TOWN OF JUPITE
OCT 2 0 2005
COMMUNITY DEVELOPMENT

THE JUPITER AREA STUDY-UPDATE 2004

Indiantown Road Corridor Master Plan

-DRAFT -

Prepared for

The Town of Jupiter

Prepared by:

Susan E. O'Rourke, P.E., Inc.

229 SE Villas Street
Stuart, Florida 34994
772 781 7918
772 781 9261 fax

October 25, 2005

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EXECUTIVE SUMMARY

The Jupiter Area Study is a comprehensive overview of the future traffic conditions within the Town of Jupiter, with an emphasis on Indiantown Road. In 2003, the Town identified consensus strategies to mitigate long term traffic impacts in the Town. Those measures included land purchases, revised land use designations and roadway capacity improvements.

The strategies included in the JAS Update include:

Land Use Strategies

- Approve development consistent with the land use assumptions in the JAS
- Purchase Delaware Scrub
- Provide a density of 2 du/acre on Loc Reserve and Jupiter I-95 North

Capacity and Circulation Improvements – Links

- Limestone Creek Connection to the Western Corridor (Island Way)
- Southern Extension of the Western Corridor (Island Way)
- Six-laning west of the Turnpike
- Maplewood Road to Bush Road Connection
- Home Depot Connection
- Central Boulevard four laning from Longshore Drive to the C-18 Canal

Capacity and Circulation Improvements – Interchange

- I-95 northbound and southbound to and from the Western Corridor north of Indiantown Road.

Capacity Improvements – Intersections

- Indiantown Road/ Pennock – provide a northbound right turn lane
- Indiantown Road/ Military Trail – provide a westbound left turn lane, extend the eastbound right-turn lane
- Indiantown Road/ Alternate AIA – provide dual northbound left-turn lanes
- Indiantown Road/ Central Boulevard – provide dual southbound right-turn lanes and triple northbound left-turn lanes.

The improvements, when implemented will provide capacity sufficient to achieve acceptable levels of service throughout the Town. Although several individual links will not meet the County thresholds, the County concurrency requirements allow the use of more detailed analysis to demonstrate that the roadways will operate at acceptable level of service. Along Indiantown Road, the improvements at the intersections could result in operation of Level of Service D or better at the intersections and an overall speed along the corridor which could allow level of service D.

Other links within the Town will meet level of service thresholds when funded improvements by others are made, such as the widening of Alternate AIA, or are within an acceptable CRALLS, such as Center Street.

The approval of the Jupiter Area Study and its adoption as a Corridor master Plan will establish the framework for implementation of the Town Consensus Strategies and land use assumptions.

1.0 OVERVIEW OF THE STUDY PROCESS

1.1 Study Purpose and Objective

In 2003, the Town of Jupiter prepared the Jupiter Area Study to determine the future traffic conditions in the northern Jupiter area; primarily along Indiantown Road. Once the traffic conditions were developed; deficiencies were identified. Finally, a mitigation strategy was developed. Since that time, some of the land in the study area has been developed, traffic volumes have changed and several of the mitigation measures have been adopted. This report will serve as a tool to assist with monitoring growth, assessing the need for additional mitigation and providing the basis for the Corridor Master Plan for Indiantown Road. The study provides an overview of the existing conditions in the area and identifies the anticipated growth through the buildout of the Town and surrounding area. Figure 1 illustrates the study area.

1.2 Approach

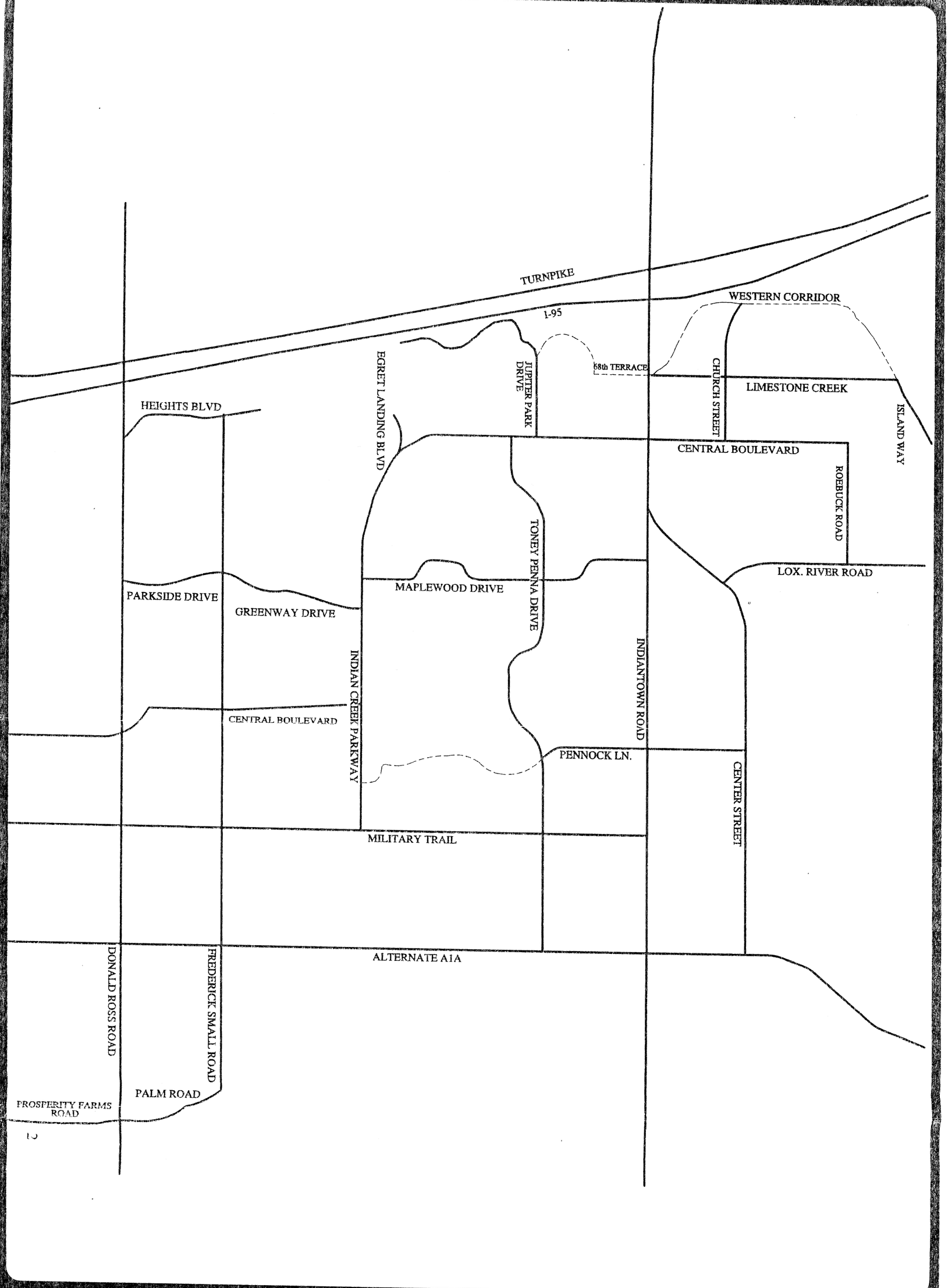
Buildout for purposes of this study was defined as the likely development in the Town given current zoning or anticipated changes based on current applications in process. Assumptions were made for virtually all undeveloped or partially undeveloped land in the Town and surrounding areas. Trip generation associated with the land patterns was then calculated and assigned to the roadway network. Adjustments were made to the future projections to estimate interactions between uses and seasonal variations. In this update, the land use was updated to identify unbuilt land as of the fall of 2004. The trip generation was updated from the Institute of Transportation Engineers 6th Edition to the 7th Edition.

Once the future volumes were developed, the network was tested to determine if there was adequate infrastructure to accommodate the growth. In some areas the traffic volumes exceeded the infrastructure's ability to carry the traffic within acceptable levels of Service. Level of Service D is the adopted level of service for the Town and the County. The service volumes were updated to reflect the 2002 FDOT Quality/Level of Service Handbook.

1.3 Agency Coordination and Decision-Making Structure

The 2003 JAS was begun with the formation of a technical committee that developed a future forecast for the Town. The Technical Committee consisted of engineers and planners from the Town, the County, the Town's Consultants and land developers' consultants. A list of the attendees is included in Appendix A. The Technical Commitee was in constant contact with the Town Council through a series of technical workshops. The Town Council provided key direction and input throughout the process.

Following Council review and comment on the Draft, contact has been made with the Florida Department of Transportation, Palm Beach County Engineering and Planning Departments and local land owners. Cooperative efforts have been made to implement mitigation measures that were identified as Consensus strategies in the 2003 Draft. Additional meetings will be scheduled as the process continues.



Legend

----- Future Roadway

Jupiter Area Study

Study Area

Figure 1

North

Not To Scale

July 6, 2005

SUSAN E. O'ROURKE, P.E.
Office - (772)781-7918
Cell- (561)350-8738
Fax-(772)781-9261

2.0 BACKGROUND/HISTORY

The 2025 projections from the MPO model showed the future projections on Indiantown Road to range from 44,500 average trips per day west of the Turnpike to 67,100 vehicles per day east of the Turnpike. Since the capacity of a six-lane divided roadway was 48,900 vehicles per day, the high volumes indicated the need for the Town to review the conditions and develop a strategy to address the projected conditions. Further adding to the need for verification was an earlier MPO model projection of volumes ranging from 40,000 vehicles per day to 56,782 which were used in The Town of Jupiter Comprehensive Plan Transportation Element prepared by Kimley-Horn and Associates. That model incorporated refinements to reflect the local network characteristics. In order to do provide validation, the Town undertook a study where they could fully disclose the assumptions leading to the projections. This process became known as the Jupiter Area Study.

At key points in the development of the traffic projections, the technical committee brought data to the Town Council for review and comment at Town Workshops. All workshops were open to the public. Public comment was taken at selected workshops. Key review and comment points included: land use potential, assignment of trips and adjustment methodology. Comments from the Town Council were recorded and evaluated. Where technically appropriate, the comments were incorporated. Following the development of the forecasts, the Town Council reviewed the results. The results were presented in a public hearing. The Town then began to make decision regarding a set of Consensus Strategies. Once selected, these strategies will support the Corridor Master Plan for Indiantown Road. The strategies will require the adoption by the Town and County. With the Comprehensive Plan Amendments, the plan will need to be processed through the FDOT and DCA. The process would take approximately one and a half years.

3.0 EXISTING CONDITIONS

Existing Conditions were summarized in terms of existing lane geometrics and existing traffic volumes for the existing study period year 2004. The existing section was updated from the 2001/2002 data included in the 2003 Draft JAS.

3.1 Transportation Network

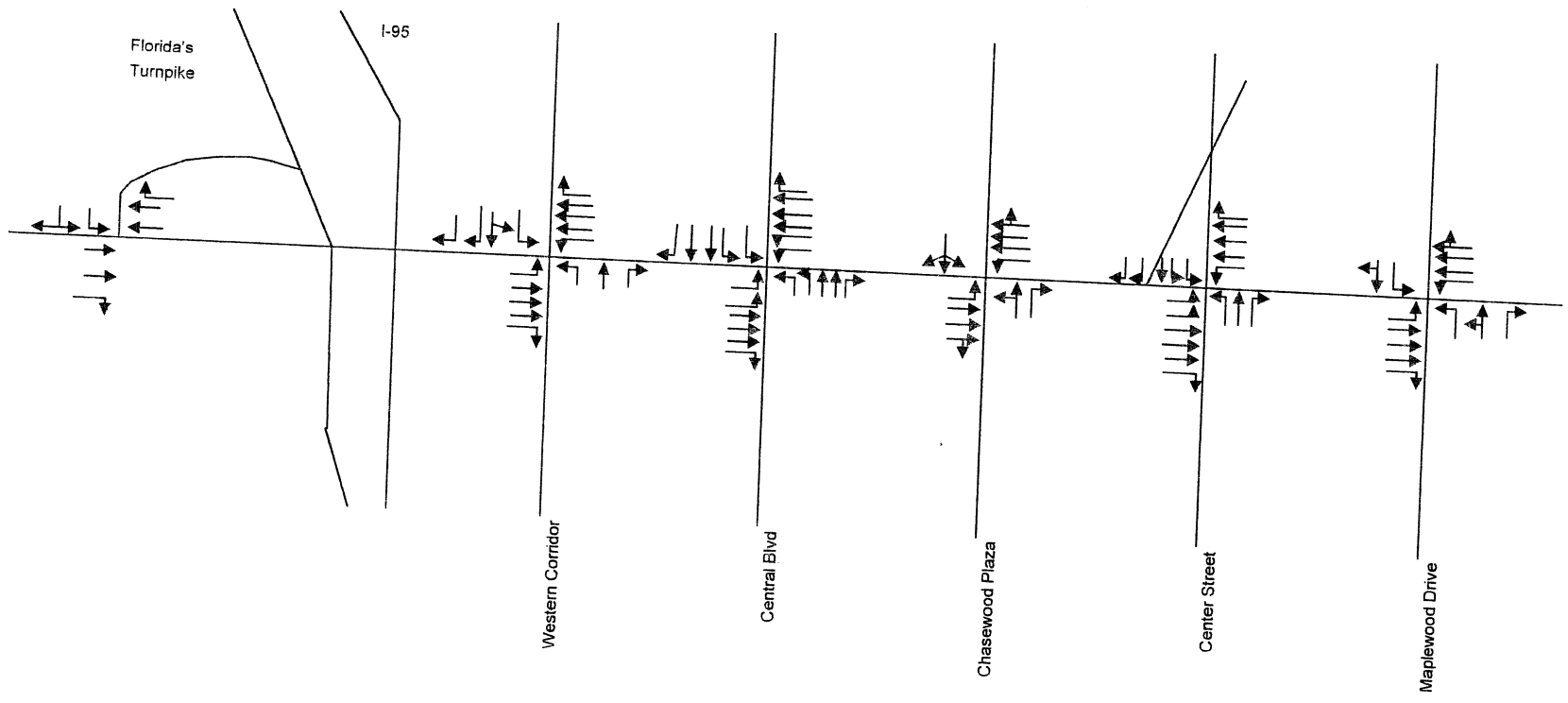
The lane geometrics and the corresponding capacities were inventoried to establish a base upon which the traffic would be analyzed.

3.1.1 Map of System

Existing lane geometrics on the links and turn lanes and traffic control features at the intersections are illustrated in Figures 2a and 2b, respectively. The turn lanes at the intersections are shown only for the key intersections along Indiantown Road.

3.1.2 Table of Service Volumes

The roadway network is able to accommodate a certain level of traffic based on the number of lanes on the roadway and the classification of the roadway. Table 1 provides a summary of the capacity values for the study area roadways in terms of LOS D daily capacity and LOS D peak hour service volume thresholds. These values are the Palm Beach County Level of Service D thresholds based on the FDOT 2002 Quality/Level of Service Handbook.



North
not to scale

Figure 2

Existing Lane Geometrics

Jupiter Area Study

Figure 2 (continued)

Existing Lane Geometrics

Jupiter Area Study

North
not to scale

Table 1
Jupiter Area Study
Existing Capacity/Service Volumes

	Roadway	Link	Existing Lanes	Daily-LOS D Service Volume	Peak Hour Directional LOS D Service Volume	
1	Indiantown Road	Pratt-Whitney Road to Mack Dairy Road	2L	15400	860	1
2	Indiantown Road	Mack Dairy Road to Jupiter Farms Road	4LD	32700	1860	2
3	Indiantown Road	Jupiter Farms Road to Parcel 19	4LD	32700	1860	3
4	Indiantown Road	Parcel 19 to Turnpike	4LD	32700	1860	4
5	Indiantown Road	Turnpike to I-95 (1)	6LD	49200	5410	5
6	Indiantown Road	I-95 to Western Corridor (2)	6LD	49200	5410	6
7	Indiantown Road	Western Corridor to Central Boulevard	6LD	49200	2790	7
8	Indiantown Road	Central Boulevard to Center Street	6LD	49200	2790	8
9	Indiantown Road	Center Street to Maplewood Drive	6LD	49200	2790	9
10	Indiantown Road	Maplewood Drive to Pennock Lane	6LD	49200	2790	10
11	Indiantown Road	Pennock Lane to Military Trail	6LD	49200	2790	11
12	Indiantown Road	Military Trail to Alternate A1A	6LD	49200	2790	12
13	Center Street	Indiantown Road to Lox. River Road (3)	2L	15400	860	13
14	Center Street	Lox. River Road to Alternate A1A (4)	2L	15400	860	14
15	Toney Penna Dr	Central Boulevard to Maplewood Dr	2L	15400	860	15
16	Toney Penna Dr	Maplewood Dr to Military Trail	2L	15400	860	16
17	Toney Penna Dr	Military Trail to Alternate A1A	2L	15400	860	17
18	Central Boulevard	Roebuck Road to Indiantown Road	2L	15400	860	18
19	Central Boulevard	Indiantown Road to Toney Penna Drive	4LD	32700	1860	19
20	Central Boulevard	Toney Penna Drive to Egret Landing	4LD	32700	1860	20
21	Indian Creek Pkwy	Egret Landing to Central Blvd	2L	15400	860	21
22	Indian Creek Pkwy	Central Blvd to Military Trail	2L	15400	860	22
23	Central Boulevard	Indian Creek Pkwy to Frederick Small Rd	4LD	32700	1860	23
24	Central Boulevard	Frederick Small Rd to Donald Ross Rd	4LD	32700	1860	24
25	Western Corridor	Indiantown Road to Limestone Creek	4LD	32700	1860	25
26	Western Corridor	Limestone Creek to Jupiter Isles	4LD	32700	1860	26
27	Western Corridor	Jupiter Isles to Island Way	2L	15400	860	27
28	Maplewood Drive	Indiantown Rd to Toney Penna Drive	4LD	32700	1860	28
29	Maplewood Drive	Toney Penna Drive to Central Blvd	2L	15400	860	29
30	Pennock Lane	Center Street to Indiantown Road	2L	15400	860	30
31	Pennock Lane	Indiantown Road to Toney Penna Dr	2L	15400	860	31
32	Pennock Lane	Toney Penna Dr to Indian Creek Pkwy	2L	15400	860	32
33	Lox. River Road	Island Way to Roebuck Rd	2L	15400	860	33
34	Lox. River Road	Roebuck Rd to Center Street	2L	15400	860	34
35	Military Trail	Indiantown Rd to Toney Penna Drive	6LD	49200	2790	35
36	Military Trail	Toney Penna Dr. to Frederick Small Rd	6LD	49200	2790	36
37	Military Trail	Frederick Small Rd to Donald Ross Rd	6LD	49200	2790	37
38	Alternate A1A	US 1 to Center Street	6LD	49200	2790	38
39	Alternate A1A	Center Street to Indiantown Road	6LD	32500	2790	39
40	Alternate A1A	Indiantown Rd to Toney Penna Drive	4LD	32700	1860	40
41	Alternate A1A	Toney Penna Dr. to Frederick Small Rd	4LD	32700	1860	41
42	Alternate A1A	Frederick Small Rd to Donald Ross Rd	4LD	32700	1860	42

(1) EB = 5040,WB= 2790
(2) WB=5040,EB=2790
(3) The adopted CRALLS Daily Service Volume is 15500.
(4) The adopted CRALLS Daily Service Volume is 20700. The adopted Peak hour directional CRALLS Service Volume is 1180.

Table1revised021605

3.2 Link Volumes

Existing traffic volumes on the link included average annual daily traffic volumes, AM peak hour, peak season directional link volumes and PM peak hour, peak season directional link volumes. These volumes were obtained from the Palm Beach County MPO and Palm Beach County Engineering. The daily traffic counts were 2004. At some locations the most recent data were 2003. In those cases, the volumes were increased by a growth rate to reflect 2004. All projects that came on line after that time were considered new development.

Table 2 summarizes the existing Average Annual Daily Traffic Volumes.

Table 3 summarizes the existing AM and PM peak hour, peak season directional link volumes. The capacity values and volume to capacity ratios are included in this table to identify existing deficiencies in the network. The volumes exceed level of service D service volumes or adopted CRALLs based on peak hour directional or daily service volumes on portions of Indiantown Road, a link on Alternate AIA, links of Central Boulevard and Indian Creek Parkway. It should be noted that Indian Creek Parkway is nearing completion to four lanes.

Figure 3 shows the existing Average Annual Daily traffic volumes. Figure 4 shows the existing AM peak hour directional volumes. Figure 5 shows the PM peak hour directional volumes. Appendix B contains the existing traffic count worksheets for the links.

3.3 Intersection Turning Movement Volumes

AM peak hour and PM peak season, peak hour turning movement volumes were obtained from Palm Beach County Engineering. Where acceptable data were not available for 2004, 2003 counts were used and grown to reflect 2004. At the intersection of Central Boulevard and Indiantown Road the 2005 counts were used and factored down to 2004.

Figure 6 illustrates the AM peak hour turning movement volumes. Figure 7 shows the PM peak hour turning movement volumes. Appendix C contains the existing turning movement count data sheets.

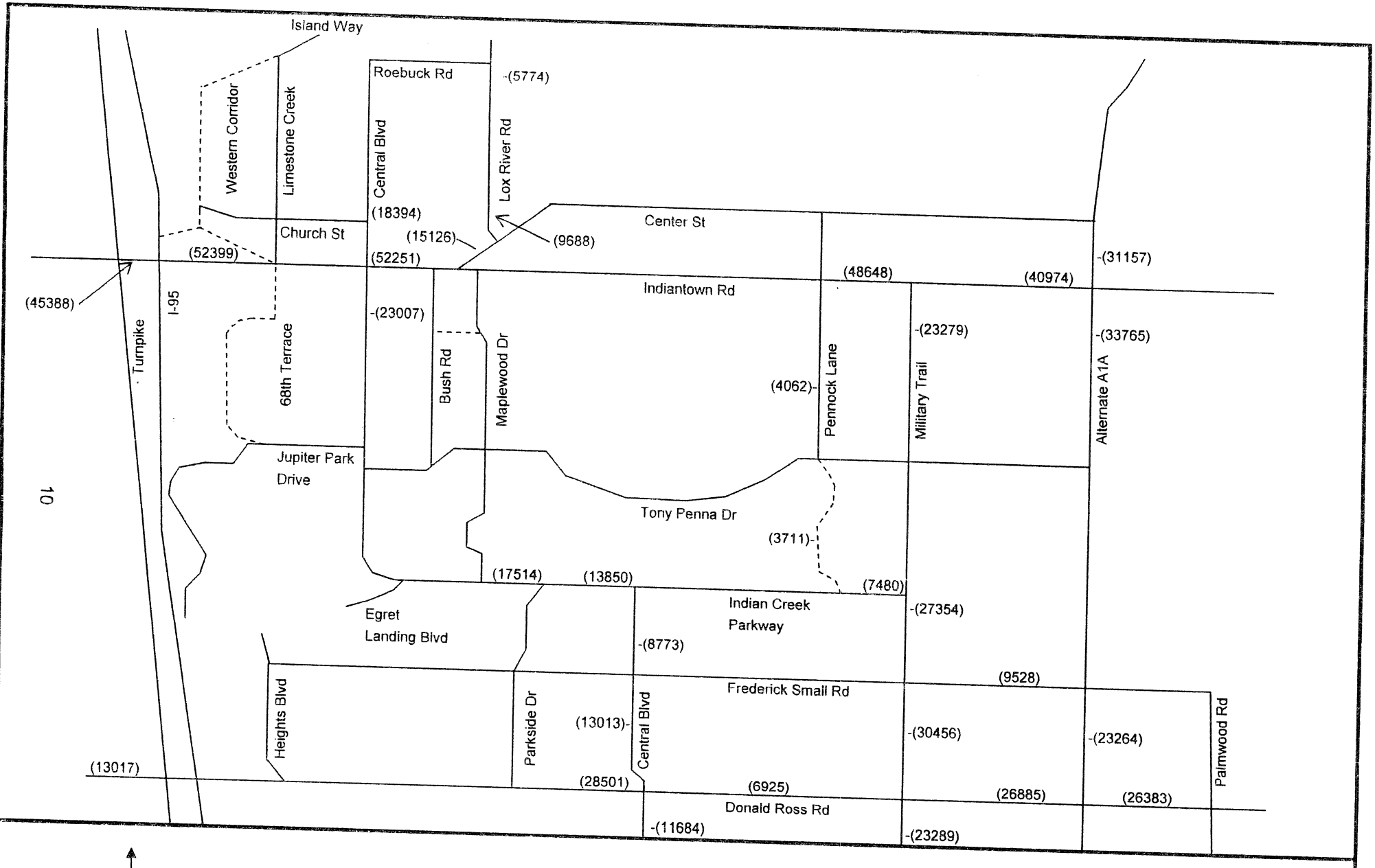
Table 2
Jupiter Area Study
Average Annual Daily Traffic Volumes - Existing Volumes

	Roadway	Link	Existing Lanes	Existing AADT (2004)	LOS D Service Volume	v/c Ratio	
1	Indiantown Road	Pratt-Whitney Road to Mack Dairy Road	2L	4881	15400	0.32	1
2	Indiantown Road	Mack Dairy Road to Jupiter Farms Road	4LD	19954	32700	0.61	2
3	Indiantown Road	Jupiter Farms Road to Parcel 19	4LD	30887	32700	0.94	3
4	Indiantown Road	Parcel 19 to Turnpike	4LD	30887	32700	0.94	4
5	Indiantown Road	Turnpike to I-95	6LD	45388	49200	0.92	5
6	Indiantown Road	I-95 to Western Corridor	6LD	52399	49200	1.07	6
7	Indiantown Road	Western Corridor to Central Boulevard	6LD	52399	49200	1.07	7
8	Indiantown Road	Central Boulevard to Center Street	6LD	52251	49200	1.06	8
9	Indiantown Road	Center Street to Maplewood Drive	6LD	48648	49200	0.99	9
10	Indiantown Road	Maplewood Drive to Pennock Lane	6LD	48648	49200	0.99	10
11	Indiantown Road	Pennock Lane to Military Trail	6LD	48648	49200	0.99	11
12	Indiantown Road	Military Trail to Alternate A1A	6LD	40974	49200	0.83	12
13	Center Street	Indiantown Road to Lox. River Road	2L	15126	15400 (1)	0.98	13
14	Center Street	Lox. River Road to Alternate A1A	2L	17733	15400 (2)	1.15	14
15	Toney Penna Dr	Central Boulevard to Maplewood Dr	2L	7422	15400	0.48	15
16	Toney Penna Dr	Maplewood Dr to Military Trail	2L	11666	15400	0.76	16
17	Toney Penna Dr	Military Trail to Alternate A1A	2L	10196	15400	0.66	17
18	Central Boulevard	Roebuck Road to Indiantown Road	2L	18394	15400	1.19	18
19	Central Boulevard	Indiantown Road to Toney Penna Drive	4LD	23007	32700	0.70	19
20	Central Boulevard	Toney Penna Drive to Egret Landing	4LD	18429 (3)	32700	0.56	20
21	Indian Creek Pkwy	Egret Landing to Central Blvd	2L	13850	15400	0.90	21
22	Indian Creek Pkwy	Central Blvd to Military Trail	2L	7480	15400	0.49	22
23	Central Boulevard	Indian Creek Pkwy to Frederick Small Rd	4LD	8773 (3)	32700	0.27	23
24	Central Boulevard	Frederick Small Rd to Donald Ross Rd	4LD	13013	32700	0.40	24
25	Western Corridor	Indiantown Road to Limestone Creek	4LD	0	32700	0.00	25
26	Western Corridor	Limestone Creek to Jupiter Isles	4LD	0	32700	0.00	26
27	Western Corridor	Jupiter Isles to Island Way	2L	0	15400	0.00	27
28	Maplewood Drive	Indiantown Rd to Toney Penna Drive	4LD	15174 (4)	32700	0.46	28
29	Maplewood Drive	Toney Penna Drive to Central Blvd	2L	6231 (4)	15400	0.40	29
30	Pennock Lane	Center Street to Indiantown Road	2L	6467 (4)	15400	0.42	30
31	Pennock Lane	Indiantown Road to Toney Penna Dr	2L	4062 (4)	15400	0.26	31
32	Pennock Lane	Toney Penna Dr to Indian Creek Pkwy	2L	0	15400	0.00	32
33	Lox. River Road	Island Way to Roebuck Rd	2L	5774	15400	0.37	33
34	Lox. River Road	Roebuck Rd to Center Street	2L	9698	15400	0.63	34
35	Military Trail	Indiantown Rd to Toney Penna Drive	6LD	23279	49200	0.47	35
36	Military Trail	Toney Penna Dr. to Frederick Small Rd	6LD	27354	49200	0.56	36
37	Military Trail	Frederick Small Rd to Donald Ross Rd	6LD	30456	49200	0.62	37
38	Alternate A1A	US 1 to Center Street	6LD	40096	49200	0.81	38
39	Alternate A1A	Center Street to Indiantown Road	6LD	31157	32500	0.96	39
40	Alternate A1A	Indiantown Rd to Toney Penna Drive	4LD	33765	32700	1.03	40
41	Alternate A1A	Toney Penna Dr. to Frederick Small Rd	4LD	28515 (3)	32700	0.87	41
42	Alternate A1A	Frederick Small Rd to Donald Ross Rd	4LD	23264	32700	0.71	42

(1) The adopted CRALLS Service Volume is 15500.
(2) The adopted CRALLS Service Volume is 20700.
(3) Average of two nearest link counts.
(4) Existing counts are Peak Season 2002 counts.

Table 3
Jupiter Area Study
Peak Hour Peak Season
Directional Traffic Analysis-Existing

	Roadway	Link	Existing Lanes	Dir	AM Peak Hour Existing Pk Seas. (2004)	LOS D Service Volume	AM Peak Hour V / C Ratio		PM Peak Hour Existing Pk Seas. (2004)	PM Peak Hour V / C Ratio
1	Indiantown Road	Pratt-Whitney Road to Mack Dairy Road	2L	EB	177	860	0.21	1	387	0.45
2				WB	356	860	0.41	2	178	0.21
3	Indiantown Road	Mack Dairy Road to Jupiter Farms Road	4LD	EB	1505	1860	0.81	3	786	0.42
4				WB	620	1860	0.33	4	1270	0.68
5	Indiantown Road	Jupiter Farms Road to Parcel 19	4LD	EB	2145	1860	1.15	5	1040	0.56
6				WB	787	1860	0.42	6	1877	1.01
7	Indiantown Road	Parcel 19 to Turnpike	4LD	EB	2145	1860	1.15	7	1040	0.56
8				WB	787	1860	0.42	8	1877	1.01
9	Indiantown Road	Turnpike to I-95	6LD	EB	2773	5410	0.51	9	1757	0.32
10				WB	1506	5410	0.28	10	2382	0.44
11	Indiantown Road	I-95 to Western Corridor	6LD	EB	2548	5410	0.47	11	2442	0.45
12				WB	2219	5410	0.41	12	2316	0.43
13	Indiantown Road	Western Corridor to Central Boulevard	6LD	EB	2548	2790	0.91	13	2442	0.88
14				WB	2219	2790	0.80	14	2316	0.83
15	Indiantown Road	Central Boulevard to Center Street	6LD	EB	2330	2790	0.84	15	2007	0.72
16				WB	1686	2790	0.60	16	2420	0.87
17	Indiantown Road	Center Street to Maplewood Drive	6LD	EB	2448	2790	0.88	17	1822	0.65
18				WB	1636	2790	0.59	18	2134	0.76
19	Indiantown Road	Maplewood Drive to Pennock Lane	6LD	EB	2448	2790	0.88	19	1822	0.65
20				WB	1636	2790	0.59	20	2134	0.76
21	Indiantown Road	Pennock Lane to Military Trail	6LD	EB	2448	2790	0.88	21	1822	0.65
22				WB	1636	2790	0.59	22	2134	0.76
23	Indiantown Road	Military Trail to Alternate A1A	6LD	EB	1961	2790	0.70	23	1837	0.66
24				WB	1313	2790	0.47	24	1671	0.60
25	Center Street	Indiantown Road to Lox. River Road	2L	EB	433	860	0.50	25	708	0.82
26				WB	856	860	1.00	26	640	0.74
27	Center Street	Lox. River Road to Alternate A1A	2L	EB	780	860 (2)	0.91	27	750	0.87
28				WB	647	860 (2)	0.75	28	862	1.00
29	Toney Penna Dr	Central Boulevard to Maplewood	2L	EB	285	860	0.33	29	300	0.35
30				WB	304	860	0.35	30	403	0.47
31	Toney Penna Dr	Maplewood Dr to Military Trail	2L	EB	611	860	0.71	31	396	0.46
32				WB	494	860	0.57	32	630	0.73
33	Toney Penna Dr	Military Trail to Alternate A1A	2L	EB	491	860	0.57	33	390	0.45
34				WB	310	860	0.36	34	516	0.60
35	Central Boulevard	Roebuck Road to Indiantown Road	2L	NB	608	860	0.71	35	1071	1.25
36				SB	1074	860	1.25	36	703	0.82
37	Central Boulevard	Indiantown Road to Toney Penna Drive	4LD	NB	941	1860	0.51	37	1111	0.60
38				SB	1027	1860	0.55	38	979	0.53
39	Central Boulevard	Toney Penna Drive to Egret Landing	4LD	NB	689	1860	0.37	39	947	0.51
40				SB	1051	1860	0.57	40	736	0.40
41	Indian Creek Pkwy	Egret Landing to Central Blvd	2L	EB	930	860	1.08	41	492	0.57
42				WB	454	860	0.53	42	783	0.91
43	Indian Creek Pkwy	Central Blvd to Military Trail	2L	EB	476	860	0.55	43	267	0.31
44				WB	230	860	0.27	44	414	0.48
45	Central Boulevard	Indian Creek Pkwy to Frederick Small Rd	4LD	NB	429	1860	0.23	45	443	0.24
46				SB	525	1860	0.28	46	364	0.20
47	Central Boulevard	Frederick Small Rd to Donald Ross Rd	4LD	NB	392	1860	0.21	47	685	0.37
48				SB	531	1860	0.29	48	484	0.26
49	Western Corridor	Indiantown Road to Limestone Creek	4LD	NB	0	1860	0.00	49	0	0.00
50				SB	0	1860	0.00	50	0	0.00
51	Western Corridor	Limestone Creek to Jupiter Isles	4LD	NB	0	1860	0.00	51	0	0.00
52				SB	0	1860	0.00	52	0	0.00
53	Western Corridor	Jupiter Isles to Island Way	2L	NB	0	860	0.00	53	0	0.00
54				SB	0	860	0.00	54	0	0.00
55	Maplewood Drive	Indiantown Rd to Toney Penna Drive	4LD	NB	563	1860	0.30	55	510	0.27
56				SB	569	1860	0.31	56	613	0.33
57	Maplewood Drive	Toney Penna Drive to Central Blvd	2L	NB	276	860	0.32	57	250	0.29
58				SB	330	860	0.38	58	283	0.33
59	Pennock Lane	Center Street to Indiantown Road	2L	NB	400	860	0.47	59	233	0.27
60				SB	171	860	0.20	60	308	0.36
61	Pennock Lane	Indiantown Road to Toney Penna Drive	2L	NB	206	860	0.24	61	162	0.19
62				SB	222	860	0.26	62	188	0.22
63	Pennock Lane	Toney Penna Drive to Indian Creek Pkwy	2L	NB	0	860	0.00	63	0	0.00
64				SB	0	860	0.00	64	0	0.00
65	Lox. River Road	Island Way to Roebuck Rd	2L	NB	194	860	0.23	65	292	0.34
66				SB	331	860	0.38	66	224	0.26
67	Lox. River Road	Roebuck Rd to Center Street	2L	NB	266	860	0.31	67	576	0.67
68				SB	656	860	0.76	68	364	0.42
69	Military Trail	Indiantown Rd to Toney Penna Drive	6LD	NB	976	2790	0.35	69	1113	0.40
70				SB	981	2790	0.35	70	874	0.31
71	Military Trail	Toney Penna Dr. to Frederick Small Rd	6LD	NB	1314	2790	0.47	71	1772	0.64
72				SB	1553	2790	0.56	72	1333	0.48
73	Military Trail	Frederick Small Rd to Donald Ross Rd	6LD	NB	829	2790	0.30	73	1252	0.45
74				SB	1084	2790	0.39	74	1367	0.49
75	Alternate A1A	US 1 to Center Street	6LD	NB	1494	2790	0.54	75	1914	0.69
76				SB	1917	2790	0.69	76	1495	0.54
77	Alternate A1A	Center Street to Indiantown Road	6LD	NB	1065	2790	0.38	77	1496	0.54
78				SB	1593	2790	0.57	78	1090	0.39
79	Alternate A1A	Indiantown Rd to Toney Penna Drive	4LD	NB	1030	1860	0.55	79	1429	0.77
80				SB	1593	1860	0.86	80	1364	0.73
81	Alternate A1A	Toney Penna Dr. to Frederick Small Rd	4LD	NB	930	1860	0.50	81	1262	0.68
82				SB	1339	1860	0.72	82	1124	0.60
83	Alternate A1A	Frederick Small Rd to Donald Ross Rd	4LD	NB	829	1860	0.45	83	1095	0.59
84				SB	1084	1860	0.58	84	883	0.47



North
not to scale

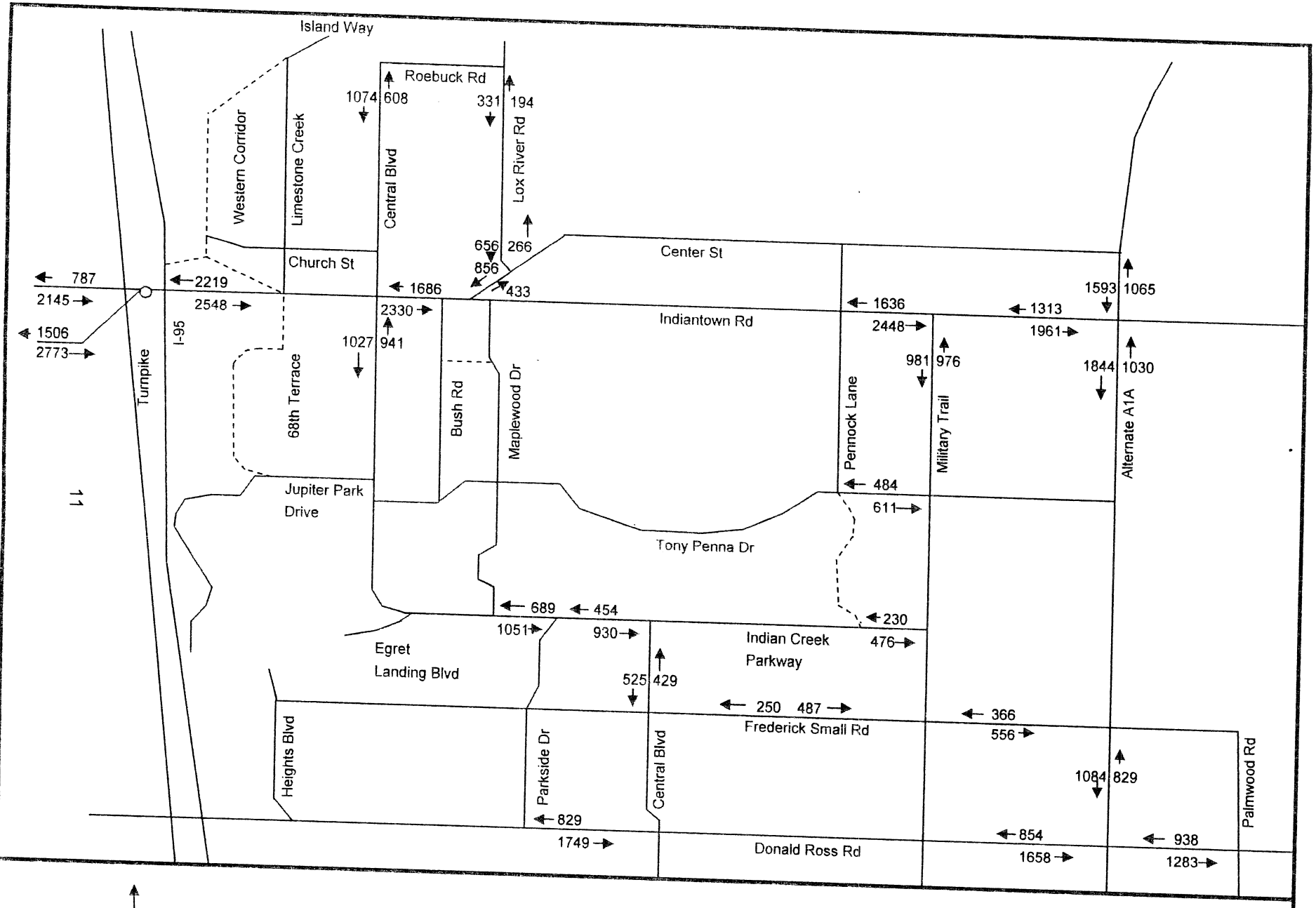
Figure 3

Jupiter Area Study

Existing AADT

Legend

future roadway



11

North
not to scale

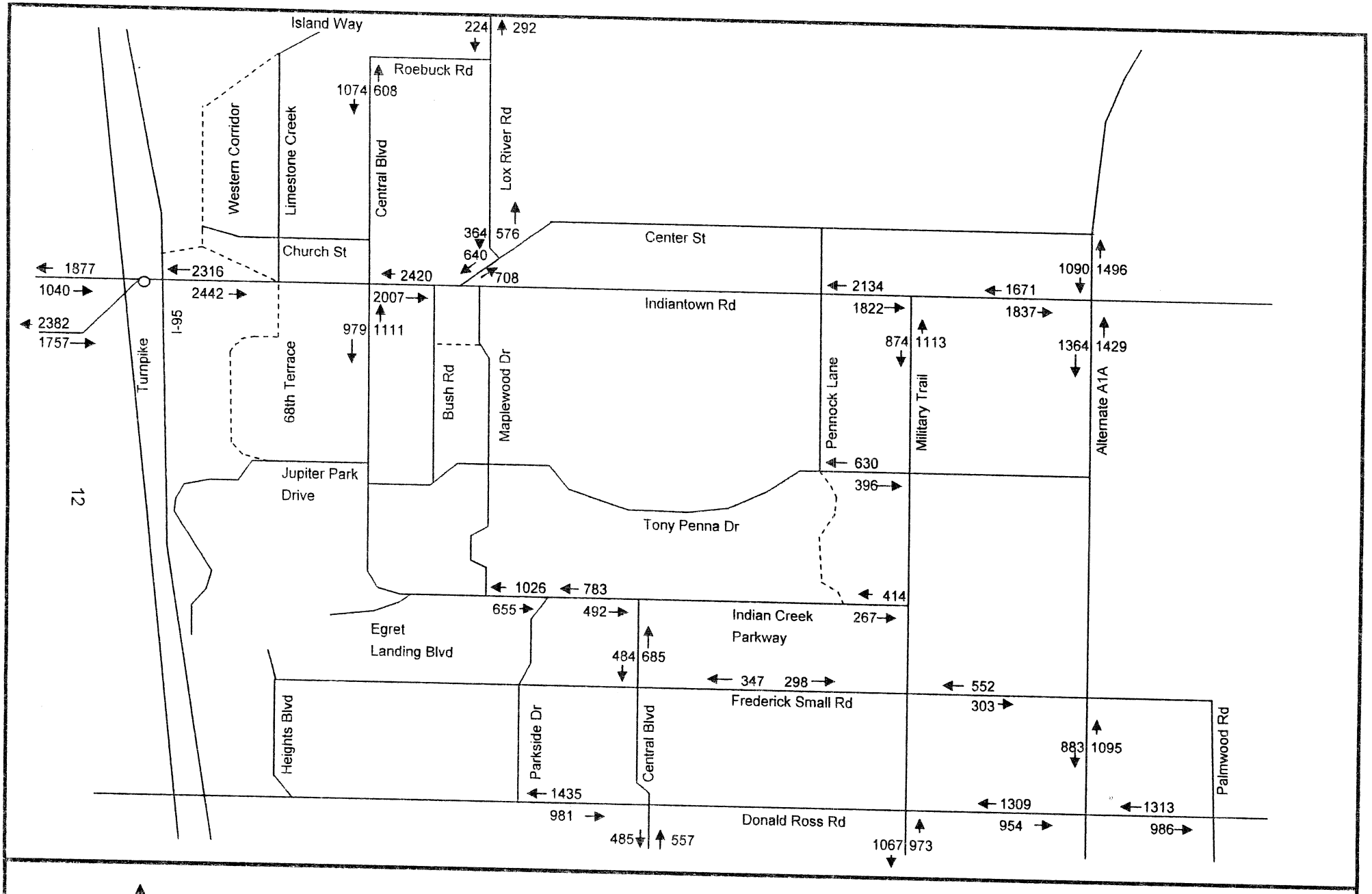
Figure 4

Jupiter Area Study

Existing AM Peak Hour

Legend

future roadway



North
not to scale

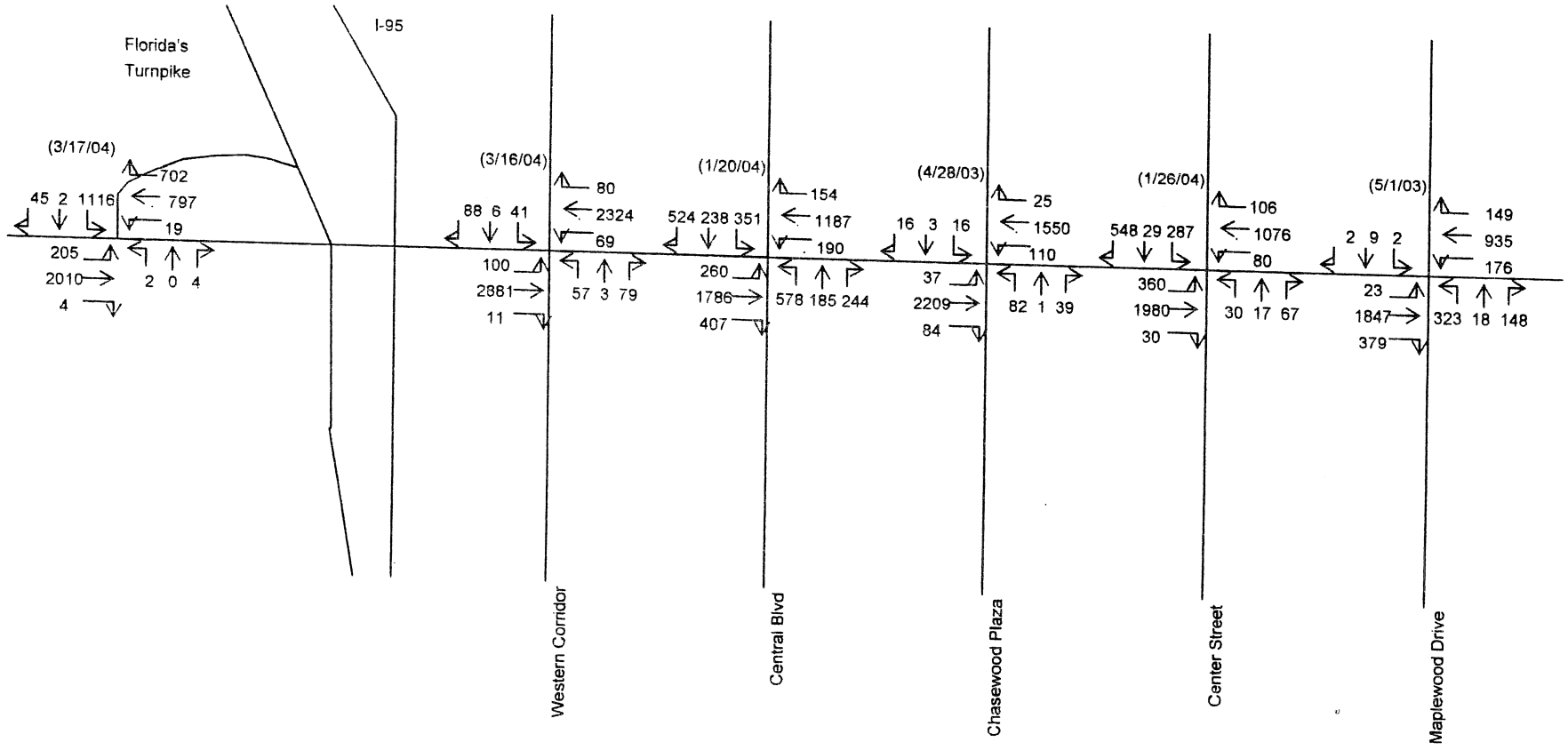
Figure 5

Jupiter Area Study

Existing PM Peak Hour

Legend

future roadway

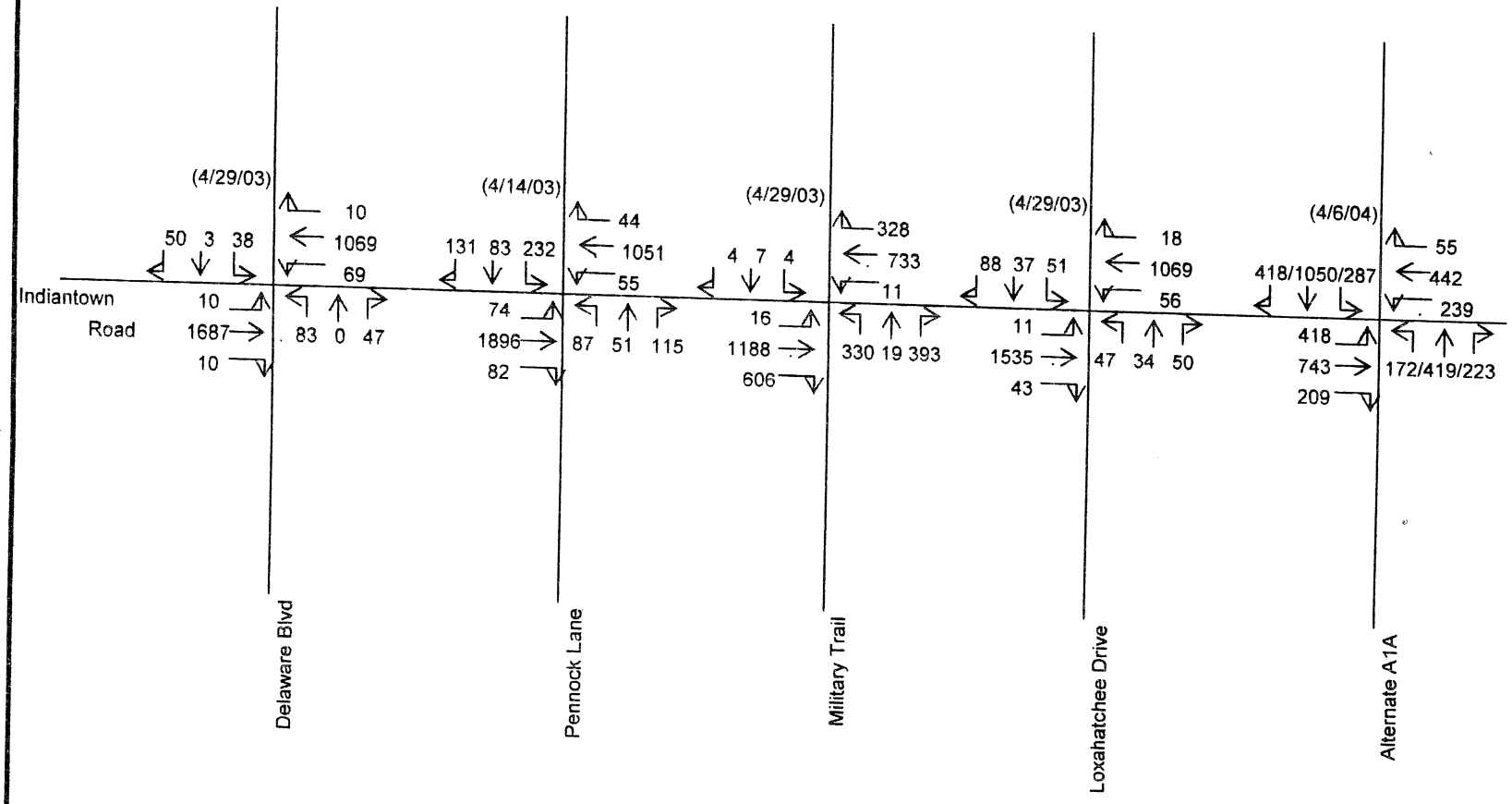


North
not to scale

Figure 6

Existing AM Turning Movements

Jupiter Area Study

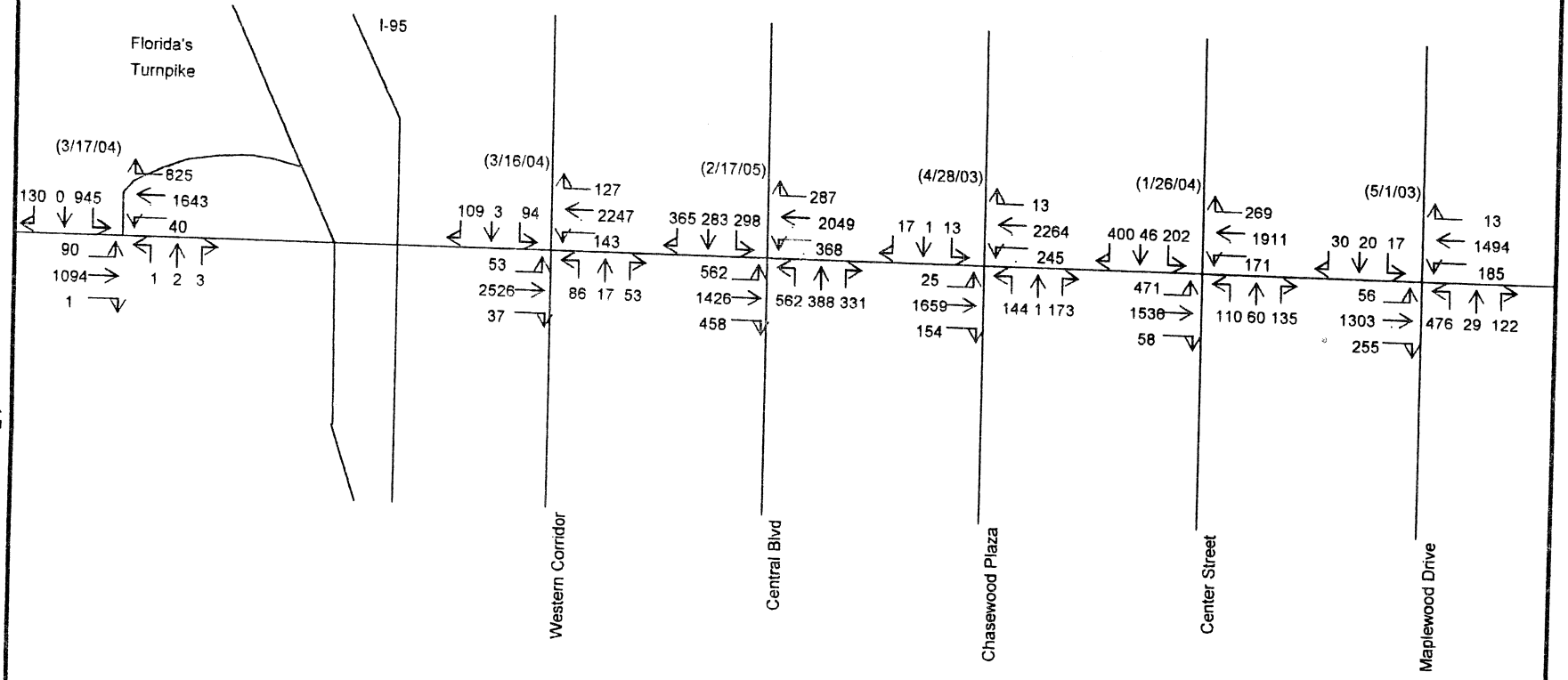


North
not to scale

Figure 6 (continued)

Existing AM Turning Movements

Jupiter Area Study



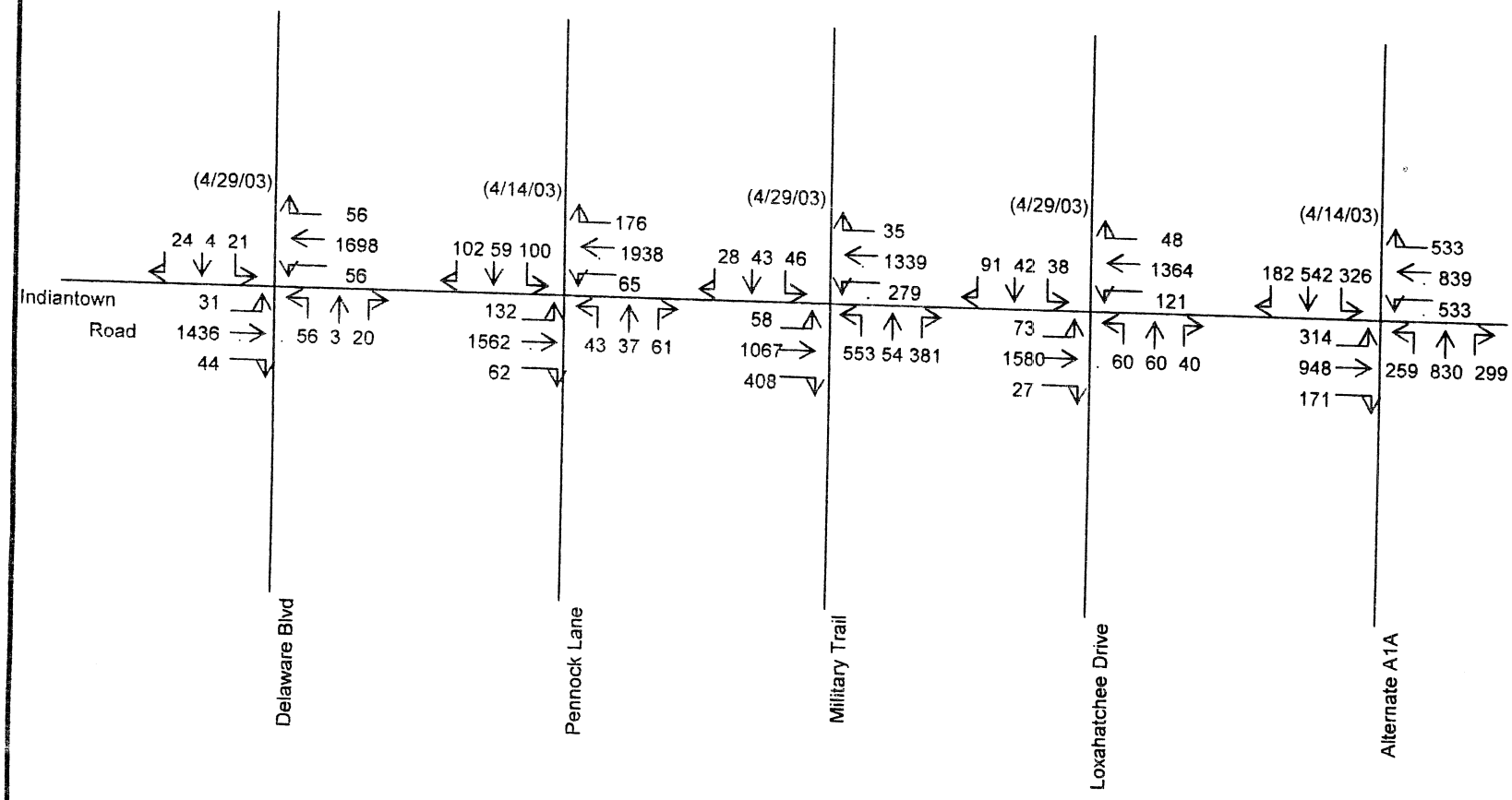
North

not to scale

Figure 7

Jupiter Area Study

Existing PM Turning Movements



North
not to scale

Figure 7 (continued)

Jupiter Area Study

Existing PM Turning Movements

4.0 FUTURE TRAFFIC VOLUME COMPONENTS

The future traffic volumes were developed by adding the future estimated traffic from approved and unbuilt projects, pending projects and vacant lands. The study included land inside and outside of the Town that could have an impact on the roadways within the Town. For approved projects, the trips were generated from that project's approved traffic study. In some cases there were revisions to the distribution or assignment based on current knowledge and input from the Town Council. Figure 8 indicates the location of the parcels of land that are expected to generate trips between the existing year and the buildout of the Town. Since the time of the preparation of the 2003 Jupiter Area Study, which had a baseline of 2002, many of the projects have been approved, built, or withdrawn. The project status has been indicated on the Figure and corresponding Table.

4.1 Vacant land

For all vacant land within the Town and also in parts of Martin and Palm Beach County with an impact on study area roadways, an assumption was made regarding the potential development on the site. The type of development was determined based on the land use category for the parcel. For non-residential land use, the size of the building was based on the average floor area ratios (FARs) of sites already developed in the Town. The FAR for the primary land use categories were: industrial-.25, retail -.20 and office-.30. These FARs were developed based on no less than a 10 development sample set. The averages of the floor area ratios of these developments were used to develop the FARs used in the Jupiter Area Study. These values were less than the maximum FARs allowed in the Comprehensive Plan or Zoning Code.

For residential land uses without development plans, the maximum number of units allowed under the comprehensive land use category was used. For developed areas such as Jupiter Farms, Limestone Creek and Martin County the number of remaining units were estimated in cooperation with the County based on recent development patterns. Within developed residential areas within the Town such as Egrets Landing, vacant lots were counted.

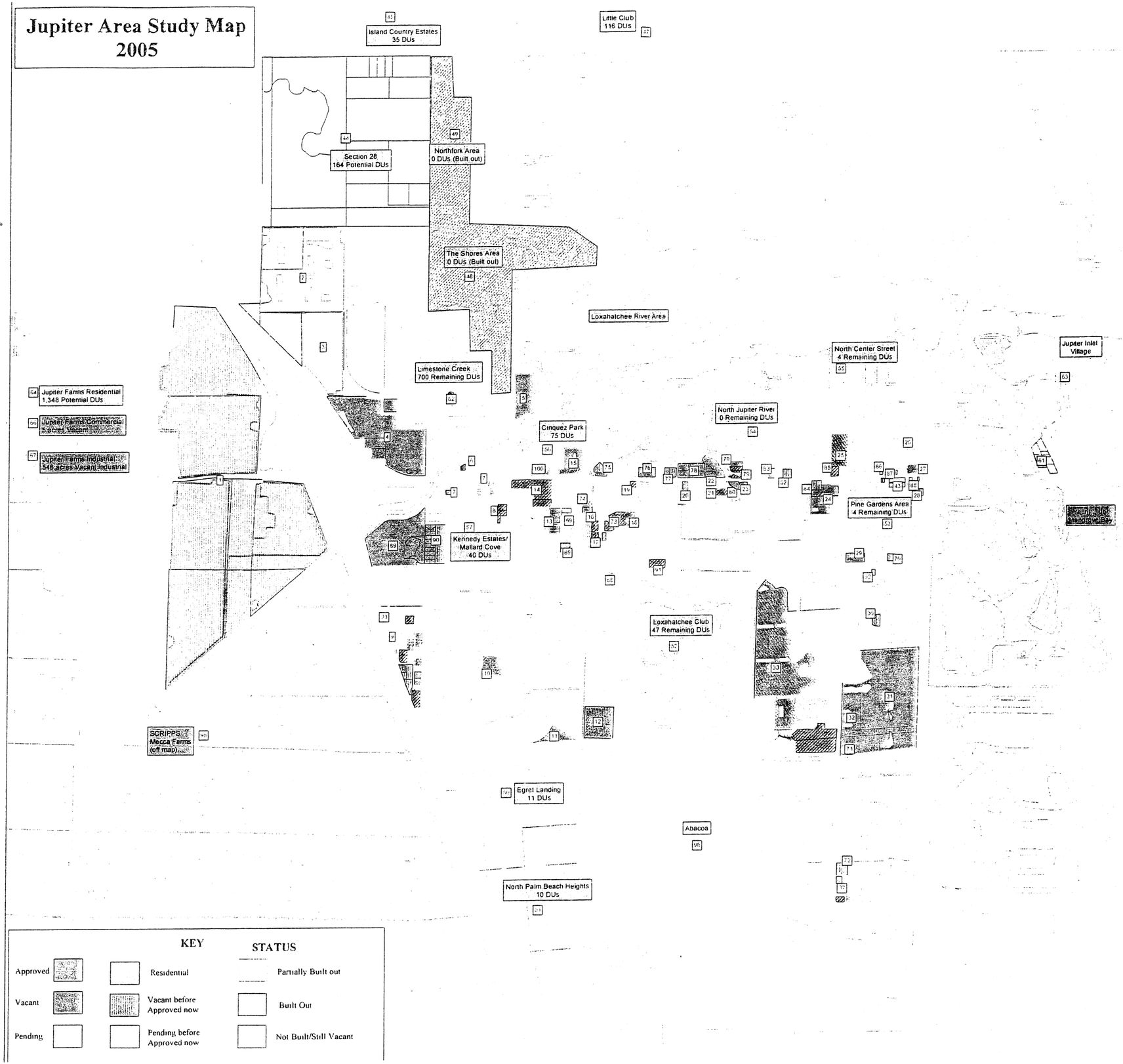
4.2 Pending Projects

Several applications had been submitted to the Town, but had not yet been approved at the time the initial 2005 Jupiter Area Study was prepared. These projects fell under the category of "Pending Projects." The land use and traffic assumptions for these projects were derived from their respective applications and or traffic studies.

4.3 Approved Projects

The Town has approved many projects that had not been complete to the stage of generating traffic or had a portion of the project that had not begun generating trips. These projects and portions of projects were included under the "Approved Projects" category. Such projects include Abacoa and the trips from SCRIPPS at Mecca Farms.

Jupiter Area Study Map 2005



KEY			STATUS
Approved		Residential	Partially Built out
Vacant		Vacant before Approved now	Built Out
Pending		Pending before Approved now	Not Built/Still Vacant

PROJECT LEGEND

1	Parcel 19
2	Jupiter Isles
3	Lox Reserve
4	Jupiter Falls
5	Canal Place
6	Jupiter West Plaza
7	0.5 acre parcel+1.0 acres+.7acres
8	Jupiter Gardens
9a	Jupiter Park of Commerce
9b	Jupiter Park of Commerce
10	Courtyard Gardens
11	Temple Beth Ann
12	St Peters Elementary
13	St Anns ALF
14	Chasewood Plaza
15	Target and Outparcel
16	Bonded Lightning
17	Don Hearing
18	Broedell Plumbing
19	Pollo Tropical
20	ABC Liquor
21	Jupiter Creek
22	Lot 5 Office Building (Jupiter Creek)
23	Tuscany Square
24	Jupiter Community Center/Town Hall
25	Clocktower Hammock
26	Grables Juno 2
27	Pebworth Marthens
28	Pebworth
29	Library Expansion
30	Sehayic Building
31	Botanica
	Sea Plum
32	Jupiter Medical South Campus
33	Pines on Pennock
98	Abacoa
37	Admirals Crossing
43	Pebworth III
44	Section 28
45	Island Country Estates
46	see #3
47	Little Club
48	The Shores Area
49	Northfork Area
50	Egrets Landing
51	North Palm Beach Heights
52	Loxahatchee Club
53	Pine Gardens
54	North Jupiter Area
55	North Center Street
56	Cinquez Park
57	Kennedy Estates
58	Woods Plaza
59	Jupiter Yacht Club
60	Mangrove Bay
61	Waterfront Quarter
62	Limestone Creek
63	Inlet Village
64	Jupiter Farms Residential
65	Jupiter Farms Residential
66	Jupiter Farms Commercial
67	Palm Beach Park of Commerce
68	1.88 Acres Day Care
69	2.00 Acres White Wing
70	1.31 Acres Alexandria Apt
71	4.00 Acres Sea Plum Commercial
72	3.0 Acres Admirals Corp Center
73	6.30 Acres Maplewood Park
74	1 34 Acres Gateway Lot 4
75	3.07 Acres- 1.37 approved, 1 72 vacant
76	3.58 Acres
77a	2.41 Acres Integrity Bank
78	13.54 Acres (Delaware Scrub)
79	5.10 Acres (River Place)/Creekside
80	2.71 Acres
81	1.61 Acres 820 Pebworth
82	1.50 Acres (721 Indiantown Road)
83	1.30 Acres Olympia Center
84	1.00 Acres
85	0.90 Acres First National
86	0.50 Acres
87	0.75 Acres
	Illustrated Properties
	Pioneer Realty
88	0.75 Acres
	RB Grill
89	57.00 Acres (Brown Property)
90	9.60 Acres AA Commerce Center
	9.10 Acres Jupiter Trade Center
91	3.37 Acres Pennock Industrial
92	0.47 Acres Susan Wiley
93	13.35 Acres (Jupiter Park of Commerce)
	JPC Approved/Built
	JPC Built
94	Renaissance Village
95	Martin County Residential
98	SCRIPPS Mecca Farms
96	Jupiter High School
99	Pratt-Whitney
100	1.10 Acres between Center and Central

5.0 TRIP GENERATION- FUTURE TRAFFIC COMPONENTS

The trip generation for the vacant, pending and approved projects is summarized in Table 4. The trip generation for daily traffic was based on Article 13 of the Palm Beach County Unified Land Development Code regarding impact fees. The AM and PM peak hour traffic was generated using the ITE Trip Generation 7th Edition. Details of the trip generation for specific projects are provided in Appendix D. Table 4 provides a project identifier number that corresponds to the project identifier on Figure 8. The table also provides a column to identify the status of the project. The categories are: approved, pending and vacant as discussed in the previous section. A list of projects including those that were built as of this update but may have been included in the earlier reports, are shown in Appendix D. Appendix D also includes details of the trip generation for specific projects identified in Table 4.

TABLE 4: TRIP GENERATION

Status (3)	ID#		Project	Land Use	Intensity		Daily: Trip Generation Rate (1)	Daily: New External Trips (4)	AM PEAK HOUR: Trip Generation Rate (2)	AM New External Trips(4): In	Out	Trips	PM PEAK HOUR: Trip Generation Rate (2)	PM New ExternalTrips(4): In	Out	Trips
A	1		Parcel 19	Retail /Residential Single Family			See Appendix D for details	9,258	See Appendix D for details	259	411	670	See Appendix D for details	466	364	830
A	2		Jupiter Isles	Residential Single Family	160	Dus	10 | du	1,600	T=0.70(X)+9.43(25/75)	30	91	121	Ln (T) = 0.90Ln (X)+0.53(63/37)	105	59	164
P	3		Lox Reserve	Residential Single Family	172	Dus	10 | du	1,720	T=0.70(X)+9.43(25/75)	32	97	130	Ln (T) = 0.90Ln (X)+0.53(63/37)	112	63	175
V	4		Jupiter Falls (93.3 acres)	Research and Development	1016037	SF	Ln(T)=0.82Ln(x)+3.14	6,413	Ln(T) =0.88Ln(X)+0.88(83/17)	842	172	1014	Ln (T) = 0.83Ln (X)+1.06(15/85)	129	730	859
A	5		Canal Place	Residential Single Family	31	Dus	10 | du	354	T=0.70(X)+9.43(25/75)	8	23	31	Ln (T) = 0.90Ln (X)+0.53(63/37)	24	13	37
P	6		Jupiter West Plaza	Retail	13305	SF	Ln (T) = 0.643Ln (X)+5.866	1,029	1.03 | /1,000 SF (61/39)	5	3	8	Ln (T) = 0.66Ln (X)+3.40(48/52)	44	47	91
V	7		0.5 acre parcel+1.0 acres+.7acres	Retail	31666	SF	Ln (T) = 0.643Ln (X)+5.866	1,810	1.03 | /1,000 SF (61/39)	11	7	18	Ln (T) = 0.66Ln (X)+3.40(48/52)	78	85	163
V	7		1.71 acres+ .57 acres	office	7500	SF	Ln (T) = 0.768Ln (X)+3.654	172	Ln(T) =0.80Ln(X)+1.55(88/12)	20	3	22	T=1.12(X) + 78.81(17/83)	14	69	83
A	10		Courtyard Gardens	Office	2700	SF	Ln (T) = 0.768Ln (X)+3.654	79	Ln(T) =0.80Ln(X)+1.55(88/12)	9	1	10	T=1.12(X) + 78.81(17/83)	13	65	78
A	10			Medical Office	15000	SF	36.13 | /1000SF	515	2.48 | /1,000 SF (79/21)	30	7	37	3.72 | /1000SF (27/73)	15	41	56
A	11		Temple Beth Ann	Church/offices and Daycare	29250	SF	See Appendix D for details	374	See Appendix D for details	29	26	55	See Appendix D for details	34	40	74
A	13		St Anns ALF	Congregate Care	98	Dus	2.02 | /Unit	188	0.06 | /Occupied Du (59/41)	3	2	6	0.17 | /Occupied Du (55/45)	9	7	16
V	15		Shopping Center	Retail	89733	SF	Ln (T) = 0.643Ln (X)+5.866	3,619	1.03 | /1,000 SF (61/39)	31	20	51	Ln (T) = 0.66Ln (X)+3.40(48/52)	159	173	332
G	A1		Indiantown - Center to Pennock	Retail	48189	SF	Ln (T) = 0.643Ln (X)+5.866	2,387	1.03 | /1,000 SF (61/39)	17	11	27	Ln (T) = 0.66Ln (X)+3.40(48/52)	104	113	216
G	A2		Indiantown - Center to Pennock	Office	41,294	SF	Ln (T) = 0.768Ln (X)+3.654	639	Ln(T) =0.80Ln(X)+1.55(88/12)	77	11	88	T=1.12(X) + 78.81(17/83)	20	99	119
G	B1		Indiantown - Pennock to Military	Retail	12725	SF	Ln (T) = 0.643Ln (X)+5.866	999	1.03 | /1,000 SF (61/39)	4	3	7	Ln (T) = 0.66Ln (X)+3.40(48/52)	43	46	89
G	C1		Indiantown - Military to Alt. A1A	Retail	34545	SF	Ln (T) = 0.643Ln (X)+5.866	1,916	1.03 | /1,000 SF (61/39)	12	8	20	Ln (T) = 0.66Ln (X)+3.40(48/52)	83	90	173
A	19		Follo Tropical	Restaurant	3250	SF	130.34 | /1,000 SF	229	11.52 | /1,000 SF (52/48)	11	9	20	10.92 | /1,000 SF (61/39)	10	10	19
A	20		ABC Liquor	Retail	13000	SF	Included in A1 above		Included in A1 above				Included in A1 above			
A	21		Jupiter Creek	Office	4420	SF	Included in A2 above		Included in A2 above				Included in A2 above			
A	27		Pebworth Marthens	Office	19880	SF	Ln (T) = 0.768Ln (X)+3.654	365	Ln (T) = 0.80Ln (X)+1.55(88/12)	43	6	49	T=1.12(X) + 78.81(17/83)	16	80	96
A	31		Botanica	Residential Single Family	138	Dus	See Appendix D for details	2,550	See Appendix D for details	41	144	185	See Appendix D for details	157	84	241
A	31		Botanica	Residential Multi Family	132	Dus	|		|				|			
A	31		Sea Plum	Residential Multi-Family /Office	262	Dus	See Appendix D for details	3,232	See Appendix D for details	110	164	274	See Appendix D for details	163	164	327
A	32		Jupiter Medical South Campus	Office	156874	SF	Ln (T) = 0.768Ln (X)+3.654	1,782	Ln (T) = 0.80Ln(X)+1.55(88/12)	225	31	255	T=1.12(X) + 78.81(17/83)	41	201	242
A	98		Abacoa				See Appendix D for details	35,958	See Appendix D for details	1,235	1,006	2,241	See Appendix D for details	1510	1682	3192
A/V	37		Admirals Crossing-3472retail,2929 out	Retail	6400	SF	Ln (T) = 0.643Ln (X)+5.866	641	1.03 | /1,000 SF (61/39)	2	1	4	Ln (T) = 0.66Ln (X)+3.40(48/52)	27	29	56
A	43		Pebworth III	Retail	22000	SF	Included in C1 above		Included in C1 above				Included in C1 above			
A	43		Pebworth III	restaurant	5800	SF	Ln (T) = 0.768Ln (X)+3.654	142	Ln (T) = 0.80Ln (X)+1.55(88/12)	16	2	18	T=1.12(X) + 78.81(17/83)	14	67	81
V	44		Section 28	Residential Single Family	196	Dus	10 | du	1,960	T=0.70(X)+9.43(25/75)	37	110	147	Ln (T) = 0.90Ln (X)+0.53(63/37)	126	71	196
V	45		Island Country Estates	Residential Single Family	35	Dus	10 | du	350	T=0.70(X)+9.43(25/75)	8	25	34	Ln (T) = 0.90Ln (X)+0.53(63/37)	27	15	42
V	45		38 Acres (Jupiter I-95 North)	see Project #3		Dus	10 | du	0	T=0.70(X)+9.43(25/75)	0	0	0	Ln (T) = 0.90Ln (X)+0.53(63/37)	0	0	0
A	47		Little Club	Residential Single Family	116	Dus	10 | du	1,160	T=0.70(X)+9.43(25/75)	0	0	0	Ln (T) = 0.90Ln (X)+0.53(63/37)	78	44	123
A	50		Egrets Landing	Residential Single Family	11	Dus	10 | du	110	T=0.70(X)+9.43(25/75)	4	13	17	Ln (T) = 0.90Ln (X)+0.53(63/37)	9	5	15
A	51		North Palm Beach Heights	Residential Single Family	10	Dus	10 | du	100	T=0.70(X)+9.43(25/75)	4	12	16	Ln (T) = 0.90Ln (X)+0.53(63/37)	9	5	13
A	52		Loxahatchee Club	Residential Single Family	47	Dus	10 | du	470	T=0.70(X)+9.43(25/75)	11	32	42	Ln (T) = 0.90Ln (X)+0.53(63/37)	35	20	54
A	53		Pine Gardens	Residential Single Family	4	Dus	10 | du	40	T=0.70(X)+9.43(25/75)	3	9	12	Ln (T) = 0.90Ln (X)+0.53(63/37)	4	2	6
A	55		North Center Street	Residential Single Family	4	Dus	10 | du	40	T=0.70(X)+9.43(25/75)	3	9	12	Ln (T) = 0.90Ln (X)+0.53(63/37)	4	2	6
A	56		Cinquez Park	Residential Single Family	75	Dus	10 | du	750	T=0.70(X)+9.43(25/75)	15	46	62	Ln (T) = 0.90Ln (X)+0.53(63/37)	53	30	83
A	57		Kennedy Estates	Residential Single Family	40	Dus	10 | du	400	T=0.70(X)+9.43(25/75)	9	28	37	Ln (T) = 0.90Ln (X)+0.53(63/37)	30	17	47
V	58		Woods Plaza	High Turnover Restaurant			See Appendix D for details	459	See Appendix D for details	13	13	26	See Appendix D for details	21	10	31
A	59		Jupiter Yacht Club				See Appendix D for details	4,958	See Appendix D for details	164	119	283	See Appendix D for details	221	221	442
A	60		Mangrove Bay				See Appendix D for details	1,279	See Appendix D for details	20	47	67	See Appendix D for details	57	36	93
P	61		Waterfront Quarter				See Appendix D for details	3,281	See Appendix D for details	26	27	55	See Appendix D for details	145	183	329
A	62		Limestone Creek	Residential Single Family	700	Dus	10 | du	7,000	T=0.70(X)+9.43(25/75)	125	375	499	Ln (T) = 0.90Ln (X)+0.53(63/37)	395	222	618
P	63		Inlet Village				See Appendix D for details	143	See Appendix D for details	21	41	62	See Appendix D for details	33	9	42
A	64		Jupiter Farms Residential	Residential Single Family	970	Dus	10 | du	9,700	T=0.70(X)+9.43(25/75)	172	516	688	Ln (T) = 0.90Ln (X)+0.53(63/37)	530	298	828
V	65		Jupiter Farms Residential	Residential Single Family	378	Dus	10 | du	3,780	T=0.70(X)+9.43(25/75)	69	206	274	Ln (T) = 0.90Ln (X)+0.53(63/37)	227	128	355
A	66		Jupiter Farms Commercial				See Appendix D for details	1,427	See Appendix D for details	67	35	102	See Appendix D for details	162	80	242
A	67		Palm Beach Park of Commerce	Industrial (light)	6450000	SF	6.97 | /1000SF	42,709	0.92 | /1,000 SF (88/12)	4,961	676	5,637	0.98 | /1,000 SF (12/88)	721	5284	6005
V	68	1.88	Acres Day Care	Day Care Center	12000	SF	79.26 | /1000SF	466	12.79 | /1000SF(53/47)	58	49	107	13.18 | /1000SF (47/53)	54	57	111
A	69	2.00	White Wing	Residential Multi Family	12	Dus	7 | /DU	84	(T)= .49(X)+3.73 (20/80)	1	8	9	Ln(T)=0.55Ln(X)+17.65 (63/37)	14	7	22
A	70	1.31	Alexandria Apt	Residential Multi Family	7	Dus	7 | /DU	49	(T)= .49(X)+3.73 (20/80)	1	6	7	Ln(T)=0.55Ln(X)+17.65 (63/37)	13	7	20
A	71	4.00	Acres Sea Plum Commercial	Retail	60187	SF	Ln (T) = 0.643Ln (X)+5.866	2,767	1.03 | /1,000 SF (61/39)	21	13	34	Ln (T) = 0.66Ln (X)+3.40(48/52)	121	131	252
A	71	4.00	Acres Sea Plum Commercial	Office	1470	SF	Ln (T) = 0.768Ln (X)+3.654	49	Ln(T) =0.80Ln(X)+1.55(88/12)	5	1	6	1.49 | /1000SF (17/83)	0	2	2
P	72		Admirals Corp Center 3 Acres	Bank	3500	SF	265.21 | 1000SF	510	1.03 | /1,000 SF (61/39)	1	1	2	Ln (T) = 0.66Ln (X)+3.40(48/52)	18	20	38
P	72		Admirals Corp Center 3 Acres	Medical Office	23400	SF	36.13 | /1000SF	803	2.48 | /1,000 SF (79/21)	45	11	56	3.72 | /1000SF (27/73)	24	64	87
P	72		Admirals Corp Center 3 Acres	Office	6510	SF	Ln (T) = 0.768Ln (X)+3.654	155	Ln(T) =0.80Ln(X)+1.55(88/12)	18	2	20	1.49 | /1000SF (17/83)	2	8	9
A	74	1.34	Gateway Lot 4	Office	12000	SF	Ln (T) = 0.768Ln (X)+3.654	144	Ln (T) = 0.80Ln (X)+1.55(88/12)	12	7	19	T=1.12(X) + 78.81(17/83)	24	26	51
V/A	75	3.07	Acres- 1.37 approved, 1.72 vacant	Open Space-TOJ	0	SF	Ln (T) = 0.768Ln (X)+3.654	0	|	0	0	0	|	0	0	0
V	76	3.58	Acres	Retail	31189	SF	Included in A1 above		Included in A1 above				Included in A1 above			
A	77a	2.41	Acres Integrity Bank	Bank	4000	SF	Included in A1 above		Included in A1 above				Included in A1 above			
A	77b	2.41	Acres Integrity Bank	Office	21874	SF	Included in A2 above		Included in | Included in A2 above				Included in A2 above			
V	78	13.54	Acres (Delaware Scrub)	Open Space-TOJ	0	SF	|						|			
B/A	79	5.10	Acres (River Place)/Creekside	Office	15,000	SF	Included in A2 above		Included in A2 above				Included in A2 above			
V	80	2.71	Acres	Open Space-TOJ	0	SF	0 |		|				|			
V	81	1.61	Acres 820 Pebworth	Retail	8725	SF	Included in B1 above		Included in B1 above				Included in B1 above			
V	81			office	8500	SF	Ln (T) = 0.768Ln (X)+3.654	190	Ln(T) =0.80Ln(X)+1.55(88/12)	22	3	25	1.49 | /1000SF (17/83)	2	10	12
A	82	1.50	Acres (721 Indiantown Road)	Office	10000	SF	See Appendix D for details	206	See Appendix D for details	25	3	28	See Appendix D for details	27	49	76
A	82	1.50	Acres (721 Indiantown Road)	Retail	4000	SF	Included in B1 above		Included in B1 above				Included in B1 above			
A	83		Olympia Center	Office	2765	SF	Ln (T) = 0.768Ln (X)+3.654	80	Ln(T) =0.80Ln(X)+1.55(88/12)	9	1	10	1.49 | /1000SF (17/83)	1	3	4
A	83		Olympia Center	Retail	12235	SF	Ln (T) = 0.643Ln (X)+5.866	974	1.03 | /1,000 SF (61/39)	4	3	7	Ln (T) = 0.66Ln (X)+3.40(48/52)	41	45	86
P	84	2.00	Acres JEC Medical	Medical Office	23465	SF	36.13 | /1000SF	805	2.48 | /1,000 SF (79/21)	47	12	58	3.72 | /1000SF (27/73)	24	64	87
V	86	0.50	Acres	Retail	4356	SF	Included in C1 above		Included in C1 above				Included in C1 above			
A	87	0.75	Acres	office	4288	SF	Ln (T) = 0.768Ln (X)+3.654	112	Ln(T) =0.80Ln(X)+1.55(88/12)	13	2	14	1.49 | /1000SF (17/83)	1	5	6
V	88	0.94	Acres (Tunick)	Retail	8189	SF	Included in C1 above		Included in C1 above				Included in C1 above			
A	88	0.15	RB Grill(1573)+Palazolla(3250)	Retail	4823	SF	Ln (T) = 0.643Ln (X)+5.866	534	1.03 | /1,000 SF (61/39)	2	1	3	Ln (T) = 0.66Ln (X)+3.40(48/52)	22	24	47
P	88		(1573) + Palazollo (3250)	Office	4823	SF	Ln (T) = 0.768Ln (X)+3.654	123	Ln(T) =0.80Ln(X)+1.55(88/12)	14	2	16	1.49 | /1000SF (17/83)	1	6	7
V	89	57.00	Acres (Brown Property)	Research and Development	620730	SF	Ln(T)=0.82Ln(x)+3.14	4,281	Ln(T) =0.88Ln(X)+0.88(83/17)	557	100	657	Ln (T) = 0.83Ln (X)+1.06(15/85)	86	485	570
V	90	9.60	Acres (Kaye Property/AA)	Industrial (light)	104544	SF	6.97 | /1000SF	692	0.92 | /1,000 SF (88/12)	80	11	91	0.98 | 1,000 SF	12	86	97
A	90	9.10	Jupiter Trade Center	office	47184	SF	Ln (T) = 0.768Ln (X)+3.654	708	Ln (T) = 0.80Ln(X)+1.55(88/12)	86	12	98	T=1.12(X) + 78.81(17/83)	21	104	125
A	90			Industrial (light)	63432	SF	6.97 | /1000SF	420	0.92 | /1,000 SF (88/12)	49	7	55	0.98 | /1,000 SF (12/88)	7	52	59
V	92	0.47	Acres Susan Wiley	Office	5261	SF	Ln (T) = 0.768Ln (X)+3.654	131	Ln(T) =0.80Ln(X)+1.55(88/12)	15	2	17	1.49 | /1000SF (17/83)	1	6	7
V	93	13.35	Acres (Jupiter Park of Commerce)	Industrial (light)	54450	SF	6.97 | /1000SF	361	0.92 | /1,000 SF (88/12)	42	6	48	0.98 | /1,000 SF (12/88)	6	45	51
A	93		JPC Approved	Industrial (light)	90056	SF	6.97 | /1000SF	596	0.92 | /1,000 SF (88/12)	69	9	79	0.98 | /1,000 SF (12/88)	10	74	84
V	94		Renaissance Village	residential single family	57	Dus	10 | /DU	570	T=0.70(X)+9.43(25/75)	12	37	49	Ln (T) = 0.90Ln (X)+0.53(63/37)	41	23	65
V	95		Martin County Residential	Residential Single Family	45	Dus	10 | /DU	450	T=0.70(X)+9.43(25/75)	10	31	41	Ln (T) = 0.90Ln (X)+0.53(63/37)	33	19	52
A	96		SCRIPPS Mecca Farms				See Appendix D for details	99,900	|	8,958	2,189	11,147	|	1880	7455	9335
A	98		Abacoa				10 |	35,958	See Appendix D for details	1,235	1,006	2,241	See Appendix D for details	1510	1682	3192
A	99		Pratt-Whitney	office/Industrial			See Appendix D for details	8,654	See Appendix D for details	1,039	142	1,181	See Appendix D for details	164	1040	1204
V	100	0.82	acres between Center and Central	retail	3572	sf	Ln (T) = 0.643Ln (X)+5.866	440	1.03 | /1,000 SF (61/39)	1	1	2	Ln (T) = 0.66Ln (X)+3.40(48/52)	18	20	38
V	100			office	3572	sf	Ln (T) = 0.768Ln (X)+3.654	98	Ln(T) =0.80Ln(X)+1.55(88/12)	11	1	12	T=1.12(X) + 78.81(17/83)	13	65	79
P	101	0.16	Weston	office	1500	SF	Ln (T) = 0.768Ln (X)+3.654	50	Ln(T) =0.80Ln(X)+1.55(88/12)	5	1	6	1.49 | /1000SF (17/83)	0	2	2
A	102		Jupiter Medical Center Expansion	Hospital	65040	SF	36.13 | /1000SF	2,232	2.48 | /1,000 SF (79/21)	129	32	161	3.72 | /1000SF (27/73)	65	177	36.13
V	103	3.91	Fisherman's Wharf	Retail	34063	SF	Ln (T) = 0.643Ln (X)+5.866	1,899	1.03 | /1,000 SF (61/39)	12	8	19	Ln (T) = 0.66Ln (X)+3.40(48/52)	82	89	171
V	104	7.88	Tower Site	Single Family Residential	23	Dus	10 | /DU	230	T=0.70(X)+9.43(25/75)	6	19	26	Ln (T) = 0.90Ln (X)+0.53(63/37)	18	10	29
A	105	16	Florida Turbine	Office and R&D	1500	SF	Ln (T) = 0.768Ln (X)+3.654	50	Ln(T) =0.80Ln(X)+1.55(88/12)	5	1	6	1.49 | /1000SF (17/83)	0	2	2
P	106	1	Sanctuary	Residential	6	Dus	10 | /DU	60	T=0.70(X)+9.43(25/75)	3	10	14	Ln (T) = 0.90Ln (X)+0.53(63/37)	5	3	9
P	107	1.77	Life Song/Town Hall Expansion	Office	19975	SF	Ln (T) = 0.768Ln (X)+3.654	366	Ln(T) =0.80Ln(X)+1.55(88/12)	43	6	49	1.49 | /1000SF (17/83)	5	23	28
V	108	2.7	Piatt Property	Retail	23552	SF	Ln (T) = 0.643Ln (X)+5.866	1,491	1.03 | /1,000 SF (61/39)	8	5	13	Ln (T) = 0.66Ln (X)+3.40(48/52)	64	69	134
V	109	2.6	Grossinger	Retail	22651	SF	Ln (T) = 0.643Ln (X)+5.866	1,454	1.03 | /1,000 SF (61/39)	8	5	13	Ln (T) = 0.66Ln (X)+3.40(48/52)	62	68	130
V	110	0.98	E. ITR	Retail	8537	SF	Ln (T) = 0.643Ln (X)+5.866	772	1.03 | /1,000 SF (61/39)	3	2	5	Ln (T) = 0.66Ln (X)+3.40(48/52)	33	35	68
P	111	4.2	Emerald Cay	MF Residential	34	Dus	7 | /DU	238	(T)= .49(X)+3.73 (20/80)	3	17	20	Ln(T)=0.55Ln(X)+17.65 (63/37)	21	11	33
P	111			Retail	8000	SF	Ln (T) = 0.643Ln (X)+5.866	740	1.03 | /1,000 SF (61/39)	3	2	5	Ln (T) = 0.66Ln (X)+3.40(48/52)	31	34	65
P	112	4.1	The Ridge	MF Residential	20	Dus	7 | /DU	140	(T)= .49(X)+3.73 (20/80)	2	11	13	Ln(T)=0.55Ln(X)+17.65 (63/37)	17	9	26
P	113	0.9	Trimar	Retail	3500	SF	Ln (T) = 0.643Ln (X)+5.866	434	1.03 | /1,000 SF (61/39)	1	1	2	Ln (T) = 0.66Ln (X)+3.40(48/52)	18	20	38
P	113			MF Residential	10	Dus	7 | /DU	70	(T)= .49(X)+3.73 (20/80)	1	7	8	Ln(T)=0.55Ln(X)+17.65 (63/37)	13	7	21
V	114	3.28	Vacant on Alt A1A	Retail	28575	SF	Ln (T) = 0.643Ln (X)+5.866	1,692	1.03 | /1,000 SF (61/39)	10	6	16	Ln (T) = 0.66Ln (X)+3.40(48/52)	73	79	152
A	115		Zecca Bld	Office	8115	SF	Ln (T) = 0.768Ln (X)+3.654	183	Ln(T) =0.80Ln(X)+1.55(88/12)	21	3	24	1.49 | /1000SF (17/83)	2	10	11
A	116		Seagrape Square	Retail	21250	SF	Ln (T) = 0.643Ln (X)+5.866	1,394	1.03 | /1,000 SF (61/39)	7	5	12	Ln (T) = 0.66Ln (X)+3.40(48/52)	60	65	125

(1) Source: Article 13 of the Palm Beach County Unified Land Development Code (ULDC), and ITE, Trip Generation, 7th Edition.
(2) See Appendix for details on proposed land uses.
(3) A= Approved, P= Pending, V= Vacant, G= Grouping of vacant, pending and approved projects, B=Built and no trips were assigned

6.0 MITIGATION ALTERNATIVES AND CONSENSUS STRATEGIES

In the 2003 JAS, the number of future roadway failures throughout the study area necessitated the development of mitigation measures. The measures were developed using a mix of quantitative and qualitative evaluation criteria.

6.1 Evaluation Criteria and Methodology

Palm Beach County establishes the Level of Service Standards on all County roads. The County is responsible to determine traffic concurrency throughout the County as outlined in Article 12 of the Uniform Land Development Code, Traffic Performance Standards. As part of an update to Article 12, the County has developed new standards that rely on peak hour link and intersection analysis as the basis for establishing levels of service. Therefore, the study used the peak hour level of service criteria as its basic criteria for establishing and evaluating mitigation alternatives. The Town also considered cost and features of the alternatives that improved quality of life such as aesthetics, pedestrian friendly characteristics and impact on open space.

6.2 Development and Analysis of Preliminary Alternatives

The results of the link analysis indicated that several roadway links within the Town would exceed the adopted level of service D thresholds by buildout. The Town then began the process of developing strategies to mitigate the volumes. A long list of potential mitigation was developed. Land use changes, capacity enhancements, alternative transportation and policy changes were considered.

The preliminary list of alternatives included:

6.2.1 Roadway Construction –New Facilities

6.2.1.1 Connection of Western Corridor south of Indiantown Road
6.2.1.2. Church Street connection to the Western Corridor
6.2.1.3. Limestone Creek Road connection to Western Corridor
6.2.1.4. Northfork Drive Connection to the Western Corridor
6.2.1.5. Frederick Small Road extension to Marcinski Road
6.2.1.6. Jupiter Farms Road extension to Donald Ross Road
6.2.1.7. Donald Ross Road westerly extension
6.1.2.8 I-95 Interchange at Indian Creek Parkway
6.2.2.9 I-95 Ramp Connection to Western Corridor
6.2.2.10 The Western by-pass north of Indiantown Road

6.2.2. Roadway Construction – Additional Lanes

6.2.2.1. Central Boulevard north of Indiantown Road – add two lanes to provide a four lane divided section
6.2.2.2 Central Boulevard south of Indiantown Road - add two lanes to provide a six-lane divided section
6.2.2.3 Maplewood Drive south of Toney Penna – add two lanes to provide a four lane divided section

6.2.2.4 Indian Creek Parkway west of Military Trail – add two lanes to provide a four lane divided section
6.2.2.5 Center Street – add two lanes to provide a four lane divided section
6.2.2.6 Indiantown Road from the Turnpike to I-95 – add 1 or 2 lanes to provide a six-lane section
6.2.2.7 Indiantown Road from the Turnpike to I-95 – add 2 to 3 lanes to provide an eight lane section
6.2.2.8 Indiantown Road from I-95 to Center Street – add two lanes to provide an eight lane divided section
6.2.2.9 Toney Penna from Central Boulevard to Military Trail – add two lanes to provide a four lane divided section
6.2.2.10 Turnpike – add a Sunpass lane on the Turnpike
6.2.2.11 Explore various interconnections north and south of Indiantown Road (Home Depot Connection)

6.2.3 Roadway Construction – Intersection Improvements

6.2.3.1 Additional Turn lanes at each of the following intersections:
Indiantown Road/ Central Boulevard
Indiantown Road/ Center Street
Indiantown Road/ Military Trail
Indiantown Road/ Turnpike
Indiantown Road/ Maplewood
6.2.3.2 Grade separation at Indiantown Road and Central Boulevard

6.2.4 Transportation Systems Management/Transit and Transportation Demand Management

6.2.4.1 Increase Park n Ride Facility at Turnpike
6.2.4.2 Add Park and Ride facility at or near I-95
6.2.4.3 Add a park and ride facility east of Center Street
6.2.4.4. Create a policy that encourages the interconnection of parcels
6.2.4.5 Create a policy that fosters the elimination of and consolidation of driveways
6.2.4.6 Provide alternate timing plans along key corridors
6.2.4.7 Extend the tri-rail service to Jupiter
6.2.4.8 Develop a transit shuttle
6.2.4.9 Allow work at home
6.2.4.10. Develop a policy for staggered work hours

6.2.5 Land Use Strategies

6.2.5.1 Purchase all, 50% or 25% of vacant parcels
6.2.5.2 Purchase the Target Site
6.2.5.3 Purchase Delaware Scrub
6.2.5.4 Purchase Jupiter Falls
6.2.5.5 Purchase Brown Property
6.2.5.6 Purchase Parcel 19
6.2.5.7 Purchase Lox Reserve
6.2.5.8. Parcel 19 Land Use Amendment

6.2.5.9 Lox Reserve Land Use Amendment
6.2.5.10 Change in land use to capture trips or provide reverse commute

These alternatives were reviewed in terms of preliminary costs and benefit in improving levels of service. They also were reviewed by the Town Council in terms of public benefit. The list was pared down in a series of workshops open to the public to a list referred to as the Consensus Strategies.

6.3 Selection of the Consensus Strategies

The Town Council consensus was to subject a package of mitigation measures to a more detailed cost and implementation evaluation. Several of the land use options were eliminated from consideration due to the high land cost relative to the potential reduction in trips. The strategies that were included in the update to mitigate the impact of future traffic volumes would cost a total of approximately $32 Million. The improvements are expected to be implemented over a 10 year period. Table 5 summarizes the cost of mitigation and the anticipated year the strategy would be implemented.

These Consensus strategies were then incorporated into the land use assumptions and the network. The future traffic volumes projected for Buildout assume that the Consensus Strategies identified in Table 5 would have been implemented.

Table 5:Jupiter Area Study
Consensus Strategies - Costs

	Const. Year	Length in Miles	Cost per mile	Land Purchase/RW (1)	Roadway Construction (2)	Easement	Undergound Utilities	Landscaping	Hardscape	Lighting	Engineering	Total
Consensus Strategies-												
Land Use Strategies												
Parcel 19 Decreased Land Use												
Purchase Land - Delaware Scrub												
a. Delaware Scrub- Purchased by County /Town with $3,570,000/$3,430,000 split				$ 7,000,000								$ -
Resid. Density of **2 DU/Acre** for Lox Reserve and Jupiter I-95 North												$ 7,000,000
a. Lox Reserve												$ -
b. Jupiter I-95 North												
												$ -
Capacity Improvements- Link/Segments(2)												
Limestone Creek Road connection to Western Corridor	2004				$ 319,000						$ 79,750	$ 398,750
Connection of Western Corridor south of Indiantown Rd	2007			$ 350,000	$ 1,353,000						$ 338,250	$ 2,041,250
Six-laning (6L) West of Turnpike	2006				$ 2,706,000						$ 676,500	$ 3,382,500
I-95 NB & SB On & Off Ramps to/from Western Corridor (N. of Indiantown Rd)	2009				$ 4,000,000 (3)						$1,000,000	$ 5,000,000
Maplewood Rd to Bush Rd Connection	2007	0.25		$ 1,471,000	$ 1,272,000 (4)						$ 318,000	$ 3,061,000
Home Depot Connection											$ -	$ -
Pedestrian and Beautification Enhancements along Indiantown Road	2007/8	1.25			$ 1,400,000 (5)		$2,100,000	$ 600,000	$ 800,000	$400,000	$ 350,000	$ 5,650,000
Four-laning (4L) of Central Blvd from Longshore Drive to C-18 Canal	2008	0.5			$ 2,791,200 (6)						$ 697,800	$ 3,489,000
Intersection Improvements											$ -	
(business expenses are not included in the R/W cost)											$ -	
Indiantown Road/Pennock - Provide Northbound Right-turn Lane	2004			$ -	$ 100,000						$ -	
Indiantown Road/Military Trail - Provide Dual Westbound Left-turn Lanes, Extend Right -turn Lane	2004			$ 275,000	$ 457,000						$ 25,000	$ 125,000
Indiantown Road/ Alternate AIA - Provide Dual Northbound Left-turn la	2005				$ 217,000						$ 114,250	$ 846,250
Indiantown Road/Central Boulevard - Provide Dual Southbound Right-turn Lanes, triple northbound left-turn lanes	2004			$ 300,000	$ 347,000						$ 54,250	$ 271,250
TOTALS				$ 9,396,000	$ 14,962,200	$ -	$ 2,100,000	$ 600,000	$ 800,000	$ 400,000	$ 86,750	$ 733,750
											$ 3,740,550	$ 31,998,750

ssessed value from PAPA adjusted based on the ratio of a recent appraisal of Limestone Creek land prepared
y Palm Beach County vs PAPA assessed value.
ource: FDOT 2004 Transportation Costs - Highway Cost per Centerline Mile - excludes costs for
tersections/interchanges/structures over 20 feet (i.e bridges), right-of-way, landscaping, traffic signals,
reliminary engineering and construction engineering inspection. All costs increased 2%per year compounded.
ource: McMahon & Associates. Other alternatives have been presented that are more costly.
ame as source (2) above, but includes $500,000 for culvert/bridge over the canal. Ossible reduced construction cost depending on design and section.
stimated cost for signal modifications along the route and relocation of sidewalk.
me as source(2) above, but includes costs for widening th ebridge over the C-18 canal and signals.
Additional Cost will be incurred for environmental mitigation

7.0 DISTRIBUTION AND ASSIGNMENT

The traffic generated by the vacant, pending and approved projects was distributed and assigned to the roadway network. The distribution and assignment were derived from the traffic studies prepared for the projects. Where a study was not available, the distribution and assignment were estimated based on the ultimate origin and destinations of the trips and the likely travel path to reach that end. In some cases, there were adjustments made to account for change in the roadway network or land use patterns since the preparation of the parcel's original traffic study. Maps were developed for all of the future developments. The projects were grouped into common geographical areas with common assignment. Appendix E includes the graphic display of the distribution and assignment for each component of the future traffic. Modifications were made in the update to reflect the future Western Corridor extension to the south and a modified interchange at Indiantown Road and I-95. The roadway connection from Maplewood to Bush Road was accounted for by adjusting the total traffic volumes for the anticipated diversion.

8.0 RESULTANT FUTURE TRAFFIC VOLUMES

The future traffic volumes were estimated for buildout of the Town of Jupiter. The volumes were estimated by taking the most recent daily and peak hour traffic counts and adjusting those volumes to reflect 2004 conditions. The trips generated by the future traffic components; approved, pending and vacant, were then added to those adjusted existing traffic volumes to estimate total future traffic volumes on the study area roadways for buildout of the Town. Volumes were developed assuming the Consensus Strategies identified in the 2003 JAS and restated in Table 5 were implemented.

8.1 Adjustments

Common Trip Ends -- The total traffic volumes were developed by summing all the trips from the vacant, pending and approved projects on a given link. These trips were added to the adjusted existing volumes. The additive nature of this process results in the double counting of some trips. Many of the trips share a common trip end; one's origin is the other's destination. To account for this occurrence, an adjustment factor equal to 20% of the non-residential and the lower of 20% of the non-residential or 25% of the residential trips based on the trips on each link was applied.

Household Occupancy -- For the residential traffic volumes a 4.7 % adjustment was applied to account for vacant households. This factor was taken from the 2000 census data. This is not the same as seasonal fluctuations.

Daily Seasonal factors—Daily Seasonal factors were applied to estimate the average annual traffic conditions. Since the ITE rates reflect the fully occupied condition, the land use trip generation was adjusted to an annual average condition. The factor applied was 6%. This rate was based on historical count data obtained from Palm Beach County related to peak and off - peak season.

Peak Hour Intersection Seasonal Factor – Seasonal peak hour factors were applied to the peak hour turning movement counts to adjust them to the peak season peak hour. The factors were taken from the FDOT 2004 Seasonal Factors.

8.2 Total Traffic Volumes- Links

The total traffic volumes for Average Annual Daily base condition at buildout of the Town are summarized in Table 6 and shown graphically in Figure 9. The total traffic volumes for the AM peak hour traffic base conditions on the links within the study area summarized in Table 7 and shown in Figure 10. The total traffic volumes for the PM peak hour base traffic conditions on the links within the study area are summarized in Table 8 and Figure 11. The assignment for each project contributing to the total traffic on a daily basis is provided in Appendix F. The peak hour assignments are provided in Appendix G.

Tables 6, 7 and 8 appear first; followed by the corresponding figures, 9, 10 and 11.

Table 6
Total Traffic
Average Annual Daily Traffic Volumes

				A	B	C	D	B	C	D	E	F	G	H	I	J	
	Roadway	Link	Future Lanes	Existing AADT 2004	Approved Projects (1)	Pending Projects (1)	Vacant Land (1)	Total Additional Traffic	Peak Season Adjustment of 6% (2)	Western Corridor Diversions	Trip Balancing Adjustment (3)	Net Total Additional Traffic	Total Traffic	LOS D Service Volume	Meets Capacity Standard? Y / N	V / C Ratio	
1	Indiantown Road	Jupiter Farms Road to Parcel 19	6LD	30887	19491	509	6428	26428	-1586		-5412	19430	**50317**	49200	N	1.02	1
2	Indiantown Road	Parcel 19 to Turnpike	6LD	30887	22775	509	6428	29712	-1783		-5470	22459	**53346**	49200	N	1.08	2
3	Indiantown Road	Turnpike to I-95	6LD	45388	24419	820	7528	32767	-1966		-6682	24119	**69507**	49200	N	1.41	3
4	Indiantown Road	I-95 to Western Corridor	6LD(8)	49174	17800	2076	9074	28950	-1737		-6381	20832	**70006**	49200	N	1.42	4
5	Indiantown Road	Western Corridor to Central Boulevard	6LD(9)	45899	16713	2012	8602	27327	-1640	-4300	-6071	15316	**61215**	49200	N	1.24	5
6	Indiantown Road	Central Boulevard to Center Street	6LD(10)	51251	13280	1772	9965	25017	-1501	-2680	-5442	15394	**66645**	49200	N	1.35	6
7	Indiantown Road	Center Street to Maplewood Drive	6LD(10)	47648	21387	1725	7978	31090	-1865		-6593	22632	**70280**	49200	N	1.43	7
8	Indiantown Road	Maplewood Drive to Pennock Lane	6LD	48648	10673	1735	7595	20003	-1200		-4358	14445	**63093**	49200	N	1.28	8
9	Indiantown Road	Pennock Lane to Military Trail	6LD	48648	10887	1737	6948	19572	-1174		-4228	14170	**62818**	49200	N	1.28	9
10	Indiantown Road	Military Trail to Alternate A1A	6LD	40974	10484	1840	5680	18004	-1080		-3837	13087	**54061**	49200	N	1.10	10
11	Center Street	Indiantown Road to Lox. River Road	2L	15126	1850	290	2242	4382	-263	-2680	-947	492	**15618**	15400 (4)	N	1.01	11
12	Center Street	Lox. River Road to Alternate A1A	2L	17733	2442	270	1530	4242	-255	-770	-922	2295	**20028**	15400 (5)	N	1.30	12
13	Toney Penna Dr	Central Boulevard to Maplewood Dr	2L	7422	1877	499	1257	3633	-218		-786	2629	**10051**	15400	Y	0.65	13
14	Toney Penna Dr	Maplewood Dr to Military Trail	2L	11666	2115	466	940	3521	-211		-761	2549	**14215**	15400	Y	0.92	14
15	Toney Penna Dr	Military Trail to Alternate A1A	2L	10196	1688	254	421	2363	-142		-517	1704	**11900**	15400	Y	0.77	15
16	Central Boulevard	Roebuck Road to Indiantown Road	4LD	14594 (11)	8049	242	1266	9557	-573	-1620	-922	6442	**21036**	32700	Y	0.64	16
17	Central Boulevard	Indiantown Road to Toney Penna Drive	4LD	23007	6734	1223	4071	12028	-722		-2603	8703	**31710**	32700	Y	0.97	17
18	Central Boulevard	Toney Penna Drive to Egret Landing	4LD	18429 (7)	6688	617	2525	9830	-590		-2143	7097	**25526**	32700	Y	0.78	18
19	Indian Creek Pkwy	Egret Landing to Central Blvd	4LD	13850	8072	599	2227	10898	-654		-2375	7869	**21719**	32700	Y	0.66	19
20	Indian Creek Pkwy	Central Blvd to Military Trail	4LD	7480	4632	439	1604	6675	-401		-1436	4838	**12318**	32700	Y	0.38	20
21	Central Boulevard	Indian Creek Pkwy to Frederick Small Rd	4LD	8773 (7)	6676	395	1106	8177	-491		-1805	5881	**14654**	32700	Y	0.45	21
22	Central Boulevard	Frederick Small Rd to Donald Ross Rd	4LD	13013	5601	285	625	6511	-391		-1418	4702	**17715**	32700	Y	0.54	22
23	Western Corridor	Indiantown Road to Limestone Creek	4LD	0	3313	1770	7540	12623	-757	4300	-2745	13421	**13421**	32700	Y	0.41	23
24	Western Corridor	Limestone Creek to Jupiter Isles	4LD	0	3407	1770	2474	7651	-459	4300	-1302	10190	**10190**	32700	Y	0.31	24
25	Western Corridor	Jupiter Isles to Island Way	2L	0	1216	72	2222	3510	-211	4300	-376	7223	**7223**	15400	Y	0.47	25
26	Maplewood Drive	Indiantown Rd to Toney Penna Drive	4LD	15174 (6)	1275	191	1189	2655	-159		-568	1928	**17102**	32700	Y	0.52	26
27	Maplewood Drive	Toney Penna Drive to Central Blvd	2L	6231 (6)	2108	187	430	2725	-164		-592	1969	**8200**	15400	Y	0.53	27
28	Pennock Lane	Center Street to Indiantown Road	2L	6467 (6)	1073	155	605	1833	-110		-387	1336	**7803**	15400	Y	0.51	28
29	Pennock Lane	Indiantown Road to Toney Penna Dr	2L	4062 (6)	1109	153	570	1832	-110		-392	1330	**5392**	15400	Y	0.35	29
30	Pennock Lane	Toney Penna Dr to Indian Creek Pkwy	2L	3000 (12)	934	129	381	1444	-87		-312	1045	**4045**	15400	Y	0.26	30
31	Lox. River Road	Island Way to Roebuck Rd	2L	5774	1186	137	1107	2430	-146	-3530	-537	-1783	**3991**	15400	Y	0.26	31
32	Lox. River Road	Roebuck Rd to Center Street	2L	9698	1776	150	1062	2988	-179	-1910	-652	247	**9945**	15400	Y	0.65	32
33	Military Trail	Indiantown Rd to Toney Penna Drive	6LD	23279	8635	1122	2606	12363	-742		-2713	8908	**32187**	49200	Y	0.65	33
34	Military Trail	Toney Penna Dr. to Frederick Small Rd	6LD	27354	14132	1579	2327	18038	-1082		-3910	13046	**40400**	49200	Y	0.82	34
35	Military Trail	Frederick Small Rd to Donald Ross Rd	6LD	27456 (12)	13006	729	1153	14888	-893		-3245	10750	**38206**	49200	Y	0.78	35
36	Alternate A1A	US 1 to Center Street	6LD	40096	2619	232	1236	4087	-245		-877	2965	**43061**	49200	Y	0.88	36
37	Alternate A1A	Center Street to Indiantown Road	6LD	31157	3663	391	1615	5669	-340		-1206	4123	**35280**	49200	Y	0.72	37
38	Alternate A1A	Indiantown Rd to Toney Penna Drive	6LD	33765	3975	566	1662	6203	-372		-1303	4528	**38293**	49200	Y	0.78	38
39	Alternate A1A	Toney Penna Dr. to Frederick Small Rd	6LD	28515 (7)	4078	555	1303	5936	-356		-1245	4335	**32850**	49200	Y	0.67	39
40	Alternate A1A	Frederick Small Rd to Donald Ross Rd	6LD	23264	1628	239	593	2460	-148		-519	1793	**25057**	49200	Y	0.51	40

(1) All residential trips have been reduced by 4.7% based on the 2000 Census data regarding household occupancy rates in Jupiter.
(2) The Total Additional Traffic represents peak season. Therefore, in order to establish annual average traffic, a 6% reduction factor based on historical count data in Jupiter from the MPO was applied.
(3) By layering the Approved, Pending and Vacant traffic, a double counting of trips occurs (i.e., a trip assigned to a residential use that travels to a non-residential use would only represent one trip - not one trip for the residential use and a s for the non-residential use.) Therefore, an adjustment to account for overcounting of trip interactions between residential and non-residential, for both future and existing land uses is required.
(4) The adopted CRALLS Service Volume is 15500.
(5) The adopted CRALLS Service Volume is 20700.
(6) Existing counts are 2004 counts.
(7) Average of two nearest link counts.
(8) Existing less 3225 for ramps diversion
(9) Existing less 6500 for WC, LC extension
(10) Existing less 1000 for Maplewood Connection
(11) Existing less 3800 for LC connection
(12) 3000 from Military Trail to new Pennock

Table 7:
Jupiter Area Study
AM Peak Hour Peak Season

					A	B	C	D	E	F	G	H	I	J	K	
	Roadway	Link	Future Lanes	Dir	Existing Pk Seas. (2004)(2)	Approved Projects (1)	Pending Projects (1)	Vacant Land (1)	Total Additional Traffic	Western Corridor Diversions	Trip Balancing Adjustment (3)	Net Total Additional Traffic	Total Traffic	LOS D Service Volume	V / C Ratio	
1	Indiantown Road	Jupiter Farms Road to Parcel 19	6LD	EB	2145	782	16	221	1019		-216	803	**2948**	2790	1.06	1
2				WB	787	1035	8	276	1319		-244	1075	**1862**	2790	0.67	2
3	Indiantown Road	Parcel 19 to Turnpike	6LD	EB	2145	846	18	221	1085		-229	856	**3001**	2790	1.08	3
4				WB	787	1172	6	276	1454		-300	1154	**1941**	2790	0.70	4
5	Indiantown Road	Turnpike to I-95	6LD	EB	2773	887	34	338	1259		-268	991	**3764**	2790	1.35	5
6				WB	1506	1249	13	294	1556		-254	1302	**2808**	2790	1.01	6
7	Indiantown Road	I-95 to Western Corridor	6LD	EB(5)	2398	636	75	678	1389		-291	1098	**3496**	2790	1.25	7
8				WB(5)	2069	882	24	307	1213		-224	989	**3058**	2790	1.10	8
9	Indiantown Road	Western Corridor to Central Boulevard	6LD	EB(6)	2548	673	89	265	727	-214	-223	290	**2838**	2790	1.02	9
10				WB(6)	2219	723	26	795	1232	-186	-337	709	**2928**	2790	1.05	10
11	Indiantown Road	Central Boulevard to Center Street	6LD	EB(7)	2290	491	83	246	820	-145	-180	495	**2785**	2790	1.00	11
12				WB(7)	1646	554	30	587	1171	-104	-254	813	**2459**	2790	0.88	12
13	Indiantown Road	Center Street to Maplewood Drive	6LD	EB	2448	389	82	211	682		-151	531	**2979**	2790	1.07	13
14				WB	1636	377	30	437	844		-185	659	**2295**	2790	0.82	14
15	Indiantown Road	Maplewood Drive to Pennock Lane	6LD	EB	2448	496	84	184	764		-152	612	**3060**	2790	1.10	15
16				WB	1636	262	30	382	674		-145	529	**2165**	2790	0.78	16
17	Indiantown Road	Pennock Lane to Military Trail	6LD	EB	2448	475	50	169	694		-136	558	**3006**	2790	1.08	17
18				WB	1636	271	62	286	619		-131	488	**2124**	2790	0.76	18
19	Indiantown Road	Military Trail to Alternate A1A	6LD	EB	1961	347	56	103	506		-92	414	**2375**	2790	0.85	19
20				WB	1313	348	56	206	610		-129	481	**1794**	2790	0.64	20
21	Center Street	Indiantown Road to Lox. River Road	2L	EB	433	75	4	95	174	-84	-39	51	**484**	860	0.56	21
22				WB	856	58	9	80	147	-166	-31	-50	**806**	860	0.94	22
23	Center Street	Lox. River Road to Alternate A1A	2L	EB	780	95	6	38	139	-39	-26	74	**854**	860 (4)	0.99	23
24				WB	647	74	8	72	154	-32	-33	89	**736**	860 (4)	0.86	24
25	Toney Penna Dr	Central Boulevard to Maplewood	2L	EB	285	76	15	35	126		-28	98	**383**	860	0.45	25
26				WB	304	55	2	79	136		-29	107	**411**	860	0.48	26
27	Toney Penna Dr	Maplewood Dr to Military Trail	2L	EB	611	77	17	29	123		-27	96	**707**	860	0.82	27
28				WB	494	69	7	46	122		-26	96	**590**	860	0.69	28
29	Toney Penna Dr	Military Trail to Alternate A1A	2L	EB	491	59	10	8	77		-14	63	**554**	860	0.64	29
30				WB	310	52	8	19	79		-17	62	**372**	860	0.43	30
31	Central Boulevard	Roebuck Road to Indiantown Road	4LD	NB	608	394	2	53	449	-54	-26	369	**977**	1860	0.53	31
32				SB	1074	191	8	52	251	-96	-46	109	**1183**	1860	0.64	32
33	Central Boulevard	Indiantown Road to Toney Penna Drive	4LD	NB(8)	811	234	80	248	562		118	444	**1255**	1860	0.67	33
34				SB(8)	877	248	24	555	827		-171	656	**1533**	1860	0.82	34
35	Central Boulevard	Toney Penna Drive to Egret Landing	4LD	NB	689	193	25	221	439		-90	349	**1038**	1860	0.56	35
36				SB	1051	276	13	81	370		-80	290	**1341**	1860	0.72	36
37	Indian Creek Pkwy	Egret Landing to Central Blvd	4LD	EB	930	321	12	71	404		-87	317	**1247**	1860	0.67	37
38				WB	454	238	26	184	448		-92	356	**810**	1860	0.44	38
39	Indian Creek Pkwy	Central Blvd to Military Trail	4LD	EB	476	163	7	46	216		-45	171	**647**	1860	0.35	39
40				WB	230	156	21	123	300		-62	238	**468**	1860	0.25	40
41	Central Boulevard	Indian Creek Pkwy to Frederick Small Rd	4LD	NB	429	194	16	73	283		-59	224	**653**	1860	0.35	41
42				SB	525	265	10	29	304		-67	237	**762**	1860	0.41	42
43	Central Boulevard	Frederick Small Rd to Donald Ross Rd	4LD	NB	392	191	11	46	248		-50	198	**590**	1860	0.32	43
44				SB	531	177	6	17	200		-42	158	**689**	1860	0.37	44
45	Western Corridor	Indiantown Road to Limestone Creek	4LD	NB	0	164	91	829	1084	80	-234	930	**930**	1860	0.50	45
46				SB	0	79	32	192	303	320	-66	557	**557**	1860	0.30	46
47	Western Corridor	Limestone Creek to Jupiter Isles	4LD	NB	0	165	91	253	509	80	-70	519	**519**	1860	0.28	47
48				SB	0	80	32	768	880	320	-182	1018	**1018**	1860	0.55	48
49	Western Corridor	Jupiter Isles to Island Way	2L	NB	0	60	2	155	217	80	-26	271	**271**	860	0.32	49
50				SB	0	27	2	54	83	320	-12	391	**391**	860	0.45	50
51	Maplewood Drive	Indiantown Rd to Toney Penna Drive	4LD	NB	563	35	6	81	122		-26	96	**659**	1860	0.35	51
52				SB	569	50	1	69	120		-25	95	**664**	1860	0.36	52
53	Maplewood Drive	Toney Penna Drive to Central Blvd	2L	NB	276	60	3	13	76		-16	60	**336**	860	0.39	53
54				SB	330	79	2	6	87		-19	68	**398**	860	0.46	54
55	Pennock Lane	Center Street to Indiantown Road	2L	NB	400	30	2	24	56		-12	44	**444**	860	0.52	55
56				SB	171	37	5	23	65		-13	52	**223**	860	0.26	56
57	Pennock Lane	Indiantown Road to Toney Penna Drive	2L	NB	201	26	3	22	51		-11	40	**241**	860	0.28	57
58				SB	216	42	3	11	56		-12	44	**260**	860	0.30	58
59	Pennock Lane	Toney Penna Drive to Indian Creek Pkwy	2L	NB	0	27	5	19	51		-11	40	**40**	860	0.05	59
60				SB	0	39	6	5	50		-10	40	**40**	860	0.05	60
61	Lox. River Road	Island Way to Roebuck Rd	2L	NB	194	37	0	45	82	-121	-12	51	**143**	860	0.17	61
62				SB	331	40	6	36	82	-207	-17	-142	**189**	860	0.22	62
63	Lox. River Road	Roebuck Rd to Center Street	2L	NB	266	63	0	36	99	-51	-14	34	**300**	860	0.35	63
64				SB	656	53	6	32	91	-126	-19	-54	**602**	860	0.70	64
65	Military Trail	Indiantown Rd to Toney Penna Drive	6LD	NB	976	260	48	95	403		-89	314	**1290**	2790	0.46	65
66				SB	981	332	28	61	421		-93	328	**1309**	2790	0.47	66
67	Military Trail(2)	Toney Penna Dr. to Frederick Small Rd	6LD	NB	1154	401	72	144	617		133	484	**1638**	2790	0.59	67
68				SB	1364	543	31	48	622		-132	490	**1854**	2790	0.66	68
69	Military Trail	Frederick Small Rd to Donald Ross Rd	6LD	NB	829	463	35	95	593		-122	471	**1300**	2790	0.47	69
70				SB	1084	391	15	28	434		-94	340	**1424**	2790	0.51	70
71	Alternate A1A	US 1 to Center Street	6LD	NB	1494	79	5	50	134		-29	105	**1599**	2790	0.57	71
72				SB	1917	90	10	38	138		-29	109	**2026**	2790	0.73	72
73	Alternate A1A	Center Street to Indiantown Road	6LD	NB	1065	107	8	38	153		-33	120	**1185**	2790	0.42	73
74				SB	1593	131	18	40	189		-40	149	**1742**	2790	0.62	74
75	Alternate A1A	Indiantown Rd to Toney Penna Drive	6LD	NB	1030	110	20	26	156		32	124	**1154**	2790	0.41	75
76				SB	1593	133	11	22	166		-36	130	**1723**	2790	0.62	76
77	Alternate A1A	Toney Penna Dr. to Frederick Small Rd	6LD	NB	930	125	23	31	179		37	142	**1072**	2790	0.38	77
78				SB	1339	119	11	16	146		-31	115	**1454**	2790	0.52	78
79	Alternate A1A	Frederick Small Rd to Donald Ross Rd	6LD	NB	829	65	13	15	93		-19	74	**903**	2790	0.32	79
80				SB	1084	33	2	15	50		-10	40	**1124**	2790	0.40	80

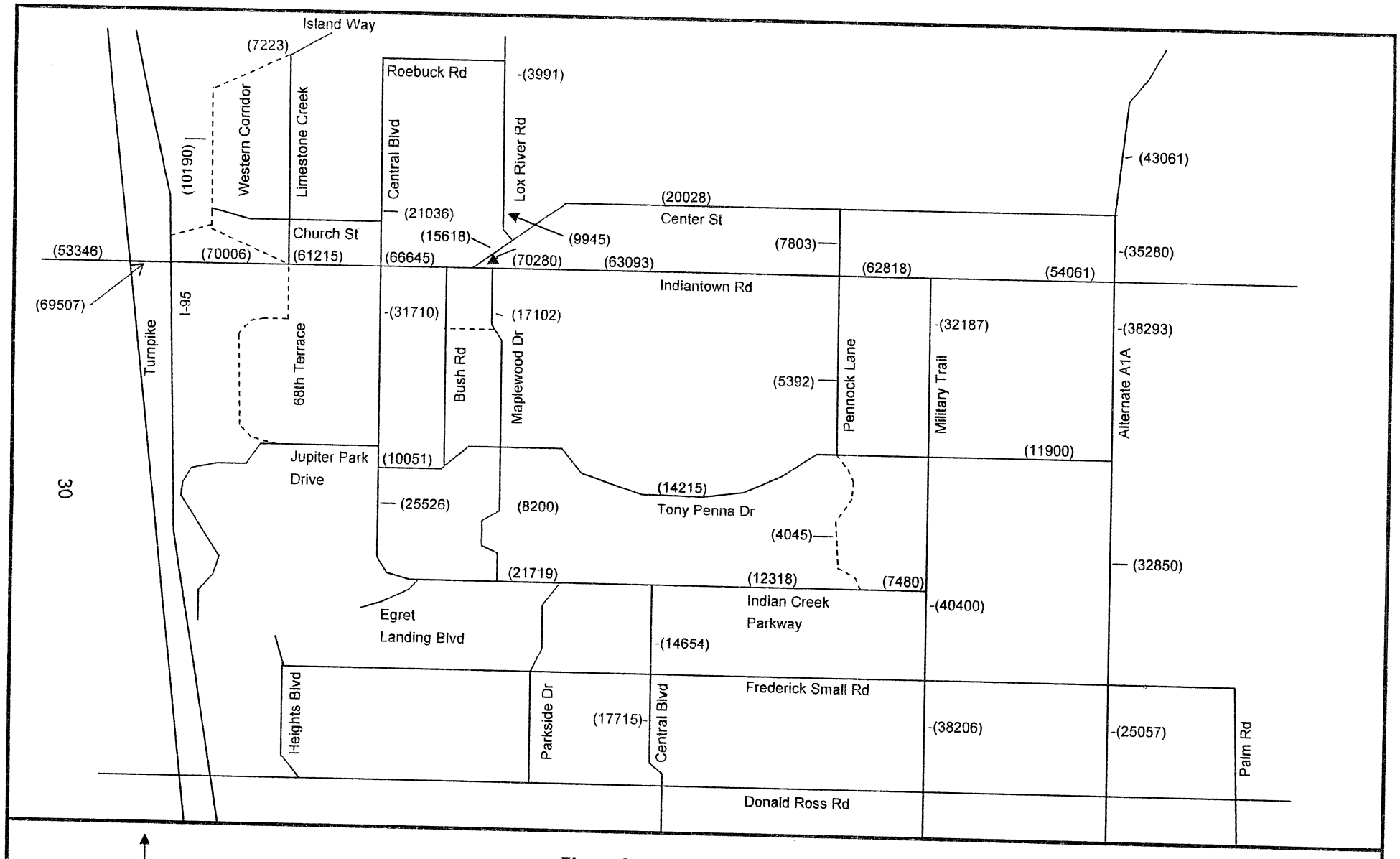
(1) All residential trips have been reduced by 4.7% based on the 2000 Census data regarding household occupancy rates in Jupiter.
(2) 2004 traffic volumes were obtained by applying growth rates to 2002 counts.
(3) By layering the Approved, Pending and Vacant traffic, a double counting of trips occurs (i.e., a trip assigned to a residential use that travels to a non-residential use would only represent one trip - not one trip for the residential use and a second trip for the non-residential use.) Therefore, an adjustment to account for overcounting of trip interactions between residential and non-residential, for both future and existing land uses is required.
(4) The adopted CRALLS service volume is 1180

(5) Adjusted existing less 150 for new ramps
(6) Adjusted for WCSouth, Limestone Creek less 300 EB, 312 WB
(7) Adjusted existing less 40 for Bush connection
(8) Adjusted existing less 130NB, 150SB for WC extension

Table 8
Jupiter Area Study
PM Peak Hour Peak Season

	Roadway	Link	Future Lanes	Dir	A Existing Pk Seas. (2004)	B Approved Projects (1)	C Pending Projects (1)	D Vacant Land (1)	E Total Additional Traffic	F Western Corridor Diversions	G Trip Balancing Adjustment (3)	H Net Total Additional Traffic	I Total Traffic	J LOS D Service Volume	K V / C Ratio	
1	Indiantown Road	Jupiter Farms Road to Parcel 19	6LD	EB	1040	1049	15	368	1432		-272	1160	**2200**	2790	0.79	1
2				WB	1877	974	24	332	1330		-287	1043	**2920**	2790	1.05	2
3	Indiantown Road	Parcel 19 to Turnpike	6LD	EB	1040	1160	14	368	1542		-318	1224	**2264**	2790	0.81	3
4				WB	1877	1040	25	332	1397		-301	1096	**2973**	2790	1.07	4
5	Indiantown Road	Turnpike to I-95	6LD	EB	1757	1261	27	398	1686		-290	1396	**3153**	5410	0.58	5
6				WB	2382	1151	45	449	1645		-356	1289	**3671**	2790	1.32	6
7	Indiantown Road	I-95 to Western Corridor	6LD	EB(5)	2292	953	56	462	1471		-306	1165	**3457**	2790	1.24	7
8				WB(5)	2166	871	107	788	1766		-375	1391	**3557**	5410	0.66	8
9	Indiantown Road	Western Corridor to Central Boulevard	6LD	EB(6)	2442	874	65	759	1388	-205	-373	810	**3252**	2790	1.17	9
10				WB(6)	2316	804	123	562	1189	-195	-323	671	**2987**	2790	1.07	10
11	Indiantown Road	Central Boulevard to Center Street	6LD	EB(7)	1967	764	65	763	1592	-113	-342	1137	**3104**	2790	1.11	11
12				WB(7)	2380	613	118	444	1175	-136	-256	783	**3163**	2790	1.13	12
13	Indiantown Road	Center Street to Maplewood Drive	6LD	EB	1822	605	69	613	1287		-278	1009	**2831**	2790	1.01	13
14				WB	2134	504	114	394	1012		-222	790	**2924**	2790	1.05	14
15	Indiantown Road	Maplewood Drive to Pennock Lane	6LD	EB	1822	536	70	553	1159		-248	911	**2733**	2790	0.98	15
16				WB	2134	583	116	384	1083		-238	845	**2979**	2790	1.07	16
17	Indiantown Road	Pennock Lane to Military Trail	6LD	EB	1822	564	102	480	1146		-243	903	**2725**	2790	0.98	17
18				WB	2134	576	78	379	1033		-226	807	**2941**	2790	1.05	18
19	Indiantown Road	Military Trail to Alternate A1A	6LD	EB	1837	627	111	405	1143		-240	903	**2740**	2790	0.98	19
20				WB	1671	490	96	310	896		-195	701	**2372**	2790	0.85	20
21	Center Street	Indiantown Road to Lox. River Road	2L	EB	708	92	16	133	241	-131	-51	59	**767**	860	0.89	21
22				WB	640	97	9	131	237	-118	-51	68	**708**	860	0.82	22
23	Center Street	Lox. River Road to Alternate A1A	2L	EB	750	126	14	111	251	-33	-53	165	**915**	860 (4)	1.06	23
24				WB	862	122	10	77	209	-38	-46	125	**987**	860 (4)	1.15	24
25	Toney Penna Dr	Central Boulevard to Maplewood	2L	EB	300	99	13	95	207		-43	164	**464**	860	0.54	25
26				WB	403	100	22	62	184		-39	145	**548**	860	0.64	26
27	Toney Penna Dr	Maplewood Dr to Military Trail	2L	EB	396	120	13	68	201		-42	159	**555**	860	0.65	27
28				WB	630	104	21	54	179		-38	141	**771**	860	0.90	28
29	Toney Penna Road	Military Trail to Alternate A1A	2L	EB	390	89	15	33	137		-30	107	**497**	860	0.58	29
30				WB	516	73	11	24	108		-24	84	**600**	860	0.70	30
31	Central Boulevard	Roebuck Road to Indiantown Road	4LD	NB(9)	1071	340	14	78	432	-91	-78	263	**1154**	1860	0.62	31
32				SB(9)	703	446	7	75	528	-60	-46	422	**925**	1860	0.50	32
33	Central Boulevard	Indiantown Road to Toney Penna Drive	4LD	NB(8)	961	351	66	551	968		-200	768	**1729**	1860	0.93	33
34				SB(8)	849	369	130	271	770		-162	608	**1457**	1860	0.78	34
35	Central Boulevard	Toney Penna Drive to Egret Landing	4LD	NB	872	357	25	169	551		-116	435	**1307**	1860	0.70	35
36				SB	671	312	40	147	499		-104	395	**1066**	1860	0.57	36
37	Indian Creek Pkwy	Egret Landing to Central Blvd	4LD	EB	492	374	41	124	539		-111	428	**920**	1860	0.49	37
38				WB	783	418	23	155	596		-126	470	**1253**	1860	0.67	38
39	Indian Creek Pkwy	Central Blvd to Military Trail	4LD	EB	267	237	32	100	369		-77	292	**559**	1860	0.30	39
40				WB	414	230	16	107	353		-74	279	**693**	1860	0.37	40
41	Central Boulevard	Indian Creek Pkwy to Frederick Small Rd	4LD	NB	443	346	16	48	410		-88	322	**765**	1860	0.41	41
42				SB	364	304	24	89	417		-87	330	**694**	1860	0.37	42
43	Central Boulevard	Frederick Small Rd to Donald Ross Rd	4LD	NB	685	257	11	28	296		-62	234	**919**	1860	0.49	43
44				SB	484	276	18	55	349		-71	278	**762**	1860	0.41	44
45	Western Corridor	Indiantown Road to Limestone Creek	4LD	NB	0	143	62	200	405	320	-74	651	**651**	1860	0.35	45
46				SB	0	203	105	759	1067	80	-232	915	**915**	1860	0.49	46
47	Western Corridor	Limestone Creek to Jupiter Isles	4LD	NB	0	144	62	200	406	320	-76	650	**650**	1860	0.35	47
48				SB	0	204	105	759	1068	80	-232	916	**916**	1860	0.49	48
49	Western Corridor	Jupiter Isles to Island Way	2L	NB	0	50	3	84	137	320	-16	441	**441**	860	0.51	49
50				SB	0	70	2	165	237	80	-26	291	**291**	860	0.34	50
51	Maplewood Drive	Indiantown Rd to Toney Penna Drive	4LD	NB	510	70	5	90	165		-35	130	**640**	1860	0.34	51
52				SB	613	63	10	99	172		-36	136	**749**	1860	0.40	52
53	Maplewood Drive	Toney Penna Drive to Central Blvd	2L	NB	250	109	3	23	135		-29	106	**356**	860	0.41	53
54				SB	283	93	6	21	120		-25	95	**378**	860	0.44	54
55	Pennock Lane	Center Street to Indiantown Road	2L	NB	233	59	10	40	109		-23	86	**319**	860	0.37	55
56				SB	308	53	5	43	101		-21	80	**388**	860	0.45	56
57	Pennock Lane	Indiantown Road to Toney Penna Drive	2L	NB	162	68	4	35	107		-23	84	**246**	860	0.29	57
58				SB	188	50	8	35	93		-20	73	**261**	860	0.30	58
59	Pennock Lane	Toney Penna Drive to Indian Creek Pkwy	2L	NB	0	62	5	22	89		-20	69	**69**	860	0.08	59
60				SB	0	49	8	26	83		-18	65	**65**	860	0.08	60
61	Lox. River Road	Island Way to Roebuck Rd	2L	NB	292	69	7	62	138	-186	-29	-77	**215**	860	0.25	61
62				SB	224	60	4	65	129	-143	-28	-42	**182**	860	0.21	62
63	Lox. River Road	Roebuck Rd to Center Street	2L	NB	576	94	9	60	163	-109	-35	19	**595**	860	0.69	63
64				SB	364	92	4	64	160	-69	-34	57	**421**	860	0.49	64
65	Military Trail	Indiantown Rd to Toney Penna Drive	6LD	NB	1113	443	50	198	691		-150	541	**1654**	2790	0.59	65
66				SB	874	400	71	167	638		138	500	**1374**	2790	0.49	66
67	Military Trail	Toney Penna Dr. to Frederick Small Rd	6LD	NB	1555	745	59	156	960		-203	757	**2312**	2790	0.83	67
68				SB	1170	649	104	166	919		-196	723	**1893**	2790	0.68	68
69	Military Trail	Frederick Small Rd to Donald Ross Rd	6LD	NB	1252	584	30	54	668		-140	528	**1780**	2790	0.64	69
70				SB	1367	663	49	111	823		-170	653	**2020**	2790	0.72	70
71	Alternate A1A	US 1 to Center Street	6LD	NB	1914	136	14	60	210		-44	166	**2080**	2790	0.75	71
72				SB	1495	120	9	74	203		-43	160	**1655**	2790	0.59	72
73	Alternate A1A	Center Street to Indiantown Road	6LD	NB	1496	215	23	86	324		-68	256	**1752**	2790	0.63	73
74				SB	1090	171	17	94	282		-60	222	**1312**	2790	0.47	74
75	Alternate A1A	Indiantown Rd to Toney Penna Drive	6LD	NB	1429	225	26	98	349		-73	276	**1705**	2790	0.61	75
76				SB	1364	198	37	100	335		-69	266	**1630**	2790	0.58	76
77	Alternate A1A	Toney Penna Dr. to Frederick Small Rd	6LD	NB	1262	209	23	77	309		-64	245	**1507**	2790	0.54	77
78				SB	1124	218	37	88	343		-70	273	**1397**	2790	0.50	78
79	Alternate A1A	Frederick Small Rd to Donald Ross Rd	6LD	NB	1095	71	6	38	115		-24	91	**1186**	2790	0.43	79
80				SB	883	116	16	37	169		-35	134	**1017**	2790	0.36	80

(1) All residential trips have been reduced by 4.7% based on the 2000 Census data regarding household occupancy rates in Jupiter
(2) 2003 traffic volumes were grown to 2004 by applying 1998-2001 growth rates
(3) By layering the Approved, Pending and Vacant traffic, a double counting of trips occurs (i.e., a trip assigned to a residential use that travels to a non-residential use would only represent one trip - not one trip for the residential use and a second t for the non-residential use.) Therefore, an adjustment to account for overcounting of trip interactions between residential and non-residential, for both future and existing land uses is required
(4) The adopted CRALLS service volume is 1180
(5) Adjusted existing less 150 for new ramps
(6) Adjusted net total for LC/WC EB net-310, WB net-300



North
not to scale

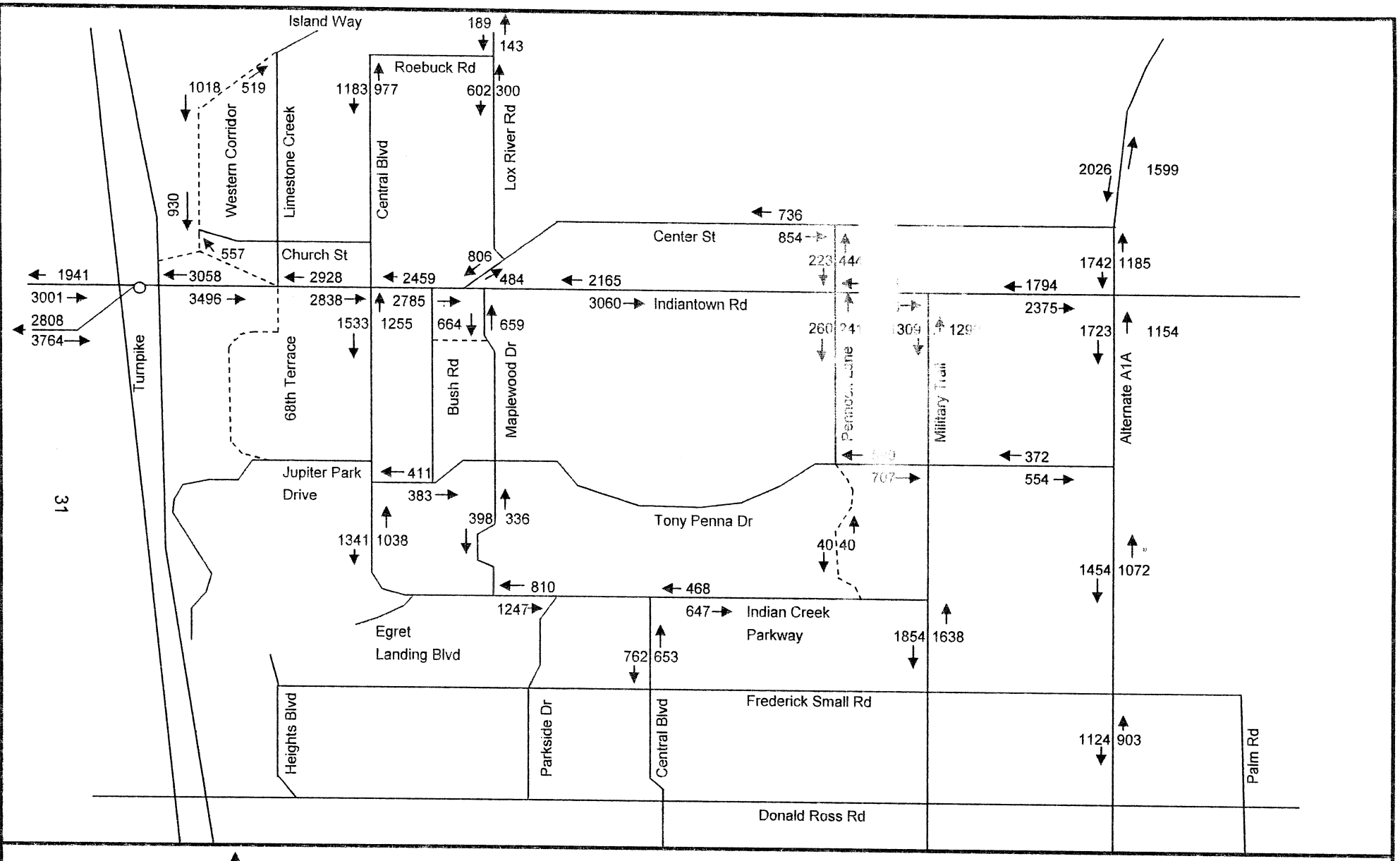
Figure 9

Buildout AADT

Jupiter Area Study

LEGEND

future roadway



North
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Figure 10

Jupiter Area Study

Buildout AM Peak Hour

Legend

future roadway

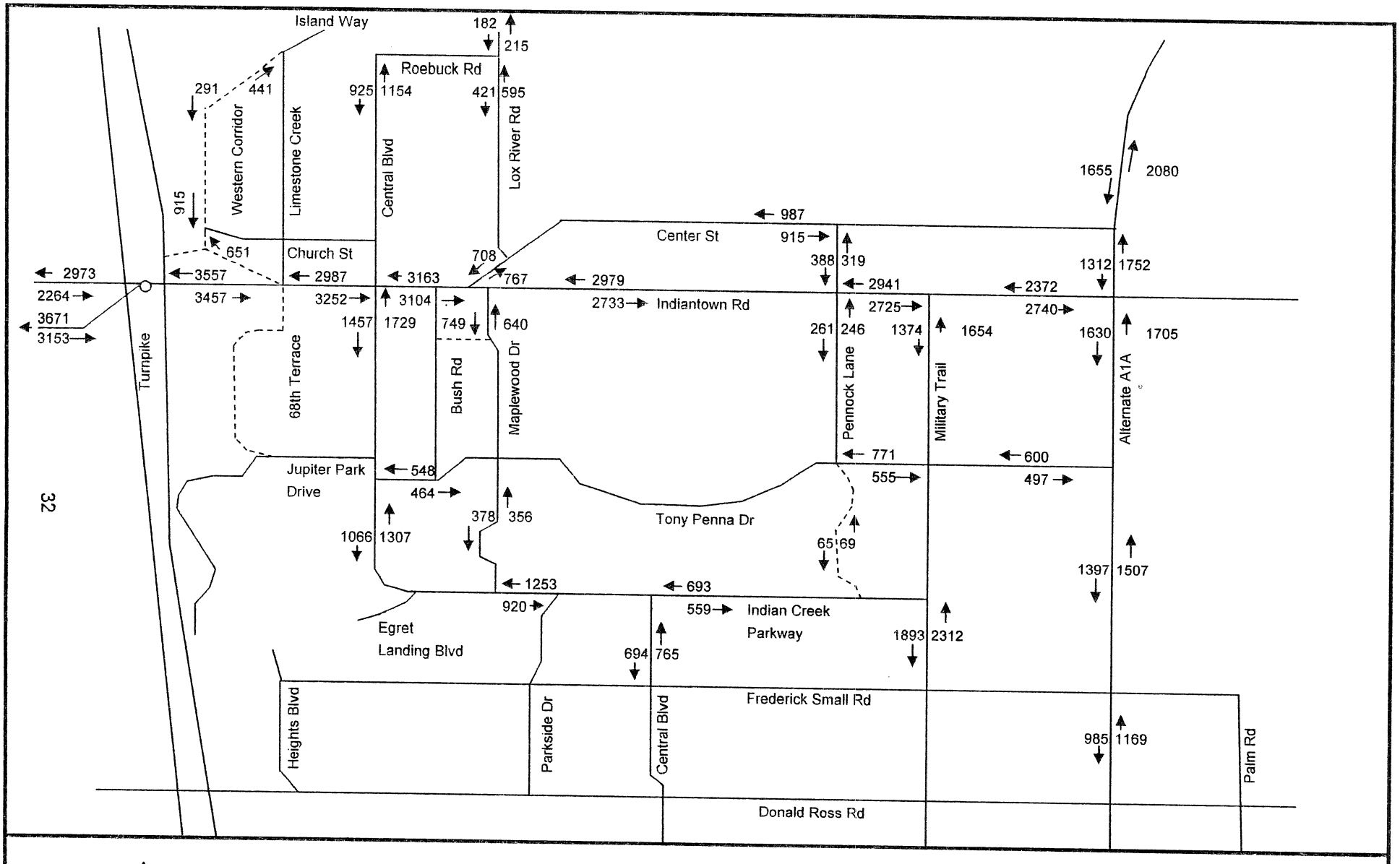

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Figure 11

Buildout PM Peak Hour Traffic

Jupiter Area Study

Legend

future roadway

8.3 Total Traffic - Intersections

The total traffic was estimated at the intersections along Indiantown Road for the buildout with the Consensus Strategies implemented. Once the traffic volumes were developed on the links, the corresponding turning movement volumes were developed. The AM and PM peak hour turning movement volumes are shown on Figures 12 and 13, respectively. The intersections were analyzed using the existing systems timing provided by Palm Beach County. For the future, buildout scenario, this timing was modified to account for the change in traffic.

The intersections will operate at level of service D or better at all intersections along Indiantown Road with the mitigation in place with the exception of the Turnpike at Indiantown Road, Indiantown at Alternate AIA and Indiantown at Maplewood. Appendix H provides the project assignments to the intersections and the results of the Highway Capacity Manual analysis for the Consensus strategy scenario.

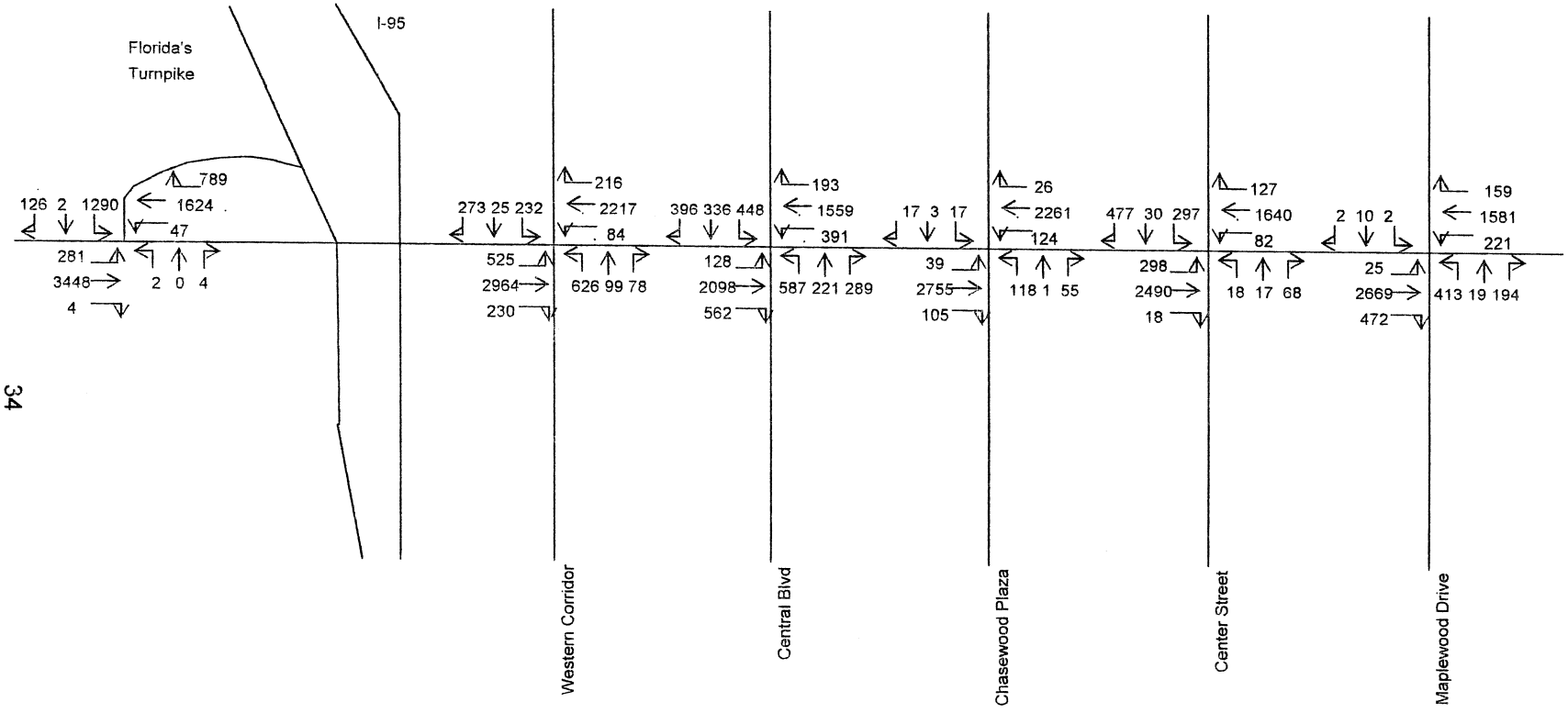
Table 9 provides a summary of the intersection levels of service for the consensus strategies.

Table 9

Indiantown Road Intersection Levels of Service

	Intersection Delay (sec/veh) (Level of Service)							
	2004 Existing Conditions				Buildout Traffic ** Consensus Strategy			
Intersection	AM		PM		AM		PM	
Indiantown Rd & Turnpike(1)	228.2	(F)	138.1.0	(F)	45.1	(D)	41.3	(D)
Indiantown Rd & Western Corridor(2)	N/A		N/A		51.3	(D)	52.4	(D)
Indiantown Rd & Central Blvd-(3)	52.6	(D)	52.4	(D)	53.4	(D)	52.2	(D)
Indiantown Rd. & Central Blvd.-3NBL,2SBR	N/A		N/A		47.1	(D)	48.0	(D)
Indiantown Rd. & Central Blvd.-2NBL,2SBR	N/A		N/A		50.1	(D)	54.1	(D)
Indiantown Rd & Chasewood	40.5	(D)	48.2	(D)	45.7	(D)	45.4	(D)
Indiantown Rd & Center St	39.0	(D)	51.2	(D)	43.1	(C)	44.8	(D)
Indiantown Rd & Maplewood Dr	35.3	(D)	49.2	(D)	41.5	(D)	49.3	(D)
Indiantown Rd & Delaware Blvd	25.0	(C)	17.5	(B)	11.5	(B)	11.2	(B)
Indiantown Rd & Pennock Lane	38.8	(D)	33.3	(C)	45.1	(D)	44.3	(D)
Indiantown Rd & Military Trail- 2WBL	45.1	(D)	55.8	(E)	34.0	(D)	48.3	(D)
Indiantown Rd & Military Trail- 1WBL	N/A		N/A		34.2	(D)	69.0	(D)
Indiantown Rd & Loxahatchee	32.4	(C)	31.6	(C)	21.1	(C)	29.8	(C)
Indiantown Rd & Alt. A1A (4)	85.8	(F)	69.0	(E)	54.4	(D)	54.9	(D)

(1) Improvements to include 3EBT/3WBT, 2SBL,2SBR, 2WBL
(2) NB approach to show 2L, 1T/R
(3) Includes no improvements
(4)Includes dual northbound left turn lanes



North
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Figure 12

Buildout AM Turning Movements

Jupiter Area Study

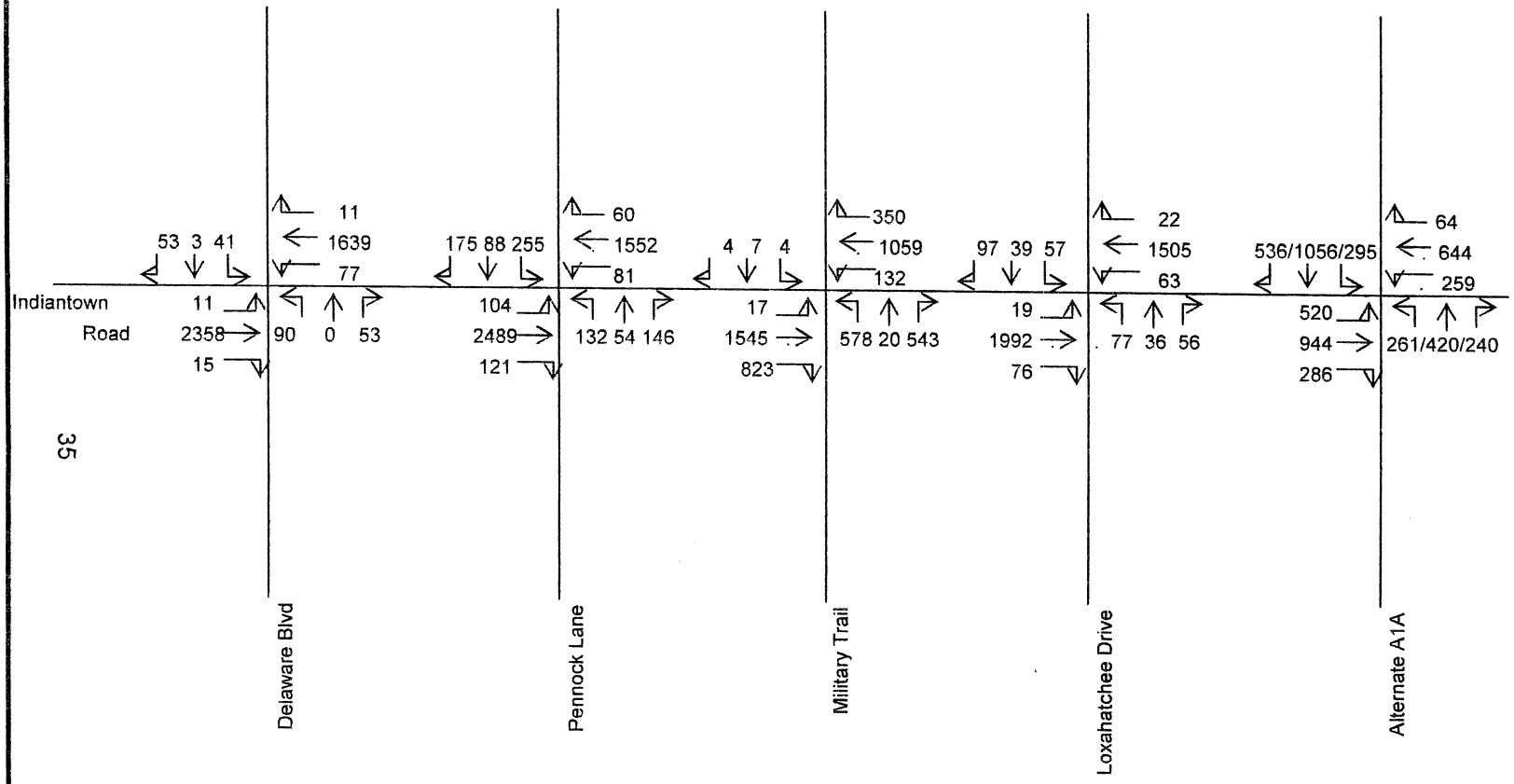

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Figure 12 (continued)

Jupiter Area Study

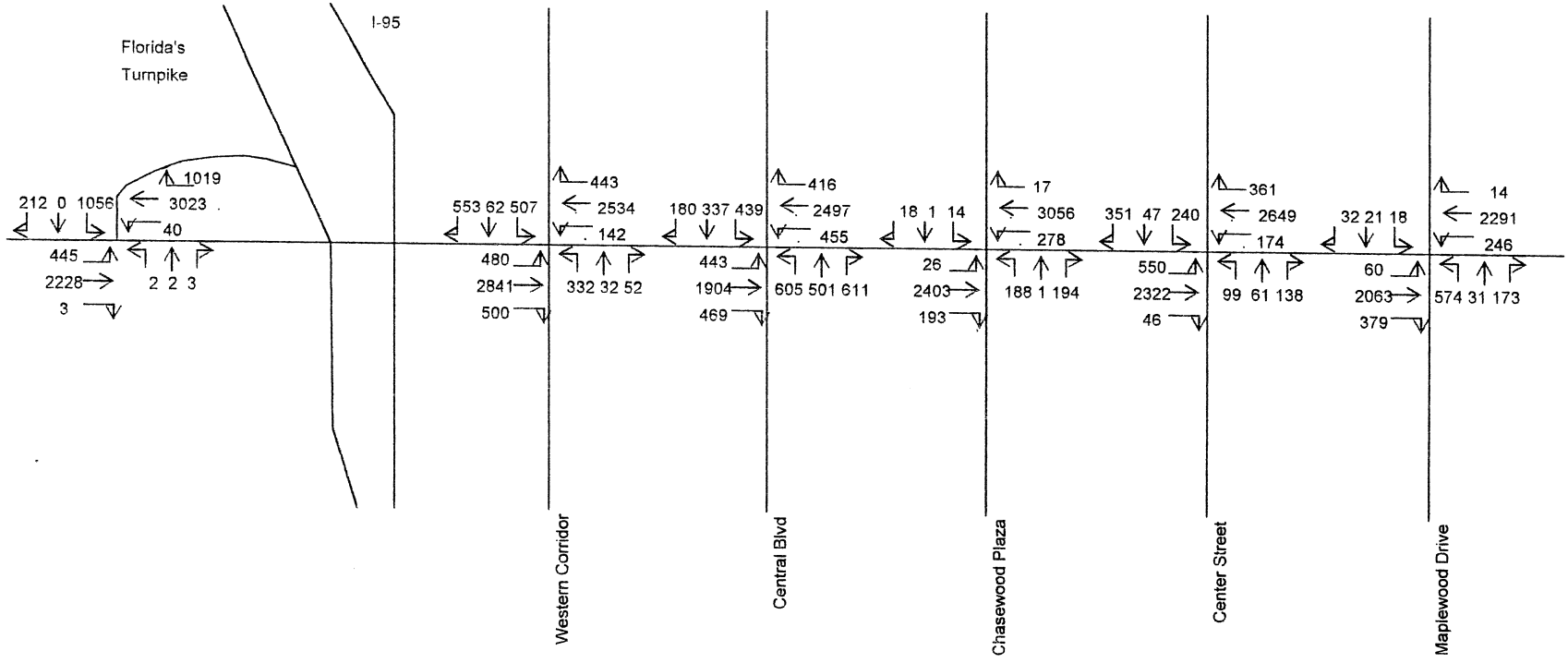

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Figure 13

Buildout PM Turning Movements

Jupiter Area Study

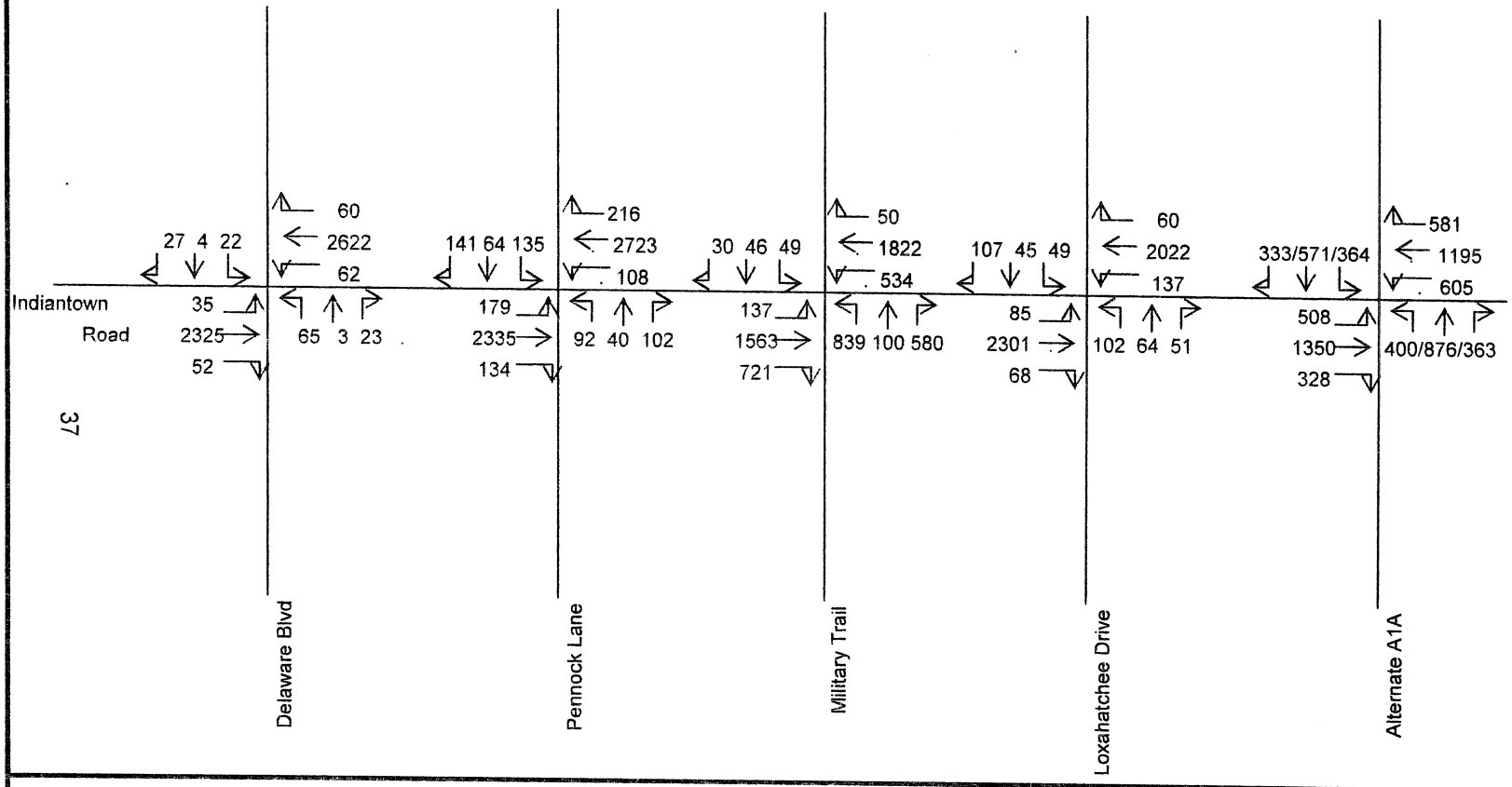

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Figure 13 (continued)

Jupiter Area Study

The existing conditions were analyzed using the existing signal timing. In the future with the future volumes anticipated, some changes were made to the timing to accommodate the volumes. In some cases, the future level of service is slightly better than the existing. This comparison is largely due to optimizing of the timing at the intersection in the future condition. In the existing conditions, the intersection timing was provided by Palm Beach County. This timing was not modified since the bulk of the intersections were operating at LOS D or better. The existing analysis was not rerun to achieve better results.

8.4 Area and Corridor Problems and Needs

The total traffic volumes were compared to the acceptable levels of service thresholds for each link in the study area. Despite the number of failing links, the levels of service at the intersections indicate that the overall level of service is likely better than indicated by the link thresholds.

The comparison showed that on a **daily traffic** basis 10 links would exceed acceptable level of service D or CRALLS service volume thresholds at buildout. The links that exceeded threshold are Indiantown Road from Jupiter Farms Road to Alternate AIA

During the **AM and PM peak hours** 9 links on Indiantown Road from Jupiter Farms Road to Military Trail would be expected to exceed the level of service D service volume thresholds in one or both of the directions.

With the improvements identified in the consensus strategies, all of the intersections will operate at acceptable level of service D or better. The Town should work closely with the FDOT to address proposed intersection improvements at Indiantown Road and Alternate AIA when the state undertakes the widening of Alternate AIA.

Additionally, when the southern extension of the Western Corridor is constructed, it may be necessary to make intersection improvements at Jupiter Park Drive and Central Boulevard to accommodate increased traffic.

The overall level of service may be maintained through the implementation of the consensus strategies. Finally, despite the link volumes exceeding the generalized thresholds for LOS D, the intersections can be mitigated and the overall travel speed maintained at greater than 17 miles per hour on average along the Indiantown Road Corridor. That speed threshold corresponds with the County requirements for level of service D on a Class II arterial. Demonstration that the corridor could maintain that speed, would satisfy concurrency requirements despite the failing roadway links, provided the intersection operate at acceptable levels of service along that same corridor.

9.0 ACTION PLAN

Following the analysis and the identification of mitigation measures, the next step was to establish an Action Plan for implementing the recommendations of the study. The Town of Jupiter has begun the process of implementing an Action Plan. It includes: timing of improvements, implementation procedures, lead agency, affected parties, costs and public involvement and enacting policy requirements.

Table 10: Action Plan

Action Item	Procedure/Task	Timing	Responsible/Affected Parties	Cost
1. Parcel 19	Process and approve reduced land use application	Completed	Town/County	NA
2. Limestone Creek Road	Agreement to build to collector standards and construct with WC	Completed	Town/ County/Developer	NA
3. Western Corridor South	Amend Comp Plan	Completed	Town/County	NA
3. Western Corridor South	Construct Roadway	2007	Town/County/Developer	$2,065,000
4. Six Lane Indiantown Road-west of Turnpike	Condition	Completed	Town/Developer	NA
4. Six Lane Indiantown Road-west of Turnpike	Construct		Developer	$3,382,500
5.Purchase Property-Delaware Scrub	Participate in the purchase	Completed	Town/ Palm Beach County Resource Management	$7,000,000
6. Interchange Modification	Amend the Comp Plan to include new ramps		Town/County	NA
6. Interchange Modification	Complete PDE	2006	County has contracted Reynold,Smith and Hills	$150,000
6. Interchange Modification	Construct			$5,000,000
7. Land Use Density-Lox Reserve, Jupiter I-95	Adopt ordinance	Completed	Town	NA
8. Maplewood Drive to Bush Road Connection	Amend Comp Plan	2006		
8. Maplewood Drive to Bush Road	Construct	2007		$3,061,000
9. Jupiter Farms School Site	Cooperate with or initiate efforts for a new school high/junior high in the Jupiter Farms Area	2005	Town/School Board	NA
10. Central Boulevard – Four Laning	Construct	2008	County	$3,489,000
11. Indiantown Road Pedestrian and Landscape Improvements	Address Features	2005	Town	$5,650,000
11. Indiantown Road Pedestrian and Landscape Improvements	Construct	2007	Town/FDOT	$5.3

This Action Plan will be updated and modified as necessary.

10. CONCLUSION

The Jupiter Area Study was undertaken by the Town of Jupiter to identify future traffic volumes within a particular area of the Town subject to a high level of growth. The study showed a number of roads that would be over capacity and fail level of service standards if the status quo were maintained. The Town had developed a series of mitigation measures in response to the identification of these failures. The proposed measures would assist the Town to attain the best levels of service without destroying the character of the community.

This update continues the process by monitoring the traffic and updating the land use based on current patterns. The Action Plan serves to direct the next steps in the process to ensure the mobility is enhanced within the Town.