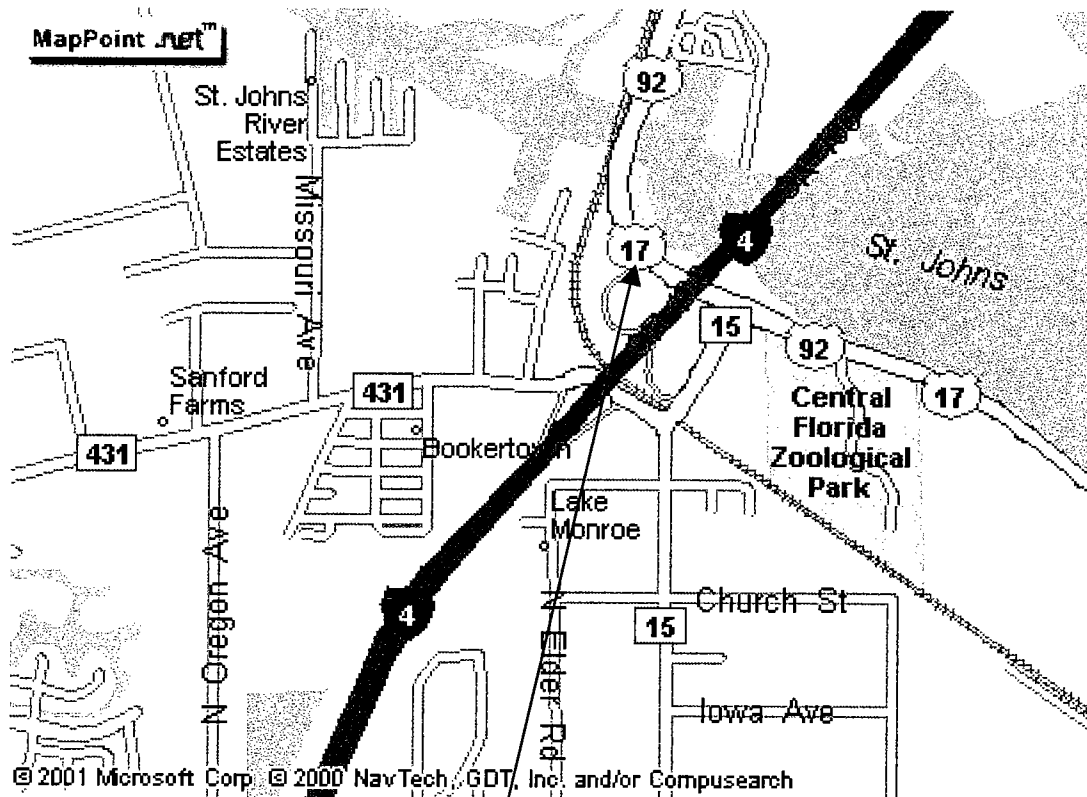
Prepared By:



Metric Engineering, Inc.
Winter Park, FL
May, 2002

A handwritten signature in black ink that reads 'Joseph A. Yarid' with the date '5/7/02' written below it.

Professional Engineer: Joseph A. Yarid, P.E.
P.E. No. 44201
May 7, 2002



STUDY LOCATION



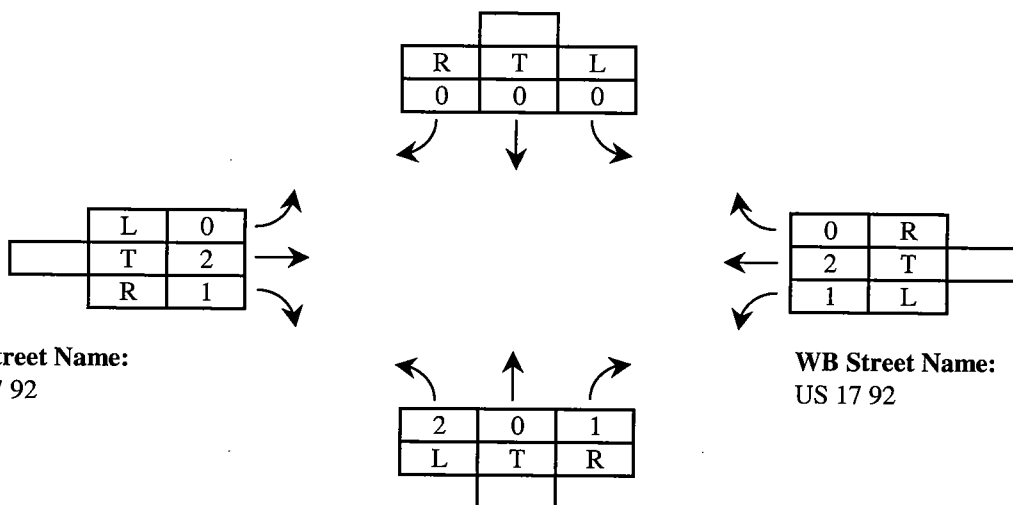
US 17/92 AT I-4 WB Off Ramp Study Location Map

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
SUMMARY OF VEHICLE MOVEMENTS

Location: US 17 92 & CR 15
North/ South Street: County Road 15
East/ West Street: US 17 92
Observer(s): KU
Weather: Clear
Road Condition: Good
Remarks: _____

Section: 77010
M.P. 16.800
City: Sanford
County: Seminole
Date: April 3, 2002

SB Street Name: NA



EB Street Name:
US 17 92

WB Street Name:
US 17 92

NB Street Name: County Road 15

Time	Northbound				Southbound				Total	Eastbound				Westbound				Total
Begin/End	L	T	R	Total	L	T	R	Total	N/S	L	T	R	Total	L	T	R	Total	E/W
4-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6-7	319	0	34	353	0	0	0	0	353	0	915	1179	2094	46	199	0	245	2339
7-8	249	0	70	319	0	0	0	0	319	0	1016	1024	2040	69	242	0	311	2351
8-9	227	0	74	301	0	0	0	0	301	0	529	649	1178	68	245	0	313	1491
9-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-12	330	0	61	391	0	0	0	0	391	0	375	473	848	97	370	0	467	1315
12-1	388	0	50	438	0	0	0	0	438	0	424	528	952	115	403	0	518	1470
1-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3-4	694	0	69	763	0	0	0	0	763	0	309	393	702	102	682	0	784	1486
4-5	978	0	61	1039	0	0	0	0	1039	0	402	395	797	100	912	0	1012	1809
5-6	991	0	50	1041	0	0	0	0	1041	0	393	557	950	150	906	0	1056	2006
6-7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7-8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8-9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	4176	0	469	4645	0	0	0	0	4645	0	4363	5198	9561	747	3959	0	4706	14267

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

PEDESTRIAN VOLUME SHEET

Location: US 17 92 & CR 15
North/ South Street: County Road 15
East/ West Street: US 17 92
Observer(s): KU
Weather: Clear

Section: 77010
M.P. 16.800
City: Sanford
County: Seminole
Date: April 3, 2002

Remarks: _____

SB Street Name: NA



6-7	7-8	8-9	11-12	12-1	3-4	4-5	5-6	Total
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0

6-7	0	0	0
7-8	0	0	0
8-9	0	0	0
11-12	0	0	0
12-1	0	0	0
3-4	0	0	0
4-5	0	0	0
5-6	0		0
Total	0	0	0

EB Street Name:
US 17 92

WB Street Name:
US 17 92

6-7	0	0	0
7-8	0	0	0
8-9	0	0	0
11-12	0	0	0
12-1	0	0	0
3-4	0	0	0
4-5	0	0	0
5-6	0	0	0
Total	0	0	0

6-7	7-8	8-9	11-12	12-1	3-4	4-5	5-6	Total
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0

NB Street Name: County Road 15

METRIC ENGINEERING, INC.

2269 Lee Road

Suite 200

Winter Park, Florida 32789

File Name : US 1792 and CR 15

Site Code : 77010168

Start Date : 04/03/2002

Page No : 1

Groups Printed- Autos-Trucks

Start Time Factor	Southbound				Westbound				Northbound				Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
06:00 AM	0	0	0	0	8	48	0	0	77	0	2	0	0	238	292	0	665
06:15 AM	0	0	0	0	14	54	0	0	96	0	6	0	0	265	324	0	759
06:30 AM	0	0	0	0	16	52	0	0	93	0	13	0	0	187	277	0	638
06:45 AM	0	0	0	0	8	45	0	0	53	0	13	0	0	225	286	0	630
Total	0	0	0	0	46	199	0	0	319	0	34	0	0	915	1179	0	2692
07:00 AM	0	0	0	0	22	69	0	0	79	0	16	0	0	270	248	0	704
07:15 AM	0	0	0	0	9	53	0	0	54	0	14	0	0	312	303	0	745
07:30 AM	0	0	0	0	21	69	0	0	49	0	23	0	0	239	281	0	682
07:45 AM	0	0	0	0	17	51	0	0	67	0	17	0	0	195	192	0	539
Total	0	0	0	0	69	242	0	0	249	0	70	0	0	1016	1024	0	2670
08:00 AM	0	0	0	0	12	56	0	0	55	0	18	0	0	161	184	0	486
08:15 AM	0	0	0	0	22	76	0	0	53	0	21	0	0	147	177	0	496
08:30 AM	0	0	0	0	13	61	0	0	62	0	15	0	0	107	133	0	391
08:45 AM	0	0	0	0	21	52	0	0	57	0	20	0	0	114	155	0	419
Total	0	0	0	0	68	245	0	0	227	0	74	0	0	529	649	0	1792
11:00 AM	0	0	0	0	29	95	0	0	91	0	15	0	0	71	94	0	395
11:15 AM	0	0	0	0	14	89	0	0	85	0	11	0	0	97	134	0	430
11:30 AM	0	0	0	0	15	107	0	0	74	0	14	0	0	113	125	0	448
11:45 AM	0	0	0	0	39	79	0	0	80	0	21	0	0	94	120	0	433
Total	0	0	0	0	97	370	0	0	330	0	61	0	0	375	473	0	1706
12:00 PM	0	0	0	0	25	96	0	0	99	0	12	0	0	114	137	0	483
12:15 PM	0	0	0	0	38	100	0	0	78	0	12	0	0	111	139	0	478
12:30 PM	0	0	0	0	24	98	0	0	117	0	13	0	0	93	123	0	468
12:45 PM	0	0	0	0	28	109	0	0	94	0	13	0	0	106	129	0	479
Total	0	0	0	0	115	403	0	0	388	0	50	0	0	424	528	0	1908
03:00 PM	0	0	0	0	21	132	0	0	137	0	23	0	0	79	98	0	490
03:15 PM	0	0	0	0	27	143	0	0	162	0	16	0	0	80	95	0	523
03:30 PM	0	0	0	0	29	200	0	0	206	0	16	0	0	76	99	0	626
03:45 PM	0	0	0	0	25	207	0	0	189	0	14	0	0	74	101	0	610
Total	0	0	0	0	102	682	0	0	694	0	69	0	0	309	393	0	2249
04:00 PM	0	0	0	0	23	253	0	0	255	0	20	0	0	103	116	0	770
04:15 PM	0	0	0	0	27	211	0	0	196	0	18	0	0	100	74	0	626
04:30 PM	0	0	0	0	27	231	0	0	265	0	10	0	0	114	88	0	735
04:45 PM	0	0	0	0	23	217	0	0	262	0	13	0	0	85	117	0	717
Total	0	0	0	0	100	912	0	0	978	0	61	0	0	402	395	0	2848
05:00 PM	0	0	0	0	67	297	0	0	236	0	10	0	0	102	133	0	845
05:15 PM	0	0	0	0	33	223	0	0	254	0	14	0	0	116	184	0	824
05:30 PM	0	0	0	0	29	212	0	0	278	0	12	0	0	88	110	0	729
05:45 PM	0	0	0	0	21	174	0	0	223	0	14	0	0	87	130	0	649
Total	0	0	0	0	150	906	0	0	991	0	50	0	0	393	557	0	3047
Grand Total	0	0	0	0	747	3959	0	0	4176	0	469	0	0	4363	5198	0	18912
Apprch %	0.0	0.0	0.0	0.0	15.9	84.1	0.0	0.0	89.9	0.0	10.1	0.0	0.0	45.6	54.4	0.0	
Total %	0.0	0.0	0.0	0.0	3.9	20.9	0.0	0.0	22.1	0.0	2.5	0.0	0.0	23.1	27.5	0.0	

24 HOUR MACHINE COUNTS

Location: US 17/92 EB Right at
City: Sanford
County: Seminole
Date of Count: April 10, 2002
North/ South Street: CR 15
East/West Street: US 17/92

Time Begin	NB	SB	NB/SB Total	EB	WB	EB/WB Total	Grand Total
3:00 AM	0	0	0	54	0	54	54
4:00 AM	0	0	0	83	0	83	83
5:00 AM	0	0	0	423	0	423	423
6:00 AM	0	0	0	948	0	948	948
7:00 AM	0	0	0	1015	0	1015	1015
8:00 AM	0	0	0	717	0	717	717
9:00 AM	0	0	0	477	0	477	477
10:00 AM	0	0	0	405	0	405	405
11:00 AM	0	0	0	418	0	418	418
12:00 PM	0	0	0	402	0	402	402
1:00 PM	0	0	0	345	0	345	345
2:00 PM	0	0	0	399	0	399	399
3:00 PM	0	0	0	381	0	381	381
4:00 PM	0	0	0	376	0	376	376
5:00 PM	0	0	0	496	0	496	496
6:00 PM	0	0	0	318	0	318	318
7:00 PM	0	0	0	231	0	231	231
8:00 PM	0	0	0	149	0	149	149
9:00 PM	0	0	0	151	0	151	151
10:00 PM	0	0	0	98	0	98	98
11:00 PM	0	0	0	64	0	64	64
12:00 AM	0	0	0	34	0	34	34
1:00 AM	0	0	0	31	0	31	31
2:00 AM	0	0	0	18	0	18	18
TOTAL	0	0	0	8033	0	8033	8033

METRIC ENGINEERING, INC.
2269 Lee Road
Suite 200
Winter Park, Florida 32789

Page 1
Site Code: 701016807030
Date Printed: 07-May-02

US 17/92 EB Right and
County Road 15

Start Time	10-Apr-02 Wed	A to B		Hour Totals	
		AM	PM	AM	PM
03:00		8	89		
03:15		9	100		
03:30		24	117		
03:45		13	75	54	381
04:00		13	89		
04:15		17	98		
04:30		20	95		
04:45		33	94	83	376
05:00		46	153		
05:15		65	126		
05:30		135	122		
05:45		177	95	423	496
06:00		144	89		
06:15		234	100		
06:30		288	63		
06:45		282	66	948	318
07:00		234	73		
07:15		260	58		
07:30		268	53		
07:45		253	47	1015	231
08:00		204	50		
08:15		207	36		
08:30		155	34		
08:45		151	29	717	149
09:00		135	29		
09:15		123	38		
09:30		108	44		
09:45		111	40	477	151
10:00		97	26		
10:15		93	22		
10:30		111	29		
10:45		104	21	405	98
11:00		111	17		
11:15		102	16		
11:30		94	24		
11:45		111	7	418	64
12:00		106	14		
12:15		91	10		
12:30		105	8		
12:45		100	2	402	34
01:00		87	8		
01:15		87	7		
01:30		87	5		
01:45		84	11	345	31
02:00		94	3		
02:15		91	3		
02:30		107	7		
02:45		107	5	399	18
Total		5686	2347		
24 Hour Total		8033			
AM Peak		06:30			
Volume		1064			
P.H.F.		0.924			
PM Peak			05:00		
Volume			496		
P.H.F.			0.810		

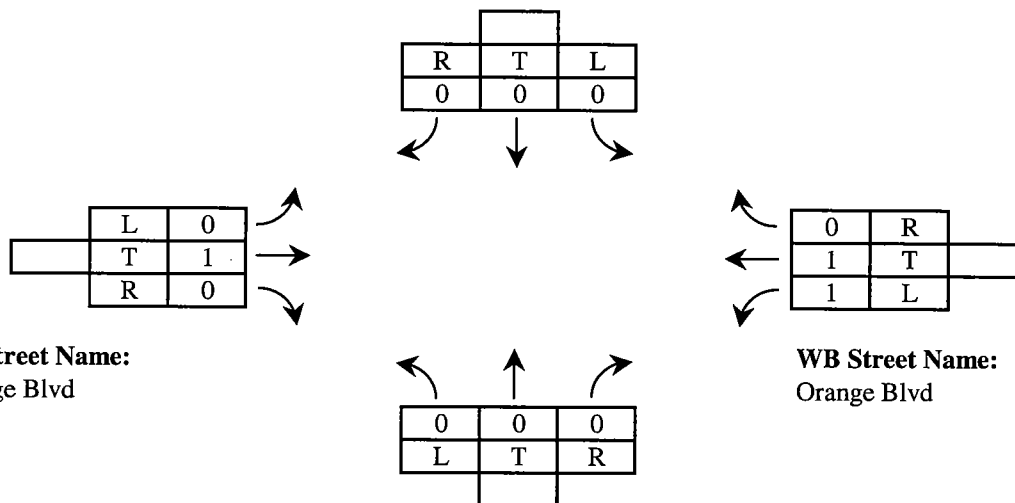
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
SUMMARY OF VEHICLE MOVEMENTS

Location: Orange Blvd & I-4
North/ South Street: Interstate 4 WB On Ramp
East/ West Street: Orange Blvd
Observer(s): KU
Weather: Clear
Road Condition: Good

Section: 77010
M.P. 0.500
City: Sanford
County: Seminole
Date: April 9, 2002

Remarks: _____

SB Street Name: NA



EB Street Name:
Orange Blvd

WB Street Name:
Orange Blvd

NB Street Name: Interstate 4 WB On Ramp

Time	Northbound				Southbound				Total	Eastbound				Westbound				Total
Begin/End	L	T	R	Total	L	T	R	Total	N/S	L	T	R	Total	L	T	R	Total	E/W
4-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6-7	0	0	0	0	0	0	0	0	0	0	163	43	206	330	346	0	676	882
7-8	0	0	0	0	0	0	0	0	0	0	192	41	233	405	354	0	759	992
8-9	0	0	0	0	0	0	0	0	0	0	188	46	234	358	284	0	642	876
9-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-12	0	0	0	0	0	0	0	0	0	0	200	85	285	189	248	0	437	722
12-1	0	0	0	0	0	0	0	0	0	0	229	52	281	157	265	0	422	703
1-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3-4	0	0	0	0	0	0	0	0	0	0	338	80	418	198	247	0	445	863
4-5	0	0	0	0	0	0	0	0	0	0	353	64	417	163	247	0	410	827
5-6	0	0	0	0	0	0	0	0	0	0	350	50	400	231	271	0	502	902
6-7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7-8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8-9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	2013	461	2474	2031	2262	0	4293	6767

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

PEDESTRIAN VOLUME SHEET

Location: Orange Blvd & I-4
North/ South Street: Interstate 4 WB On Ramp
East/ West Street: Orange Blvd
Observer(s): KU
Weather: Clear

Section: 77010
M.P. 0.500
City: Sanford
County: Seminole
Date: April 9, 2002

Remarks: _____

SB Street Name: NA



6-7	7-8	8-9	11-12	12-1	3-4	4-5	5-6	Total
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0

6-7	0	0	0
7-8	0	0	0
8-9	0	0	0
11-12	0	0	0
12-1	0	0	0
3-4	0	0	0
4-5	0	0	0
5-6	0	0	0
Total	0	0	0

EB Street Name:
Orange Blvd

WB Street Name:
Orange Blvd

6-7	0	0	0
7-8	0	0	0
8-9	0	0	0
11-12	0	0	0
12-1	0	0	0
3-4	0	0	0
4-5	0	0	0
5-6	0	0	0
Total	0	0	0

6-7	7-8	8-9	11-12	12-1	3-4	4-5	5-6	Total
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0

NB Street Name: Interstate 4 WB On Ramp

METRIC ENGINEERING, INC.

2269 Lee Road

Suite 200

Winter Park, Florida 32789

File Name : 8hr TMC Orange Blvd & I-4 WB

Site Code : 77010050

Start Date : 04/11/2002

Page No : 1

Groups Printed- Autos-Trucks

	Southbound				Westbound				Northbound				Eastbound				Int.
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
06:00 AM	0	0	0	0	77	49	0	0	0	0	0	0	0	42	11	0	179
06:15 AM	0	0	0	0	89	75	0	0	0	0	0	0	0	36	15	0	215
06:30 AM	0	0	0	0	77	97	0	0	0	0	0	0	0	42	13	0	229
06:45 AM	0	0	0	0	87	125	0	0	0	0	0	0	0	43	4	0	259
Total	0	0	0	0	330	346	0	0	0	0	0	0	0	163	43	0	882
07:00 AM	0	0	0	0	115	79	0	0	0	0	0	0	0	30	8	0	232
07:15 AM	0	0	0	0	100	83	0	0	0	0	0	0	0	52	9	0	244
07:30 AM	0	0	0	0	97	96	0	0	0	0	0	0	0	47	14	0	254
07:45 AM	0	0	0	0	93	96	0	0	0	0	0	0	0	63	10	0	262
Total	0	0	0	0	405	354	0	0	0	0	0	0	0	192	41	0	992
08:00 AM	0	0	0	0	102	97	0	0	0	0	0	0	0	44	10	0	253
08:15 AM	0	0	0	0	83	66	0	0	0	0	0	0	0	30	22	0	201
08:30 AM	0	0	0	0	80	57	0	0	0	0	0	0	0	65	9	0	211
08:45 AM	0	0	0	0	93	64	0	0	0	0	0	0	0	49	5	0	211
Total	0	0	0	0	358	284	0	0	0	0	0	0	0	188	46	0	876
11:00 AM	0	0	0	0	43	58	0	0	0	0	0	0	0	46	10	0	157
11:15 AM	0	0	0	0	54	50	0	0	0	0	0	0	0	61	25	0	190
11:30 AM	0	0	0	0	47	68	0	0	0	0	0	0	0	51	25	0	191
11:45 AM	0	0	0	0	45	72	0	0	0	0	0	0	0	42	25	0	184
Total	0	0	0	0	189	248	0	0	0	0	0	0	0	200	85	0	722
12:00 PM	0	0	0	0	47	62	0	0	0	0	0	0	0	73	15	0	197
12:15 PM	0	0	0	0	32	61	0	0	0	0	0	0	0	61	10	0	164
12:30 PM	0	0	0	0	42	58	0	0	0	0	0	0	0	63	15	0	178
12:45 PM	0	0	0	0	36	84	0	0	0	0	0	0	0	32	12	0	164
Total	0	0	0	0	157	265	0	0	0	0	0	0	0	229	52	0	703
03:00 PM	0	0	0	0	60	69	0	0	0	0	0	0	0	58	9	0	196
03:15 PM	0	0	0	0	57	59	0	0	0	0	0	0	0	103	19	0	238
03:30 PM	0	0	0	0	43	61	0	0	0	0	0	0	0	99	44	0	247
03:45 PM	0	0	0	0	38	58	0	0	0	0	0	0	0	78	8	0	182
Total	0	0	0	0	198	247	0	0	0	0	0	0	0	338	80	0	863
04:00 PM	0	0	0	0	42	71	0	0	0	0	0	0	0	76	15	0	204
04:15 PM	0	0	0	0	34	57	0	0	0	0	0	0	0	89	17	0	197
04:30 PM	0	0	0	0	34	57	0	0	0	0	0	0	0	109	18	0	218
04:45 PM	0	0	0	0	53	62	0	0	0	0	0	0	0	79	14	0	208
Total	0	0	0	0	163	247	0	0	0	0	0	0	0	353	64	0	827
05:00 PM	0	0	0	0	70	89	0	0	0	0	0	0	0	80	19	0	258
05:15 PM	0	0	0	0	71	56	0	0	0	0	0	0	0	100	14	0	241
05:30 PM	0	0	0	0	50	64	0	0	0	0	0	0	0	88	11	0	213
05:45 PM	0	0	0	0	40	62	0	0	0	0	0	0	0	82	6	0	190
Total	0	0	0	0	231	271	0	0	0	0	0	0	0	350	50	0	902
Grand Total	0	0	0	0	2031	2262	0	0	0	0	0	0	0	2013	461	0	6767
Apprch %	0.0	0.0	0.0	0.0	47.3	52.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	81.4	18.6	0.0	
Total %	0.0	0.0	0.0	0.0	30.0	33.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.7	6.8	0.0	

24 HOUR MACHINE COUNTS

Location: Interstate 4 WB On Ramp
City: Sanford
County: Seminole
Date of Count: April 2, 2002
North/ South Street: Interstate 4 WB On Ramp
East/West Street: NA

Time Begin	NB	SB	NB/SB Total	EB	WB	EB/WB Total	Grand Total
3:00 AM	0	40	40	0	0	0	40
4:00	0	71	71	0	0	0	71
5:00	0	293	293	0	0	0	293
6:00	0	397	397	0	0	0	397
7:00	0	385	385	0	0	0	385
8:00	0	297	297	0	0	0	297
9:00	0	242	242	0	0	0	242
10:00	0	203	203	0	0	0	203
11:00	0	223	223	0	0	0	223
12:00	0	198	198	0	0	0	198
13:00	0	186	186	0	0	0	186
14:00	0	203	203	0	0	0	203
3:00 PM	0	226	226	0	0	0	226
16:00	0	262	262	0	0	0	262
17:00	0	229	229	0	0	0	229
18:00	0	143	143	0	0	0	143
19:00	0	78	78	0	0	0	78
20:00	0	63	63	0	0	0	63
21:00	0	38	38	0	0	0	38
22:00	0	40	40	0	0	0	40
23:00	0	16	16	0	0	0	16
0:00	0	11	11	0	0	0	11
1:00	0	9	9	0	0	0	9
2:00	0	17	17	0	0	0	17
TOTAL	0	3870	3870	0	0	0	3870

METRIC ENGINEERING, INC.
2269 Lee Road
Suite 200
Winter Park, Florida 32789

Page 1
Site Code: 770100050030
Date Printed: 07-May-02

ORANGE BLVD
@ I-4 WB ON RAMP

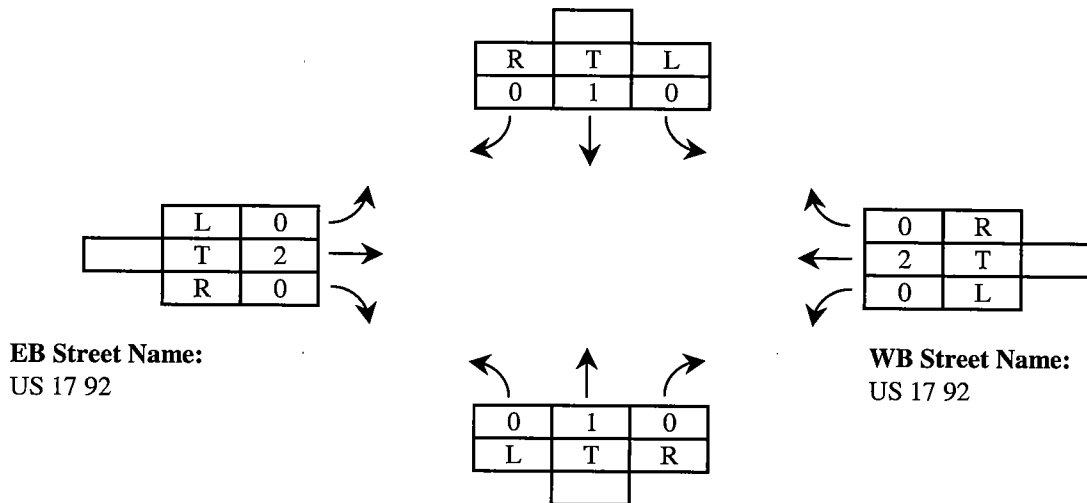
Start Time	02-Apr-02 Tue	A to B		Hour Totals	
		AM	PM	AM	PM
03:00		8	78		
03:15		8	61		
03:30		12	52		
03:45		12	35	40	226
04:00		10	58		
04:15		14	45		
04:30		22	81		
04:45		25	78	71	262
05:00		49	85		
05:15		49	48		
05:30		82	48		
05:45		113	48	293	229
06:00		87	42		
06:15		106	44		
06:30		85	25		
06:45		119	32	397	143
07:00		71	17		
07:15		120	22		
07:30		108	22		
07:45		86	17	385	78
08:00		98	11		
08:15		77	24		
08:30		67	11		
08:45		55	17	297	63
09:00		89	13		
09:15		48	7		
09:30		48	12		
09:45		57	6	242	38
10:00		71	12		
10:15		47	10		
10:30		41	7		
10:45		44	11	203	40
11:00		55	6		
11:15		44	5		
11:30		64	2		
11:45		60	3	223	16
12:00		65	1		
12:15		49	2		
12:30		42	4		
12:45		42	4	198	11
01:00		59	4		
01:15		41	1		
01:30		50	2		
01:45		36	2	186	9
02:00		60	4		
02:15		45	1		
02:30		54	7		
02:45		44	5	203	17
Total		2738	1132		
24 Hour Total		3870			
AM Peak	06:45				
Volume	418				
P.H.F.	0.871				
PM Peak	04:30				
Volume	292				
P.H.F.	0.859				

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
SUMMARY OF VEHICLE MOVEMENTS

Location: US 17/92 & I-4
North/ South Street: Interstate 4 WB Off Ramp
East/ West Street: US 17 92
Observer(s): KU
Weather: Clear
Road Condition: Good
Remarks: _____

Section: 77010
M.P. 16.900
City: Sanford
County: Seminole
Date: April 9, 2002

SB Street Name: Wayside Boat Ramp



EB Street Name:
US 17 92

WB Street Name:
US 17 92

NB Street Name: Interstate 4 WB Off Ramp

Time	Northbound				Southbound				Total	Eastbound				Westbound				Total
Begin/End	L	T	R	Total	L	T	R	Total	N/S	L	T	R	Total	L	T	R	Total	E/W
4-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6-7	5	1	198	204	3	0	4	7	211	19	1714	0	1733	0	426	31	457	2190
7-8	4	0	282	286	2	0	4	6	292	3	1456	0	1459	0	405	8	413	1872
8-9	8	1	184	193	4	0	3	7	200	6	901	0	907	0	417	7	424	1331
9-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-12	6	1	162	169	13	0	3	16	185	5	602	0	607	0	706	14	720	1327
12-1	5	1	155	161	13	0	3	16	177	14	618	0	632	0	731	4	735	1367
1-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3-4	4	0	229	233	11	0	5	16	249	12	534	0	546	0	1486	5	1491	2037
4-5	7	0	202	209	4	0	10	14	223	4	746	0	750	0	1837	15	1852	2602
5-6	8	1	261	270	20	0	11	31	301	33	701	0	734	0	1686	7	1693	2427
6-7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7-8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8-9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	47	5	1673	1725	70	0	43	113	1838	96	7272	0	7368	0	7694	91	7785	15153

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

PEDESTRIAN VOLUME SHEET

Location: US 17/92 & I-4
North/ South Street: Interstate 4 WB Off Ramp
East/ West Street: US 17 92
Observer(s): KU
Weather: Clear

Section: 77010
M.P. 16.900
City: Sanford
County: Seminole
Date: April 9, 2002

Remarks: _____

SB Street Name: Wayside Boat Ramp



6-7	7-8	8-9	11-12	12-1	3-4	4-5	5-6	Total
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0

6-7	0	0	0
7-8	0	0	0
8-9	0	0	0
11-12	0	0	0
12-1	0	0	0
3-4	0	0	0
4-5	0	0	0
5-6	0		0
Total	0	0	0

EB Street Name:
US 17 92

WB Street Name:
US 17 92

6-7	0	0	0
7-8	0	0	0
8-9	0	0	0
11-12	0	0	0
12-1	0	0	0
3-4	0	0	0
4-5	0	0	0
5-6	0	0	0
Total	0	0	0

6-7	7-8	8-9	11-12	12-1	3-4	4-5	5-6	Total
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0

NB Street Name: Interstate 4 WB Off Ramp

METRIC ENGINEERING, INC.

2269 Lee Road

Suite 200

Winter Park, Florida 32789

File Name : 8hr tmc i-4 & 1792

Site Code : 77010169

Start Date : 04/09/2002

Page No : 1

Groups Printed- Autos-Trucks

	Southbound				Westbound				Northbound				Eastbound				Int. Total
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
06:00 AM	0	0	0	0	0	118	11	0	2	0	43	0	4	473	0	0	651
06:15 AM	0	0	3	0	0	114	14	0	0	0	41	0	14	395	0	0	581
06:30 AM	1	0	0	0	0	90	4	0	2	0	58	0	0	401	0	0	556
06:45 AM	2	0	1	0	0	104	2	0	1	1	56	0	1	445	0	0	613
Total	3	0	4	0	0	426	31	0	5	1	198	0	19	1714	0	0	2401
07:00 AM	1	0	1	0	0	113	1	0	1	0	63	0	1	500	0	0	681
07:15 AM	1	0	1	0	0	102	3	0	0	0	94	0	0	415	0	0	616
07:30 AM	0	0	1	0	0	111	3	0	1	0	68	0	1	318	0	0	503
07:45 AM	0	0	1	0	0	79	1	0	2	0	57	0	1	223	0	0	364
Total	2	0	4	0	0	405	8	0	4	0	282	0	3	1456	0	0	2164
08:00 AM	1	0	1	0	0	107	3	0	2	0	49	0	0	271	0	0	434
08:15 AM	2	0	1	0	0	91	2	0	4	0	50	0	3	249	0	0	402
08:30 AM	1	0	0	0	0	117	2	0	2	0	38	0	1	182	0	0	343
08:45 AM	0	0	1	0	0	102	0	0	0	1	47	0	2	199	0	0	352
Total	4	0	3	0	0	417	7	0	8	1	184	0	6	901	0	0	1531
11:00 AM	0	0	1	0	0	170	2	0	1	0	34	0	3	168	0	0	379
11:15 AM	3	0	1	0	0	173	5	0	1	0	43	0	2	123	0	0	351
11:30 AM	7	0	1	0	0	182	4	0	3	0	38	0	0	169	0	0	404
11:45 AM	3	0	0	0	0	181	3	0	1	1	47	0	0	142	0	0	378
Total	13	0	3	0	0	706	14	0	6	1	162	0	5	602	0	0	1512
12:00 PM	6	0	0	0	0	171	0	0	0	1	47	0	1	178	0	0	404
12:15 PM	2	0	0	0	0	210	0	0	3	0	41	0	1	150	0	0	407
12:30 PM	3	0	2	0	0	175	1	0	1	0	42	0	4	153	0	0	381
12:45 PM	2	0	1	0	0	175	3	0	1	0	25	0	8	137	0	0	352
Total	13	0	3	0	0	731	4	0	5	1	155	0	14	618	0	0	1544
03:00 PM	6	0	1	0	0	317	1	0	2	0	52	0	11	132	0	0	522
03:15 PM	2	0	2	0	0	393	2	0	0	0	57	1	0	119	0	0	576
03:30 PM	0	0	0	0	0	370	1	0	0	0	50	0	0	131	0	0	552
03:45 PM	3	0	2	0	0	406	1	0	2	0	70	0	1	152	0	0	637
Total	11	0	5	0	0	1486	5	0	4	0	229	1	12	534	0	0	2287
04:00 PM	0	0	2	0	0	411	1	0	1	0	61	0	0	146	0	0	622
04:15 PM	2	0	3	0	0	450	2	0	0	0	43	0	3	160	0	0	663
04:30 PM	0	0	0	0	0	453	1	0	4	0	51	2	1	242	0	0	754
04:45 PM	2	0	5	0	0	523	11	0	2	0	47	0	0	198	0	0	788
Total	4	0	10	0	0	1837	15	0	7	0	202	2	4	746	0	0	2827
05:00 PM	6	0	6	0	0	475	0	0	5	0	63	0	0	192	0	0	747
05:15 PM	3	0	1	0	0	446	1	0	2	0	98	0	18	179	0	0	748
05:30 PM	3	0	1	0	0	418	1	0	0	1	51	0	14	175	0	0	664
05:45 PM	8	0	3	0	0	347	5	0	1	0	49	0	1	155	0	0	569
Total	20	0	11	0	0	1686	7	0	8	1	261	0	33	701	0	0	2728
Grand Total	70	0	43	0	0	7694	91	0	47	5	1673	3	96	7272	0	0	16994
Apprch %	61.9	0.0	38.1	0.0	0.0	98.8	1.2	0.0	2.7	0.3	96.8	0.2	1.3	98.7	0.0	0.0	
Total %	0.4	0.0	0.3	0.0	0.0	45.3	0.5	0.0	0.3	0.0	9.8	0.0	0.6	42.8	0.0	0.0	

24 HOUR MACHINE COUNTS

Location: US 17/92
City: Sanford
County: Seminole
North/ South Street: Interstate 4 WB Off Ramp
East/West Street: US 17/92

Time Begin	NB	SB	NB/SB Total	EB	WB	EB/WB Total	Grand Total
3:00 AM	34	0	34	67	47	114	148
4:00 AM	36	0	36	92	31	123	159
5:00 AM	144	1	145	453	172	625	770
6:00 AM	262	15	277	1430	468	1898	2175
7:00 AM	337	9	346	1750	495	2245	2591
8:00 AM	305	18	323	1229	511	1740	2063
9:00 AM	211	25	236	779	568	1347	1583
10:00 AM	227	45	272	707	606	1313	1585
11:00 AM	203	28	231	730	768	1498	1729
12:00 PM	256	28	284	709	917	1626	1910
1:00 PM	247	14	261	641	1015	1656	1917
2:00 PM	252	34	286	607	1020	1627	1913
3:00 PM	249	36	285	661	1571	2232	2517
4:00 PM	225	17	242	565	1852	2417	2659
5:00 PM	202	6	208	634	1970	2604	2812
6:00 PM	174	7	181	567	1212	1779	1960
7:00 PM	152	2	154	378	683	1061	1215
8:00 PM	101	4	105	272	527	799	904
9:00 PM	87	8	95	211	531	742	837
10:00 PM	89	4	93	188	347	535	628
11:00 PM	54	9	63	103	307	410	473
12:00 AM	20	1	21	78	202	280	301
1:00 AM	38	5	43	42	125	167	210
2:00 AM	19	0	19	44	118	162	181
TOTAL	3924	316	4240	12937	16063	29000	33240

METRIC ENGINEERING, INC.
2269 Lee Road
Suite 200
Winter Park, Florida 32789

Page 1
Site Code: 000007701001
Date Printed: 07-May-02

US 17/92 &
I-4 WB RAMP (NB)

Start Time	Channel 1		Hour Totals	
	AM	PM	AM	PM
03:00	8	48		
03:15	10	62		
03:30	8	74		
03:45	8	65		
04:00	6	79	34	249
04:15	10	45		
04:30	8	43		
04:45	12	58	36	225
05:00	16	34		
05:15	30	58		
05:30	39	64		
05:45	59	46	144	202
06:00	59	48		
06:15	77	46		
06:30	62	40		
06:45	64	40		
07:00	68	45	262	174
07:15	73	43		
07:30	91	28		
07:45	105	36	337	152
08:00	79	23		
08:15	81	29		
08:30	76	24		
08:45	69	25	305	101
09:00	67	22		
09:15	38	17		
09:30	60	26		
09:45	46	22	211	87
10:00	60	20		
10:15	46	27		
10:30	87	21		
10:45	34	21	227	89
11:00	62	19		
11:15	57	11		
11:30	49	13		
11:45	35	11	203	54
12:00	76	5		
12:15	55	5		
12:30	64	4		
12:45	61	6	256	20
01:00	74	11		
01:15	60	11		
01:30	56	9		
01:45	57	7	247	38
02:00	54	4		
02:15	55	7		
02:30	77	4		
02:45	66	4	252	19
Total	2514	1410		
24 Hour Total	3924			
AM Peak	07:30			
Volume	356			
P.H.F.	0.848			
PM Peak		03:15		
Volume		280		
P.H.F.		0.886		

METRIC ENGINEERING, INC.
 2269 Lee Road
 Suite 200
 Winter Park, Florida 32789

Page 1
 Site Code: 000007701003
 Date Printed: 07-May-02

US 17/92 &
 I-4 WB RAMP (SB)

Start Time	Channel 1		Hour Totals	
	AM	PM	AM	PM
03:00	0	10		
03:15	0	0		
03:30	0	17		
03:45	0	9		
04:00	0	4	0	36
04:15	0	5		
04:30	0	3		
04:45	0	5	0	17
05:00	0	2		
05:15	0	3		
05:30	0	1		
05:45	1	0	1	6
06:00	6	2		
06:15	1	2		
06:30	2	2		
06:45	6	1	15	7
07:00	0	2		
07:15	7	0		
07:30	0	0		
07:45	2	0	9	2
08:00	3	1		
08:15	1	0		
08:30	7	0		
08:45	7	3	18	4
09:00	6	0		
09:15	2	2		
09:30	7	4		
09:45	10	2	25	8
10:00	14	2		
10:15	8	0		
10:30	6	0		
10:45	17	2	45	4
11:00	12	0		
11:15	4	2		
11:30	9	7		
11:45	3	0	28	9
12:00	18	1		
12:15	6	0		
12:30	2	0		
12:45	2	0	28	1
01:00	6	5		
01:15	1	0		
01:30	6	0		
01:45	1	0	14	5
02:00	4	0		
02:15	12	0		
02:30	5	0		
02:45	13	0	34	0
Total	217	99		
24 Hour Total	316			
AM Peak Volume	10:00 45			
P.H.F.	0.662			
PM Peak Volume		03:00 36		
P.H.F.		0.529		

METRIC ENGINEERING, INC.
 2269 Lee Road
 Suite 200
 Winter Park, Florida 32789

Page 1
 Site Code: 000007701002
 Date Printed: 07-May-02

US 17/92 &
 I-4 WB RAMP (EB)

Start Time	Channel 1		Hour Totals	
	AM	PM	AM	PM
03:00	8	176		
03:15	7	171		
03:30	33	174		
03:45	19	140		
04:00	11	149	67	661
04:15	23	118		
04:30	26	151		
04:45	32	147	92	565
05:00	56	176		
05:15	90	145		
05:30	127	180		
05:45	180	133	453	634
06:00	233	145		
06:15	346	146		
06:30	440	137		
06:45	411	139	1430	567
07:00	406	124		
07:15	429	77		
07:30	487	100		
07:45	428	77	1750	378
08:00	356	72		
08:15	346	68		
08:30	285	68		
08:45	242	64	1229	272
09:00	189	56		
09:15	215	57		
09:30	193	59		
09:45	182	39	779	211
10:00	170	48		
10:15	205	42		
10:30	167	55		
10:45	165	43	707	188
11:00	217	31		
11:15	171	36		
11:30	165	25		
11:45	177	11	730	103
12:00	175	22		
12:15	191	16		
12:30	172	19		
12:45	171	21	709	78
01:00	189	2		
01:15	168	16		
01:30	141	14		
01:45	143	10	641	42
02:00	132	10		
02:15	154	12		
02:30	170	11		
02:45	151	11	607	44
Total	9194	3743		
24 Hour Total	12937			
AM Peak	07:00			
Volume	1750			
P.H.F.	0.898			
PM Peak	03:00			
Volume	661			
P.H.F.	0.918			

METRIC ENGINEERING, INC.
2269 Lee Road
Suite 200
Winter Park, Florida 32789

Page 1
Site Code: 000007701004
Date Printed: 07-May-02

US 17/92 &
I-4 WB RAMP (WB)

Start Time	Channel 1		Hour Totals	
	AM	PM	AM	PM
03:00	15	343		
03:15	11	387		
03:30	12	433		
03:45	9	408	47	1571
04:00	15	449		
04:15	6	448		
04:30	2	480		
04:45	8	475	31	1852
05:00	23	540		
05:15	34	556		
05:30	41	430		
05:45	74	444	172	1970
06:00	103	346		
06:15	114	350		
06:30	130	289		
06:45	121	227	468	1212
07:00	107	201		
07:15	126	168		
07:30	138	162		
07:45	124	152	495	683
08:00	125	151		
08:15	116	115		
08:30	150	117		
08:45	120	144	511	527
09:00	137	157		
09:15	147	149		
09:30	128	110		
09:45	156	115	568	531
10:00	145	88		
10:15	133	93		
10:30	153	79		
10:45	175	87	606	347
11:00	167	102		
11:15	178	72		
11:30	207	75		
11:45	216	58	768	307
12:00	218	72		
12:15	223	44		
12:30	265	44		
12:45	211	42	917	202
01:00	226	32		
01:15	252	25		
01:30	272	26		
01:45	265	42	1015	125
02:00	209	44		
02:15	241	29		
02:30	296	14		
02:45	274	31	1020	118
Total	6618	9445		
24 Hour Total	16063			
AM Peak	11:00			
Volume	768			
P.H.F.	0.889			
PM Peak	04:30			
Volume	2051			
P.H.F.	0.922			

- SHRUBS

POWER POLE

TREES

HEDGE

STREET SIGN

SIGNAL POLE

JOINT USE POLE

LIGHT POLE

PEDESTRIAN SIGNAL

CONTROLLER CABINET


SIGNAL HEAD

OVERHEAD SIGN

FIRE HYDRANT

FENCE

GUARD RAIL

BUILDING
-
- | REVISIONS | | | | | | PREPARED BY | | STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION | | | CONDITION DIAGRAM
I-4 WB ON/OFF-RAMP @ US 17-92 | SHEET
NO.
5 |
|-----------|----|-------------|------|----|-------------|--|--|--|----------|----------------------|--|-------------------|
| DATE | BY | DESCRIPTION | DATE | BY | DESCRIPTION | <div>  <div> METRIC ENGINEERING, INC.
 ENGINEERS • PLANNERS • SURVEYORS </div> </div> | | ROAD NO. | COUNTY | FINANCIAL PROJECT ID | | |
| | | | | | | | | 15/600 | SEMINOLE | 232254-I-52-01 | | |