21. TRANSPORTATION

Background

Beacon Countyline DRI is a proposed commercial mixed-use development that is expected to energize a largely underutilized area of the City of Hialeah. The Project seeks to redevelop a former construction and demolition landfill area into warehouse, office, retail and hotel uses. The Property consists of approximately 496 acres located east of the Homestead Extension of the Florida Turnpike (HEFT) and west of I-75 within the City of Hialeah. The Site is bounded on the north by NW 170 Street; on the east by NW 97 Avenue; on the south by NW 154 Street; and, on the west by NW 107 Avenue (see ***Exhibit 21-1, Project Location***).

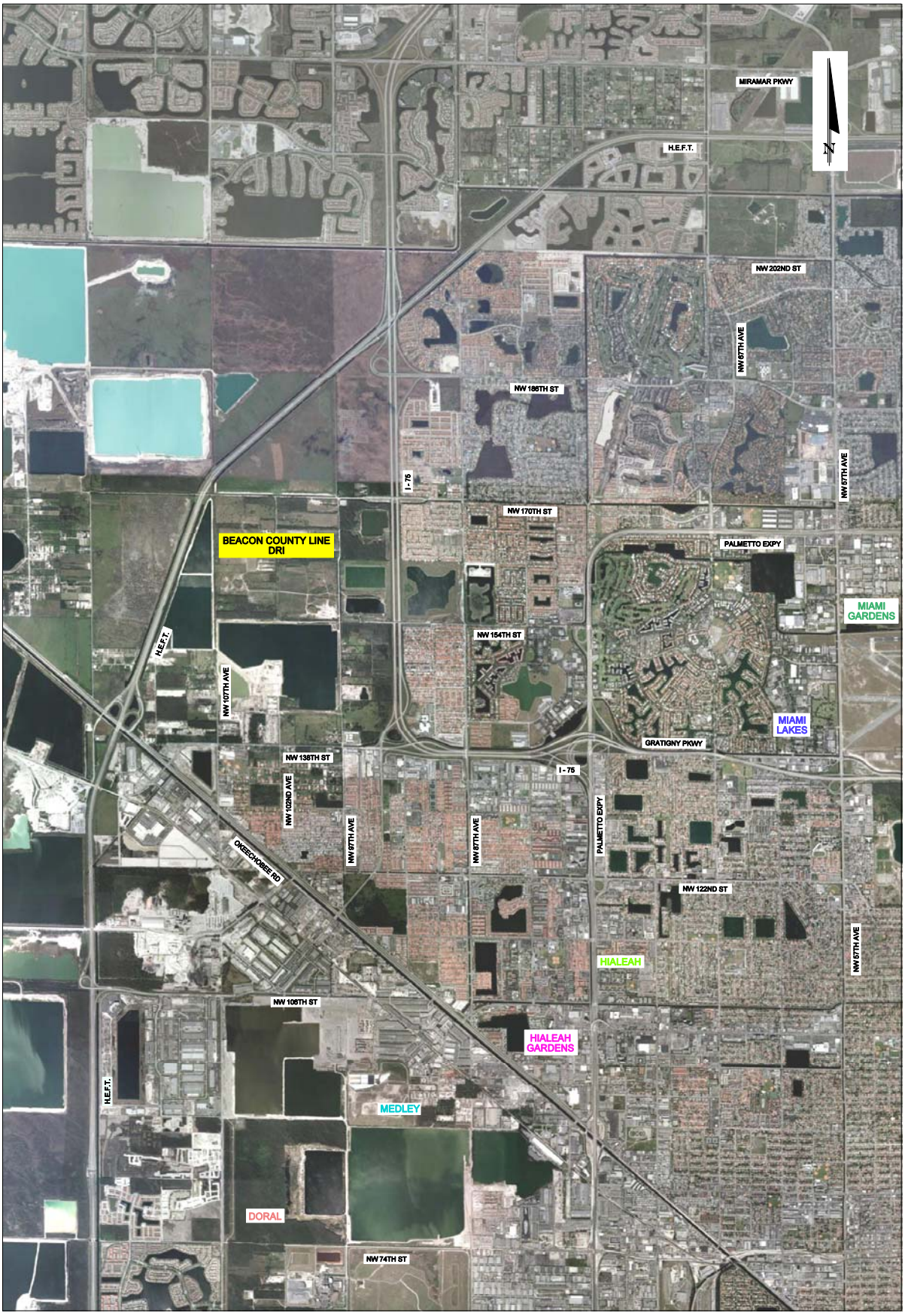
The Project will be developed over a 10 year period, anticipating two years of site preparation and eight years of construction. Buildout is anticipated to occur 10 years after the issuance of a Development Order, or the year 2018. The proposed development program is shown below.

Beacon Countyline DRI
Proposed Development Program

Proposed Land Use	Intensity	
Warehouse	4,100,000	Square Feet
Retail	550,000	Square Feet
Office	1,000,000	Square Feet
Hotel	350	Rooms

This section of the Application for Development Approval (ADA) analyzes and discusses existing and future traffic conditions including programmed roadway improvements, background traffic growth, traffic generated by other developments in the area, and Project traffic.

A. Using Map J or a table as a base, indicate existing conditions on the highway network within the study area (as previously defined on Map J), including AADT, peak-hour trips, directional traffic split, levels of service and maximum service volumes for the adopted level of service (LOS). Identify the assumptions used in this analysis, including "K" factor, directional "D" factor, facility type, number of lanes and existing signal locations. (If levels of service are based on some methodology other than the most recent procedures of the Transportation Research Board and FDOT, this should be agreed upon at the pre-application conference stage.) Identify the adopted LOS standards of the FDOT, appropriate regional planning council, and local government for roadways within the identified study area. Identify what improvements or new facilities within this study area are planned, programmed, or committed for improvement. Attach appropriate excerpts from published capital improvements plans, budgets and



Source: David Plummer & Associates

Exhibit 21-1

PROJECT LOCATION

Beacon County Line DRI

programs showing schedules and types of work and letters from the appropriate agencies stating the current status of the planned, programmed and committed improvements.

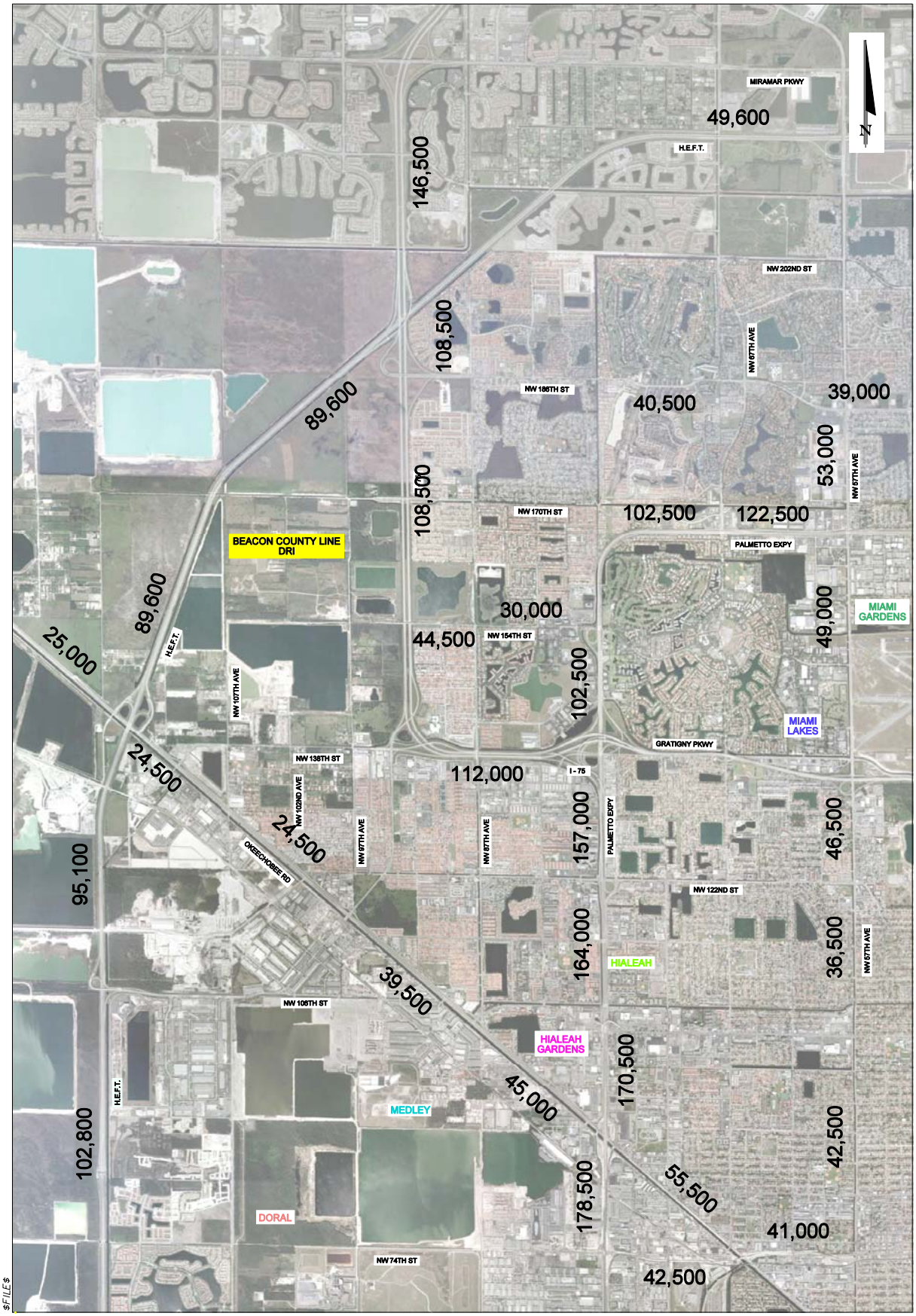
The traffic impact area (see ***Map J, Traffic Impact Area***, in ***Question 9*** - ***Maps***) was defined during the Pre-Application Conference in consultation with the South Florida Regional Planning Council and other review agencies. The traffic analysis study area was initially defined as Miramar Parkway to the north, NW 74 Street to the south, NW 57 Avenue (Red Road) to the east, and theoretical NW 157 Avenue to the west. It was also agreed during methodology discussions that the ultimately boundaries of the final study area, as well as the segments to be analyzed, will be established by determining which links are significantly impacted] by Project traffic. According to DRI rules, significant impact is measured as development traffic volumes consuming 5% or more of the roadway's peak hour service volume (as described in the corresponding section). The preliminary study area would be extended if significant consumption is established beyond the proposed intial limits. Project consumption for all the regionally significant roadways in the study area has been determined based on the analysis described in subsequent sections. The preliminary study area was found adequate.

Comprehensive Plans for the local municipalities in the study area were reviewed to establish the analysis period for roadways within their boundaries. PM peak period average annual traffic conditions (the average of the two highest consecutive hours of traffic volume during a weekday) were analyzed for existing conditions on all roadways within the Miami-Dade County and municipalities in the study area. The analysis reflects PM peak hour 100th highest hour conditions on all FIHS roadways, consistent with Florida Department of Transportation (FDOT) standards for these facilities. For traffic impact purposes, the year 2007 was considered existing conditions. It was agreed at the Pre-Application Conference that only PM peak period traffic volumes would be reported and analyzed. However, as requested in the questionnaire, Annual Average Daily Traffic (AADT) volumes are shown where available (for reference purposes only) in ***Exhibit 21-2, Annual Average Daily Traffic*****,** for regionally significant roadways in the study area.

Service volumes for regionally significant roadways were obtained from the Generalized Service Volumes Tables published in FDOT's *2002 Quality/Level of Service Handbook* and the supplemental *Level of Service Issues – 2002 QLOS Handbook Addendum-May 17 2007.*

Traffic data for the regionally significant roadways in the study area were obtained from several sources. Existing traffic counts were obtained from the Miami-Dade County Public Works Traffic Engineering Section, the latest available counts from Broward County, Florida Department of Transportation (FDOT) 2006 traffic count volume data, and, where necessary, 24-hour machine counts and/or peak hour intersection turning movement counts secured by David Plummer and Associates.

Counts taken in 2006 were adjusted to 2007 conditions using the area background traffic growth rate. Daily traffic counts were converted to directional peak period counts by applying *"K"* and "*D"* factors published in the Miami-Dade County, Broward County or FDOT data bases. K and D factors used on all FIHS roads were checked against the



Source: David Plummer & Associates

Exhibit 21-2

ANNUAL AVERAGE DAILY TRAFFIC

Beacon Countyline DRI

FDOT's minimums. All traffic counts and factors used to establish existing traffic conditions are included in ***Appendix 21-1, Traffic Counts and Adjustment Factors***.

Table 21-1, Existing Traffic Conditions**,** shows the number of lanes, traffic volumes, service volumes, existing volume to service volume ratios and the applicable LOS standard for each regionally significant roadway that was analyzed. Additionally, the table shows which roadways are backlogged and the improvement needed to bring these roads up to non-backlogged standards. The Florida Legislature enacted House Bill 7203, effective July 1, 2007, to ensure that Developments of Regional Impact should mitigate its impacts on the transportation network, but that it should not be responsible for the additional cost of reducing or eliminating backlogs. Backlogs can be interpreted in two ways: as roadways not meeting the applicable level of service standard at the Project's buildout year prior to the addition of Project traffic (including other growth and approved projects); or, as roadways currently not meeting the adopted level of service standards. Although the legislation may require further official interpretation regarding this issue, for purposes of this analysis the second (and more conservative) interpretation was assumed. That is, roadways currently not operating at the adopted level of service standards under existing conditions were identified, and the necessary improvements needed to bring them up to standards were determined.

Presently, the following roadway improvements are needed to meet the adopted level of service standards in the area based on the existing traffic demands:

- SR 826 – Palmetto Expressway, between Red Road (NW 57 Avenue) and NW 67 Avenue and between Miami Lakes Drive and I-75, 8 lanes are currently needed;
- SR 826 – Palmetto Expressway, between NW 67 avenue and Miami Lakes Drive and between I-75 and NW 122 Street, 10 lanes are currently needed;
- SR 826 – Palmetto Expressway, between NW 122 Street and NW 74 Street, 12 lanes are currently needed;
- The Homestead Extension of the Florida Turnpike (HEFT), between I-75 and NW 74 Street , 8 lanes are currently needed; and
- NW 138 Street, between NW 97 Avenue and Beacon Station Boulevard, 4 lanes are currently needed.

As agreed upon at the Pre-Application Conference, intersection capacity analyses would be performed where the adjacent link is projected to operate below the adopted level of service standard and Project traffic consumption is five percent or more of the adopted LOS standard Service Volume. The following intersections meet the above referenced guideline:

- NW 87 Avenue/NW 122 Street (W 68 Street), and
- NW 97 Avenue/NW 122 Street (W 68 Street).

Currently, both intersections operate within the adopted level of service standards.

TABLE 21-1

Existing Traffic Conditions (weekday, one-way, PM peak)

Beacon Countyline DRI

Roadway	Limits		Direction	# of Lanes	Roadway Type	Municipality	LOS STD	Volume (2007)	Service Volume	V/SV	Meets LOS STD?	Backlogged Facility?	Impact of HB 7203 (1) Existing Backlog Improvements		
	From	To											Lanes	SV	V/SV
Palmetto Expressway (SR 826)	Red Road/NW 57 Av	NW 67 Av/Ludlam Rd	EB	3 LD	FIHS	Miami Lakes	D	7,029	5,410	1.30	No	Yes	4 LD	7,380	0.95
			WB	3 LD				5,467	5,410	1.01	No	Yes	4 LD	7,380	0.74
	NW 67 Av/Ludlam Rd	Miami Lakes Drive	NEB	3 LD	FIHS	Miami Lakes	D	7,764	5,410	1.44	No	Yes	5 LD	9,340	0.83
			SWB	3 LD				6,039	5,410	1.12	No	Yes	5 LD	9,340	0.65
	Miami Lakes Drive	I-75	NB	3 LD	FIHS	Miami Lakes	D	7,764	5,410	1.44	No	Yes	4 LD	7,380	1.05
			SB	3 LD				6,039	5,410	1.12	No	Yes	4 LD	7,380	0.82
	I-75	W 68 St/NW 122 Street	NB	4 LD	FIHS	Hialeah	D	9,009	7,380	1.22	No	Yes	5 LD	9,340	0.96
			SB	4 LD				7,007	7,380	0.95	Yes	No	5 LD	9,340	0.75
	W 68 St/NW 122 Street	W 49 Street/NW 103 St	NB	4 LD	FIHS	Hialeah	D	9,410	7,380	1.28	No	Yes	6 LD	11,310	0.83
			SB	4 LD				7,319	7,380	0.99	Yes	No	6 LD	11,310	0.65
	W 49 Street/NW 103 St	Okeechobee Rd/US 27	NB	5 LD	FIHS	Hialeah/Hialeah Gardens	D	9,783	9,340	1.05	No	Yes	6 LD	11,310	0.87
			SB	5 LD				7,609	9,340	0.81	Yes	No	6 LD	11,310	0.67
	Okeechobee Rd/US 27	NW 74 Street	NB	5 LD	FIHS	Medley	D	10,242	9,340	1.10	No	Yes	6 LD	11,310	0.91
			SB	5 LD				7,966	9,340	0.85	Yes	No	6 LD	11,310	0.70
NW 87 Avenue / West 28 Avenue	Miami Gardens Drive	NW 170 Street	NB	1 L (no LT lanes)	Collector	Miami-Dade	D	288	608	0.47	Yes	No	NA	NA	NA
			SB	1 L (no LT lanes)				448	608	0.74	Yes	No	NA	NA	NA
	NW 170 Street	Miami Lakes Drive	NB	NA	NA	Miami Lakes	NA	0	NA	NA	NA	NA	NA	NA	NA
			SB	NA				0	NA	NA	NA	NA	NA	NA	NA
	Miami Lakes Drive	I-75	NB	2 LD	Collector	Miami Lakes	D	1,108	1,620	0.68	Yes	No	NA	NA	NA
			SB	2 LD				848	1,620	0.52	Yes	No	NA	NA	NA
I-75	Miramar Parkway	HEFT	NB	5 LD	FIHS	Miramar	D	7,527	9,340	0.81	Yes	No	NA	NA	NA
			SB	5 LD				6,276	9,340	0.67	Yes	No	NA	NA	NA
	HEFT	NW 186 Street	NB	4 LD	FIHS	Miami-Dade	D	4,917	7,380	0.67	Yes	No	NA	NA	NA
			SB	4 LD				4,207	7,380	0.57	Yes	No	NA	NA	NA
	NW 186 Street	NW 138 Street	NB	4 LD	FIHS	Miami Lakes/Hialeah	D	5,574	7,380	0.76	Yes	No	NA	NA	NA
			SB	4 LD				4,648	7,380	0.63	Yes	No	NA	NA	NA
	NW 138 Street	SR 826	EB	5 LD	FIHS	Miami Lakes/Hialeah	D	4,798	9,340	0.51	Yes	No	NA	NA	NA
			WB	5 LD				5,754	9,340	0.62	Yes	No	NA	NA	NA
NW 97 Avenue	NW 170 Street	NW 154 Street	NB	NA	NA	Hialeah	NA	0	NA	NA	NA	NA	NA	NA	NA
			SB	NA				0	NA	NA	NA	NA	NA	NA	NA
	NW 154 Street	NW 138 Street	NB	NA	NA	Hialeah	NA	0	NA	NA	NA	NA	NA	NA	NA
			SB	NA				0	NA	NA	NA	NA	NA	NA	NA
	NW 138 Street	W 68 Street	NB	1 L	Collector	Hialeah/Hialeah Gardens	D	232	760	0.31	Yes	No	NA	NA	NA
			SB	1 L				136	760	0.18	Yes	No	NA	NA	NA
NW 107 Avenue	NW 166 Street	NW 162 Street	NB	NA	NA	Hialeah/Hialeah Gardens	NA	0	NA	NA	NA	NA	NA	NA	NA
			SB	NA				0	NA	NA	NA	NA	NA	NA	NA
	NW 162 Street	NW 154 Street	NB	NA	NA	Hialeah/Hialeah Gardens	NA	0	NA	NA	NA	NA	NA	NA	NA
			SB	1LU				0	NA	NA	NA	NA	NA	NA	NA
	NW 154 Street	NW 138 Street	NB	1LU	Collector	Hialeah/Hialeah Gardens	D	120	608	0.20	Yes	NA	NA	NA	NA
			SB	NA				117	608	0.19	Yes	NA	NA	NA	NA
	NW 138 Street	Okeechobee Rd/US 27	NB	2 LD	Collector	Hialeah Gardens	D	456	1,620	0.28	Yes	No	NA	NA	NA
			SB	2 LD				337	1,620	0.21	Yes	No	NA	NA	NA
HEFT	NW 57 Av (Red Road)	I-75	NB	2 LD	FIHS	Miramar	D	3,129	3,580	0.87	Yes	No	NA	NA	NA
			SB	2 LD				2,155	3,580	0.60	Yes	No	NA	NA	NA
	I-75	NW 170 Street	NB	3 LD	FIHS	Miami-Dade	D	5,653	5,530	1.02	No	Yes	4 LD	7,480	0.76
			SB	3 LD				3,892	5,530	0.70	Yes	No	4 LD	7,480	0.52
	NW 170 Street	Okeechobee Rd/US 27	NB	3 LD	FIHS	Miami-Dade/Hialeah	D	5,653	5,530	1.02	No	Yes	4 LD	7,480	0.76
			SB	3 LD				3,892	5,530	0.70	Yes	No	4 LD	7,480	0.52
	Okeechobee Rd/US 27	NW 106 Street	NB	3 LD	FIHS	Miami-Dade/Medley	D	6,000	5,530	1.08	No	Yes	4 LD	7,480	0.80
			SB	3 LD				4,131	5,530	0.75	Yes	No	4 LD	7,480	0.55
	NW 106 Street	NW 74 Street	NB	3 LD	FIHS	Miami-Dade	D	6,485	5,530	1.17	No	Yes	4 LD	7,480	0.87
			SB	3 LD				4,466	5,530	0.81	Yes	No	4 LD	7,480	0.60

Notes:

(1) HB 7203, passed by the Florida Legislature in 2007, has established that DRIs are responsible to mitigate its impacts on the transportation system but are not responsible for the additional cost of reducing or eliminating backlogs. The improvements listed in these columns are the improvements necesary for existing conditions to meet adopted level of service standards in the study area.

Source: David Plummer and Associates, Inc.

TABLE 21-1
Existing Traffic Conditions (weekday, one-way, PM peak)
Beacon Countyline DRI

Roadway	Limits		Direction	# of Lanes	Roadway Type	Municipality	LOS STD	Volume (2007)	Service Volume	V/SV	Meets LOS STD?	Backlogged Facility?	Impact of HB 7203 (1)		
													Existing Backlog Improvements		
	From	To											Lanes	SV	V/SV
NW 170 Street	HEFT	NW 97 Avenue	EB	NA	NA	Miami-Dade/Hialeah	NA	0	NA	NA	NA	NA	NA	NA	NA
			WB	NA				0	NA	NA	NA	NA	NA	NA	NA
	NW 97 Avenue	I-75	EB	NA	NA	Miami-Dade/Hialeah	NA	0	NA	NA	NA	NA	NA	NA	NA
			WB	NA				0	NA	NA	NA	NA	NA	NA	NA
	I-75	NW 87 Avenue	EB	1 L	Collector	Miami-Dade/Miami	D	60	760	0.08	Yes	No	NA	NA	NA
			WB	1 L				90	760	0.12	Yes	No	NA	NA	NA
	NW 87 Avenue	NW 77 Avenue	EB	1 L	Collector	Miami-Dade/Miami	D	310	760	0.41	Yes	No	NA	NA	NA
			WB	1 L				376	760	0.49	Yes	No	NA	NA	NA
	NW 77 Avenue	NW 67 Avenue	EB	1 L	Collector	Miami-Dade/Miami	D	310	760	0.41	Yes	No	NA	NA	NA
			WB	1 L				376	760	0.49	Yes	No	NA	NA	NA
NW 138 Street	Okeechobee Rd/US 27	NW 107 Avenue	EB	2 LD	Collector	Hialeah/Hialeah Gardens	D	578	1,620	0.36	Yes	No	NA	NA	NA
			WB	2 LD				444	1,620	0.27	Yes	No	NA	NA	NA
	NW 107 Avenue	NW 97 Avenue	EB	1 L (no LT lanes)	Collector	Hialeah/Hialeah Gardens	D	541	608	0.89	Yes	No	NA	NA	NA
			WB	1 L (no LT lanes)				413	608	0.68	Yes	No	NA	NA	NA
	NW 97 Avenue	Beacon Station Blvd	EB	1 L (no LT lanes)	Collector	Hialeah	D	654	608	1.08	No	Yes	2 LD	1,620	0.40
			WB	1 L (no LT lanes)				667	608	1.10	No	Yes	2 LD	1,620	0.41
NW 130 Street (W 76 Street)	NW 97 Av	Beacon Station Blvd	EB	1 L	County Minor Arterial	Hialeah	D	366	760	0.48	Yes	No	NA	NA	NA
			WB	1 L				530	760	0.70	Yes	No	NA	NA	NA
	Beacon Station Blvd	NW 87 Av	EB	1 L	County Minor Arterial	Hialeah	D	565	760	0.74	Yes	No	NA	NA	NA
			WB	1 L				625	760	0.82	Yes	No	NA	NA	NA
	NW 87 Av	W of SR 826	EB	1 L	County Minor Arterial	Hialeah	C	411	760	0.54	Yes	No	NA	NA	NA
			WB	1 L				487	760	0.64	Yes	No	NA	NA	NA
Okeechobee Rd/US 27	West	HEFT	NWB	2 LD	FIHS	Hialeah Gardens	C	1,252	2,500	0.50	Yes	No	NA	NA	NA
			SEB	2 LD				1,057	2,500	0.42	Yes	No	NA	NA	NA
	HEFT	NW 138 Street	NWB	3 LD	FIHS	Hialeah/Hialeah Gardens	D	1,203	2,790	0.43	Yes	No	NA	NA	NA
			SEB	3 LD				1,016	2,790	0.36	Yes	No	NA	NA	NA
	NW 138 Street	Beacon Station Blvd	NWB	3 LD	FIHS	Hialeah Gardens	D	1,203	2,790	0.43	Yes	No	NA	NA	NA
			SEB	3 LD				1,016	2,790	0.36	Yes	No	NA	NA	NA
	Beacon Station Blvd	NW 87 Avenue	NWB	3 LD	FIHS	Hialeah Gardens	D	1,939	2,790	0.70	Yes	No	NA	NA	NA
			SEB	3 LD				1,637	2,790	0.59	Yes	No	NA	NA	NA
	NW 87 Avenue	SR 826	NWB	3 LD	FIHS	Hialeah Gardens	D	2,209	2,790	0.79	Yes	No	NA	NA	NA
			SEB	3 LD				1,865	2,790	0.67	Yes	No	NA	NA	NA
	SR 826	NW 74 St	NWB	3 LD	State Principal Arterial	Hialeah	E + 20%	2,948	3,348	0.88	Yes	No	NA	NA	NA
			SEB	3 LD				2,077	3,348	0.62	Yes	No	NA	NA	NA
West Okeechobee Rd / Frontage Road	US 27/NW 138 Street	NW 107 Avenue	NWB	1 L	Collector	Hialeah Gardens	D	382	760	0.50	Yes	No	NA	NA	NA
			SEB	1 L				513	760	0.68	Yes	No	NA	NA	NA
	NW 107 Avenue	Hialeah Gardens Blvd	NWB	1 L	Collector	Hialeah Gardens	D	476	760	0.63	Yes	No	NA	NA	NA
			SEB	1 L				240	760	0.32	Yes	No	NA	NA	NA
	Hialeah Gardens Blvd	NW 87 Avenue	NWB	1 L	Collector	Hialeah Gardens	D	264	760	0.35	Yes	No	NA	NA	NA
			SEB	1 L				282	760	0.37	Yes	No	NA	NA	NA
	NW 87 Avenue	NW 77 Avenue	NWB	1 L	Collector	Hialeah Gardens	D	741	760	0.98	Yes	No	NA	NA	NA
			SEB	1 L				338	760	0.44	Yes	No	NA	NA	NA
Gratigny Expressway	SR 826	Red Road/W 4 Av	EB	3 LD	FIHS	Hialeah/Miami Lakes	D	2,157	7,380	0.29	Yes	No	NA	NA	NA
			WB	3 LD				2,513	7,380	0.34	Yes	No	NA	NA	NA
W 68 Street/NW 122 Street	Okeechobee Road	NW 97 Avenue	EB	1 L (no LT lanes)	Collector	Hialeah Gardens	D	315	608	0.52	Yes	No	NA	NA	NA
			WB	1 L (no LT lanes)				228	608	0.38	Yes	No	NA	NA	NA
	NW 97 Avenue	NW 87 Av / W 28 Av	EB	1 L (no LT lanes)	County Minor Arterial	Hialeah	D	501	608	0.82	Yes	No	NA	NA	NA
			WB	1 L (no LT lanes)				566	608	0.93	Yes	No	NA	NA	NA
	NW 87 Av / W 28 Av	SR 826	EB	2 LD	County Minor Arterial	Hialeah	D	1,295	1,620	0.80	Yes	No	NA	NA	NA
			WB	2 LD				1,583	1,620	0.98	Yes	No	NA	NA	NA

Notes:
(1) HB 7203, passed by the Florida Legislature in 2007, has established that DRIs are responsible to mitigate its impacts on the transportation system but are not responsible for the additional cost of reducing or eliminating backlogs. The improvements listed in these columns are the improvements necesary for existing conditions to meet adopted level of service standards in the study area.

Source: David Plummer and Associates, Inc.

In addition, since the exact location of all proposed Project driveways have not yet been determined, the following intersections will be analyzed for future traffic conditions. These will serve as the principal Project access points to and from the external roadway network:

- NW 107 Avenue/NW 162 Street,
- NW 97 Avenue/NW 170 Street,
- NW 97 Avenue/NW 162 Street,
- NW 97 Avenue/NW 156 Street, and
- NW 102 Avenue/NW 170 Street.

At the request of the Florida Turnpike Enterprise, the at-grade intersections of the proposed HEFT/ NW 170 Street interchange were analyzed. Although the configuration of the interchange has not been formally determined at this time. Full access (all movements) to the HEFT interchange is anticipated. The assumed configuration is shown in ***Exhibit 21-3, NW 170 Street Interchange Configuration***.

It was also agreed during methodology discussions that ramp analyses (merging/diverging) would be performed for ramps where the Project traffic is projected to reach or exceed 200 vph, consistent with FDOT guidelines. The assignment of Project traffic on all ramps, including the I-75/Miramar Parkway interchange, was checked to identify the ramps that meet this criteria. The following ramps were analyzed:

- HEFT / I-75
- HEFT/NW 170 Street
- I-75/NW 138 Street

AM Peak hour analyses were performed in the reverse direction for the impacted ramps.

Weaving, as defined in the Highway Capacity Manual, is created when a merge area is closely followed by a diverge area or when an on-ramp is closely followed by an off ramp and the two are joined by an auxiliary lane. Based on the above definition, weaving analysis is not applicable at the junction of HEFT and I-75, since the on and off ramps are not placed in close proximity and are not connected by an auxiliary lane. HCM recommends that each merge/diverge movement be considered separately using the ramp terminal (merge/diverge) methodology, as performed above. Based on the analysis performed, presently, the following ramp improvement is needed to meet the adopted level of service standards:

- I-75 eastbound ramp to SR 826 southbound, add 1 ramp lane.

Intersection Capacity Analysis and Ramp Analysis worksheets for existing traffic conditions are provided in ***Appendix 21-2, Intersection and Ramp Analysis*****.**

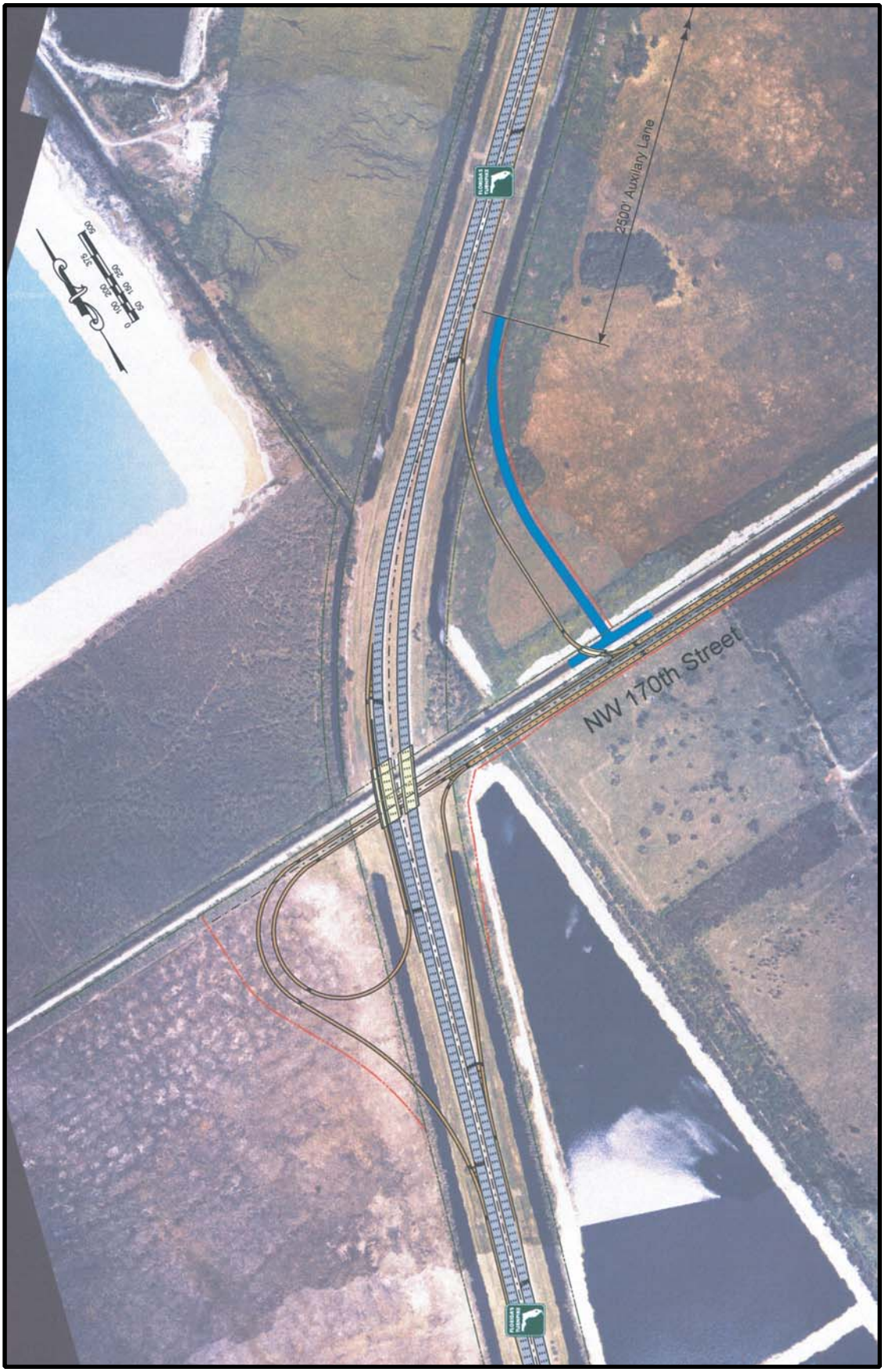


Exhibit 21 - 3

HEFT / NW 170 ST INTERCHANGE CONFIGURATION

BEACON COUNTYLINE DRI

Source: Florida Turnpike Enterprise

Miami-Dade County's and Broward County's *2008 Transportation Improvement Programs* (TIP) were reviewed to determine which roadways in the study area are programmed for improvements. Corresponding TIP page excerpts are included in ***Appendix 21-3, Transportation Improvements Documentation***. The City of Hialeah was also consulted to ensure that all programmed improvements within the City are included in the analysis. Only those improvements programmed for construction in the first 3 years of the TIP or 5 years of the local Capital Improvement Elements were considered in the analysis. ***Table 21-2, Committed Roadway Improvements*** presents a list of committed developments in the study area.

The Developer of Beacon Countyline DRI is committed to pursuing an interchange at HEFT/NW 170 Street and has determined that they do not intend to proceed with development beyond a certain amount of Project trips until the contemplated interchange is committed, constructed and/or caused to be constructed. The construction of this interchange has been included in the analysis, in addition to the committed roadway improvements listed in Table 21-2. It is the Applicant's intent to uses this analysis to establish the appropriate timing of the interchange. The interchange will be subject to justification and approval of Florida's Turnpike Enterprise. Analysis of future traffic conditions includes an interchange at this location.

Other improvements to the external roadway network included in the analysis are listed below:

- NW 170 Street between the HEFT and NW 97 Avenue, new 6 lane road (the Project needs 4 lanes in this section. The developer on the north side of NW 170 Street will be responsible for the additional two-lanes during the development of this property at a later time);
- NW 170 Street between NW 97 Avenue and I-75 overpass, new 2 lane road;
- NW 107 Avenue between NW 166 Street and NW 138 Street, new 2 lane road; and,
- NW 97 Avenue between NW 170 Street and NW 154 Street, new 4 lane road.

In order to establish the impact of the proposed interchange and the proposed roadway network, the transportation model was run first for future (2018) traffic conditions without Project with the committed roadway network, and then with the committed network plus the interchange and roadways listed above. ***Appendix 21-4, Diversions Documentation***, provides model runs for the area, as well as an exhibit graphically portraying the expected diversions from the traffic patterns in the area.

Planned improvements within the study area were also researched in both the Miami-Dade and Broward County's Long Range Transportation Plan. These improvements are provided for informational purposes only in ***Table 21-3, Planned Roadway Improvements*****.**

B. Provide a projection of vehicle trips expected to be generated by this

TABLE 21-2
Committed Roadway Improvements
Beacon Countyline DRI

Project Number	Roadway	Limits		Type of Work	Phasing
DT2499412	SR 823 / NW 57 Ave	SR 934 / W 21 St	W 34 S	Add Lanes & Reconstruct	CST 2007
DT 2501051	SR 25 / Okeechobee Rd	East of W 12 Ave	W 19 St	Add Lanes & Reconstruct	CST 2006
DT4164233	SR 25 / Okeechobee Rd	NW 138 St		Intersection (Minor)	
DT4164234	SR 25 / Okeechobee Rd	NW 105 Way		Add turn lane(s)	
PS0000102A	NW 112 Ave	NW 84 St	NW 85 St	2 lanes, sidewalks, and drainage	
PS0000102B	NW 82 St	NW 113 Ave	NW 117 Ave	2 lanes, sidewalks, and drainage	
PS000023	NW 107 Ave	NW 122 St	S River Dr	Reconstruct NW 107 Ave / New flyover ramp	
PS000025	NW 90 St	NW 114 Ave	NW 112 Ave	New construction: 2 lanes	
PW0000110	NW 97 Ave	NW 138 St	NW 154 St	New 4 lanes	
PW0000111	NW 138 St	NW 107 Ave	I-75	Widening: 2 to 4 lanes	CST 2007
PW0000118	Red Rd and NW 138 St			Intersection Improvements	
PW0000119	Red Rd and Miami Lakes Dr			Intersection Improvements	
PW0000123	Red Rd and SR 826 N			Intersection Improvements	
PW0000124	Red Rd and SR 826 N			Intersection Improvements	
PW0000125	Red Rd and NW 165 Terr			Intersection Improvements	
PW000031	NW 74 St	NW 87 Ave	NW 84 Ave	New construction: 4 lanes	
PW000075	W 60 St	W 12 Ave	W 4 Ave	Widening: 2 to 3 lanes	CST 2007
PW000328	NW 62 Ave (W 8 Ave)	NW 138 St	NW 105 St	Widening: 2 to 3 lanes	
PW000501	NW 112 Ave / 138 St	Miami Canal		Sonovoid Bridge Renovation	
PW1000016	NW 77 Ct and NW 154 St	Intersection		New construction: left turn lane	
PW20040271	NW 87 Ave	NW 162 St	NW 170 St	Widening: 2 to 4 lanes	
PW20040355	NW 74 St	HEFT	NW 82 Ave	New 4 lanes	CST 2007
PW20040390	NW 87 Ave	NW 154 St	NW 186 St	Widening: 2 to 4 lanes	CST 2007
PW610157S	W 24 St	W 52 St	W 76 St	Widening: 2 to 5 lanes	CST 2008
PW662347	NW 72 Ave	NW 74 St	Okeechobee Rd	Widening: 2 to 4 lanes	CST 2007
PW671311A	NW 87 Ave	NW 138 St	NW 154 St	Bridge over I-75 & Approaches	Complete
PW671915A	NW 107 Ave	Okeechobee Rd	NW 138 St	Widening: 2 to 5 lanes	
PW671916	NW 62 Ave	NW 105 St	NW 138 St	Widening: 2 to 3 lanes	Complete
PW671951	W 68 St	W 19 Ct	W 17 Ct	Add lane on south side and	CST 2007
TP2519381	Homestead Extension	Florida Turnpike (HEFT)	I-75 Interchange	Interchange (Major)	
TP4061041	NW 74 St	HEFT	HEFT	Interchange (Major)	
TP4150211	HEFT (SR 821) and NW 106 St	Sunpass Only Ramp	Conversion (MP 34)	Toll Plaza	CST 2007

TABLE 21-3
Planned Roadway Improvements
Beacon County Line DRI

Map Number	Priority	Funding Availability	Roadway	Limits	Type of Work
1	I	Funded by 2009	SR 826	FEC Railroad to NW 103 Street	Widen from 8 to 10 Lanes
2	I	Funded by 2009	Okeechobee Road (SR 25)	W 12 Avenue to W 19 Street	Widen from 4 to 6 Lanes
3	I	Funded by 2009	NW 87 Avenue	NW 74 St to Okeechobee Road	New 4-lane Road
4	I	Funded by 2009	NW 57 Avenue (SR 823)	W 21 (SR 934) to W 49 (SR 932) Street	Widen from 4 to 6 Lanes
5	I	Funded by 2009	NW 57 Avenue (SR 823)	Okeechobee Road to W 21 St (SR 934)	Widen from 4 to 6 Lanes
6	I	Funded by 2009	Okeechobee Road (SR 25)	SR 826 to W 12 Avenue	Add Lanes
7	I	Funded by 2009	NW 72 Avenue	NW 74 St to Okeechobee Road	Widen from 2 to 4 Lanes & bridge
8	I	Funded by 2009	W 24 Avenue	W 52 to 76 Street	Widen from 2 to 4 Lanes
9	I	Funded by 2009	NW 74 Street	HEFT to NW 87 Avenue	New 2 Lanes
10	I	Funded by 2009	NW 74 Street	NW 87 to 84 Avenue	New 4 Lanes
11	I	Funded by 2009	NW 122 Street	Okeechobee Road to NW 87 Avenue	Widen from 2 to 5 Lanes
12	I	Funded by 2009	NW 138 Street	NW 107 to 97 Avenue	Widen from 2 to 5 Lanes
13	I	Funded by 2009	NW 107 Avenue	Okeechobee Road to NW 138 Street	Widen from 2 to 5 Lanes
14	I	Funded by 2009	NW 87 Avenue	NW 154 Street to Miami Gardens Dr	New Construction
15	I	Funded by 2009	NW 62 Avenue	NW 105 to 138 Street	Widen from 2 to 3 Lanes
16	I	Funded by 2009	Hialeah Expressway (SR 934)	SR 826 to NW 57 Avenue	Widen from 4 to 6 Lanes
17	I	Funded by 2009	NW 57 Avenue (SR 823)	W 49 St (NW 103 St) to NW 138 St	Widen from 4 to 6 Lanes
49	II	2010-2015	I-75	at NW 154 Street	New Interchange
50	II	2010-2015	NW 74 Street	HEFT to SR 826	Widen to 6 Lanes
II	II	2010-2015	Okeechobee Road (SR 25)	At Krome, NW 138 St & 95 St	Construct grade separated free-flow lanes
III	III	2016-2020	HEFT	at NW 74 Street	New Interchange
III	III	2016-2020	I 75	at Miami Gardens Drive	Interchange Improvements
18	III	2016-2020	NW 87 Avenue	NW 58 Street to Okeechobee Rd	Widen to 6 Lanes
19	III	2016-2020	W 60 Street	W 4 to 12 Avenue	Widen from 2 to 3 Lanes
20	IV	2021-2030	HEFT	US 27 to I 75	Widen to 8 Lanes
21	IV	2021-2030	HEFT	SR 836 to US 27	Widen from 6 to 8 Lanes+ 2 Aux Lanes
	IV	2021-2030	HEFT	I 75 to HEFT	Widen from 4 to 6 Lanes
22	IV	2021-2030	I 75	SR 826 to NW 138 Street	Widen from 4 to 8 Lanes
23	IV	2021-2030	Miami Gardens Drive	I 75 to NW 57 Avenue	Widen from 4 to 6 Lanes
24	IV	2021-2030	NW 72 Avenue	NW 122 to 138 Street	Widen from 2 to 3 Lanes
IV	IV	2021-2030	Okeechobee Road (SR 25)	at Krome, Hialeah Gardens Boulevard / NW 116 & 105 Way, NW 87 & NW 79 Avenue	Construct grade separated free-flow lanes
25	IV	2021-2030	SR 924	Eastern Terminus of SR 924 to Okeechobee Road	Expressway Extension
26	IV	2021-2030	W 68 Street	W 21 Court to W 19 Court	Add Lane on south side
27	IV	2021-2030	W 76 Street	W 36 to 20 Avenue	Widen from 2 to 5 Lanes
28	IV	2021-2030	SR 826	I 75 to Golden Glades Interchange	Add 2 HOV Lanes
29	IV	Unfunded	Hialeah Light Rail Transit	Miami Intermodal Center to I 75	Light Rail Transit
30	IV	Unfunded	I 75	NW 138 Street to MD/Broward Line	Widen from 4 to 8 Lanes
31	IV	Unfunded	I 75 / HEFT	SW 8 St to Broward County Line	Premium Transit
32	IV	Unfunded	NW 97 Avenue	NW 74 to 90 Street	New 4-lane Road
33	IV	Unfunded	NW 87 Avenue	NW 183 Street to County Line	New 2-4 Lanes
34	IV	Unfunded	NW 107 Avenue	NW 138 to 170 Street	New 2 Lanes
35	IV	Unfunded	NW 154 Street	NW 87 to 107 Avenue	New 2 Lanes
36	IV	Unfunded	NW 97 Avenue	NW 138 to 183 Street	2 Lanes
37	IV	Unfunded	NW 90 Street	NW 107 to 87 Avenue	New 2 Lanes

Source: Miami-Dade County Long Range Transportation Plan.

development. State all standards and assumptions used, including trip end generation rates by land use types, sources of data, modal split, persons per vehicle, etc., as appropriate. The acceptable methodology to be used for projecting trip generation (including the Florida Standard Urban Transportation Model Structure or the Institute of Transportation Engineers trip generation rates) shall be determined at the pre-application conference stage.

Trip generation was estimated using rates and/or equations (as applicable) published by ITE in *Trip Generation*, 7th Edition (see ***Table 21-4, Trip Generation***). All ITE Land Use Codes and rates or equations utilized for each of the proposed land uses for this DRI have been identified. ITE prescribed adjustments to the trip generation are described in the following sections.

ITE recognizes that data obtained to establish trip generation rates and/or equations is collected at single-use, free-standing sites, and that mixed-use developments provide a potential for interaction of trips within the site, which must be accounted for separately. This will be a mixed-use project and features to encourage interaction between the proposed land uses will be incorporated into the design, resulting in a portion of the Project trips satisfied on-site (*internal trips*). As noted earlier, the relatively isolated location of this property will further encourage internalization within the Project.

A review of transit availability indicates that there are no existing Miami-Dade bus routes serving this area within a mile of the Project Site. The City of Hialeah Transit System offers two bus routes serving the City, which operate between 6:00 AM and 9:00 PM on weekdays. The City has expressed their commitment to extend existing transit services to the Site. It is anticipated that Miami-Dade Transit (MDT) may also extend its transit system to this area. For this analysis, the average countywide mode split of 1.5% (transit ridership) was used.

Due to the proposed warehouse component of the Project, vehicle classification counts were taken at a nearby site of a similar scale and with similar intended uses (developed by the Applicant) to identify the percent trucks generated by the Project. ***Appendix 21-6, Beacon Lakes Vehicle Classification Counts*** shows a summary of these counts. A Heavy-Vehicle adjustment factor was calculated using the Highway Capacity Manual 2000 (HCM 2000) equation 21-4. The net new external warehouse trips were then adjusted by the inverse of this factor to obtain a passenger car equivalent, as recommended in the Highway Capacity Manual.

C. Estimate the internal/external split for the generated trips at the end of each phase of development as identified in (B) above. Use the format below and include a discussion of what aspects of the development (i.e., provision of on-site shopping and recreation facilities, on-site employment opportunities, etc.) will account for this internal/external split. Provide supporting documentation showing how splits were estimated, such as the results of the Florida Standard Urban Transportation Model Structure (FSUTMS) model application. Describe the extent to which the proposed design and land use mix will foster a more cohesive, internally supported project.

TABLE 21-4
Trip Generation and Internalization
Beacon County Line DRI

Unconstrained Internalization Demand - PM Peak Hour

Retail		Office		Warehouse		Hotel			
Land Use 820		Land Use 710		Land Use 150		Land Use 310			
550,000 SF GLA		1,000,000 SF GFA		4,100,000 SF GFA		350 Rooms			
n (Trips) = 0.66 Ln (1,000 SF) + 3.4		*Trips = 0.37 (1,000 SF) + 60.08*		*Ln (Trips) = 0.79 Ln (1,000 SF) + 0.54*		*0.59 Trips / Room*			
In	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**		
926	**1,003**	**204**	**995**	**307**	**920**	**109**	**98**	**4,562**	**TOTAL ITE**
	3%		*15%*		*2%*	*2%*			
	30	**30**	*31*		*18*	*2*			
2%			*23%*	*0%*	**2**		*0%*		
19		**19**	*229*	*0*	**0**		*0*		
	3%			*15%*					
	30		**30**	*46*					
2%					*23%*				
19			**19**		*212*				
	12%					*31%*			
	120		**34**			*34*			
9%							*53%*		
83			**52**				*52*		
			1%	*6%*					
			10	**10** *18*					
		6%			*1%*				
		12		**9**	*9*				
			2%			*2%*			
			20	**2**		*2*			
		0%					*0%*		
		0		**0**			*0*		

Balanced Internalization Demand - PM Peak Hour

Retail		Office		Warehouse		Hotel			
Land Use 820		Land Use 710		Land Use 150		Land Use 310			
550,000 SF GLA		1,000,000 SF GFA		4,100,000 SF GFA		350 Rooms			
.n (Trips) = 0.66 Ln (1,000 SF) + 3.4		Trips = 0.37 (1,000 SF) + 60.08		Ln (Trips) = 0.79 Ln (1,000 SF) + 0.54		0.59 Trips / Room			
In	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**		
926	**1,003**	**204**	**995**	**307**	**920**	**109**	**98**	**4,562**	**TOTAL ITE**
									Adjustment Factors
	-30	*-30*			*-2*	*-2*			0%
-19			*-19*	*0*			*0*		
	-30			*-30*					0%
-19					*-19*				
	-14					*-14*			-60%
-21							*-21*		
			-10	*-10*					0%
		-9			*-9*				
			-2			*-2*			0%
		0					*0*		
867	**929**	**165**	**966**	**267**	**890**	**93**	**77**	**4,254**	**External Trips**
	6.89%		***5.67%***		***5.72%***		***17.96%***	***6.76%***	
-13	-14	-2	-14	-4	-13	-1	-1	**1.5%**	**Transit/Pedestrians**
-69	-69							**-8%**	**Pass-By**
-43	-43							**-5%**	**Diverted Linked Trips**
742	**803**	**163**	**952**	**263**	**876**	**91**	**76**	**3,966**	**Net New External Trips**
				46	155			**0.85**	**Truck Adjustment Factor (f HV)**
742	**803**	**163**	**952**	**309**	**1,031**	**91**	**76**	**4,167**	**Net New External Trips adjusted for Heavy**

Note: Adjustment Factor for Heavy Vehicles: f HV = 1 / (1 + 0.35 (1.5 - 1)) as calculated from equation 21-4 in page 21-7 of the HCM 2000

Adjustments made to the trip generation estimates obtained from ITE trip generation rates and/or equations are discussed in the previous section.

Beacon Countyline DRI is a mixed-use commercial development incorporating warehouse, retail, office and hotel uses. The relatively unique location and mixed use nature of the Project will allow some trips to be satisfied within the site. Project design will incorporate many aspects of the Hialeah Heights Plan that is being promoted by the City to encourage coordination of internal movements between land uses by vehicles as well as pedestrians, and thus reduce the impact on the external network, such as on-site continuous driveway network throughout the entire Site and sidewalks to encourage pedestrian trips within the Site. Transit amenities to support the extension of the City of Hialeah and the Miami-Dade County Transit Services will be provided. These will include, but will not be limited to, bus stops, shelters, and benches.

D. Provide a projection of total peak hour directional traffic, with the DRI, on the highway network within the study area at the end of each phase of development. If these projections are based on a validated FSUTMS, state the source, date and network of the model and of the TAZ projections. If no standard model is available or some other model or procedure is used, describe it in detail and include documentation showing its validity. Describe the procedure used to estimate and distribute traffic with full DRI development in subzones at buildout and at interim phase-end years. These assignments may reflect the effects of any new road or improvements which are programmed in adopted capital improvements programs and/or comprehensive plans to be constructed during DRI construction; however, the inclusion of such roads should be clearly specified. Show these link projections on maps or tables of the study area network, one map or table for each phase-end year. Describe how these conclusions were reached.

Average Daily Traffic (ADT) counts published by FDOT, Miami-Dade and Broward Counties were reviewed to determine historic growth in traffic volumes along the roadway links within the study area. It was agreed during methodology discussions that different growth rates would be calculated for the surface streets, HEFT, I-75 and SR 826. Because of the different land use characteristics between the portions of the study area in Miami-Dade and Broward Counties, different growth rates were also calculated for each of these areas.

Background growth rate calculations are based on a five-year historical trend analysis of all roadways, except for the Homestead Extension of the Florida Turnpike (HEFT). A review of the traffic model projected volumes for this facility confirms that the high rate of traffic growth experienced in the last five years cannot be sustained over the next 10 years.

A 10 year trend analysis was performed at the only permanent count station on HEFT in the study area (at Okeechobee Plaza). The results show that during this time period, the facility grew 6% annually. However, zdata forecasts obtained from the 2000 and 2030 Modified MPO's Adopted Long Range Transportation Plan FSUTMS model for this

area of Miami-Dade County show that population is anticipated to grow annually at a rate of 1.1%, while employment is anticipated to grow at an annual rate of 1.8%. Furthermore, traffic volumes obtained from the FSUTMS model adjusted by the Turnpike Enterprise and used for the distribution of Project traffic shows that HEFT is forecasted to grow at an average rate of 2.3% per year between 2012 and 2032.

The 6% background growth rate based on the 10 year growth trend analysis is used in the analysis as the base for predicting future traffic conditions on HEFT. The result is a gross overestimation of future needs of this facility. The existing 6-lane facility between NW 106 Street and NW 74 Street might need to be widened to 12 lanes for future (2018) conditions. An alternate analysis of HEFT is provided in ***Appendix 21-7, Alternate HEFT Analysis***, showing growth consistent with the FSUTMS model projections for this facility. Future (2018) conditions will likely warrant improvements to HEFT to a total of 10 lanes along the sections mentioned above.

Calculations are provided in ***Appendix 21-8, Background Growth Rate Calculations***. The following growth rates were determined for the study area:

Background Growth Rates
Beacon Countyline DRI

HEFT	6.0%
I-75	2.3%
SR 826	1.4%
Miami-Dade County surface streets	0.6%

Historic increases in traffic comprise a number of components, including existing development traffic, normal changes in traffic volumes due to motorist travel behavior, and traffic generated by new development. The proposed analysis would specifically account for committed development projects. Therefore, it is anticipated that the compounded background traffic growth rate (excluding committed developments) will constitute half of the historic growth rate, in addition to committed developments in the area.

In consultation with the South Florida Regional Planning Council and local governments within the study area, a list of committed developments has been compiled. Consistent with guidelines pertaining to DRIs, all approved projects anticipated to generate 400 pm peak hour trips are considered committed in this study. ***Table 21-5, Committed Developments*****,** provides a summary of developments and the pm peak hour trips associated with each development. ***Appendix 21-9, Committed Developments Documentation*** provides additional information including the location, proposed land uses and sizes, trip generation and the source of the information for each committed development included in this study. When available, trip generation and external trip distribution for committed developments were obtained from traffic studies prepared during their approval process.

For other developments, trip generation was obtained from the local municipality or it was performed using ITE rates and/or equations for the proposed land uses. For the developments listed in the Town of Miami Lakes, the trips estimated in their January

TABLE 21-5
Committed Developments Trip Generation
Beacon Countyline DRI

Development	Land Use	PM Peak Hour Trip Generation*	
		In	Out
East Miramar Areawide DRI (1)	Retail Office Industrial Single Family Multi Family Hotel	1,980	4,021
FEC Park of Commerce DRI (2)	Warehouse Office Retail Hotel	689	1,276
Country Lakes West DRI (3)	Trips Retail Lt Industrial Office Hotel Single Family Multi Family	814	2,318
Blue Grass Lakes (4)	Single Family Retail	528	475
Dunwoody Estates (5)	Residential/ Commercial	417	205
Graham Vested Development East (5)	Mixed Use	753	371
Graham Vested Development West (5)	Mixed Use	1,761	867
Doral Place (6)	Residential	373	188
Islands of Doral (6)	Residential	988	486

* PM Peak Hour trip generation for the approved unbuilt portion of the development.

(1) October 16, 2006 Annual Report. The largest portion of this site is located north of Miramar Parkway (outside the study area). Only 1/2 of the trip generation of the remaining development was used for this analysis

(2) October 4, 2006 Annual Report.

(3) November 1, 2005 Annual Report.

(4) The originally approved Blue Grass Lakes DRI was abandoned and an amended Development Order dated 11/7/01 amended the uses to those reflected in this table.

(5) Town of Miami Lakes, January 2006, Concurrency Management Report,

(6) City of Doral Website.

2006 Concurrency Management Report were used for this analysis. Committed development trips were assigned to the roadway network using either distributions from traffic studies, annual reports, or the appropriate cardinal distribution from the long range plan update published by Miami-Dade Metropolitan Planning Organization. Trip distributions for each committed development are also provided in ***Appendix 21-9, Committed Developments Documentation***. Link analysis of future traffic conditions without the Project for the study area is provided in ***Table 21-6, Future Background and Committed Developments Traffic***. Intersection capacity analyses worksheets for this scenario are provided in ***Appendix 21-2, Intersection and Ramp Analysis***.

E. Assign the trips generated by this development as shown in (B) and (C) above and show, on separate maps or tables for each phase-end year, the DRI traffic on each link of the then-existing network within the study area. Include peak-hour directional trips. If location data is available, compare average trip lengths by purpose for the project and local jurisdiction. For the year of buildout and at the end of each phase estimate the percent impact, in terms of peak hour directional DRI trips/total peak hour directional trips and interms of peak hour directional DRI trips/existing peak hour service volume for desired LOS, on each regionally significant roadway in the study area. Identify facility type, number of lanes, and projected signal locations for the regionally significant roads.

The trip distribution and traffic assignment for the Project is based on a select-zone run using the Modified MPO's Adopted Long Range Transportation Plan FSUTMS model for Miami-Dade County with adjustments made by the Turnpike Enterprise for validation purposes. The Turnpike Enterprise has performed extensive up-to-date validation of the Miami Dade approved transportation model to accurately reflect existing volumes on this facility as well as on the surface streets in this area. This model extends HEFT into Broward County within the study area. Model outputs have been provided in ***Appendix 21-10, Model Outputs***.

The Site is in Miami-Dade County's Traffic Analysis Zone (TAZ) 7. The socio-economic data for TAZ 7 was adjusted to reflect Project traffic. Additionally, the subject data was interpolated to reflect the Project's buildout year (2018). The model's roadway network was also reviewed to verify that only committed roadway improvements were included.

The Project traffic assignment was obtained by tracking daily Project traffic via a select-zone analysis and converting it into a Project trip percent distribution. ITE pm peak hour trip generation was applied to the trip distribution to obtain the pm peak hour Project assignment. Assigned pm peak hour Project trips reflect at least 99% of the net new external trips obtained from the adjusted trip generation as described in sections above.

For Project traffic traveling north on I-75 into Broward County, a ratio was taken between existing mainline traffic volume and the volume on the off ramps. This percentage was applied to Project traffic traveling on the I-75 the mainline north of the HEFT junction to determine how much Project traffic will leave and/or enter I-75 at the Miramar Parkway interchange in Broward County. This analysis is provided in ***Appendix 21-11, Broward County Project Trip Assignment***.

TABLE 21-6

Future Traffic Conditions without Project - (weekday, one-way, PM peak)

Beacon Countyline DRI

Roadway	Limits		Direction	# of Lanes	Roadway Type	Municipality	LOS STD	Volume (2018)	Service Volume (1)	V/SV	Meets LOS STD?
	From	To									
Palmetto Expressway (SR 826)	Red Road/NW 57 Av	NW 67 Av/Ludlam Rd	EB	4 LD (1)	FIHS	Miami Lakes	D	8,135	7,380	1.10	No
			WB	4 LD (1)				6,668	7,380	0.90	Yes
	NW 67 Av/Ludlam Rd	Miami Lakes Drive	NEB	5 LD (1)	FIHS	Miami Lakes	D	8,811	9,340	0.94	Yes
			SWB	5 LD (1)				7,125	9,340	0.76	Yes
	Miami Lakes Drive	I-75	NB	4 LD (1)	FIHS	Miami Lakes	D	9,033	7,380	1.22	No
			SB	4 LD (1)				7,071	7,380	0.96	Yes
	I-75	W 68 St/NW 122 Street	NB	5 LD (1)	FIHS	Hialeah	D	10,475	9,340	1.12	No
			SB	5 LD (1)				8,324	9,340	0.89	Yes
	W 68 St/NW 122 Street	W 49 Street/NW 103 St	NB	6 LD (1)	FIHS	Hialeah	D	10,860	11,310	0.96	Yes
			SB	6 LD (1)				8,630	11,310	0.76	Yes
	W 49 Street/NW 103 St	Okeechobee Rd/US 27	NB	6 LD (1)	FIHS	Hialeah/Hialeah	D	11,216	11,310	0.99	Yes
			SB	6 LD (1)				8,913	11,310	0.79	Yes
	Okeechobee Rd/US 27	NW 74 Street	NB	6 LD (1)	FIHS	Medley	D	11,722	11,310	1.04	No
			SB	6 LD (1)				9,399	11,310	0.83	Yes
NW 87 Avenue / West	Miami Gardens Drive	NW 170 Street	NB	2LD (2)	Collector	Miami-Dade	D	454	1,620	0.28	Yes
			SB	2LD (2)				730	1,620	0.45	Yes
	NW 170 Street	Miami Lakes Drive	NB	2LD (2)	Collector	Miami Lakes	D	183	1,620	0.11	Yes
			SB	2LD (2)				368	1,620	0.23	Yes
	Miami Lakes Drive	I-75	NB	2 LD	Collector	Miami Lakes	D	1,216	1,620	0.75	Yes
			SB	2 LD				928	1,620	0.57	Yes
I-75	Miramar Parkway	HEFT	NB	5 LD	FIHS	Miramar	D	9,085	9,340	0.97	Yes
			SB	5 LD				8,466	9,340	0.91	Yes
	HEFT	NW 186 Street	NB	4 LD	FIHS	Miami-Dade	D	6,051	7,380	0.82	Yes
			SB	4 LD				5,995	7,380	0.81	Yes
	NW 186 Street	NW 138 Street	NB	4 LD	FIHS	Miami	D	6,556	7,380	0.89	Yes
			SB	4 LD				5,887	7,380	0.80	Yes
	NW 138 Street	SR 826	EB	5 LD	FIHS	Miami	D	6,558	9,340	0.70	Yes
			WB	5 LD				7,017	9,340	0.75	Yes
NW 97 Avenue	NW 170 Street	NW 154 Street	NB	2LD (3)	NA	Hialeah	D	137	1,620	0.08	Yes
			SB	2LD (3)				169	1,620	0.10	Yes
	NW 154 Street	NW 138 Street	NB	2LD (2)	NA	Hialeah	D	137	1,620	0.08	Yes
			SB	2LD (2)				169	1,620	0.10	Yes
	NW 138 Street	W 68 Street	NB	1 L	Collector	Hialeah/Hialeah	D	263	760	0.35	Yes
			SB	1 L				160	760	0.21	Yes
NW 107 Avenue	NW 166 Street	NW 162 Street	NB	1 L (3)	Collector	Hialeah/Hialeah	D	0	798	0.00	Yes
			SB	1 L (3)				0	798	0.00	Yes
	NW 162 Street	NW 154 Street	NB	1 L (3)	Collector	Hialeah/Hialeah	D	0	798	0.00	Yes
			SB	1 L (3)				0	798	0.00	Yes
	NW 154 Street	NW 138 Street	NB	1 L (3)	Collector	Hialeah/Hialeah	D	124	798	0.16	Yes
			SB	1 L (3)		Gardens		121	798	0.15	Yes
	NW 138 Street	Okeechobee Rd/US 27	NB	2 LD (2)	Collector	Hialeah Gardens	D	471	1,620	0.29	Yes
			SB	2 LD (2)				348	1,620	0.21	Yes
HEFT	NW 57 Av (Red Road)	I-75	NB	2 LD	FIHS	Miramar	D	4,607	3,580	1.29	No
			SB	2 LD				3,314	3,580	0.93	Yes
	I-75	NW 170 Street	NB	4 LD (1)	FIHS	Miami-Dade	D	8,246	7,480	1.10	No
			SB	4 LD (1)				5,886	7,480	0.79	Yes
	NW 170 Street	Okeechobee Rd/US 27	NB	4 LD (1)	FIHS	Miami-Dade/Hialeah	D	8,364	7,480	1.12	No
			SB	4 LD (1)				5,931	7,480	0.79	Yes
	Okeechobee Rd/US 27	NW 106 Street	NB	4 LD (1)	FIHS	Miami-Dade/Medley	D	8,940	7,480	1.20	No
			SB	4 LD (1)				6,300	7,480	0.84	Yes
	NW 106 Street	NW 74 Street	NB	4 LD (1)	FIHS	Miami-Dade	D	9,521	7,480	1.27	No
			SB	4 LD (1)				6,922	7,480	0.93	Yes

Notes:
(1) Number of Lanes and Service Volume reflect improvement necessary to reduce or eliminate existing backlog.
(2) Committed Roadway Improvement.
(3) Project related Improvement.

Source: David Plummer and Associates, Inc.

TABLE 21-6
Future Traffic Conditions without Project - (weekday, one-way, PM peak)
Beacon Countyline DRI

Roadway	Limits		Direction	# of Lanes	Roadway Type	Municipality	LOS STD	Volume (2018)	Service Volume (1)	V/SV	Meets LOS STD?
	From	To									
NW 170 Street	HEFT	NW 97 Avenue	EB	2LD (3)	NA	Miami-Dade/Hialeah	D	396	1,620	0.24	Yes
			WB	2LD (3)				291	1,620	0.18	Yes
	NW 97 Avenue	I-75	EB	1 L (3)	NA	Miami-	D	231	798	0.29	Yes
			WB	1 L (3)				152	798	0.19	Yes
	I-75	NW 87 Avenue	EB	1 L	Collector	Miami-	D	286	760	0.38	Yes
			WB	1 L				241	760	0.32	Yes
	NW 87 Avenue	NW 77 Avenue	EB	1 L	Collector	Miami-	D	392	760	0.52	Yes
			WB	1 L				447	760	0.59	Yes
	NW 77 Avenue	NW 67 Avenue	EB	1 L	Collector	Miami-	D	377	760	0.50	Yes
			WB	1 L				439	760	0.58	Yes
NW 138 Street	Okeechobee Rd/US 27	NW 107 Avenue	EB	2LD	Collector	Hialeah/Hialeah	D	574	1,620	0.35	Yes
			WB	2LD				408	1,620	0.25	Yes
	NW 107 Avenue	NW 97 Avenue	EB	2LD (2)	Collector	Hialeah/Hialeah	D	538	1,620	0.33	Yes
			WB	2LD (2)				377	1,620	0.23	Yes
	NW 97 Avenue	Beacon Station Blvd	EB	2LD (1, 2)	Collector	Hialeah	D	665	1,620	0.41	Yes
			WB	2LD (1, 2)				645	1,620	0.40	Yes
NW 130 Street (W 76 Street)	NW 97 Av	Beacon Station Blvd	EB	2LD (2)	County Minor Arterial	Hialeah	D	398	1,620	0.25	Yes
			WB	2LD (2)				571	1,620	0.35	Yes
	Beacon Station Blvd	NW 87 Av	EB	1 L	County Minor Arterial	Hialeah	D	584	760	0.77	Yes
			WB	1 L				645	760	0.85	Yes
	NW 87 Av	W of SR 826	EB	1 L	County Minor	Hialeah	C	425	760	0.56	Yes
			WB	1 L				503	760	0.66	Yes
Okeechobee Rd/US 27	West	HEFT	NWB	2 LD	FIHS	Hialeah Gardens	C	1,321	2,500	0.53	Yes
			SEB	2 LD				1,111	2,500	0.44	Yes
	HEFT	NW 138 Street	NWB	3 LD	FIHS	Hialeah/Hialeah Gardens	D	1,293	2,790	0.46	Yes
			SEB	3 LD				1,068	2,790	0.38	Yes
	NW 138 Street	Beacon Station Blvd	NWB	3 LD	FIHS	Hialeah Gardens	D	1,229	2,790	0.44	Yes
			SEB	3 LD				1,036	2,790	0.37	Yes
	Beacon Station Blvd	NW 87 Avenue	NWB	3 LD	FIHS	Hialeah Gardens	D	2,206	2,790	0.79	Yes
			SEB	3 LD				1,825	2,790	0.65	Yes
	NW 87 Avenue	SR 826	NWB	3 LD	FIHS	Hialeah Gardens	D	2,464	2,790	0.88	Yes
			SEB	3 LD				2,054	2,790	0.74	Yes
	SR 826	NW 74 St	NWB	3 LD	State Principal Arterial	Hialeah	E + 20%	3,066	3,348	0.92	Yes
			SEB	3 LD				2,164	3,348	0.65	Yes
West Okeechobee Rd / Frontage Road	US 27/NW 138 Street	NW 107 Avenue	NWB	1 L	Collector	Hialeah Gardens	D	396	760	0.52	Yes
			SEB	1 L				531	760	0.70	Yes
	NW 107 Avenue	Hialeah Gardens Blvd	NWB	1 L	Collector	Hialeah Gardens	D	489	760	0.64	Yes
			SEB	1 L				245	760	0.32	Yes
	Hialeah Gardens Blvd	NW 87 Avenue	NWB	1 L	Collector	Hialeah Gardens	D	272	760	0.36	Yes
			SEB	1 L				291	760	0.38	Yes
	NW 87 Avenue	NW 77 Avenue	NWB	1 L	Collector	Hialeah Gardens	D	766	760	1.01	No
			SEB	1 L				349	760	0.46	Yes
Gratigny Expressway	SR 826	Red Road/W 4 Av	EB	3 LD	FIHS	Hialeah/Miami Lakes	D	2,878	7,380	0.39	Yes
			WB	3 LD				3,315	7,380	0.45	Yes
W 68 Street/NW 122 Street	Okeechobee Road	NW 97 Avenue	EB	1 L	Collector	Hialeah Gardens	D	327	608	0.54	Yes
			WB	1 L				237	608	0.39	Yes
	NW 97 Avenue	NW 87 Av / W 28 Av	EB	1 L	County Minor Arterial	Hialeah	D	566	608	0.93	Yes
			WB	1 L				611	608	1.01	No
	NW 87 Av / W 28 Av	SR 826	EB	2 LD	County Minor Arterial	Hialeah	D	1,385	1,620	0.86	Yes
			WB	2 LD				1,666	1,620	1.03	No

Notes:
(1) Number of Lanes and Service Volume reflect improvement necessary to reduce or eliminate existing backlog.
(2) Committed Roadway Improvement.
(3) Project related Improvement.

Source: David Plummer and Associates, Inc.

The distribution of Project traffic on the regionally significant roadways analyzed in this study is shown in ***Table 21-7, Project Traffic Assignment***. As requested, the percent impact was calculated as a percentage of total DRI traffic and as a percentage of existing service volumes. In addition, Project traffic on all the regionally significant roadways in the study area is provided in ***Appendix 21-12, Project Consumption Calculations***. The purpose of this data is to show the level of significance Project traffic represents on all the regionally significant roadways in the study area.

Table 21-8, Total Traffic Conditions with Project**,** shows total traffic on the regionally significant roadways with the Project. Intersection Capacity Analyses for total traffic conditions are provided in ***Appendix 21-2, Intersection and Ramp Analysis*****.** The results are summarized in ***Table 21-9, Intersection and Ramp Analysis Results***.

In preparation for development order conditions, it is necessary to establish how much Project development can be supported before the interchange is needed at the HEFT/NW 170 Street. A sensitivity analysis was prepared and is included in ***Appendix 21-13, Sensitivity Analysis***. This sensitivity analysis was done to determine how much Project development can be accomodated prior to the need for the interchange by the existing and committed surface street network.

Table 21-7, Project Traffic Assignment shows that 1,855 pm peak hour, two-way Project trips use NW 107 Avenue and NW 97 Avenue south of NW 154 Street during the Future Traffic Conditions with Project scenario at buildout with the proposed interchange. ***Table 21-8, Future Traffic Conditions with Project*** shows that the future transportation system analyzed can accommodate this amount of Project traffic on these roadways during the future pm peak hour conditions without the proposed interchange. Therefore, the Applicant contemplates that any development order issued for the Beacon Countyline DRI will contain a condition that will limit development to the issuance of certificates of occupancy for an equivalent amount of development which generates 1,855 pm peak hour, net new external trips prior to commence of construction of an interchange on the HEFT at NW 170 Street.

The following sample mix of land uses generating 1,855 pm peak hour two-way trips was generated:

Land Use	**Sample Intensity**
Warehouse	3,570,000 Square Feet
Retail	50,000 Square Feet
Office	150,000 Square Feet

Note that the development program shown above and used as the basis for the analysis is intended as an example only and not necessarily the development program scenario that the Flagler Development would use. The goal was to develop a program that would only generate 1,855 pm peak hour net new external trips, in order to maintain similar impacts on the street network.

The transportation model was run with the committed roadway improvements and without the interchange to obtain a Project distribution in the study area. The Applicant

TABLE 21-7

Project Traffic Assignment (weekday, one-way, PM peak)

Beacon Countyline DRI

Roadway	Limits		Direction	# of Lanes	Roadway Type	LOS STD	Service Volume	Net New External Project Traffic		
	From	To						Project Traffic	% Project	% Consumption
Palmetto Expressway (SR 826)	Red Road/NW 57 Av	NW 67 Av/Ludlam Rd	EB	4 LD	FIHS	D	7,380	172	6%	1.7%
			WB	4 LD			7,380	79		
	NW 67 Av/Ludlam Rd	Miami Lakes Drive	NEB	4 LD	FIHS	D	7,380	80	3%	0.8%
			SWB	4 LD			7,380	37		
	Miami Lakes Drive	I-75	NB	4 LD	FIHS	D	7,380	100	4%	1.0%
			SB	4 LD			7,380	46		
	I-75	W 68 St/NW 122 Street	NB	5 LD	FIHS	D	9,340	112	9%	1.9%
			SB	5 LD			9,340	246		
	W 68 St/NW 122 Street	W 49 Street/NW 103 St	NB	6 LD	FIHS	D	11,310	91	7%	1.3%
			SB	6 LD			11,310	199		
	W 49 Street/NW 103 St	Okeechobee Rd/US 27	NB	6 LD	FIHS	D	11,310	71	5%	1.0%
			SB	6 LD			11,310	155		
	Okeechobee Rd/US 27	NW 74 Street	NB	6 LD	FIHS	D	11,310	69	5%	1.0%
			SB	6 LD			11,310	151		
NW 87 Avenue / West 28 Avenue	Miami Gardens Drive	NW 170 Street	NB	2LD	Collector	D	1,620	88	3%	4.0%
			SB	2LD			1,620	40		
	NW 170 Street	Miami Lakes Drive	NB	2LD	Collector	D	1,620	0	0%	0.0%
			SB	2LD			1,620	0		
	Miami Lakes Drive	I-75	NB	2 LD	Collector	D	1,620	5	0%	0.5%
			SB	2 LD			1,620	10		
I-75	Miramar Parkway	HEFT	NB	5 LD	FIHS	D	9,340	491	17%	3.8%
			SB	5 LD			9,340	224		
	HEFT	NW 186 Street	NB	4 LD	FIHS	D	7,380	0	0%	0.0%
			SB	4 LD			7,380	0		
	NW 186 Street	NW 138 Street	NB	4 LD	FIHS	D	7,380	8	0%	0.1%
			SB	4 LD			7,380	4		
	NW 138 Street	SR 826	EB	5 LD	FIHS	D	9,340	706	25%	5.5%
			WB	5 LD			9,340	322		
NW 97 Avenue	NW 170 Street	NW 154 Street	NB	2LD	NA	D	1,620	385	30%	38.0%
			SB	2LD			1,620	845		
	NW 154 Street	NW 138 Street	NB	2LD	NA	D	1,620	385	30%	38.0%
			SB	2LD			1,620	845		
	NW 138 Street	W 68 Street	NB	1 L	Collector	D	760	15	1%	3.1%
			SB	1 L			760	32		
NW 107 Avenue	NW 166 Street	NW 162 Street	NB	1 L	Collector	D	798	98	7%	19.5%
			SB	1 L			798	214		
	NW 162 Street	NW 154 Street	NB	1 L	Collector	D	798	196	15%	39.2%
			SB	1 L			798	429		
	NW 154 Street	NW 138 Street	NB	1 L	Collector	D	798	196	15%	39.2%
			SB	1 L			798	429		
	NW 138 Street	Okeechobee Rd/US 27	NB	2 LD	Collector	D	1,620	146	11%	14.4%
			SB	2 LD			1,620	320		
HEFT	NW 57 Av (Red Road)	I-75	NB	2 LD	FIHS	D	3,580	207	7%	4.2%
			SB	2 LD			3,580	94		
	I-75	NW 170 Street	NB	4 LD	FIHS	D	7,480	698	24%	6.8%
			SB	4 LD			7,480	318		
	NW 170 Street	Okeechobee Rd/US 27	NB	4 LD	FIHS	D	7,480	229	18%	4.9%
			SB	4 LD			7,480	503		
	Okeechobee Rd/US 27	NW 106 Street	NB	4 LD	FIHS	D	7,480	229	18%	4.9%
			SB	4 LD			7,480	503		
	NW 106 Street	NW 74 Street	NB	4 LD	FIHS	D	7,480	219	17%	4.7%
			SB	4 LD			7,480	480		

Source: David Plummer and Associates, Inc.

TABLE 21-7
Project Traffic Assignment (weekday, one-way, PM peak)
Beacon Countyline DRI

Roadway	Limits		Direction	# of Lanes	Roadway Type	LOS STD	Service Volume (1)	Net New External Project Traffic		
	From	To						Project Traffic	% Project	% Consumption
NW 170 Street	HEFT	NW 97 Avenue	EB	2LD	NA	D	1,620	591	44%	56.6%
			WB	2LD			1,620	1,244		
	NW 97 Avenue	I-75	EB	1 L	NA	D	798	387	14%	35.3%
			WB	1 L			798	176		
	I-75	NW 87 Avenue	EB	1 L	Collector	D	760	387	14%	37.0%
			WB	1 L			760	176		
	NW 87 Avenue	NW 77 Avenue	EB	1 L	Collector	D	760	217	8%	20.8%
			WB	1 L			760	99		
	NW 77 Avenue	NW 67 Avenue	EB	1 L	Collector	D	760	179	6%	17.2%
			WB	1 L			760	82		
NW 138 Street	Okeechobee Rd/US 27	NW 107 Avenue	EB	2LD	Collector	D	1,620	32	2%	3.1%
			WB	2LD			1,620	69		
	NW 107 Avenue	NW 97 Avenue	EB	2LD	Collector	D	1,620	32	1%	1.5%
			WB	2LD			1,620	17		
	NW 97 Avenue	Beacon Station Blvd	EB	2LD	Collector	D	1,620	762	27%	34.2%
			WB	2LD			1,620	347		
NW 130 Street (W 76 Street)	NW 97 Av	Beacon Station Blvd	EB	2LD	County Minor Arterial	D	1,620	70	2%	3.1%
			WB	2LD			1,620	32		
	Beacon Station Blvd	NW 87 Av	EB	1 L	County Minor 0	D	760	61	2%	5.9%
			WB	1 L			760	28		
	NW 87 Av	W of SR 826	EB	1 L	County Minor Arterial	C	760	13	0%	1.3%
			WB	1 L			760	6		
Okeechobee Rd/US 27	West	HEFT	NWB	2 LD	FIHS	C	2,500	22	2%	1.4%
			SEB	2 LD			2,500	49		
	HEFT	NW 138 Street	NWB	3 LD	FIHS	D	2,790	22	2%	1.3%
			SEB	3 LD			2,790	49		
	NW 138 Street	Beacon Station Blvd	NWB	3 LD	FIHS	D	2,790	164	6%	4.3%
			SEB	3 LD			2,790	75		
	Beacon Station Blvd	NW 87 Avenue	NWB	3 LD	FIHS	D	2,790	130	5%	3.4%
			SEB	3 LD			2,790	59		
	NW 87 Avenue	SR 826	NWB	3 LD	FIHS	D	2,790	76	3%	2.0%
			SEB	3 LD			2,790	35		
	SR 826	NW 74 St	NWB	3 LD	State Principal Arterial	E + 20%	3,348	51	2%	1.1%
			SEB	3 LD			3,348	23		
West Okeechobee Rd / Frontage Road	US 27/NW 138 Street	NW 107 Avenue	NWB	1 L	Collector	D	760	0	0%	0.0%
			SEB	1 L			760	0		
	NW 107 Avenue	Hialeah Gardens Blvd	NWB	1 L	Collector	D	760	47	2%	4.5%
			SEB	1 L			760	21		
	Hialeah Gardens Blvd	NW 87 Avenue	NWB	1 L	Collector	D	760	38	1%	3.6%
			SEB	1 L			760	17		
	NW 87 Avenue	NW 77 Avenue	NWB	1 L	Collector	D	760	27	1%	2.6%
			SEB	1 L			760	12		
Gratigny Expressway	SR 826	Red Road/W 4 Av	EB	3 LD	FIHS	D	7,380	359	13%	3.5%
			WB	3 LD			7,380	164		
W 68 Street/NW 122 Street	Okeechobee Road	NW 97 Avenue	EB	1 L	Collector	D	608	38	1%	4.5%
			WB	1 L			608	17		
	NW 97 Avenue	NW 87 Av / W 28 Av	EB	1 L	County Minor Arterial	D	608	51	2%	6.1%
			WB	1 L			608	23		
	NW 87 Av / W 28 Av	SR 826	EB	2 LD	County Minor Arterial	D	1,620	27	1%	1.2%
			WB	2 LD			1,620	12		

Source: David Plummer and Associates, Inc.

TABLE 21-8

Future Traffic Conditions with Project - (weekday, one-way, PM peak)

Beacon Countyline DRI

Roadway	Limits		Direction	# of Lanes	Roadway Type	Municipality	Volume (2018)	LOS STD	Service Volume	V/SV	Meets LOS STD?
	From	To									
Palmetto Expressway (SR 826)	Red Road/NW 57 Av	NW 67 Av/Ludlam Rd	EB	4 LD	FIHS	Miami Lakes	8,307	D	7,380	1.13	No
			WB	4 LD			6,747		7,380	0.91	Yes
	NW 67 Av/Ludlam Rd	Miami Lakes Drive	NEB	5 LD	FIHS	Miami Lakes	8,891	D	9,340	0.95	Yes
			SWB	5 LD			7,162		9,340	0.77	Yes
	Miami Lakes Drive	I-75	NB	4 LD	FIHS	Miami Lakes	9,133	D	7,380	1.24	No
			SB	4 LD			7,117		7,380	0.96	Yes
	I-75	W 68 St/NW 122 Street	NB	5 LD	FIHS	Hialeah	10,587	D	9,340	1.13	No
			SB	5 LD			8,570		9,340	0.92	Yes
	W 68 St/NW 122 Street	W 49 Street/NW 103 St	NB	6 LD	FIHS	Hialeah	10,951	D	11,310	0.97	Yes
			SB	6 LD			8,829		11,310	0.78	Yes
	W 49 Street/NW 103 St	Okeechobee Rd/US 27	NB	6 LD	FIHS	Hialeah/Hialeah	11,287	D	11,310	1.00	Yes
			SB	6 LD			9,068		11,310	0.80	Yes
	Okeechobee Rd/US 27	NW 74 Street	NB	6 LD	FIHS	Medley	11,791	D	11,310	1.04	No
			SB	6 LD			9,550		11,310	0.84	Yes
NW 87 Avenue / West 28 Avenue	Miami Gardens Drive	NW 170 Street	NB	2LD	Collector	Miami-Dade	542	D	1,620	0.33	Yes
			SB	2LD			770		1,620	0.48	Yes
	NW 170 Street	Miami Lakes Drive	NB	2LD	Collector	Miami Lakes	183	NA	1,620	0.11	Yes
			SB	2LD			368		1,620	0.23	Yes
	Miami Lakes Drive	I-75	NB	2 LD	Collector	Miami Lakes	1,221	D	1,620	0.75	Yes
			SB	2 LD			938		1,620	0.58	Yes
I-75	Miramar Parkway	HEFT	NB	5 LD	FIHS	Miramar	9,576	D	9,340	1.03	No
			SB	5 LD			8,690		9,340	0.93	Yes
	HEFT	NW 186 Street	NB	4 LD	FIHS	Miami-Dade	6,051	D	7,380	0.82	Yes
			SB	4 LD			5,995		7,380	0.81	Yes
	NW 186 Street	NW 138 Street	NB	4 LD	FIHS	Miami	6,564	D	7,380	0.89	Yes
			SB	4 LD			5,891		7,380	0.80	Yes
	NW 138 Street	SR 826	EB	5 LD	FIHS	Miami	7,264	D	9,340	0.78	Yes
			WB	5 LD			7,339		9,340	0.79	Yes
NW 97 Avenue	NW 170 Street	NW 154 Street	NB	2LD	Collector	Hialeah	522	NA	1,620	0.32	Yes
			SB	2LD			1,014		1,620	0.63	Yes
	NW 154 Street	NW 138 Street	NB	2LD	Collector	Hialeah	522	NA	1,620	0.32	Yes
			SB	2LD			1,014		1,620	0.63	Yes
	NW 138 Street	W 68 Street	NB	1 L	Collector	Hialeah/Hialeah	278	D	760	0.37	Yes
			SB	1 L			192		760	0.25	Yes
NW 107 Avenue	NW 166 Street	NW 162 Street	NB	1 L	Collector	Hialeah/Hialeah	98	NA	798	0.12	Yes
			SB	1 L			214		798	0.27	Yes
	NW 162 Street	NW 154 Street	NB	1 L	Collector	Hialeah/Hialeah	196	NA	798	0.25	Yes
			SB	1 L			429		798	0.54	Yes
	NW 154 Street	NW 138 Street	NB	1 L	Collector	Hialeah/Hialeah	320	D	798	0.40	Yes
			SB	1 L		Gardens	550		798	0.69	Yes
	NW 138 Street	Okeechobee Rd/US 27	NB	2 LD	Collector	Hialeah Gardens	617	D	1,620	0.38	Yes
			SB	2 LD			668		1,620	0.41	Yes
HEFT	NW 57 Av (Red Road)	I-75	NB	2 LD	FIHS	Miramar	4,814	D	3,580	1.34	No
			SB	2 LD			3,408		3,580	0.95	Yes
	I-75	NW 170 Street	NB	4 LD	FIHS	Miami-Dade	8,944	D	7,480	1.20	No
			SB	4 LD			6,204		7,480	0.83	Yes
	NW 170 Street	Okeechobee Rd/US 27	NB	4 LD	FIHS	Miami-	8,593	D	7,480	1.15	No
			SB	4 LD		Dade/Hialeah	6,434		7,480	0.86	Yes
	Okeechobee Rd/US 27	NW 106 Street	NB	4 LD	FIHS	Miami-	9,169	D	7,480	1.23	No
			SB	4 LD		Dade/Medley	6,803		7,480	0.91	Yes
	NW 106 Street	NW 74 Street	NB	4 LD	FIHS	Miami-Dade	9,740	D	7,480	1.30	No
			SB	4 LD			7,402		7,480	0.99	Yes

Source: David Plummer and Associates, Inc.

TABLE 21-8
Future Traffic Conditions with Project - (weekday, one-way, PM peak)
Beacon Countyline DRI

Roadway	Limits		Direction	# of Lanes	Roadway Type	Municipality	Volume (2018)	LOS STD	Service Volume	V/SV	Meets LOS STD?
	From	To									
NW 170 Street	HEFT	NW 97 Avenue	EB	2LD	Collector	Miami-Dade/Hialeah	987	NA	1,620	0.61	Yes
			WB	2LD			1,535		1,620	0.95	Yes
	NW 97 Avenue	I-75	EB	1 L	Collector	Miami-	618	NA	798	0.77	Yes
			WB	1 L			328		798	0.41	Yes
	I-75	NW 87 Avenue	EB	1 L	Collector	Miami-	673	D	760	0.89	Yes
			WB	1 L			417		760	0.55	Yes
	NW 87 Avenue	NW 77 Avenue	EB	1 L	Collector	Miami-	609	D	760	0.80	Yes
			WB	1 L			546		760	0.72	Yes
	NW 77 Avenue	NW 67 Avenue	EB	1 L	Collector	Miami-	556	D	760	0.73	Yes
			WB	1 L			521		760	0.69	Yes
NW 138 Street	Okeechobee Rd/US 27	NW 107 Avenue	EB	2LD	Collector	Hialeah/Hialeah	606	D	1,620	0.37	Yes
			WB	2LD			477		1,620	0.29	Yes
	NW 107 Avenue	NW 97 Avenue	EB	2LD	Collector	Hialeah/Hialeah	570	D	1,620	0.35	Yes
			WB	2LD			394		1,620	0.24	Yes
	NW 97 Avenue	Beacon Station Blvd	EB	2LD	Collector	Hialeah	1,427	D	1,620	0.88	Yes
			WB	2LD			992		1,620	0.61	Yes
NW 130 Street (W 76 Street)	NW 97 Av	Beacon Station Blvd	EB	2LD	County Minor Arterial	Hialeah	468	D	1,620	0.29	Yes
			WB	2LD			603		1,620	0.37	Yes
	Beacon Station Blvd	NW 87 Av	EB	1 L	County Minor Arterial	Hialeah	645	D	760	0.85	Yes
			WB	1 L			673		760	0.89	Yes
	NW 87 Av	W of SR 826	EB	1 L	County Minor Arterial	Hialeah	438	C	760	0.58	Yes
			WB	1 L			509		760	0.67	Yes
Okeechobee Rd/US 27	West	HEFT	NWB	2 LD	FIHS	Hialeah Gardens	1,343	C	2,500	0.54	Yes
			SEB	2 LD			1,160		2,500	0.46	Yes
	HEFT	NW 138 Street	NWB	3 LD	FIHS	Hialeah/Hialeah Gardens	1,315	D	2,790	0.47	Yes
			SEB	3 LD			1,117		2,790	0.40	Yes
	NW 138 Street	Beacon Station Blvd	NWB	3 LD	FIHS	Hialeah Gardens	1,393	D	2,790	0.50	Yes
			SEB	3 LD			1,111		2,790	0.40	Yes
	Beacon Station Blvd	NW 87 Avenue	NWB	3 LD	FIHS	Hialeah Gardens	2,336	D	2,790	0.84	Yes
			SEB	3 LD			1,884		2,790	0.68	Yes
	NW 87 Avenue	SR 826	NWB	3 LD	FIHS	Hialeah Gardens	2,540	D	2,790	0.91	Yes
			SEB	3 LD			2,089		2,790	0.75	Yes
	SR 826	NW 74 St	NWB	3 LD	State Principal Arterial	Hialeah	3,117	E + 20%	3,348	0.93	Yes
			SEB	3 LD			2,187		3,348	0.65	Yes
West Okeechobee Rd / Frontage Road	US 27/NW 138 Street	NW 107 Avenue	NWB	1 L	Collector	Hialeah Gardens	396	D	760	0.52	Yes
			SEB	1 L			531		760	0.70	Yes
	NW 107 Avenue	Hialeah Gardens Blvd	NWB	1 L	Collector	Hialeah Gardens	536	D	760	0.71	Yes
			SEB	1 L			266		760	0.35	Yes
	Hialeah Gardens Blvd	NW 87 Avenue	NWB	1 L	Collector	Hialeah Gardens	310	D	760	0.41	Yes
			SEB	1 L			308		760	0.41	Yes
	NW 87 Avenue	NW 77 Avenue	NWB	1 L	Collector	Hialeah Gardens	793	D	760	1.04	No
			SEB	1 L			361		760	0.48	Yes
Gratigny Expressway	SR 826	Red Road/W 4 Av	EB	3 LD	State Principal Arterial	Hialeah/Miami Lakes	3,237	D	7,380	0.44	Yes
			WB	3 LD			3,479		7,380	0.47	Yes
W 68 Street/NW 122 Street	Okeechobee Road	NW 97 Avenue	EB	1 L	Collector	Hialeah Gardens	365	D	608	0.60	Yes
			WB	1 L			254		608	0.42	Yes
	NW 97 Avenue	NW 87 Av / W 28 Av	EB	1 L	County Minor Arterial	Hialeah	617	D	608	1.02	No
			WB	1 L			634		608	1.04	No
	NW 87 Av / W 28 Av	SR 826	EB	2 LD	County Minor Arterial	Hialeah	1,412	D	1,620	0.87	Yes
			WB	2 LD			1,678		1,620	1.04	No

Source: David Plummer and Associates, Inc.

TABLE 21-9
Intersection and Ramp Analysis Results
Beacon Countyline DRI

Intersection/Ramp	Time Period	Existing	Existing w Imps [1]	Future wo Project	Future w Project	Future w Project w Imps
NW 122 St/NW 97 Av	PM	B	---	B	C	---
NW 122 St/NW 87 Av	PM	D	---	D	D	D
NW 170 St/HEFT West Ramp	PM	---	---	---	---	B
NW 170 St/HEFT East Ramp	PM	---	---	---	---	C
NW 170 St/ NW 102 Av	PM	---	---	---	---	B
NW 170 St/ NW 97 Av	PM	---	---	---	---	B
NW 162 St/ NW 107 Av	PM	---	---	---	---	A
NW 162 St/ NW 107 Av	PM	---	---	---	---	C
HEFT NEB to I-75 NB Diverge	AM	A	A	A	A	---
	PM	A	A	A	A	---
HEFT NEB to I-75 NB Merge	AM	A	---	A	A	A
	PM	B	---	F	F	C
I-75 SB to HEFT SWB Diverge	AM	B	---	B	F	(2)
	PM	A	---	B	B	(2)
I-75 SB to HEFT SWB Merge	AM	B	---	F	F	(2)
	PM	A	---	A	B	(2)
HEFT/NW 170 St Ramps [3]	PM	---	---	---	---	C
NW 138 Street EB to I-75 EB Merge	AM	B	---	D	D	---
	PM	C	---	C	C	---
NW 138 Street EB to I-75 EB Diverge	AM	A	---	B	B	---
	PM	A	---	A	B	---
I-75 EB to SR 826 SB Diverge	AM	F	A	A	A	---
	PM	B	A	A	A	---
I-75 EB to SR 826 SB Merge	AM	A	---	B	B	B
	PM	F	B	C	F	B
SR 826 NB to I-75 WB Diverge	AM	A	---	A	A	---
	PM	A	---	A	F	(2)
SR 826 NB to I-75 WB Merge	AM	A	---	F	F	B
	PM	A	---	B	B	B

***Notes*:** [1] Improvement reflected is necessary to reduce or eliminate existing backlog.
[2] Improved cross-section is beyond HCS capabilities.
[3] Based on preliminary interchange configuration obtained from the Florida Turnpike Enterprise.

has agreed not to fund the construction of the extension of NW 170 Street east of NW 97 Avenue until the interchange is completed. Therefore, this section of roadway was not included in this analysis. The number of daily trips generated by this sample mix of land uses was reflected in this model run. Project volumes for this scenario accessing NW 107 Avenue and NW 97 Avenue south of NW 154 Street were checked to determine if they exceed the 1,855 pm peak hour, two-way Project volume, which it does not.

F. Based on the assignment of trips as shown in (D) and (E) above, what modifications in the highway network (including intersections) will be necessary at the end of each phase of development, to attain and maintain local and regional level of service standards? Identify which of the above improvements are required by traffic not associated with the DRI at the end of each phase. For those improvements which will be needed earlier as a result of the DRI, indicate how much earlier. Where applicable, identify Transportation System Management (TSM) alternatives (e.g., signalization, one-way pairs, ridesharing, etc.) that will be used and any other measures necessary to mitigate other impacts such as increased maintenance due to a large number of truck movements.

Although proportionate share is only assessed on roadway segments projected to operate above the adopted level of service standard, and where Project traffic utilizes five percent or more of the road service volume, the DRI process requires that all deficient roadway segments be identified. The following improvements are needed for 2018 traffic conditions without the addition of Project traffic to support all area development. These improvements are in addition to the improvements listed in section 21.A, which are needed to eliminate backlogs for existing (2007) traffic conditions.

- SR 826 – Palmetto Expressway, between I-75 and NW 122 Street (W 68 Street), widen from 10 lanes to 12 lanes;
- SR 826 – Palmetto Expressway, between Okeechobee Road and NW 74 Street, widen from 12 lanes to 14 lanes;
- The Homestead Extension of the Florida Turnpike (HEFT), between Red Road (NW 57 Avenue) and I-75, widen from 4 lanes to 6 lanes;
- The Homestead Extension of the Florida Turnpike (HEFT), between I-75 and NW 170 Street, widen from 8 lanes to 10 lanes;
- The Homestead Extension of the Florida Turnpike (HEFT), between NW 170 Street and Okeechobee Road, widen from 8 lanes to 10 lanes;
- The Homestead Extension of the Florida Turnpike (HEFT), between Okeechobee Road and NW 106 Street, widen from 8 lanes to 10 lanes;
- The Homestead Extension of the Florida Turnpike (HEFT), between NW 106 Street and NW 74 Street, widen from 8 lanes to 12 lanes;

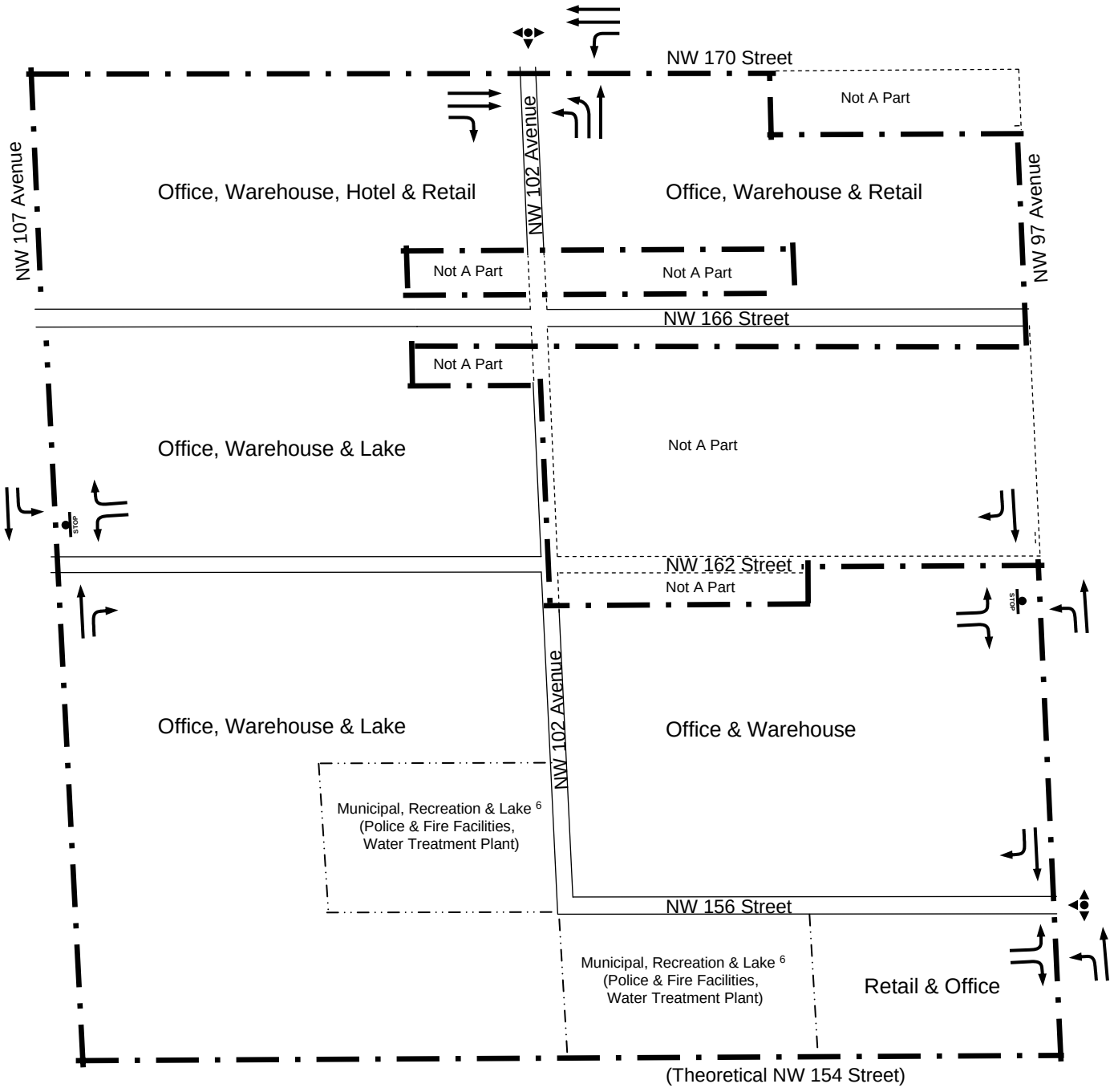
- West Okeechobee Road (Frontage Road), between NW 87 Avenue and NW 77 Avenue, widen from 2 lanes undivided to 2 lanes divided;
- NW 122 Street (W 68 Street), NW 97 Avenue and NW 87 Avenue, widen from 2 lanes to 4 lanes;
- NW 122 Street (W 68 Street), NW 87 Avenue and SR 826, widen from 4 lanes to 6 lanes;
- NW 87 Avenue / NW 122 Street (W 68 Street) intersection, signal re-timing;
- HEFT north-east bound to I-75 northbound, add northbound through lane at merge area;
- I-75 southbound to HEFT south-west bound ramp add 1 ramp lane;
- I-75 eastbound to Palmetto Expressway (SR 826) southbound, add a mainline thru lane at merge area; and,
- Palmetto Expressway (SR 826) northbound to I 75 westbound, add a mainline thru lane at merge area.

The following additional improvements are needed to accommodate future traffic conditions once Project traffic is added to the street network.

- I-75, between Miramar Parkway and the Homestead Extension of the Florida Turnpike (HEFT), widen from 10 lanes to 12 lanes;
- NW 122 Street (W 68 Street), NW 97 Avenue and NW 87 Avenue, widen from 2 lanes to 4 lanes;
- NW 170 Street / NW 102 Avenue, Signalization;
- NW 170 Street / NW 97 Avenue, Signalization;
- NW 156 Street / NW 97 Avenue, Signalization; and,
- Palmetto Expressway (SR 826) northbound to I-75 westbound, add a mainline thru lane at diverge area.

G. Identify the anticipated number and general location of access points for driveways, median openings and roadways necessary to accommodate the proposed development. Describe how the applicant's access plan will minimize the impacts of the proposed development and preserve or enhance traffic flow on the existing and proposed transportation system. This information will assist the applicant and governmental agencies in reaching conceptual agreement regarding the anticipated access points. While the ADA may constitute a conceptual review for access points, it is not a permit application and, therefore, the applicant is not required to include specific design requirements (geometry) until the time of permit application.

Exhibit 21-4, Principal Project Access, shows the development plan and proposed principal project access points for the Project. Access to the Project is proposed



Legend:

N

- Property Boundary
- Approximate Municipal, Recreation Parcel Boundary 6
- On-site Roadway
- Off-site Roadway

Exhibit 21-4
Principal Project Access
Beacon Countyline
November 2007

Source: The Curtis Group

through connections to NW 170 Street, NW 97 Avenue and NW 107 Avenue. One main connection is proposed at NW 170 Street at the proposed intersection with NW 102 Avenue. Two main connections are proposed at NW 97 Avenue, at NW 162 Street and NW 156 Street. Two main connections are proposed at NW 107 Avenue, at NW 166 Street and NW 162 Street. All main connections to the external roadway network have been analyzed in previous sections.

H. If applicable, describe how the project will complement the protection of existing, or development of proposed, transportation corridors designated by local governments in their comprehensive plans. In addition, identify what commitments will be made to protect the designated corridors such as interlocal agreements, right-of-way dedication, building set-backs, etc.

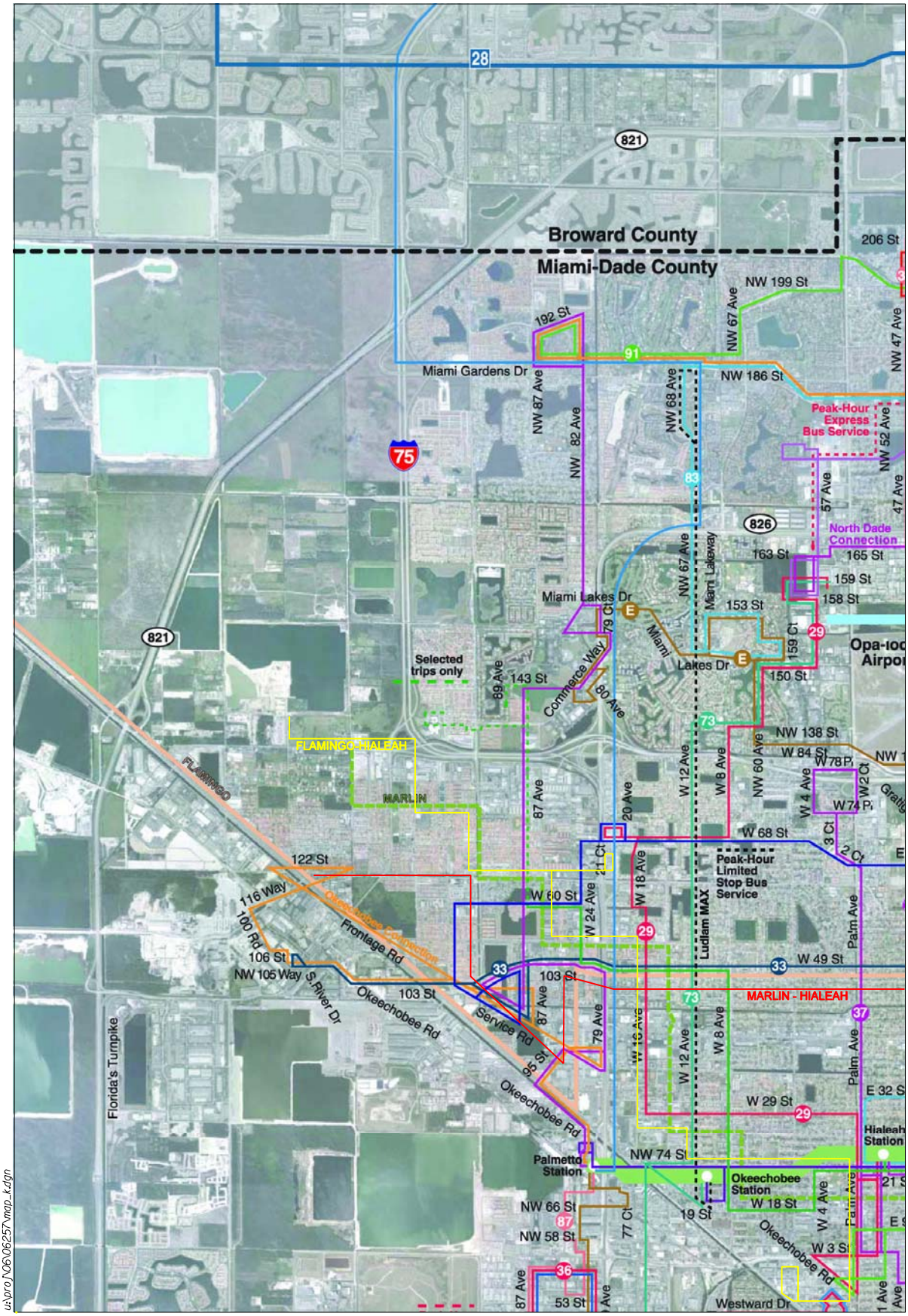
Beacon Countyline presents an opportunity to construct and/or contribute transportation improvements identified in the local government Comprehensive Plans. The Project will construct several roadways that will provide connectivity in this area of Hialeah. The extension of NW 107 Avenues and NW 97 Avenues north of NW 154 Street to NW 170 Street, which are both in the Miami-Dade County Long Range Plan. The extension of NW 170 Street from HEFT to the existing I-75 overpass will provide an additional east/west thoroughfare in the area.

In addition, the Developer will work closely with the Turnpike Enterprise towards the construction of a new interchange at HEFT with NW 170 Street.

I. What provisions, including but not limited to sidewalks, bicycle paths, internal shuttles, ridesharing and public transit, will be made for the movement of people by means other than private automobile? Refer to internal design, site planning, parking provisions, location, etc.

A review of transit availability in the study area indicates that there are no existing Miami-Dade bus routes serving this area within a mile of the Site. The City of Hialeah Transit System offers two bus routes serving the City, which operate between 6:00 AM and 9:00 PM on weekdays. ***Exhibit 21-5, Existing Transit***, shows the existing routes serving the study area. The City has expressed their commitment to extend existing transit services to the Project Site. It is anticipated that Miami-Dade Transit (MDT) would also extend its transit system to this area.

Accommodations will be made within the Project for bus bays, bus stops, shelters and the like to promote transit ridership. Pedestrian linkages will be integrated into the Project design to ensure maximum non-vehicular travel. The developer will coordinate with Miami-Dade Transit Agency to facilitate the extension of transit service closer to the site. Additionally, Transportation Demand Management (TDM) strategies, such as those listed in ***Appendix 21-14, Transportation Demand Strategies***, will be encouraged as part of this Project to improve mobility. These strategies include carpooling, vanpooling, telecommuting, and alternative work hours, to name a few.



Source: David Plummer & Associates

Exhibit 21-5

Existing Transit Routes

Beacon Countyline DRI

APPENDIX 21-1
Traffic Counts and Factors

Existing Traffic Factors
Beacon Countyline DRI

Roadway	Limits		K 30	D
	From	To		
Palmetto Expressway (SR 826)	Red Road/NW 57 Av	NW 67 Av/Ludlam Rd	10.06	56.25
	NW 67 Av/Ludlam Rd	Miami Lakes Drive	10.06	56.25
	Miami Lakes Drive	I-75	10.06	56.25
	I-75	W 68 St/NW 122 Street	10.06	56.25
	W 68 St/NW 122 Street	W 49 Street/NW 103 St	10.06	56.25
	W 49 Street/NW 103 St	Okeechobee Rd/US 27	10.06	56.25
	Okeechobee Rd/US 27	NW 74 Street	10.06	56.25
I-75	Miramar Parkway	HEFT	9.21	54.53
	HEFT	NW 186 Street	8.22	53.89
	NW 186 Street	NW 138 Street	9.21	54.53
	NW 138 Street	SR 826	9.21	54.53
HEFT	NW 57 Av (Red Road)	I-75	10.05	59.22
	I-75	NW 170 Street	10.05	59.22
	NW 170 Street	Okeechobee Rd/US 27	10.05	59.22
	Okeechobee Rd/US 27	NW 106 Street	10.05	59.22
	NW 106 Street	NW 74 Street	10.05	59.22
Okeechobee Rd/US 27	West	HEFT	9 *	54.22
	HEFT	NW 138 Street	9 *	54.22
	NW 138 Street	Beacon Station Blvd	9 *	54.22
	Beacon Station Blvd	NW 87 Avenue	9 *	54.22
	NW 87 Avenue	SR 826	9 *	54.22
	SR 826	NW 74 St	9 *	58.66
Gratigny Expressway	SR 826	Red Road/W 4 Av	8.79	53.81
W 68 Street/NW 122 Street	NW 87 Av / W 28 Av	SR 826	NA	55

NOTES:

* Although published data shows a lower K factor, the mininum factors recommended in the 2002 QLOS Handbook Addendum were used.

Source: David Plummer and Associates, Inc.

Source of Existing Counts

Beacon Countyline DRI

Roadway	Limits		Source/ Station	Year of Count
	From	To		
Palmetto Expressway (SR 826)	Red Road/NW 57 Av	NW 67 Av/Ludlam Rd	FDOT 554	2006
	NW 67 Av/Ludlam Rd	Miami Lakes Drive	FDOT 576	2006
	Miami Lakes Drive	I-75	FDOT 576	2006
	I-75	W 68 St/NW 122 Street	FDOT 575	2006
	W 68 St/NW 122 Street	W 49 Street/NW 103 St	FDOT 574	2006
	W 49 Street/NW 103 St	Okeechobee Rd/US 27	FDOT 553	2006
	Okeechobee Rd/US 27	NW 74 Street	FDOT 573	2006
NW 87 Avenue / West 28 Avenue	Miami Gardens Drive	NW 170 Street	DPA TM	2007
	NW 170 Street	Miami Lakes Drive	DPA TM	2007
	Miami Lakes Drive	I-75	DPA 24 HR	2007
I-75	Miramar Parkway	HEFT	FDOT 2503	2006
	HEFT	NW 186 Street	FDOT 2501	2005
	NW 186 Street	NW 138 Street	FDOT 2501	2006
	NW 138 Street	SR 826	FDOT 2500	2006
NW 97 Avenue	NW 170 Street	NW 154 Street	NOT EXISTING	NA
	NW 154 Street	NW 138 Street	DPA TM	2007
	NW 138 Street	W 68 Street	DPA TM	2007
NW 107 Avenue	NW 166 Street	NW 162 Street	NOT EXISTING	NA
	NW 162 Street	NW 154 Street	NOT EXISTING	NA
	NW 154 Street	NW 138 Street	DPA TM	2007
	NW 138 Street	Okeechobee Rd/US 27	DPA TM	2007
HEFT	NW 57 Av (Red Road)	I-75	DOT 2285	2006
	I-75	NW 170 Street	DOT 2248	2006
	NW 170 Street	Okeechobee Rd/US 27	DOT 2248	2006
	Okeechobee Rd/US 27	NW 106 Street	DOT 2272	2006
	NW 106 Street	NW 74 Street	DOT 2268	2006
NW 170 Street	HEFT	NW 97 Avenue	NOT EXISTING	NA
	NW 97 Avenue	I-75	NOT EXISTING	NA
	I-75	NW 87 Avenue	DPA TM	2007
	NW 87 Avenue	NW 77 Avenue	DPA TM	2007
	NW 77 Avenue	NW 67 Avenue	DPA TM	2007
NW 138 Street	Okeechobee Rd/US 27	NW 107 Avenue	DPA TM	2007
	NW 107 Avenue	NW 97 Avenue	DPA TM	2007
	NW 97 Avenue	Beacon Station Blvd	DPA TM	2007
NW 130 Street (W 76 Street)	NW 97 Av	Beacon Station Blvd	DPA TM	2007
	Beacon Station Blvd	NW 87 Av	DPA TM	2007
	NW 87 Av	W of SR 826	DPA TM	2007
Okeechobee Rd/US 27	West	HEFT	FDOT 7	2006
	HEFT	NW 138 Street	FDOT 2536	2006
	NW 138 Street	Beacon Station Blvd	FDOT 2536	2006
	Beacon Station Blvd	NW 87 Avenue	FDOT 109	2006
	NW 87 Avenue	SR 826	FDOT 2537	2006
	SR 826	NW 74 St	FDOT 528	2006
West Okeechobee Rd / Frontage Road	US 27/NW 138 Street	NW 107 Avenue	DPA TM	2007
	NW 107 Avenue	Hialeah Gardens Blvd	DPA TM	2007
	Hialeah Gardens Blvd	NW 87 Avenue	DPA TM	2007
	NW 87 Avenue	NW 77 Avenue	DPA TM	2007
Gratigny Expressway	SR 826	Red Road/W 4 Av	FDOT 2511	2005
W 68 Street/NW 122 Street	Okeechobee Road	NW 97 Avenue	DPA TM	2007
	NW 97 Avenue	NW 87 Av / W 28 Av	DPA TM	2007
	NW 87 Av / W 28 Av	SR 826	MDC 9522	2004

Florida Department of Transportation
Transportation Statistics Office
200 Highest Hour Report - Report Type: ALL
Year 2006

COUNTY: 97 - FL. TURNPIKE
SITE: 9934
DESCRIPTION: SR-821/HEFT,S OF I-75 INTERCHANGE,DADE CO.
LOCATION: 87471000 Milepost 36.00
AADT: 89844

	Valid Data
Hours	7248
Days	302
Weeks	47
Months	12

Position	Counts					Collection			"D"	"K"
	Total Count	Low Dir	Low Count	High Dir	High Count	Day	Date	Hour	Factor	Factor
1	9457	N	3491	S	5966	WED	03/15/06	8	63.09	10.53
2	9437	N	3503	S	5934	THU	03/23/06	8	62.88	10.50
3	9431	N	3580	S	5851	THU	02/16/06	8	62.04	10.50
4	9424	S	4107	N	5317	FRI	11/17/06	18	56.42	10.49
5	9413	N	3640	S	5773	FRI	01/27/06	8	61.33	10.48
6	9399	N	3538	S	5861	FRI	03/10/06	8	62.36	10.46
7	9387	N	3556	S	5831	FRI	03/24/06	8	62.12	10.45
8	9385	N	3504	S	5881	MON	02/27/06	8	62.66	10.45
9	9381	N	3424	S	5957	MON	02/13/06	8	63.50	10.44
10	9374	N	3401	S	5973	WED	02/15/06	8	63.72	10.43
11	9350	N	3509	S	5841	THU	02/02/06	8	62.47	10.41
12	9347	N	3507	S	5840	THU	01/19/06	8	62.48	10.40
13	9329	N	3393	S	5936	TUE	01/31/06	8	63.63	10.38
14	9312	N	3343	S	5969	WED	11/08/06	8	64.10	10.36
15	9307	N	3397	S	5910	WED	02/08/06	8	63.50	10.36
16	9304	N	3431	S	5873	FRI	03/03/06	8	63.12	10.36
17	9302	N	3512	S	5790	MON	01/30/06	8	62.24	10.35
18	9299	N	3544	S	5755	WED	03/22/06	8	61.89	10.35
19	9298	N	3454	S	5844	FRI	02/03/06	8	62.85	10.35
20	9298	N	3436	S	5862	MON	10/30/06	8	63.05	10.35
21	9297	N	3486	S	5811	MON	03/20/06	8	62.50	10.35
22	9285	N	3448	S	5837	MON	03/27/06	8	62.86	10.33
23	9283	N	3488	S	5795	WED	03/01/06	8	62.43	10.33
24	9272	N	3468	S	5804	MON	11/20/06	8	62.60	10.32
25	9270	N	3423	S	5847	WED	02/01/06	8	63.07	10.32
26	9263	N	3457	S	5806	TUE	01/17/06	8	62.68	10.31
27	9262	N	3543	S	5719	FRI	03/17/06	8	61.75	10.31
28	9261	N	3558	S	5703	TUE	03/07/06	8	61.58	10.31
29	9250	N	3437	S	5813	THU	11/16/06	8	62.84	10.30
30	9245	N	3425	S	5820	WED	03/08/06	8	62.95	10.29
31	9241	S	3888	N	5353	THU	02/23/06	18	57.93	10.29
32	9241	S	3830	N	5411	TUE	11/14/06	18	58.55	10.29
33	9239	N	3399	S	5840	FRI	02/17/06	8	63.21	10.28
34	9238	S	3802	N	5436	FRI	03/31/06	18	58.84	10.28
35	9231	N	3386	S	5845	MON	03/06/06	8	63.32	10.27
36	9227	N	3462	S	5765	TUE	03/14/06	8	62.48	10.27
37	9224	N	3325	S	5899	FRI	11/17/06	8	63.95	10.27
38	9219	N	3468	S	5751	TUE	02/07/06	8	62.38	10.26
39	9211	N	3457	S	5754	THU	11/02/06	8	62.47	10.25
40	9198	N	3373	S	5825	MON	11/13/06	8	63.33	10.24

Design Hour Data

Design "D" = 60.77% (Average of 28th-32nd hour)
Design "K" = 10.29%

Florida Department of Transportation
Transportation Statistics Office
200 Highest Hour Report - Report Type: ALL
Year 2006

COUNTY: 97 - FL. TURNPIKE
SITE: 9934
DESCRIPTION: SR-821/HEFT,S OF I-75 INTERCHANGE,DADE CO.
LOCATION: 87471000 Milepost 36.00
AADT: 89844

	Valid Data
Hours	7248
Days	302
Weeks	47
Months	12

Position	Counts					Collection			"D"	"K"
	Total Count	Low Dir	Low Count	High Dir	High Count	Day	Date	Hour	Factor	Factor
45	9180	N	3414	S	5766	TUE	03/21/06	8	62.81	10.22
50	9151	N	3416	S	5735	THU	05/11/06	8	62.67	10.19
55	9138	N	3477	S	5661	WED	10/11/06	8	61.95	10.17
60	9126	N	3537	S	5589	WED	02/22/06	8	61.24	10.16
65	9102	N	3509	S	5593	THU	04/06/06	8	61.45	10.13
70	9095	N	3411	S	5684	MON	05/22/06	8	62.50	10.12
75	9088	N	3280	S	5808	MON	01/09/06	8	63.91	10.12
80	9068	N	3331	S	5737	WED	01/18/06	8	63.27	10.09
85	9053	N	3320	S	5733	WED	01/11/06	8	63.33	10.08
90	9042	N	3415	S	5627	THU	12/07/06	8	62.23	10.06
95	9034	N	3295	S	5739	THU	01/26/06	8	63.53	10.06
100	9027	S	3681	N	5346	WED	01/11/06	18	59.22	10.05
105	9002	N	3373	S	5629	MON	04/10/06	8	62.53	10.02
110	8986	N	3225	S	5761	MON	12/04/06	8	64.11	10.00
115	8979	N	3259	S	5720	WED	01/04/06	8	63.70	9.99
120	8972	S	3859	N	5113	FRI	04/07/06	17	56.99	9.99
125	8961	N	3372	S	5589	FRI	01/20/06	8	62.37	9.97
130	8952	N	3452	S	5500	FRI	08/25/06	8	61.44	9.96
135	8945	N	3307	S	5638	FRI	12/08/06	8	63.03	9.96
140	8925	S	3737	N	5188	FRI	04/07/06	18	58.13	9.93
145	8914	S	3661	N	5253	WED	01/18/06	18	58.93	9.92
150	8910	N	3365	S	5545	FRI	10/27/06	8	62.23	9.92
155	8894	N	3378	S	5516	MON	04/17/06	8	62.02	9.90
160	8887	S	3414	N	5473	THU	08/31/06	18	61.58	9.89
165	8879	S	3612	N	5267	MON	11/13/06	18	59.32	9.88
170	8874	N	3399	S	5475	WED	10/18/06	8	61.70	9.88
175	8860	N	3258	S	5602	TUE	06/13/06	8	63.23	9.86
180	8849	S	3750	N	5099	FRI	05/05/06	18	57.62	9.85
185	8836	N	3338	S	5498	MON	08/28/06	8	62.22	9.83
190	8832	N	3399	S	5433	TUE	02/14/06	9	61.51	9.83
195	8827	S	3584	N	5243	TUE	01/17/06	18	59.40	9.82
200	8820	S	3697	N	5123	TUE	03/28/06	18	58.08	9.82

Design Hour Data

Design "D" = 60.77% (Average of 28th-32nd hour)
Design "K" = 10.29%

FLORIDA DEPARTMENT OF TRANSPORTATION
2006 Annual Average Daily Traffic Report - Report Type: ALL

County: 87 MIAMI-DADE

Site	Site Type	Description	Direction 1	Direction 2	AADT Two-Way	"K" Fctr	"D" Fctr	"T" Fctr
0554		SR 826/PALMETTO EXPWY, 1100' W NW 57 AV/SR 823	E 62500	W 60000	122500 C	10.06S	56.25S	4.69D

Site Type : P= Portable; T= Telemetered
AADT Flags : C= Computed; E= Manual Est; F= First Yr Est P= Prior Year; S= Second Yr Est; T= Third Yr Est; X= Unknown
"K/D" Flags : A= Actual; F= Volume Fctr Catg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; W= One-Way Road
"T" Flags : A= Actual; F= Axle Fctr Catg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; X= Cross-Reference

FLORIDA DEPARTMENT OF TRANSPORTATION
2006 Annual Average Daily Traffic Report - Report Type: ALL

County: 87 MIAMI-DADE

Site	Site Type	Description	Direction 1	Direction 2	AADT Two-Way	"K" Fctr	"D" Fctr	"T" Fctr
0576		SR 826/PALMETTO EXPWY, 1000' N NW 138 ST	N 51000	S 51500	102500 C	10.06S	56.25S	4.69D

Site Type : P= Portable; T= Telemetered
AADT Flags : C= Computed; E= Manual Est; F= First Yr Est P= Prior Year; S= Second Yr Est; T= Third Yr Est; X= Unknown
"K/D" Flags : A= Actual; F= Volume Fctr Catg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; W= One-Way Road
"T" Flags : A= Actual; F= Axle Fctr Catg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; X= Cross-Reference

FLORIDA DEPARTMENT OF TRANSPORTATION
2006 Annual Average Daily Traffic Report - Report Type: ALL

County: 87 MIAMI-DADE

Site	Site Type	Description	Direction 1	Direction 2	AADT Two-Way	"K" Fctr	"D" Fctr	"T" Fctr
0575		SR 826/PALMETTO EXPWY, 1200' N NW 122 ST	N 77500	S 79500	157000 C	10.06S	56.25S	4.69D

Site Type : P= Portable; T= Telemetered
AADT Flags : C= Computed; E= Manual Est; F= First Yr Est P= Prior Year; S= Second Yr Est; T= Third Yr Est; X= Unknown
"K/D" Flags : A= Actual; F= Volume Fctr Catg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; W= One-Way Road
"T" Flags : A= Actual; F= Axle Fctr Catg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; X= Cross-Reference

FLORIDA DEPARTMENT OF TRANSPORTATION
2006 Annual Average Daily Traffic Report - Report Type: ALL

County: 87 MIAMI-DADE

Site	Site Type	Description	Direction 1	Direction 2	AADT Two-Way	"K" Fctr	"D" Fctr	"T" Fctr
0574		SR 826/PALMETTO EXPWY, 1000' N NW 103 ST	N 83000	S 81000	164000 C	10.06S	56.25S	4.69D

Site Type : P= Portable; T= Telemetered
AADT Flags : C= Computed; E= Manual Est; F= First Yr Est P= Prior Year; S= Second Yr Est; T= Third Yr Est; X= Unknown
"K/D" Flags : A= Actual; F= Volume Fctr Catg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; W= One-Way Road
"T" Flags : A= Actual; F= Axle Fctr Catg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; X= Cross-Reference

Printed on: 09/20/2007

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2006 AADT FORECAST

COUNTY: 87 MIAMI-DADE

SITE	DESCRIPTION	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
0553	SR 826/PALMETTO EXPWY, 600' N OKEECHOBEE RD	170,900	171,400	171,800	172,200	172,700	173,100	173,500	174,000	174,400	174,800

Future year AADT estimates are projections using from 4 to 13 years of data. A straight line is fitted between the average of the earliest and latest 3 years of data--for example the 1991-1993 average and the 2001-2003 average. If 13 years of history are available, the AADT is projected for a maximum of 10 years; if only 4 years of data are available, the AADT is only projected for 1 year. If there are less than 3 years of history at a station, future year AADTs are not calculated.

FLORIDA DEPARTMENT OF TRANSPORTATION
2006 Annual Average Daily Traffic Report - Report Type: ALL

County: 87 MIAMI-DADE

Site	Site Type	Description	Direction 1	Direction 2	AADT Two-Way	"K" Fctr	"D" Fctr	"T" Fctr
0573		SR 826/PALMETTO EXPWY, 1000' N NW 74 ST	N 88500	S 90000	178500 C	10.06S	56.25S	4.69D

Site Type : P= Portable; T= Telemetered
AADT Flags : C= Computed; E= Manual Est; F= First Yr Est P= Prior Year; S= Second Yr Est; T= Third Yr Est; X= Unknown
"K/D" Flags : A= Actual; F= Volume Fctr Catg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; W= One-Way Road
"T" Flags : A= Actual; F= Axle Fctr Catg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; X= Cross-Reference

FLORIDA DEPARTMENT OF TRANSPORTATION
2006 Annual Average Daily Traffic Report - Report Type: ALL

County: 87 MIAMI-DADE

Site	Site Type	Description	Direction 1	Direction 2	AADT Two-Way	"K" Fctr	"D" Fctr	"T" Fctr
2503		SR 93/I-75, 200' N FLA TPK/HEFT/SR 821	N 73500	S 73000	146500 C	9.21S	54.53S	13.20S

Site Type : P= Portable; T= Telemetered
AADT Flags : C= Computed; E= Manual Est; F= First Yr Est P= Prior Year; S= Second Yr Est; T= Third Yr Est; X= Unknown
"K/D" Flags : A= Actual; F= Volume Fctr Catg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; W= One-Way Road
"T" Flags : A= Actual; F= Axle Fctr Catg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; X= Cross-Reference

FLORIDA DEPARTMENT OF TRANSPORTATION
2006 Annual Average Daily Traffic Report - Report Type: ALL

County: 87 MIAMI-DADE

Site	Site Type	Description	Direction 1	Direction 2	AADT Two-Way	"K" Fctr	"D" Fctr	"T" Fctr
2501		SR 93/I-75, 200' S MIAMI GARDENS DR/SR 860	N 53500	S 55000	108500 C	9.21S	54.53S	13.20S

Site Type : P= Portable; T= Telemetered
AADT Flags : C= Computed; E= Manual Est; F= First Yr Est P= Prior Year; S= Second Yr Est; T= Third Yr Est; X= Unknown
"K/D" Flags : A= Actual; F= Volume Fctr Catg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; W= One-Way Road
"T" Flags : A= Actual; F= Axle Fctr Catg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; X= Cross-Reference

FLORIDA DEPARTMENT OF TRANSPORTATION
2006 Annual Average Daily Traffic Report - Report Type: ALL

County: 87 MIAMI-DADE

Site	Site Type	Description	Direction 1	Direction 2	AADT Two-Way	"K" Fctr	"D" Fctr	"T" Fctr
2500		SR 93/I-75, 1000' W PALMETTO EXPWY/SR 826	E 57000	W 55000	112000 C	9.21S	54.53S	13.20S

Site Type : P= Portable; T= Telemetered
AADT Flags : C= Computed; E= Manual Est; F= First Yr Est P= Prior Year; S= Second Yr Est; T= Third Yr Est; X= Unknown
"K/D" Flags : A= Actual; F= Volume Fctr Catg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; W= One-Way Road
"T" Flags : A= Actual; F= Axle Fctr Catg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; X= Cross-Reference

FLORIDA DEPARTMENT OF TRANSPORTATION
2006 Annual Average Daily Traffic Report - Report Type: ALL

County: 97 FL. TURNPIKE

Site	Site Type	Description	Direction 1	Direction 2	AADT Two-Way	"K" Fctr	"D" Fctr	"T" Fctr
2285		HEFT - EAST OF I-75 INTERCHANGE.	N 24800	S 24800	49600 C	9.49F	57.76F	8.14F

Site Type : P= Portable; T= Telemetered
AADT Flags : C= Computed; E= Manual Est; F= First Yr Est P= Prior Year; S= Second Yr Est; T= Third Yr Est; X= Unknown
"K/D" Flags : A= Actual; F= Volume Fctr Catg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; W= One-Way Road
"T" Flags : A= Actual; F= Axle Fctr Catg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; X= Cross-Reference

FLORIDA DEPARTMENT OF TRANSPORTATION
2006 Annual Average Daily Traffic Report - Report Type: ALL

County: 97 FL. TURNPIKE

Site	Site Type	Description	Direction 1	Direction 2	AADT Two-Way	"K" Fctr	"D" Fctr	"T" Fctr
2248		HEFT, 2000 FEET N OKEECHOBEE RD/SR 25.	N 44800	S 44800	89600 C	9.49F	57.76F	8.14F

Site Type : P= Portable; T= Telemetered
AADT Flags : C= Computed; E= Manual Est; F= First Yr Est P= Prior Year; S= Second Yr Est; T= Third Yr Est; X= Unknown
"K/D" Flags : A= Actual; F= Volume Fctr Catg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; W= One-Way Road
"T" Flags : A= Actual; F= Axle Fctr Catg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; X= Cross-Reference

FLORIDA DEPARTMENT OF TRANSPORTATION
2006 Annual Average Daily Traffic Report - Report Type: ALL

County: 97 FL. TURNPIKE

Site	Site Type	Description	Direction 1	Direction 2	AADT Two-Way	"K" Fctr	"D" Fctr	"T" Fctr
2272		SR 821/HEFT, 100 FEET S OKEECHOBEE RD/SR 25	N 47550	S 47550	95100 C	9.49F	57.76F	8.14F

Site Type : P= Portable; T= Telemetered
AADT Flags : C= Computed; E= Manual Est; F= First Yr Est P= Prior Year; S= Second Yr Est; T= Third Yr Est; X= Unknown
"K/D" Flags : A= Actual; F= Volume Fctr Catg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; W= One-Way Road
"T" Flags : A= Actual; F= Axle Fctr Catg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; X= Cross-Reference

FLORIDA DEPARTMENT OF TRANSPORTATION
2006 Annual Average Daily Traffic Report - Report Type: ALL

County: 97 FL. TURNPIKE

Site	Site Type	Description	Direction 1	Direction 2	AADT Two-Way	"K" Fctr	"D" Fctr	"T" Fctr
2268		SR 821/HEFT, OKEECHOBEE PLAZA	N 51400	S 51400	102800 C	9.49F	57.76F	8.14F

Site Type : P= Portable; T= Telemetered
AADT Flags : C= Computed; E= Manual Est; F= First Yr Est P= Prior Year; S= Second Yr Est; T= Third Yr Est; X= Unknown
"K/D" Flags : A= Actual; F= Volume Fctr Catg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; W= One-Way Road
"T" Flags : A= Actual; F= Axle Fctr Catg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; X= Cross-Reference

FLORIDA DEPARTMENT OF TRANSPORTATION
2006 Annual Average Daily Traffic Report - Report Type: ALL

County: 87 MIAMI-DADE

Site	Site Type	Description	Direction 1	Direction 2	AADT Two-Way	"K" Fctr	"D" Fctr	"T" Fctr
0007		SR 25/US-27/OKEECHOBEE RD, 200' NW SR 821/HEFT	E 12000	W 13500	25500 C	7.97F	54.22F	12.81A

Site Type : P= Portable; T= Telemetered
AADT Flags : C= Computed; E= Manual Est; F= First Yr Est P= Prior Year; S= Second Yr Est; T= Third Yr Est; X= Unknown
"K/D" Flags : A= Actual; F= Volume Fctr Catg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; W= One-Way Road
"T" Flags : A= Actual; F= Axle Fctr Catg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; X= Cross-Reference

FLORIDA DEPARTMENT OF TRANSPORTATION
2006 Annual Average Daily Traffic Report - Report Type: ALL

County: 87 MIAMI-DADE

Site	Site Type	Description	Direction 1	Direction 2	AADT Two-Way	"K" Fctr	"D" Fctr	"T" Fctr
0109		SR 25/US-27/OKEECHOBEE RD, 1000' NW NW 103 ST	E 19000	W 20500	39500 C	7.97F	54.22F	15.34A

Site Type : P= Portable; T= Telemetered
AADT Flags : C= Computed; E= Manual Est; F= First Yr Est P= Prior Year; S= Second Yr Est; T= Third Yr Est; X= Unknown
"K/D" Flags : A= Actual; F= Volume Fctr Catg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; W= One-Way Road
"T" Flags : A= Actual; F= Axle Fctr Catg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; X= Cross-Reference

FLORIDA DEPARTMENT OF TRANSPORTATION
2006 Annual Average Daily Traffic Report - Report Type: ALL

County: 87 MIAMI-DADE

Site	Site Type	Description	Direction 1	Direction 2	AADT Two-Way	"K" Fctr	"D" Fctr	"T" Fctr
2536		SR 25/US-27/OKEECHOBEE RD, 1000' NB RAMP TO HEFT	E 13500	W 11000	24500 C	7.97F	54.22F	19.91A

Site Type : P= Portable; T= Telemetered
AADT Flags : C= Computed; E= Manual Est; F= First Yr Est P= Prior Year; S= Second Yr Est; T= Third Yr Est; X= Unknown
"K/D" Flags : A= Actual; F= Volume Fctr Catg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; W= One-Way Road
"T" Flags : A= Actual; F= Axle Fctr Catg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; X= Cross-Reference

FLORIDA DEPARTMENT OF TRANSPORTATION
2006 Annual Average Daily Traffic Report - Report Type: ALL

County: 87 MIAMI-DADE

Site	Site Type	Description	Direction 1	Direction 2	AADT Two-Way	"K" Fctr	"D" Fctr	"T" Fctr
2537		SR 25/US-27/OKEECHOBEE RD, 500' NW SR 826	E 23000E	W 22000E	45000 F	7.97F	54.22F	7.36D

Site Type : P= Portable; T= Telemetered
AADT Flags : C= Computed; E= Manual Est; F= First Yr Est P= Prior Year; S= Second Yr Est; T= Third Yr Est; X= Unknown
"K/D" Flags : A= Actual; F= Volume Fctr Catg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; W= One-Way Road
"T" Flags : A= Actual; F= Axle Fctr Catg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; X= Cross-Reference

FLORIDA DEPARTMENT OF TRANSPORTATION
2006 Annual Average Daily Traffic Report - Report Type: ALL

County: 87 MIAMI-DADE

Site	Site Type	Description	Direction 1	Direction 2	AADT Two-Way	"K" Fctr	"D" Fctr	"T" Fctr
0528		SR 25/US-27/OKEECHOBEE RD, 200' SE SR 826	E 30500E	W 25000E	55500 S	7.97F	54.22F	6.44P

Site Type : P= Portable; T= Telemetered
AADT Flags : C= Computed; E= Manual Est; F= First Yr Est P= Prior Year; S= Second Yr Est; T= Third Yr Est; X= Unknown
"K/D" Flags : A= Actual; F= Volume Fctr Catg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; W= One-Way Road
"T" Flags : A= Actual; F= Axle Fctr Catg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; X= Cross-Reference

FLORIDA DEPARTMENT OF TRANSPORTATION
2006 Annual Average Daily Traffic Report - Report Type: ALL

County: 87 MIAMI-DADE

Site	Site Type	Description	Direction 1	Direction 2	AADT Two-Way	"K" Fctr	"D" Fctr	"T" Fctr
2511		SR 924/GRATIGNY PKWY, 200' E NW 67 AV	E 25500E	W 27000E	52500 F	7.97F	54.22F	4.69D

Site Type : P= Portable; T= Telemetered
AADT Flags : C= Computed; E= Manual Est; F= First Yr Est P= Prior Year; S= Second Yr Est; T= Third Yr Est; X= Unknown
"K/D" Flags : A= Actual; F= Volume Fctr Catg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; W= One-Way Road
"T" Flags : A= Actual; F= Axle Fctr Catg; D= Dist/Func. Class; P= Prior Year; S= State-wide Default; X= Cross-Reference

DAVID PLUMMER & ASSOCIATES, INC.

TURNING MOVEMENT COUNTS

Project Name: Beacon Countyline DRI
Location: NW 186 Street & NW 87 Ave
Observer: Traffic Survey Specialists, Inc.

Project Number: 06257
Count Date: 6/6/2007
Day of Week: Wednesday

TIME INTERVAL		NW 87 Ave NORTHBOUND L	T	R	TOTAL	NW 87 Ave SOUTHBOUND L	T	R	TOTAL	NW 186 St EASTBOUND L	T	R	TOTAL	NW 186 St WESTBOUND L	T	R	TOTAL	GRAND TOTAL
04:00 PM	04:15 PM	41	18	9	68	16	19	24	59	92	162	82	336	25	83	16	124	587
04:15 PM	04:30 PM	37	24	14	75	15	16	28	59	106	189	84	379	28	104	18	150	663
04:30 PM	04:45 PM	29	20	13	62	19	10	33	62	92	219	92	403	24	134	18	176	703
04:45 PM	05:00 PM	41	24	13	78	13	14	23	50	111	228	93	432	33	126	23	182	742
05:00 PM	05:15 PM	52	28	14	94	26	12	25	63	113	228	95	436	29	133	21	183	776
05:15 PM	05:30 PM	65	31	7	103	25	39	37	101	164	300	128	592	35	119	35	189	985
05:30 PM	05:45 PM	57	22	7	86	28	21	39	88	138	313	123	574	36	152	15	203	951
05:45 PM	06:00 PM	48	37	20	105	20	22	35	77	183	264	107	554	41	127	24	192	928

PM PEAK PERIOD TURNING MOVEMENT COUNT SUMMARY
ANNUAL AVERAGE DAILY TRAFFIC CONDITIONS

TIME INTERVAL		NW 87 Ave NORTHBOUND L	T	R	TOTAL	NW 87 Ave SOUTHBOUND L	T	R	TOTAL	NW 186 St EASTBOUND L	T	R	TOTAL	NW 186 St WESTBOUND L	T	R	TOTAL	GRAND TOTAL
04:00 PM	06:00 PM	189	104	49	342	83	78	124	285	509	971	410	1,890	128	499	87	713	3,231
PEAK PERIOD FACTOR					0.80				0.69				0.78				0.86	0.92

Note: 2006 FDOT Seasonal Weekly Volume Factor = 1.02

DAVID PLUMMER & ASSOCIATES, INC.

TURNING MOVEMENT COUNTS

Project Name: Beacon Countyline DRI
Location: NW 170 Street & NW 87 Avenue
Observer: Traffic Survey Specialists, Inc.

Project Number: 06257
Count Date: 6/6/2007
Day of Week: Wednesday

TIME INTERVAL		NW 87 Ave NORTHBOUND L	T	R	TOTAL	SOUTHBOUND L	T	R	TOTAL	NW 170 St EASTBOUND L	T	R	TOTAL	WESTBOUND L	T	R	TOTAL	GRAND TOTAL
04:00 PM	04:15 PM	0	11	17	28	39	13	0	52	1	8	1	10	27	12	30	69	159
04:15 PM	04:30 PM	0	9	21	30	43	22	0	65	1	10	1	12	32	16	41	89	196
04:30 PM	04:45 PM	2	8	18	28	28	25	2	55	0	12	1	13	30	14	33	77	173
04:45 PM	05:00 PM	1	9	29	39	37	31	5	73	3	15	4	22	34	22	39	95	229
05:00 PM	05:15 PM	3	14	20	37	37	18	3	58	3	17	0	20	30	16	48	94	209
05:15 PM	05:30 PM	2	16	20	38	56	27	3	86	0	10	0	10	25	19	57	101	235
05:30 PM	05:45 PM	2	17	36	55	54	35	2	91	0	18	1	19	34	25	50	109	274
05:45 PM	06:00 PM	2	14	18	34	36	31	2	69	3	8	0	11	31	24	49	104	218

PM PEAK PERIOD TURNING MOVEMENT COUNT SUMMARY

ANNUAL AVERAGE DAILY TRAFFIC CONDITIONS

TIME INTERVAL		NW 87 Ave NORTHBOUND L	T	R	TOTAL	SOUTHBOUND L	T	R	TOTAL	NW 170 St EASTBOUND L	T	R	TOTAL	WESTBOUND L	T	R	TOTAL	GRAND TOTAL
04:00 PM	06:00 PM	6	50	91	147	168	103	9	280	6	50	4	60	124	75	177	376	863
PEAK PERIOD FACTOR					0.66				0.75				0.66				0.85	0.86

Note: 2006 FDOT Seasonal Weekly Volume Factor = 1.02

DAVID PLUMMER & ASSOCIATES, INC.

TURNING MOVEMENT COUNTS

Project Name: Beacon Countyline DRI
Location: NW 138 Street & NW 87 Ave
Observer: Traffic Survey Specialists, Inc.

Project Number: 06257
Count Date: 8/16/2007
Day of Week: Thursday

TIME INTERVAL		NW 87 Ave NORTHBOUND L	T	R	TOTAL	SOUTHBOUND L	T	R	TOTAL	NW 138 St EASTBOUND L	T	R	TOTAL	WESTBOUND L	T	R	TOTAL	GRAND TOTAL
04:00 PM	04:15 PM	42	103	31	176	29	119	37	185	42	52	54	148	53	96	31	180	689
04:15 PM	04:30 PM	57	130	42	229	17	96	31	144	47	67	59	173	54	87	29	170	716
04:30 PM	04:45 PM	60	132	38	230	25	78	38	141	40	48	48	136	48	69	38	155	662
04:45 PM	05:00 PM	58	149	33	240	21	122	45	188	44	53	60	157	62	74	47	183	768
05:00 PM	05:15 PM	60	160	39	259	33	147	50	230	68	55	57	180	76	110	39	225	894
05:15 PM	05:30 PM	49	186	47	282	19	154	52	225	75	45	53	173	59	104	34	197	877
05:30 PM	05:45 PM	76	211	31	318	24	172	62	258	109	52	55	216	84	86	50	220	1,012
05:45 PM	06:00 PM	57	264	44	365	34	206	51	291	84	65	49	198	115	110	61	286	1,140

PM PEAK PERIOD TURNING MOVEMENT COUNT SUMMARY
ANNUAL AVERAGE DAILY TRAFFIC CONDITIONS

TIME INTERVAL		NW 87 Ave NORTHBOUND L	T	R	TOTAL	SOUTHBOUND L	T	R	TOTAL	NW 138 St EASTBOUND L	T	R	TOTAL	WESTBOUND L	T	R	TOTAL	GRAND TOTAL
04:00 PM	06:00 PM	234	681	156	1,070	103	558	187	848	260	223	222	704	281	375	168	824	3,447
PEAK PERIOD FACTOR					0.72				0.71				0.80				0.71	0.86

Note: 2006 FDOT Seasonal Weekly Volume Factor = 1.02

DAVID PLUMMER & ASSOCIATES, INC.

TURNING MOVEMENT COUNTS

Project Name: Beacon Countyline DRI
Location: NW 138 Street & Okeechobee Road
Observer: Traffic Survey Specialists, Inc.

Project Number: 06257
Count Date: 6/6/2007
Day of Week: Wednesday

TIME INTERVAL		Okeechobee Rd NORTHBOUND L	T	R	TOTAL	Okeechobee Rd SOUTHBOUND L	T	R	TOTAL	NW 138 St EASTBOUND L	T	R	TOTAL	NW 138 St WESTBOUND L	T	R	TOTAL	GRAND TOTAL
04:00 PM	04:15 PM	7	202	31	240	82	156	23	261	30	23	14	67	13	7	67	87	655
04:15 PM	04:30 PM	9	224	23	256	87	158	23	268	34	17	11	62	10	2	88	100	686
04:30 PM	04:45 PM	11	225	34	270	102	167	17	286	35	27	13	75	16	1	63	80	711
04:45 PM	05:00 PM	7	277	38	322	76	177	28	281	34	11	12	57	9	4	94	107	767
05:00 PM	05:15 PM	9	301	32	342	80	191	23	294	61	49	13	123	20	3	97	120	879
05:15 PM	05:30 PM	11	302	25	338	87	156	34	277	55	37	18	110	9	3	108	120	845
05:30 PM	05:45 PM	11	305	20	336	92	157	17	266	54	34	11	99	9	10	99	118	819
05:45 PM	06:00 PM	7	236	13	256	88	117	8	213	33	18	6	57	5	7	112	124	650

PM PEAK HOUR TURNING MOVEMENT COUNT SUMMARY

PEAK SEASONAL DAILY TRAFFIC CONDITIONS

TIME INTERVAL		Okeechobee Rd NORTHBOUND L	T	R	TOTAL	Okeechobee Rd SOUTHBOUND L	T	R	TOTAL	NW 138 St EASTBOUND L	T	R	TOTAL	NW 138 St WESTBOUND L	T	R	TOTAL	GRAND TOTAL
04:45 PM	05:45 PM	40	1232	120	1,392	348	708	106	1,163	212	136	56	405	49	21	414	484	3,442
PEAK PERIOD FACTOR					0.98				0.95				0.79				0.94	0.94

Note: 2006 FDOT Peak Seasonal Weekly Volume Factor = 1.04

DAVID PLUMMER & ASSOCIATES, INC.

TURNING MOVEMENT COUNTS

Project Name: Beacon Countyline DRI
Location: NW 138 Street & Frontage Rd
Observer: Traffic Survey Specialists, Inc.

Project Number: 06257
Count Date: 6/5/2007
Day of Week: Tuesday

TIME INTERVAL		Frontage Rd NORTHBOUND L	T	R	TOTAL	Frontage Rd SOUTHBOUND L	T	R	TOTAL	NW 138 St EASTBOUND L	T	R	TOTAL	NW 138 St WESTBOUND L	T	R	TOTAL	GRAND TOTAL
04:00 PM	04:15 PM	75	17	3	95	1	11	11	23	34	6	95	135	13	8	1	22	275
04:15 PM	04:30 PM	83	11	1	95	0	8	11	19	28	4	81	113	4	4	2	10	237
04:30 PM	04:45 PM	60	11	4	75	0	21	12	33	28	7	107	142	8	8	1	17	267
04:45 PM	05:00 PM	86	8	2	96	0	6	9	15	26	3	91	120	7	7	0	14	245
05:00 PM	05:15 PM	78	8	2	88	2	13	13	28	24	4	124	152	5	14	0	19	287
05:15 PM	05:30 PM	81	6	3	90	1	17	10	28	26	2	126	154	11	8	0	19	291
05:30 PM	05:45 PM	97	11	1	109	1	14	7	22	14	5	134	153	5	7	1	13	297
05:45 PM	06:00 PM	87	7	7	101	0	6	6	12	15	3	93	111	6	8	0	14	238

PM PEAK PERIOD TURNING MOVEMENT COUNT SUMMARY

ANNUAL AVERAGE DAILY TRAFFIC CONDITIONS

TIME INTERVAL		Frontage Rd NORTHBOUND L	T	R	TOTAL	Frontage Rd SOUTHBOUND L	T	R	TOTAL	NW 138 St EASTBOUND L	T	R	TOTAL	NW 138 St WESTBOUND L	T	R	TOTAL	GRAND TOTAL
04:00 PM	06:00 PM	330	40	12	382	3	49	40	92	99	17	434	551	30	33	3	65	1,090
PEAK PERIOD FACTOR					0.86				0.68				0.88				0.73	0.94

Note: 2006 FDOT Seasonal Weekly Volume Factor = 1.02

DAVID PLUMMER & ASSOCIATES, INC.

TURNING MOVEMENT COUNTS

Project Name: Beacon Countyline DRI
Location: NW 138 Street & NW 107 Avenue
Observer: Traffic Survey Specialists, Inc.

Project Number: 06257
Count Date: 6/5/2007
Day of Week: Tuesday

TIME INTERVAL		NW 107 Ave NORTHBOUND L	T	R	TOTAL	SOUTHBOUND L	T	R	TOTAL	NW 138 St EASTBOUND L	T	R	TOTAL	WESTBOUND L	T	R	TOTAL	GRAND TOTAL
04:00 PM	04:15 PM	0	23	72	95	12	13	0	25	0	0	0	0	50	0	7	57	177
04:15 PM	04:30 PM	0	15	79	94	11	17	0	28	0	0	0	0	55	0	7	62	184
04:30 PM	04:45 PM	0	24	105	129	12	16	0	28	0	0	0	0	64	0	6	70	227
04:45 PM	05:00 PM	0	16	80	96	11	9	0	20	0	0	0	0	71	0	15	86	202
05:00 PM	05:15 PM	0	22	110	132	18	12	0	30	0	0	0	0	83	0	9	92	254
05:15 PM	05:30 PM	0	18	116	134	18	13	0	31	0	0	0	0	72	0	15	87	252
05:30 PM	05:45 PM	0	21	99	120	23	16	0	39	0	0	0	0	89	0	7	96	255
05:45 PM	06:00 PM	0	20	74	94	14	14	0	28	0	0	0	0	66	0	10	76	198

PM PEAK PERIOD TURNING MOVEMENT COUNT SUMMARY

ANNUAL AVERAGE DAILY TRAFFIC CONDITIONS

TIME INTERVAL		NW 107 Ave NORTHBOUND L	T	R	TOTAL	SOUTHBOUND L	T	R	TOTAL	NW 138 St EASTBOUND L	T	R	TOTAL	WESTBOUND L	T	R	TOTAL	GRAND TOTAL
04:00 PM	06:00 PM	0	81	375	456	61	56	0	117	0	0	0	0	281	0	39	319	892
PEAK PERIOD FACTOR					0.83				0.73				N/A				0.82	0.94

Note: 2006 FDOT Seasonal Weekly Volume Factor = 1.02

DAVID PLUMMER & ASSOCIATES, INC.

TURNING MOVEMENT COUNTS

Project Name: Beacon Countyline DRI
Location: NW 138 Street & NW 97 Avenue
Observer: Traffic Survey Specialists, Inc.

Project Number: 06257
Count Date: 6/5/2007
Day of Week: Tuesday

TIME INTERVAL		NW 97 Ave NORTHBOUND L	T	R	TOTAL	SOUTHBOUND L	T	R	TOTAL	NW 138 St EASTBOUND L	T	R	TOTAL	WESTBOUND L	T	R	TOTAL	GRAND TOTAL
04:00 PM	04:15 PM	0	1	11	12	4	2	2	8	1	111	5	117	18	85	4	107	244
04:15 PM	04:30 PM	1	0	13	14	7	1	0	8	1	126	0	127	34	79	8	121	270
04:30 PM	04:45 PM	0	1	9	10	6	1	3	10	2	123	2	127	26	101	4	131	278
04:45 PM	05:00 PM	2	1	13	16	5	0	1	6	3	128	2	133	19	90	7	116	271
05:00 PM	05:15 PM	2	1	16	19	2	1	3	6	0	140	4	144	26	112	3	141	310
05:15 PM	05:30 PM	3	0	15	18	1	0	0	1	1	157	0	158	35	110	0	145	322
05:30 PM	05:45 PM	1	1	15	17	9	0	1	10	0	135	4	139	38	112	3	153	319
05:45 PM	06:00 PM	0	1	21	22	5	0	1	6	1	112	2	115	37	100	4	141	284

PM PEAK PERIOD TURNING MOVEMENT COUNT SUMMARY

ANNUAL AVERAGE DAILY TRAFFIC CONDITIONS

TIME INTERVAL		NW 97 Ave NORTHBOUND L	T	R	TOTAL	SOUTHBOUND L	T	R	TOTAL	NW 138 St EASTBOUND L	T	R	TOTAL	WESTBOUND L	T	R	TOTAL	GRAND TOTAL
04:00 PM	06:00 PM	5	3	58	65	20	3	6	28	5	526	10	541	119	402	17	538	1,172
PEAK PERIOD FACTOR					0.73				0.69				0.84				0.86	0.96

Note: 2006 FDOT Seasonal Weekly Volume Factor = 1.02

DAVID PLUMMER & ASSOCIATES, INC.

TURNING MOVEMENT COUNTS

Project Name: Beacon Countyline DRI
Location: NW 138 Street & NW 87 Ave
Observer: Traffic Survey Specialists, Inc.

Project Number: 06257
Count Date: 8/16/2007
Day of Week: Thursday

TIME INTERVAL		NW 87 Ave NORTHBOUND L	T	R	TOTAL	SOUTHBOUND L	T	R	TOTAL	NW 138 St EASTBOUND L	T	R	TOTAL	WESTBOUND L	T	R	TOTAL	GRAND TOTAL
04:00 PM	04:15 PM	42	103	31	176	29	119	37	185	42	52	54	148	53	96	31	180	689
04:15 PM	04:30 PM	57	130	42	229	17	96	31	144	47	67	59	173	54	87	29	170	716
04:30 PM	04:45 PM	60	132	38	230	25	78	38	141	40	48	48	136	48	69	38	155	662
04:45 PM	05:00 PM	58	149	33	240	21	122	45	188	44	53	60	157	62	74	47	183	768
05:00 PM	05:15 PM	60	160	39	259	33	147	50	230	68	55	57	180	76	110	39	225	894
05:15 PM	05:30 PM	49	186	47	282	19	154	52	225	75	45	53	173	59	104	34	197	877
05:30 PM	05:45 PM	76	211	31	318	24	172	62	258	109	52	55	216	84	86	50	220	1,012
05:45 PM	06:00 PM	57	264	44	365	34	206	51	291	84	65	49	198	115	110	61	286	1,140

PM PEAK PERIOD TURNING MOVEMENT COUNT SUMMARY
ANNUAL AVERAGE DAILY TRAFFIC CONDITIONS

TIME INTERVAL		NW 87 Ave NORTHBOUND L	T	R	TOTAL	SOUTHBOUND L	T	R	TOTAL	NW 138 St EASTBOUND L	T	R	TOTAL	WESTBOUND L	T	R	TOTAL	GRAND TOTAL
04:00 PM	06:00 PM	234	681	156	1,070	103	558	187	848	260	223	222	704	281	375	168	824	3,447
PEAK PERIOD FACTOR					0.72				0.71				0.80				0.71	0.86

Note: 2006 FDOT Seasonal Weekly Volume Factor = 1.02

DAVID PLUMMER & ASSOCIATES, INC.

TURNING MOVEMENT COUNTS

Project Name: Beacon Countyline DRI
Location: NW 130 Street & Hialeah Gardens Blvd
Observer: Traffic Survey Specialists, Inc.

Project Number: 06257
Count Date: 8/15/2007
Day of Week: Wednesday

TIME INTERVAL		Hialeah Gardens Blvd NORTHBOUND L	T	R	TOTAL	SOUTHBOUND L	T	R	TOTAL	NW 130 St EASTBOUND L	T	R	TOTAL	WESTBOUND L	T	R	TOTAL	GRAND TOTAL
04:00 PM	04:15 PM	18	194	26	238	43	130	36	209	30	51	11	92	18	52	35	105	644
04:15 PM	04:30 PM	11	213	41	265	49	151	36	236	35	31	15	81	29	62	26	117	699
04:30 PM	04:45 PM	23	234	29	286	61	166	39	266	26	31	11	68	32	56	23	111	731
04:45 PM	05:00 PM	24	203	27	254	51	173	33	257	39	48	13	100	15	70	19	104	715
05:00 PM	05:15 PM	18	207	43	268	58	184	48	290	31	46	9	86	32	60	30	122	766
05:15 PM	05:30 PM	16	283	47	346	52	205	42	299	37	55	10	102	31	81	35	147	894
05:30 PM	05:45 PM	23	261	40	324	57	153	46	256	34	43	13	90	27	78	23	128	798
05:45 PM	06:00 PM	29	243	49	321	68	194	68	330	43	50	5	98	32	71	23	126	875

PM PEAK PERIOD TURNING MOVEMENT COUNT SUMMARY

ANNUAL AVERAGE DAILY TRAFFIC CONDITIONS

TIME INTERVAL		Hialeah Gardens Blvd NORTHBOUND L	T	R	TOTAL	SOUTHBOUND L	T	R	TOTAL	NW 130 St EASTBOUND L	T	R	TOTAL	WESTBOUND L	T	R	TOTAL	GRAND TOTAL
04:00 PM	06:00 PM	83	937	154	1,174	224	692	177	1,093	140	181	44	366	110	270	109	490	3,122
PEAK PERIOD FACTOR					0.83				0.81				0.88				0.82	0.93

Note: 2006 FDOT Seasonal Weekly Volume Factor = 1.02

DAVID PLUMMER & ASSOCIATES, INC.

TURNING MOVEMENT COUNTS

Project Name: Beacon Countyline DRI
Location: NW 130 St & NW 87 Ave
Observer: Traffic Survey Specialists, Inc.

Project Number: 06257
Count Date: 8/15/2007
Day of Week: Wednesday

TIME INTERVAL		NW 87 Ave NORTHBOUND L	T	R	TOTAL	SOUTHBOUND L	T	R	TOTAL	NW 130 St EASTBOUND L	T	R	TOTAL	WESTBOUND L	T	R	TOTAL	GRAND TOTAL
04:00 PM	04:15 PM	23	34	8	65	25	39	11	75	3	70	15	88	5	97	12	114	342
04:15 PM	04:30 PM	63	158	18	239	33	140	38	211	28	42	40	110	9	48	21	78	638
04:30 PM	04:45 PM	65	158	16	239	27	133	62	222	36	55	56	147	14	58	28	100	708
04:45 PM	05:00 PM	60	172	16	248	25	136	60	221	47	41	51	139	27	67	27	121	729
05:00 PM	05:15 PM	54	151	17	222	33	164	75	272	37	67	52	156	28	87	21	136	786
05:15 PM	05:30 PM	57	168	10	235	28	165	68	261	47	72	51	170	27	91	25	143	809
05:30 PM	05:45 PM	55	204	21	280	30	179	58	267	40	61	50	151	21	93	27	141	839
05:45 PM	06:00 PM	60	179	14	253	24	169	61	254	54	53	52	159	14	78	30	122	788

PM PEAK PERIOD TURNING MOVEMENT COUNT SUMMARY
ANNUAL AVERAGE DAILY TRAFFIC CONDITIONS

TIME INTERVAL		NW 87 Ave NORTHBOUND L	T	R	TOTAL	SOUTHBOUND L	T	R	TOTAL	NW 130 St EASTBOUND L	T	R	TOTAL	WESTBOUND L	T	R	TOTAL	GRAND TOTAL
04:00 PM	06:00 PM	223	624	61	908	115	574	221	909	149	235	187	571	74	316	97	487	2,876
PEAK PERIOD FACTOR					0.80				0.82				0.82				0.83	0.96

Note: 2006 FDOT Seasonal Weekly Volume Factor = 1.02

DAVID PLUMMER & ASSOCIATES, INC.

TURNING MOVEMENT COUNTS

Project Name: Beacon Countyline DRI
Location: Hialeah Gardens Blvd & Frontage Rd
Observer: Traffic Survey Specialists, Inc.

Project Number: 06257
Count Date: 8/16/2007
Day of Week: Thursday

TIME INTERVAL		Frontage Rd NORTHBOUND L	T	R	TOTAL	Frontage Rd SOUTHBOUND L	T	R	TOTAL	Hialeah Gardens Blvd EASTBOUND L	T	R	TOTAL	Hialeah Gardens Blvd WESTBOUND L	T	R	TOTAL	GRAND TOTAL
04:00 PM	04:15 PM	14	34	6	54	4	29	22	55	63	312	77	452	6	164	10	180	741
04:15 PM	04:30 PM	11	35	16	62	8	25	35	68	77	254	45	376	7	202	9	218	724
04:30 PM	04:45 PM	12	39	7	58	3	33	39	75	76	319	58	453	8	179	3	190	776
04:45 PM	05:00 PM	7	36	2	45	6	18	13	37	72	275	46	393	13	175	4	192	667
05:00 PM	05:15 PM	20	39	16	75	10	35	31	76	65	378	81	524	4	193	2	199	874
05:15 PM	05:30 PM	13	52	28	93	4	39	17	60	57	326	113	496	12	200	11	223	872
05:30 PM	05:45 PM	8	41	12	61	3	30	25	58	90	335	73	498	10	160	9	179	796
05:45 PM	06:00 PM	19	36	14	69	4	21	17	42	71	283	71	425	8	166	2	176	712

PM PEAK PERIOD TURNING MOVEMENT COUNT SUMMARY
ANNUAL AVERAGE DAILY TRAFFIC CONDITIONS

TIME INTERVAL		Frontage Rd NORTHBOUND L	T	R	TOTAL	Frontage Rd SOUTHBOUND L	T	R	TOTAL	Hialeah Gardens Blvd EASTBOUND L	T	R	TOTAL	Hialeah Gardens Blvd WESTBOUND L	T	R	TOTAL	GRAND TOTAL
04:00 PM	06:00 PM	53	159	52	264	21	117	101	240	291	1,266	288	1,845	35	734	26	794	3,143
PEAK PERIOD FACTOR					0.69				0.77				0.86				0.87	0.93

Note: 2006 FDOT Seasonal Weekly Volume Factor = 1.02

DAVID PLUMMER & ASSOCIATES, INC.

TURNING MOVEMENT COUNTS

Project Name: Beacon Countyline DRI
Location: NW 122 Street & NW 97 Ave
Observer: Traffic Survey Specialists, Inc.

Project Number: 06257
Count Date: 6/6/2007
Day of Week: Wednesday

TIME INTERVAL		NW 97 Ave NORTHBOUND L	T	R	TOTAL	SOUTHBOUND L	T	R	TOTAL	Farmland Driveway EASTBOUND L	T	R	TOTAL	WESTBOUND L	T	R	TOTAL	GRAND TOTAL
04:00 PM	04:15 PM	0	0	0	0	27	0	7	34	11	51	0	62	1	54	37	92	188
04:15 PM	04:30 PM	0	0	0	0	12	0	6	18	16	48	0	64	0	46	31	77	159
04:30 PM	04:45 PM	0	0	0	0	14	0	18	32	8	68	0	76	1	45	34	80	188
04:45 PM	05:00 PM	0	0	1	1	29	0	9	38	15	56	0	71	0	39	33	72	182
05:00 PM	05:15 PM	0	0	0	0	24	0	8	32	17	75	0	92	0	40	36	76	200
05:15 PM	05:30 PM	0	0	0	0	23	0	11	34	26	64	1	91	1	56	48	105	230
05:30 PM	05:45 PM	1	0	1	2	25	0	9	34	31	66	0	97	1	50	42	93	226
05:45 PM	06:00 PM	0	0	0	0	29	0	15	44	24	41	0	65	0	33	46	79	188

PM PEAK PERIOD TURNING MOVEMENT COUNT SUMMARY

ANNUAL AVERAGE DAILY TRAFFIC CONDITIONS

TIME INTERVAL		NW 97 Ave NORTHBOUND L	T	R	TOTAL	SOUTHBOUND L	T	R	TOTAL	Farmland Driveway EASTBOUND L	T	R	TOTAL	WESTBOUND L	T	R	TOTAL	GRAND TOTAL
04:00 PM	06:00 PM	1	0	1	2	93	0	42	136	75	239	1	315	2	185	157	344	796
PEAK PERIOD FACTOR					0.19				0.76				0.80				0.80	0.92

Note: 2006 FDOT Seasonal Weekly Volume Factor = 1.02

DAVID PLUMMER & ASSOCIATES, INC.

TURNING MOVEMENT COUNTS

Project Name: Beacon Countyline DRI
Location: NW 122 Street & NW 87 Avenue
Observer: Traffic Survey Specialists, Inc.

Project Number: 06257
Count Date: 6/6/2007
Day of Week: Wednesday

TIME INTERVAL		NW 87 Ave NORTHBOUND L	T	R	TOTAL	SOUTHBOUND L	T	R	TOTAL	NW 122 St EASTBOUND L	T	R	TOTAL	WESTBOUND L	T	R	TOTAL	GRAND TOTAL
04:00 PM	04:15 PM	35	189	20	244	48	134	31	213	49	91	18	158	54	104	75	233	848
04:15 PM	04:30 PM	65	205	31	301	53	140	25	218	42	89	24	155	44	86	80	210	884
04:30 PM	04:45 PM	57	201	24	282	69	146	27	242	28	81	26	135	51	86	82	219	878
04:45 PM	05:00 PM	48	165	33	246	55	153	28	236	21	102	38	161	58	93	71	222	865
05:00 PM	05:15 PM	87	216	34	337	60	143	32	235	39	108	23	170	46	119	95	260	1,002
05:15 PM	05:30 PM	57	259	26	342	72	167	40	279	39	92	20	151	51	121	94	266	1,038
05:30 PM	05:45 PM	72	239	24	335	54	170	34	258	44	102	33	179	48	115	82	245	1,017
05:45 PM	06:00 PM	41	208	35	284	71	175	29	275	43	108	48	199	43	111	73	227	985

PM PEAK PERIOD TURNING MOVEMENT COUNT SUMMARY

ANNUAL AVERAGE DAILY TRAFFIC CONDITIONS

TIME INTERVAL		NW 87 Ave NORTHBOUND L	T	R	TOTAL	SOUTHBOUND L	T	R	TOTAL	NW 122 St EASTBOUND L	T	R	TOTAL	WESTBOUND L	T	R	TOTAL	GRAND TOTAL
04:00 PM	06:00 PM	236	858	116	1,209	246	626	125	998	156	394	117	667	201	426	333	960	3,834
PEAK PERIOD FACTOR					0.87				0.88				0.82				0.88	0.97

Note: 2006 FDOT Seasonal Weekly Volume Factor = 1.02

DAVID PLUMMER & ASSOCIATES, INC.

24-HOUR COUNTS

Project Name: Beacon Countyline DRI
Location: NW 87 Avenue S of NW 149 Terrace
Observer: Traffic Survey Specialists, Inc.

Project No.: 06257
Count Date: 06/05/07

BEGIN TIME	Northbound 1st 1/4	2nd 1/4	3rd 1/4	4th 1/4	TOTAL	BEGIN TIME	SOUTHBOUND 1st 1/4	2nd 1/4	3rd 1/4	4th 1/4	TOTAL	TWO-WAY TOTAL
12:00 AM	20	17	15	13	65	12:00 AM	21	27	11	9	68	133
01:00 AM	5	11	8	12	36	01:00 AM	14	9	6	5	34	70
02:00 AM	7	6	3	6	22	02:00 AM	7	1	6	3	17	39
03:00 AM	7	5	6	4	22	03:00 AM	4	4	2	5	15	37
04:00 AM	2	3	6	2	13	04:00 AM	4	1	2	4	11	24
05:00 AM	8	6	14	17	45	05:00 AM	11	12	17	24	64	109
06:00 AM	14	22	33	52	121	06:00 AM	18	33	61	58	170	291
07:00 AM	55	65	82	74	276	07:00 AM	68	98	121	132	419	695
08:00 AM	95	105	84	137	421	08:00 AM	113	159	157	144	573	994
09:00 AM	94	84	75	86	339	09:00 AM	118	92	78	72	360	699
10:00 AM	77	78	67	76	298	10:00 AM	77	70	86	94	327	625
11:00 AM	60	85	84	88	317	11:00 AM	69	62	71	95	297	614
12:00 PM	83	95	114	98	390	12:00 PM	88	94	63	83	328	718
01:00 PM	83	76	75	86	320	01:00 PM	80	86	70	74	310	630
02:00 PM	83	102	91	86	362	02:00 PM	62	79	84	93	318	680
03:00 PM	97	98	138	146	479	03:00 PM	78	85	103	94	360	839
04:00 PM	144	150	148	136	578	04:00 PM	116	89	99	99	403	981
05:00 PM	179	183	160	214	736	05:00 PM	98	136	131	129	494	1,230
06:00 PM	166	194	148	154	662	06:00 PM	126	115	131	113	485	1,147
07:00 PM	158	143	95	111	507	07:00 PM	119	114	124	80	437	944
08:00 PM	107	115	72	112	406	08:00 PM	98	99	93	83	373	779
09:00 PM	121	97	79	78	375	09:00 PM	85	76	73	61	295	670
10:00 PM	79	91	64	35	269	10:00 PM	66	52	52	55	225	494
11:00 PM	30	23	39	27	119	11:00 PM	31	30	45	34	140	259
			24-HOUR TOTAL		7,178				24-HOUR TOTAL		6,523	13,701

DAILY TRAFFIC COUNT SUMMARY

	Northbound			SOUTHBOUND		
AM Peak Hour:	Time: 08:00 AM	Volume: 421		AM Peak Hour:	Time: 08:15 AM	Volume: 578
MIDDAY Peak Hour:	Time: 03:15 PM	Volume: 526		MIDDAY Peak Hour:	Time: 03:15 PM	Volume: 398
PM Peak Hour:	Time: 05:00 PM	Volume: 736		PM Peak Hour:	Time: 05:15 PM	Volume: 522

NORTHBOUND AND SOUTHBOUND

AM Peak Hour:	Time:	08:15 AM	Volume:	998
	K-factor:	7.3%	PHF:	0.89
	D-factor:	57.9% SB		
MIDDAY Peak Hour:	Time:	03:15 PM	Volume:	924
	K-factor:	6.7%	PHF:	0.89
	D-factor:	56.9% NB		
PM Peak Hour:	Time:	05:15 PM	Volume:	1,245
	K-factor:	9.1%	PHF:	0.91
	D-factor:	58.1% NB		

APPENDIX 21-2
Intersection Analysis Worksheets

NW 122 STREET / NW 97 AVENUE

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*DPA*	Intersection	*NW 122 St & NW 97 Ave*
Agency/Co.		Jurisdiction	*City of Hialeah*
Date Performed		Analysis Year	
Analysis Time Period	*Existing Peak Hour*		

Project Description *Beacon Countline DRI - #06257*

East/West Street: *NW 122 Street* | North/South Street: *NW 97 Avenue*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*75*	*239*			*185*	*157*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*75*	*239*	*0*	*0*	*185*	*157*
Percent Heavy Vehicles	*2*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*93*		*42*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*93*	*0*	*42*
Percent Heavy Vehicles	*0*	*0*	*0*	*2*	*0*	*2*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*1*	*0*	*1*
Configuration				*L*		*R*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*					*L*		*R*
v (veh/h)	*75*					*93*		*42*
C (m) (veh/h)	*1217*					*405*		*775*
v/c	*0.06*					*0.23*		*0.05*
95% queue length	*0.20*					*0.87*		*0.17*
Control Delay (s/veh)	*8.2*					*16.5*		*9.9*
LOS	*A*					*C*		*A*
Approach Delay (s/veh)	--	--				*14.5*		
Approach LOS	--	--				*B*		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*DPA*	Intersection	*NW 122 St & NW 97 Ave*
Agency/Co.		Jurisdiction	*City of Hialeah*
Date Performed		Analysis Year	
Analysis Time Period	*Fut wo proj Peak Hour*		

Project Description *Beacon Countline DRI - #06257*

East/West Street: *NW 122 Street* | North/South Street: *NW 97 Avenue*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*78*	*249*			*192*	*162*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*78*	*249*	*0*	*0*	*192*	*162*
Percent Heavy Vehicles	*2*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*96*		*43*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*96*	*0*	*43*
Percent Heavy Vehicles	*0*	*0*	*0*	*2*	*0*	*2*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*1*	*0*	*1*
Configuration				*L*		*R*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*					*L*		*R*
v (veh/h)	*78*					*96*		*43*
C (m) (veh/h)	*1205*					*391*		*766*
v/c	*0.06*					*0.25*		*0.06*
95% queue length	*0.21*					*0.95*		*0.18*
Control Delay (s/veh)	*8.2*					*17.2*		*10.0*
LOS	*A*					*C*		*A*
Approach Delay (s/veh)	--	--				*15.0*		
Approach LOS	--	--				*B*		

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*DPA*
Agency/Co.	
Date Performed	
Analysis Time Period	*Fut w proj Peak Hour*

Site Information

Intersection	*NW 122 St & NW 97 Ave*
Jurisdiction	
Analysis Year	

Project Description *Beacon Countline DRI - #06257*

East/West Street: *NW 122 Street* | North/South Street: *NW 97 Avenue*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*78*	*287*			*210*	*177*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*78*	*287*	*0*	*0*	*210*	*177*
Percent Heavy Vehicles	*2*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*128*		*43*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*128*	*0*	*43*
Percent Heavy Vehicles	*0*	*0*	*0*	*2*	*0*	*2*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*1*	*0*	*1*
Configuration				*L*		*R*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*					*L*		*R*
v (veh/h)	*78*					*128*		*43*
C (m) (veh/h)	*1171*					*358*		*741*
v/c	*0.07*					*0.36*		*0.06*
95% queue length	*0.21*					*1.58*		*0.18*
Control Delay (s/veh)	*8.3*					*20.5*		*10.2*
LOS	*A*					*C*		*B*
Approach Delay (s/veh)	--	--				*17.9*		
Approach LOS	--	--				*C*		

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NW 122 STREET / NW 87 AVENUE

SHORT REPORT

General Information		Site Information	
Analyst	*DPA*	Intersection	*NW 122 St & NW 87 Ave*
Agency or Co.		Area Type	*All other areas*
Date Performed		Jurisdiction	
Time Period	*Existing Peak Hour*	Analysis Year	

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*	*0*	*1*	*1*	*1*	*2*	*2*	*0*	*2*	*2*	*0*
Lane Group	*L*	*TR*		*L*	*T*	*R*	*L*	*TR*		*L*	*TR*	
Volume (vph)	*156*	*394*	*117*	*201*	*426*	*333*	*236*	*858*	*116*	*246*	*626*	*125*
% Heavy Vehicles	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*
PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*
Pretimed/Actuated (P/A)	*A*	*A*	*A*	*A*	*A*	*A*	*A*	*A*	*A*	*A*	*A*	*A*
Startup Lost Time	*2.0*	*2.0*		*2.0*	*2.0*	*2.0*	*2.0*	*2.0*		*2.0*	*2.0*	
Extension of Effective Green	*2.0*	*2.0*		*2.0*	*2.0*	*2.0*	*2.0*	*2.0*		*2.0*	*2.0*	
Arrival Type	*3*	*3*		*3*	*3*	*3*	*3*	*3*		*3*	*3*	
Unit Extension	*3.0*	*3.0*		*3.0*	*3.0*	*3.0*	*3.0*	*3.0*		*3.0*	*3.0*	
Ped/Bike/RTOR Volume	*0*	*0*	*0*	*0*	*0*	*33*	*0*	*0*	*0*	*0*	*0*	*0*
Lane Width	*12.0*	*12.0*		*12.0*	*12.0*	*12.0*	*12.0*	*12.0*		*12.0*	*12.0*	
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	Excl. Left	EW Perm	03	04	Excl. Left	NS Perm	07	08
Timing	G = *12.0*	G = *35.0*	G =	G =	G = *21.0*	G = *45.0*	G =	G =
	Y = *3*	Y = *5*	Y =	Y =	Y = *3*	Y = *5*	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *129.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*173*	*568*		*223*	*473*	*333*	*262*	*1082*		*273*	*835*	
Lane Group Capacity	*223*	*929*		*300*	*505*	*429*	*906*	*1215*		*1061*	*1206*	
v/c Ratio	*0.78*	*0.61*		*0.74*	*0.94*	*0.78*	*0.29*	*0.89*		*0.26*	*0.69*	
Green Ratio	*0.40*	*0.27*		*0.40*	*0.27*	*0.27*	*0.55*	*0.35*		*0.55*	*0.35*	
Uniform Delay d_1	*30.6*	*41.1*		*28.2*	*45.9*	*43.4*	*17.4*	*39.7*		*20.3*	*36.1*	
Delay Factor k	*0.33*	*0.20*		*0.30*	*0.45*	*0.33*	*0.11*	*0.41*		*0.11*	*0.26*	
Incremental Delay d_2	*15.7*	*1.2*		*9.6*	*25.2*	*8.7*	*0.2*	*8.5*		*0.1*	*1.7*	
PF Factor	*1.000*	*1.000*		*1.000*	*1.000*	*1.000*	*1.000*	*1.000*		*1.000*	*1.000*	
Control Delay	*46.3*	*42.3*		*37.8*	*71.1*	*52.1*	*17.6*	*48.2*		*20.4*	*37.8*	
Lane Group LOS	*D*	*D*		*D*	*E*	*D*	*B*	*D*		*C*	*D*	
Approach Delay	*43.2*			*57.7*			*42.2*			*33.5*		
Approach LOS	*D*			*E*			*D*			*C*		
Intersection Delay	*43.9*			Intersection LOS						*D*		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *Beacon Countyline DRI - #06257*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*TR*		*L*	*T*	*R*	*L*	*TR*		*L*	*TR*	
Initial Queue/Lane	*0.0*	*0.0*		*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	*0.0*	
Flow Rate/Lane Group	*173*	*568*		*223*	*473*	*333*	*262*	*1082*		*273*	*835*	
Satflow/Lane	*552*	*1798*		*744*	*1863*	*1583*	*847*	*1829*		*992*	*1816*	
Capacity/Lane Group	*223*	*929*		*300*	*505*	*429*	*906*	*1215*		*1061*	*1206*	
Flow Ratio	*0.3*	*0.2*		*0.3*	*0.3*	*0.2*	*0.2*	*0.3*		*0.1*	0.2	
v/c Ratio	*0.78*	*0.61*		*0.74*	*0.94*	*0.78*	*0.29*	*0.89*		*0.26*	*0.69*	
I Factor	*1.000*	*1.000*		*1.000*	*1.000*	*1.000*	*1.000*	*1.000*		*1.000*	*1.000*	
Arrival Type	*3*	*3*		*3*	*3*	*3*	*3*	*3*		*3*	*3*	
Platoon Ratio	*1.00*	*1.00*		*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	*1.00*	
PF Factor	*1.00*	*1.00*		*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	*1.00*	
Q_1	*4.0*	*9.3*		*5.1*	*16.6*	*11.0*	*2.3*	*19.2*		*2.4*	*13.5*	
k_B	*0.3*	*0.6*		*0.4*	*0.6*	*0.5*	*0.5*	*0.7*		*0.6*	*0.7*	
Q_2	*1.0*	*0.8*		*1.1*	*4.1*	*1.6*	*0.2*	*3.7*		*0.2*	*1.4*	
Q Average	*5.0*	*10.2*		*6.2*	*20.7*	*12.6*	*2.5*	*22.9*		*2.6*	*14.9*	

Percentile Back of Queue (95th percentile)

$f_{B\%}$	*2.0*	*1.8*		*1.9*	*1.7*	*1.8*	*2.0*	*1.7*		*2.0*	*1.8*	
Back of Queue	*9.8*	*18.7*		*11.9*	*35.0*	*22.6*	*5.0*	*38.3*		*5.2*	*26.2*	

Queue Storage Ratio

Queue Spacing	*25.0*	*25.0*		*25.0*	*25.0*	*25.0*	*25.0*	*25.0*		*25.0*	*25.0*	
Queue Storage	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Average Queue Storage Ratio												
95% Queue Storage Ratio												

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SHORT REPORT

General Information		Site Information	
Analyst	*DPA*	Intersection	*NW 122 St & NW 87 Ave*
Agency or Co.		Area Type	*All other areas*
Date Performed		Jurisdiction	
Time Period	*Fut wo proj Peak Hour*	Analysis Year	

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*	*0*	*1*	*1*	*1*	*2*	*2*	*0*	*2*	*2*	*0*
Lane Group	*L*	*TR*		*L*	*T*	*R*	*L*	*TR*		*L*	*TR*	
Volume (vph)	*161*	*461*	*121*	*208*	*469*	*351*	*244*	*924*	*120*	*258*	*679*	*129*
% Heavy Vehicles	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*
PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*
Pretimed/Actuated (P/A)	*A*	*A*	*A*	*A*	*A*	*A*	*A*	*A*	*A*	*A*	*A*	*A*
Startup Lost Time	*2.0*	*2.0*		*2.0*	*2.0*	*2.0*	*2.0*	*2.0*		*2.0*	*2.0*	
Extension of Effective Green	*2.0*	*2.0*		*2.0*	*2.0*	*2.0*	*2.0*	*2.0*		*2.0*	*2.0*	
Arrival Type	*3*	*3*		*3*	*3*	*3*	*3*	*3*		*3*	*3*	
Unit Extension	*3.0*	*3.0*		*3.0*	*3.0*	*3.0*	*3.0*	*3.0*		*3.0*	*3.0*	
Ped/Bike/RTOR Volume	*0*	*0*	*0*	*0*	*0*	*33*	*0*	*0*	*0*	*0*	*0*	*0*
Lane Width	*12.0*	*12.0*		*12.0*	*12.0*	*12.0*	*12.0*	*12.0*		*12.0*	*12.0*	
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	Excl. Left	EW Perm	03	04	Excl. Left	NS Perm	07	08
Timing	G = *12.0*	G = *35.0*	G =	G =	G = *21.0*	G = *45.0*	G =	G =
	Y = *3*	Y = *5*	Y =	Y =	Y = *3*	Y = *5*	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *129.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*179*	*646*		*231*	*521*	*353*	*271*	*1160*		*287*	*897*	
Lane Group Capacity	*223*	*932*		*272*	*505*	*429*	*935*	*1216*		*1143*	*1208*	
v/c Ratio	*0.80*	*0.69*		*0.85*	*1.03*	*0.82*	*0.29*	*0.95*		*0.25*	*0.74*	
Green Ratio	*0.40*	*0.27*		*0.40*	*0.27*	*0.27*	*0.55*	*0.35*		*0.55*	*0.35*	
Uniform Delay d_1	*31.5*	*42.2*		*29.1*	*47.0*	*44.1*	*18.0*	*41.0*		*21.6*	*36.9*	
Delay Factor k	*0.35*	*0.26*		*0.38*	*0.50*	*0.36*	*0.11*	*0.46*		*0.11*	*0.30*	
Incremental Delay d_2	*18.8*	*2.2*		*21.6*	*48.4*	*12.2*	*0.2*	*16.0*		*0.1*	*2.5*	
PF Factor	*1.000*	*1.000*		*1.000*	*1.000*	*1.000*	*1.000*	*1.000*		*1.000*	*1.000*	
Control Delay	*50.3*	*44.4*		*50.7*	*95.4*	*56.3*	*18.2*	*57.0*		*21.7*	*39.4*	
Lane Group LOS	*D*	*D*		*D*	*F*	*E*	*B*	*E*		*C*	*D*	
Approach Delay	*45.7*			*73.6*			*49.7*			*35.1*		
Approach LOS	*D*			*E*			*D*			*D*		
Intersection Delay	*51.0*			Intersection LOS						*D*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *Beacon Countyline DRI - #06257*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*TR*		*L*	*T*	*R*	*L*	*TR*		*L*	*TR*	
Initial Queue/Lane	*0.0*	*0.0*		*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	*0.0*	
Flow Rate/Lane Group	*179*	*646*		*231*	*521*	*353*	*271*	*1160*		*287*	*897*	
Satflow/Lane	*552*	*1804*		*673*	*1863*	*1583*	*874*	*1830*		*1069*	*1818*	
Capacity/Lane Group	*223*	*932*		*272*	*505*	*429*	*935*	*1216*		*1143*	*1208*	
Flow Ratio	*0.3*	*0.2*		*0.3*	*0.3*	*0.2*	*0.2*	*0.3*		*0.1*	0.3	
v/c Ratio	*0.80*	*0.69*		*0.85*	*1.03*	*0.82*	*0.29*	*0.95*		*0.25*	*0.74*	
I Factor	*1.000*	*1.000*		*1.000*	*1.000*	*1.000*	*1.000*	*1.000*		*1.000*	*1.000*	
Arrival Type	*3*	*3*		*3*	*3*	*3*	*3*	*3*		*3*	*3*	
Platoon Ratio	*1.00*	*1.00*		*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	*1.00*	
PF Factor	*1.00*	*1.00*		*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	*1.00*	
Q_1	*4.1*	*10.9*		*5.4*	*18.7*	*11.9*	*2.3*	*21.3*		*2.5*	*14.8*	
k_B	*0.3*	*0.6*		*0.4*	*0.6*	*0.5*	*0.5*	*0.7*		*0.6*	*0.7*	
Q_2	*1.1*	*1.2*		*1.6*	*7.2*	*2.0*	*0.2*	*5.5*		*0.2*	*1.7*	
Q Average	*5.3*	*12.1*		*7.0*	*25.8*	*13.8*	*2.6*	*26.8*		*2.7*	*16.6*	

Percentile Back of Queue (95th percentile)

$f_{B\%}$	*1.9*	*1.8*		*1.9*	*1.6*	*1.8*	*2.0*	*1.6*		*2.0*	*1.7*	
Back of Queue	*10.3*	*21.8*		*13.3*	*42.4*	*24.6*	*5.2*	*43.8*		*5.4*	*28.8*	

Queue Storage Ratio

Queue Spacing	*25.0*	*25.0*		*25.0*	*25.0*	*25.0*	*25.0*	*25.0*		*25.0*	*25.0*	
Queue Storage	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Average Queue Storage Ratio												
95% Queue Storage Ratio												

HCS+™ Version 5.21 Generated: 10/18/2007 1:25 PM

SHORT REPORT

General Information		Site Information	
Analyst	*DPA*	Intersection	*NW 122 St & NW 87 Ave*
Agency or Co.		Area Type	*All other areas*
Date Performed		Jurisdiction	
Time Period	*Fut w proj Peak Hour*	Analysis Year	

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*	*0*	*1*	*1*	*1*	*2*	*2*	*0*	*2*	*2*	*0*
Lane Group	*L*	*TR*		*L*	*T*	*R*	*L*	*TR*		*L*	*TR*	
Volume (vph)	*161*	*467*	*124*	*208*	*472*	*360*	*245*	*926*	*120*	*278*	*685*	*129*
% Heavy Vehicles	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*
PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*
Pretimed/Actuated (P/A)	*A*	*A*	*A*	*A*	*A*	*A*	*A*	*A*	*A*	*A*	*A*	*A*
Startup Lost Time	*2.0*	*2.0*		*2.0*	*2.0*	*2.0*	*2.0*	*2.0*		*2.0*	*2.0*	
Extension of Effective Green	*2.0*	*2.0*		*2.0*	*2.0*	*2.0*	*2.0*	*2.0*		*2.0*	*2.0*	
Arrival Type	*3*	*3*		*3*	*3*	*3*	*3*	*3*		*3*	*3*	
Unit Extension	*3.0*	*3.0*		*3.0*	*3.0*	*3.0*	*3.0*	*3.0*		*3.0*	*3.0*	
Ped/Bike/RTOR Volume	*0*	*0*	*0*	*0*	*0*	*33*	*0*	*0*	*0*	*0*	*0*	*0*
Lane Width	*12.0*	*12.0*		*12.0*	*12.0*	*12.0*	*12.0*	*12.0*		*12.0*	*12.0*	
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	Excl. Left	EW Perm	03	04	Excl. Left	NS Perm	07	08
Timing	G = *12.0*	G = *35.0*	G =	G =	G = *21.0*	G = *45.0*	G =	G =
	Y = *3*	Y = *5*	Y =	Y =	Y = *3*	Y = *5*	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *129.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*179*	*657*		*231*	*524*	*363*	*272*	*1162*		*309*	*904*	
Lane Group Capacity	*223*	*932*		*268*	*505*	*429*	*939*	*1216*		*1145*	*1208*	
v/c Ratio	*0.80*	*0.70*		*0.86*	*1.04*	*0.85*	*0.29*	*0.96*		*0.27*	*0.75*	
Green Ratio	*0.40*	*0.27*		*0.40*	*0.27*	*0.27*	*0.55*	*0.35*		*0.55*	*0.35*	
Uniform Delay d_1	*31.3*	*42.3*		*29.2*	*47.0*	*44.5*	*18.1*	*41.0*		*21.7*	*37.0*	
Delay Factor k	*0.35*	*0.27*		*0.39*	*0.50*	*0.38*	*0.11*	*0.47*		*0.11*	*0.30*	
Incremental Delay d_2	*18.8*	*2.4*		*23.8*	*50.1*	*14.5*	*0.2*	*16.3*		*0.1*	*2.6*	
PF Factor	*1.000*	*1.000*		*1.000*	*1.000*	*1.000*	*1.000*	*1.000*		*1.000*	*1.000*	
Control Delay	*50.1*	*44.8*		*53.0*	*97.1*	*59.0*	*18.3*	*57.3*		*21.9*	*39.6*	
Lane Group LOS	*D*	*D*		*D*	*F*	*E*	*B*	*E*		*C*	*D*	
Approach Delay	*45.9*			*75.6*			*49.9*			*35.1*		
Approach LOS	*D*			*E*			*D*			*D*		
Intersection Delay	*51.5*			Intersection LOS						*D*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *Beacon Countyline DRI - #06257*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*TR*		*L*	*T*	*R*	*L*	*TR*		*L*	*TR*	
Initial Queue/Lane	*0.0*	*0.0*		*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	*0.0*	
Flow Rate/Lane Group	*179*	*657*		*231*	*524*	*363*	*272*	*1162*		*309*	*904*	
Satflow/Lane	*552*	*1804*		*664*	*1863*	*1583*	*878*	*1830*		*1071*	*1818*	
Capacity/Lane Group	*223*	*932*		*268*	*505*	*429*	*939*	*1216*		*1145*	*1208*	
Flow Ratio	*0.3*	*0.2*		*0.3*	*0.3*	*0.2*	*0.2*	*0.3*		*0.1*	0.3	
v/c Ratio	*0.80*	*0.70*		*0.86*	*1.04*	*0.85*	*0.29*	*0.96*		*0.27*	*0.75*	
I Factor	*1.000*	*1.000*		*1.000*	*1.000*	*1.000*	*1.000*	*1.000*		*1.000*	*1.000*	
Arrival Type	*3*	*3*		*3*	*3*	*3*	*3*	*3*		*3*	*3*	
Platoon Ratio	*1.00*	*1.00*		*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	*1.00*	
PF Factor	*1.00*	*1.00*		*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	*1.00*	
Q_1	*4.1*	*11.1*		*5.4*	*18.8*	*12.3*	*2.4*	*21.4*		*2.7*	*15.0*	
k_B	*0.3*	*0.6*		*0.4*	*0.6*	*0.5*	*0.5*	*0.7*		*0.6*	*0.7*	
Q_2	*1.1*	*1.2*		*1.7*	*7.4*	*2.2*	*0.2*	*5.5*		*0.2*	*1.8*	
Q Average	*5.3*	*12.4*		*7.1*	*26.2*	*14.5*	*2.6*	*26.9*		*2.9*	*16.7*	

Percentile Back of Queue (95th percentile)

$f_{B\%}$	*1.9*	*1.8*		*1.9*	*1.6*	*1.8*	*2.0*	*1.6*		*2.0*	*1.7*	
Back of Queue	*10.3*	*22.3*		*13.5*	*42.9*	*25.7*	*5.2*	*43.9*		*5.8*	*29.1*	

Queue Storage Ratio

Queue Spacing	*25.0*	*25.0*		*25.0*	*25.0*	*25.0*	*25.0*	*25.0*		*25.0*	*25.0*	
Queue Storage	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Average Queue Storage Ratio												
95% Queue Storage Ratio												

HCS+™ Version 5.21 Generated: 10/18/2007 1:27 PM

SHORT REPORT

General Information		Site Information	
Analyst	*DPA*	Intersection	*NW 122 St & NW 87 Ave*
Agency or Co.		Area Type	*All other areas*
Date Performed		Jurisdiction	
Time Period	*Fut w proj Peak Hour w imp*	Analysis Year	

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*	*0*	*1*	*1*	*1*	*2*	*2*	*0*	*2*	*2*	*0*
Lane Group	*L*	*TR*		*L*	*T*	*R*	*L*	*TR*		*L*	*TR*	
Volume (vph)	*161*	*467*	*124*	*208*	*472*	*360*	*245*	*926*	*120*	*278*	*685*	*129*
% Heavy Vehicles	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*
PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*
Pretimed/Actuated (P/A)	*A*	*A*	*A*	*A*	*A*	*A*	*A*	*A*	*A*	*A*	*A*	*A*
Startup Lost Time	*2.0*	*2.0*		*2.0*	*2.0*	*2.0*	*2.0*	*2.0*		*2.0*	*2.0*	
Extension of Effective Green	*2.0*	*2.0*		*2.0*	*2.0*	*2.0*	*2.0*	*2.0*		*2.0*	*2.0*	
Arrival Type	*3*	*3*		*3*	*3*	*3*	*3*	*3*		*3*	*3*	
Unit Extension	*3.0*	*3.0*		*3.0*	*3.0*	*3.0*	*3.0*	*3.0*		*3.0*	*3.0*	
Ped/Bike/RTOR Volume	*0*	*0*	*0*	*0*	*0*	*33*	*0*	*0*	*0*	*0*	*0*	*0*
Lane Width	*12.0*	*12.0*		*12.0*	*12.0*	*12.0*	*12.0*	*12.0*		*12.0*	*12.0*	
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	Excl. Left	EW Perm	03	04	Excl. Left	NS Perm	07	08
Timing	G = *7.2*	G = *43.1*	G =	G =	G = *7.1*	G = *46.6*	G =	G =
	Y = *3*	Y = *5*	Y =	Y =	Y = *3*	Y = *5*	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *120.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*179*	*657*		*231*	*524*	*363*	*272*	*1162*		*309*	*904*	
Lane Group Capacity	*226*	*1234*		*293*	*669*	*569*	*578*	*1354*		*730*	*1345*	
v/c Ratio	*0.79*	*0.53*		*0.79*	*0.78*	*0.64*	*0.47*	*0.86*		*0.42*	*0.67*	
Green Ratio	*0.46*	*0.36*		*0.46*	*0.36*	*0.36*	*0.49*	*0.39*		*0.49*	*0.39*	
Uniform Delay d_1	*33.5*	*30.5*		*34.5*	*34.3*	*32.0*	*20.4*	*33.7*		*23.5*	*30.4*	
Delay Factor k	*0.34*	*0.14*		*0.33*	*0.33*	*0.22*	*0.11*	*0.39*		*0.11*	*0.24*	
Incremental Delay d_2	*17.3*	*0.4*		*13.4*	*6.1*	*2.4*	*0.6*	*5.7*		*0.4*	*1.3*	
PF Factor	*1.000*	*1.000*		*1.000*	*1.000*	*1.000*	*1.000*	*1.000*		*1.000*	*1.000*	
Control Delay	*50.8*	*30.9*		*47.9*	*40.3*	*34.4*	*21.0*	*39.4*		*23.9*	*31.7*	
Lane Group LOS	*D*	*C*		*D*	*D*	*C*	*C*	*D*		*C*	*C*	
Approach Delay	*35.2*			*40.0*			*35.9*			*29.7*		
Approach LOS	*D*			*D*			*D*			*C*		
Intersection Delay	*35.1*			Intersection LOS						*D*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *Beacon Countyline DRI - #06257*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*TR*		*L*	*T*	*R*	*L*	*TR*		*L*	*TR*	
Initial Queue/Lane	*0.0*	*0.0*		*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	*0.0*	
Flow Rate/Lane Group	*179*	*657*		*231*	*524*	*363*	*272*	*1162*		*309*	*904*	
Satflow/Lane	*552*	*1804*		*664*	*1863*	*1583*	*878*	*1830*		*1071*	*1818*	
Capacity/Lane Group	*223*	*932*		*268*	*505*	*429*	*939*	*1216*		*1145*	*1208*	
Flow Ratio	*0.3*	*0.2*		*0.3*	*0.3*	*0.2*	*0.2*	*0.3*		*0.1*	0.3	
v/c Ratio	*0.80*	*0.70*		*0.86*	*1.04*	*0.85*	*0.29*	*0.96*		*0.27*	*0.75*	
I Factor	*1.000*	*1.000*		*1.000*	*1.000*	*1.000*	*1.000*	*1.000*		*1.000*	*1.000*	
Arrival Type	*3*	*3*		*3*	*3*	*3*	*3*	*3*		*3*	*3*	
Platoon Ratio	*1.00*	*1.00*		*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	*1.00*	
PF Factor	*1.00*	*1.00*		*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	*1.00*	
Q_1	*4.1*	*11.1*		*5.4*	*18.8*	*12.3*	*2.4*	*21.4*		*2.7*	*15.0*	
k_B	*0.3*	*0.6*		*0.4*	*0.6*	*0.5*	*0.5*	*0.7*		*0.6*	*0.7*	
Q_2	*1.1*	*1.2*		*1.7*	*7.4*	*2.2*	*0.2*	*5.5*		*0.2*	*1.8*	
Q Average	*5.3*	*12.4*		*7.1*	*26.2*	*14.5*	*2.6*	*26.9*		*2.9*	*16.7*	

Percentile Back of Queue (95th percentile)

$f_{B\%}$	*1.9*	*1.8*		*1.9*	*1.6*	*1.8*	*2.0*	*1.6*		*2.0*	*1.7*	
Back of Queue	*10.3*	*22.3*		*13.5*	*42.9*	*25.7*	*5.2*	*43.9*		*5.8*	*29.1*	

Queue Storage Ratio

Queue Spacing	*25.0*	*25.0*		*25.0*	*25.0*	*25.0*	*25.0*	*25.0*		*25.0*	*25.0*	
Queue Storage	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Average Queue Storage Ratio												
95% Queue Storage Ratio												

HCS+™ Version 5.21 Generated: 10/18/2007 1:27 PM

NW 170 STREET / HEFT WEST RAMP

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*DPA*
Agency/Co.	
Date Performed	
Analysis Time Period	*Fut w proj Peak Hour*

Site Information

Intersection	*NW 170 St & HEFT West Ramp*
Jurisdiction	
Analysis Year	

Project Description *Beacon Countyline DRI - #06257*

East/West Street: *NW 170 Street* | North/South Street: *HEFT West Ramp*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)				*775*		
Peak-Hour Factor, PHF	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*815*	*0*	*0*
Percent Heavy Vehicles	*0*	--	--	*2*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*1*	*0*	*0*
Configuration				*L*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)			*579*			
Peak-Hour Factor, PHF	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*609*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*2*	*0*	*0*	*0*
Percent Grade (%)	*0*			*0*		
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*1*	*0*	*0*	*0*
Configuration			*R*			

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*L*			*R*			
v (veh/h)		*815*			*609*			
C (m) (veh/h)		*1623*			*1085*			
v/c		*0.50*			*0.56*			
95% queue length		*2.94*			*3.62*			
Control Delay (s/veh)		*9.4*			*12.5*			
LOS		*A*			*B*			
Approach Delay (s/veh)	--	--	*12.5*					
Approach LOS	--	--	*B*					

NW 170 STREET / HEFT EAST RAMP

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*DPA*
Agency/Co.	
Date Performed	
Analysis Time Period	*Fut w proj Peak Hour*

Site Information

Intersection	*NW 170 St & HEFT East Ramp*
Jurisdiction	
Analysis Year	

Project Description *Beacon Countyline DRI - #06257*

East/West Street: *NW 170 Street* | North/South Street: *HEFT East Ramp*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*579*			*775*	*783*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*579*	*0*	*0*	*775*	*783*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*2*	*0*	*0*	*1*	*1*
Configuration		*T*			*T*	*R*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)			*388*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*388*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*2*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*1*	*0*	*0*	*0*
Configuration			*R*			

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration					*R*			
v (veh/h)					*388*			
C (m) (veh/h)					*707*			
v/c					*0.55*			
95% queue length					*3.36*			
Control Delay (s/veh)					*16.1*			
LOS					*C*			
Approach Delay (s/veh)	--	--	*16.1*					
Approach LOS	--	--	*C*					

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NW 170 STREET / NW 102 AVENUE

SHORT REPORT

General Information		Site Information	
Analyst	*DPA*	Intersection	*NW 170 St & NW 102 Ave*
Agency or Co.		Area Type	*All other areas*
Date Performed		Jurisdiction	
Time Period	*Fut w proj Peak Hour*	Analysis Year	

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*2*	*1*	*1*	*2*		*2*		*1*			
Lane Group		*T*	*R*	*L*	*T*		*L*		*R*			
Volume (vph)		*460*	*508*	*196*	*495*		*1062*		*429*			
% Heavy Vehicles		*2*	*2*	*2*	*2*		*2*		*2*			
PHF		*0.90*	*0.90*	*0.90*	*0.90*		*0.90*		*0.90*			
Pretimed/Actuated (P/A)		*A*	*A*	*A*	*A*		*A*		*A*			
Startup Lost Time		*2.0*	*2.0*	*2.0*	*2.0*		*2.0*		*2.0*			
Extension of Effective Green		*2.0*	*2.0*	*2.0*	*2.0*		*2.0*		*2.0*			
Arrival Type		*3*	*3*	*3*	*3*		*3*		*3*			
Unit Extension		*3.0*	*3.0*	*3.0*	*3.0*		*3.0*		*3.0*			
Ped/Bike/RTOR Volume	*0*	*0*	*51*	*0*	*0*		*0*	*0*	*43*			
Lane Width		*12.0*	*12.0*	*12.0*	*12.0*		*12.0*		*12.0*			
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*			
Parking/Hour												
Bus Stops/Hour		*0*	*0*	*0*	*0*		*0*		*0*			
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*				

Phasing	WB Only	EW Perm	03	04	NB Only	06	07	08
Timing	G = *7.0*	G = *13.6*	G =	G =	G = *28.4*	G =	G =	G =
	Y = *3*	Y = *4*	Y =	Y =	Y = *4*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *60.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*511*	*508*	*218*	*550*		*1180*		*429*			
Lane Group Capacity		*804*	*1214*	*343*	*1395*		*1627*		*749*			
v/c Ratio		*0.64*	*0.42*	*0.64*	*0.39*		*0.73*		*0.57*			
Green Ratio		*0.23*	*0.77*	*0.41*	*0.39*		*0.47*		*0.47*			
Uniform Delay d_1		*21.0*	*2.4*	*12.6*	*13.1*		*12.7*		*11.4*			
Delay Factor k		*0.22*	*0.11*	*0.22*	*0.11*		*0.29*		*0.17*			
Incremental Delay d_2		*1.7*	*0.2*	*3.9*	*0.2*		*1.6*		*1.1*			
PF Factor		*1.000*	*1.000*	*1.000*	*1.000*		*1.000*		*1.000*			
Control Delay		*22.6*	*2.6*	*16.5*	*13.3*		*14.3*		*12.5*			
Lane Group LOS		*C*	*A*	*B*	*B*		*B*		*B*			
Approach Delay	*12.7*			*14.2*			*13.8*					
Approach LOS	*B*			*B*			*B*					
Intersection Delay	*13.6*			Intersection LOS						*B*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *Beacon Countyline DRI - #06257*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*	*R*	*L*	*T*		*L*		*R*			
Initial Queue/Lane		*0.0*	*0.0*	*0.0*	*0.0*		*0.0*		*0.0*			
Flow Rate/Lane Group		*511*	*508*	*218*	*550*		*1180*		*429*			
Satflow/Lane		*1862*	*1583*	*836*	*1862*		*1770*		*1583*			
Capacity/Lane Group		*804*	*1214*	*343*	*1395*		*1627*		*749*			
Flow Ratio		*0.1*	*0.3*	*0.3*	*0.2*		*0.3*		*0.3*			
v/c Ratio		*0.64*	*0.42*	*0.64*	*0.39*		*0.73*		*0.57*			
I Factor		*1.000*	*1.000*	*1.000*	*1.000*		*1.000*		*1.000*			
Arrival Type		*3*	*3*	*3*	*3*		*3*		*3*			
Platoon Ratio		*1.00*	*1.00*	*1.00*	*1.00*		*1.00*		*1.00*			
PF Factor		*1.00*	*1.00*	*1.00*	*1.00*		*1.00*		*1.00*			
Q_1		*4.0*	*2.9*	*2.3*	*3.4*		*8.1*		*5.2*			
k_B		*0.3*	*0.6*	*0.3*	*0.4*		*0.5*		*0.5*			
Q_2		*0.5*	*0.4*	*0.5*	*0.3*		*1.2*		*0.6*			
Q Average		*4.6*	*3.3*	*2.8*	*3.7*		*9.3*		*5.8*			

Percentile Back of Queue (95th percentile)

$f_{B\%}$		*2.0*	*2.0*	*2.0*	*2.0*		*1.9*		*1.9*			
Back of Queue		*9.0*	*6.7*	*5.6*	*7.4*		*17.4*		*11.2*			

Queue Storage Ratio

Queue Spacing		*25.0*	*25.0*	*25.0*	*25.0*		*25.0*		*25.0*			
Queue Storage		*0*	*0*	*0*	*0*		*0*		*0*			
Average Queue Storage Ratio												
95% Queue Storage Ratio												

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NW 170 STREET / NW 97 AVENUE

SHORT REPORT

General Information		Site Information	
Analyst	*DPA*	Intersection	*NW 170 St & NW 97 Ave*
Agency or Co.		Area Type	*All other areas*
Date Performed		Jurisdiction	
Time Period	*Fut w proj Peak Hour*	Analysis Year	

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*1*	*1*	*1*	*1*		*1*		*1*			
Lane Group		*T*	*R*	*L*	*T*		*L*		*R*			
Volume (vph)		*486*	*407*	*51*	*301*		*392*		*112*			
% Heavy Vehicles		*2*	*2*	*2*	*2*		*2*		*2*			
PHF		*0.90*	*0.90*	*0.90*	*0.90*		*0.90*		*0.90*			
Pretimed/Actuated (P/A)		*A*	*A*	*A*	*A*		*A*		*A*			
Startup Lost Time		*2.0*	*2.0*	*2.0*	*2.0*		*2.0*		*2.0*			
Extension of Effective Green		*2.0*	*2.0*	*2.0*	*2.0*		*2.0*		*2.0*			
Arrival Type		*3*	*3*	*3*	*3*		*3*		*3*			
Unit Extension		*3.0*	*3.0*	*3.0*	*3.0*		*3.0*		*3.0*			
Ped/Bike/RTOR Volume	*0*	*0*	*26*	*0*	*0*		*0*	*0*	*11*			
Lane Width		*12.0*	*12.0*	*12.0*	*12.0*		*12.0*		*12.0*			
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*			
Parking/Hour												
Bus Stops/Hour		*0*	*0*	*0*	*0*		*0*		*0*			
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*				

Phasing	EW Perm	02	03	04	NB Only	06	07	08
Timing	G = *40.0*	G =	G =	G =	G = *40.0*	G =	G =	G =
	Y = *5*	Y =	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *90.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*540*	*423*	*57*	*334*		*436*		*112*			
Lane Group Capacity		*828*	*704*	*226*	*828*		*787*		*704*			
v/c Ratio		*0.65*	*0.60*	*0.25*	*0.40*		*0.55*		*0.16*			
Green Ratio		*0.44*	*0.44*	*0.44*	*0.44*		*0.44*		*0.44*			
Uniform Delay d_1		*19.6*	*18.9*	*15.6*	*16.9*		*18.4*		*14.9*			
Delay Factor k		*0.23*	*0.19*	*0.11*	*0.11*		*0.15*		*0.11*			
Incremental Delay d_2		*1.8*	*1.4*	*0.6*	*0.3*		*0.9*		*0.1*			
PF Factor		*1.000*	*1.000*	*1.000*	*1.000*		*1.000*		*1.000*			
Control Delay		*21.4*	*20.4*	*16.2*	*17.2*		*19.3*		*15.1*			
Lane Group LOS		*C*	*C*	*B*	*B*		*B*		*B*			
Approach Delay	*21.0*			*17.1*			*18.4*					
Approach LOS	*C*			*B*			*B*					
Intersection Delay	*19.4*			Intersection LOS						*B*		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *Beacon Countyline DRI - #06257*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*	*R*	*L*	*T*		*L*		*R*			
Initial Queue/Lane		*0.0*	*0.0*	*0.0*	*0.0*		*0.0*		*0.0*			
Flow Rate/Lane Group		*540*	*423*	*57*	*334*		*436*		*112*			
Satflow/Lane		*1863*	*1583*	*508*	*1863*		*1770*		*1583*			
Capacity/Lane Group		*828*	*704*	*226*	*828*		*787*		*704*			
Flow Ratio		*0.3*	*0.3*	*0.1*	*0.2*		*0.2*		*0.1*			
v/c Ratio		*0.65*	*0.60*	*0.25*	*0.40*		*0.55*		*0.16*			
I Factor		*1.000*	*1.000*	*1.000*	*1.000*		*1.000*		*1.000*			
Arrival Type		*3*	*3*	*3*	*3*		*3*		*3*			
Platoon Ratio		*1.00*	*1.00*	*1.00*	*1.00*		*1.00*		*1.00*			
PF Factor		*1.00*	*1.00*	*1.00*	*1.00*		*1.00*		*1.00*			
Q_1		*10.6*	*8.0*	*0.9*	*5.7*		*8.0*		*1.7*			
k_B		*0.6*	*0.6*	*0.3*	*0.6*		*0.6*		*0.6*			
Q_2		*1.1*	*0.8*	*0.1*	*0.4*		*0.7*		*0.1*			
Q Average		*11.7*	*8.8*	*1.0*	*6.1*		*8.8*		*1.8*			
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.8*	*1.9*	*2.1*	*1.9*		*1.9*		*2.0*			
Back of Queue		*21.2*	*16.5*	*2.0*	*11.7*		*16.4*		*3.6*			
Queue Storage Ratio												
Queue Spacing		*25.0*	*25.0*	*25.0*	*25.0*		*25.0*		*25.0*			
Queue Storage		*0*	*0*	*0*	*0*		*0*		*0*			
Average Queue Storage Ratio												
95% Queue Storage Ratio												

NW 162 STREET / NW 107 AVENUE

ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	*DPA*
Agency/Co.	
Date Performed	
Analysis Time Period	*Fut w proj Peak Hour*

Site Information

Intersection	*NW 162 St & NW 107 Ave*
Jurisdiction	
Analysis Year	

Project ID *Beacon Countyline DRI - #06257*

East/West Street: *NW 162 St* | North/South Street: *NW 107 Avenue*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*0*	*215*	*0*	*0*
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*0*	*98*	*98*	*0*	*215*	*0*
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration			*L*	*R*	*TR*		*LT*	
PHF			*1.00*	*1.00*	*1.00*		*1.00*	
Flow Rate (veh/h)			*215*	*0*	*196*		*215*	
% Heavy Vehicles			*0*	*0*	*0*		*0*	
No. Lanes	*0*		*2*		*1*		*1*	
Geometry Group			*1*		*2*		*2*	
Duration, T	*0.25*							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns			*1.0*	*0.0*	*0.0*		*0.0*	
Prop. Right-Turns			*0.0*	*0.0*	*0.5*		*0.0*	
Prop. Heavy Vehicle			*0.0*	*0.0*	*0.0*		*0.0*	
hLT-adj			*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*
hRT-adj			*-0.6*	*-0.6*	*-0.6*	*-0.6*	*-0.6*	*-0.6*
hHV-adj			*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*
hadj, computed			*0.2*	*0.0*	*-0.3*		*0.0*	

Departure Headway and Service Time

hd, initial value (s)			*3.20*	*3.20*	*3.20*		*3.20*	
x, initial			*0.19*	*0.00*	*0.17*		*0.19*	
hd, final value (s)			*5.06*	*4.86*	*4.45*		*4.71*	
x, final value			*0.30*	*0.00*	*0.24*		*0.28*	
Move-up time, m (s)			*2.0*		*2.0*		*2.0*	
Service Time, t_s (s)			*3.1*	*2.9*	*2.4*		*2.7*	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)			*465*	*0*	*446*		*465*	
Delay (s/veh)			*10.24*	*7.86*	*8.86*		*9.55*	
LOS			*B*	*A*	*A*		*A*	
Approach: Delay (s/veh)			*10.24*		*8.86*		*9.55*	
LOS			*B*		*A*		*A*	
Intersection Delay (s/veh)	*9.57*							
Intersection LOS	*A*							

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NW 162 STREET / NW 97 AVENUE

ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	*DPA*
Agency/Co.	
Date Performed	
Analysis Time Period	*Fut w proj Peak Hour*

Site Information

Intersection	*NW 162 St & NW 97 Ave*
Jurisdiction	
Analysis Year	

Project ID *Beacon Countyline DRI - #06257*

East/West Street: *NW 162 St* North/South Street: *NW 97 Avenue*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*180*	*0*	*190*	*215*	*0*	*0*
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*85*	*323*	*98*	*0*	*378*	*80*
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	*L*	*R*			*L*	*T*	*T*	*R*
PHF	*0.90*	*0.90*			*0.90*	*0.90*	*0.90*	*0.90*
Flow Rate (veh/h)	*200*	*211*			*94*	*358*	*420*	88
% Heavy Vehicles	*0*	*0*			*0*	*0*	*0*	*0*
No. Lanes	*2*		*0*		*2*		*2*	
Geometry Group	*1*				*5*		*5*	
Duration, T	*0.25*							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	*1.0*	*0.0*			*1.0*	*0.0*	*0.0*	*0.0*
Prop. Right-Turns	*0.0*	*1.0*			*0.0*	*0.0*	*0.0*	*1.0*
Prop. Heavy Vehicle	*0.0*	*0.0*			*0.0*	*0.0*	*0.0*	*0.0*
hLT-adj	*0.2*	*0.2*			*0.5*	*0.5*	*0.5*	*0.5*
hRT-adj	*-0.6*	*-0.6*			*-0.7*	*-0.7*	*-0.7*	*-0.7*
hHV-adj	*1.7*	*1.7*			*1.7*	*1.7*	*1.7*	*1.7*
hadj, computed	*0.2*	*-0.6*			*0.5*	*0.0*	*0.0*	*-0.7*

Departure Headway and Service Time

hd, initial value (s)	*3.20*	*3.20*			*3.20*	*3.20*	*3.20*	*3.20*
x, initial	*0.18*	*0.19*			*0.08*	*0.32*	*0.37*	*0.08*
hd, final value (s)	*6.53*	*5.72*			*6.99*	*6.48*	*6.42*	*5.71*
x, final value	*0.36*	*0.34*			*0.18*	*0.64*	*0.75*	*0.14*
Move-up time, m (s)	*2.0*				*2.3*		*2.3*	
Service Time, t_s (s)	*4.5*	*3.7*			*4.7*	*4.2*	*4.1*	*3.4*

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	*450*	*461*			*344*	*544*	*553*	*338*
Delay (s/veh)	*13.20*	*11.59*			*11.24*	*20.15*	*25.82*	*9.33*
LOS	*B*	*B*			*B*	*C*	*D*	*A*
Approach: Delay (s/veh)	*12.37*				*18.29*		*22.97*	
LOS	*B*				*C*		*C*	
Intersection Delay (s/veh)	*18.25*							
Intersection LOS	*C*							

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NW 156 STREET / NW 97 AVENUE

SHORT REPORT

General Information		Site Information	
Analyst	*DPA*	Intersection	*NW 156 St & NW 97 Ave*
Agency or Co.		Area Type	*All other areas*
Date Performed		Jurisdiction	
Time Period	*Fut w proj Peak Hour*	Analysis Year	

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*		*1*				*1*	*2*			*2*	*1*
Lane Group	*L*		*R*				*L*	*T*			*T*	*R*
Volume (vph)	*115*		*500*				*230*	*293*			*514*	*54*
% Heavy Vehicles	*0*		*2*				*2*	*0*			*0*	*0*
PHF	*0.90*		*0.90*				*0.90*	*0.90*			*0.90*	*0.90*
Pretimed/Actuated (P/A)	*A*		*A*				*A*	*A*			*A*	*A*
Startup Lost Time	*2.0*		*2.0*				*2.0*	*2.0*			*2.0*	*2.0*
Extension of Effective Green	*2.0*		*2.0*				*2.0*	*2.0*			*2.0*	*2.0*
Arrival Type	*3*		*3*				*3*	*3*			*3*	*3*
Unit Extension	*3.0*		*3.0*				*3.0*	*3.0*			*3.0*	*3.0*
Ped/Bike/RTOR Volume	*0*	*0*	*60*				*0*	*0*		*0*	*0*	*13*
Lane Width	*12.0*		*12.0*				*12.0*	*12.0*			*12.0*	*12.0*
Parking/Grade/Parking	*N*	*0*	*N*				*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*		*0*				*0*	*0*			*0*	*0*
Minimum Pedestrian Time		*3.2*						*3.2*			*3.2*	

Phasing	EB Only	02	03	04	NS Perm	06	07	08
Timing	G = *25.0*	G =	G =	G =	G = *25.0*	G =	G =	G =
	Y = *5*	Y =	Y =	Y =	Y = *5*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *60.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*128*		*489*				*256*	*326*			*571*	*46*
Lane Group Capacity	*752*		*660*				*312*	*1507*			*1507*	*673*
v/c Ratio	*0.17*		*0.74*				*0.82*	*0.22*			*0.38*	*0.07*
Green Ratio	*0.42*		*0.42*				*0.42*	*0.42*			*0.42*	*0.42*
Uniform Delay d_1	*11.0*		*14.8*				*15.5*	*11.2*			*12.1*	*10.5*
Delay Factor k	*0.11*		*0.30*				*0.36*	*0.11*			*0.11*	*0.11*
Incremental Delay d_2	*0.1*		*4.5*				*15.9*	*0.1*			*0.2*	*0.0*
PF Factor	*1.000*		*1.000*				*1.000*	*1.000*			*1.000*	*1.000*
Control Delay	*11.1*		*19.2*				*31.4*	*11.3*			*12.3*	*10.6*
Lane Group LOS	*B*		*B*				*C*	*B*			*B*	*B*
Approach Delay	*17.6*						*20.1*			*12.2*		
Approach LOS	*B*						*C*			*B*		
Intersection Delay	*16.5*			Intersection LOS						*B*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *Beacon Countyline DRI - #06257*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*		*R*				*L*	*T*			*T*	*R*
Initial Queue/Lane	*0.0*		*0.0*				*0.0*	*0.0*			*0.0*	*0.0*
Flow Rate/Lane Group	*128*		*489*				*256*	*326*			*571*	*46*
Satflow/Lane	*1805*		*1583*				*750*	*1900*			*1900*	*1615*
Capacity/Lane Group	*752*		*660*				*312*	*1507*			*1507*	*673*
Flow Ratio	*0.1*		*0.3*				*0.3*	*0.1*			0.2	*0.0*
v/c Ratio	*0.17*		*0.74*				*0.82*	*0.22*			*0.38*	*0.07*
I Factor	*1.000*		*1.000*				*1.000*	*1.000*			*1.000*	*1.000*
Arrival Type	*3*		*3*				*3*	*3*			*3*	*3*
Platoon Ratio	*1.00*		*1.00*				*1.00*	*1.00*			*1.00*	*1.00*
PF Factor	*1.00*		*1.00*				*1.00*	*1.00*			*1.00*	*1.00*
Q_1	*1.3*		*6.9*				*3.8*	*1.8*			*3.5*	*0.5*
k_B	*0.5*		*0.4*				*0.3*	*0.5*			*0.5*	*0.4*
Q_2	*0.1*		*1.1*				*1.1*	*0.1*			*0.3*	*0.0*
Q Average	*1.4*		*8.0*				*4.8*	*2.0*			*3.7*	*0.5*

Percentile Back of Queue (95th percentile)

$f_{B\%}$	*2.1*		*1.9*				*2.0*	*2.0*			*2.0*	*2.1*
Back of Queue	*2.9*		*15.1*				*9.5*	*4.0*			*7.4*	*1.0*

Queue Storage Ratio

Queue Spacing	*25.0*		*25.0*				*25.0*	*25.0*			*25.0*	*25.0*
Queue Storage	*0*		*0*				*0*	*0*			*0*	*0*
Average Queue Storage Ratio												
95% Queue Storage Ratio												

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HEFT / I75 RAMPS

HEFT NEB TO I 75 NB DIVERGE
AM PEAK

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	HEFT NEB
Agency or Company		Junction	I-75 NB
Date Performed	9/25/2007	Jurisdiction	
Analysis Time Period	Existing	Analysis Year	2007 AM Peak Hour

Project Description Beacon Countyline DRI

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 55.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3701	0.95	Level	2	0	0.990	1.00	3935
Ramp	1248	0.95	Level	2	0	0.990	1.00	1327
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$
D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.450 using Equation (Exhibit 25-12)
V_{12} = 2501 pc/h
V_3 or V_{av34} 1434 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	3935	Exhibit 25-14	7200	No
$V_{FO} = V_F - V_R$	2608	Exhibit 25-14	7200	No
V_R	1327	Exhibit 25-3	4400	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2501	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.0009 L_D$
D_R = -13.7 (pc/mi/ln)
LOS = A (Exhibit 25-4)

Speed Determination

D_s = 0.287 (Exhibit 25-19)
S_R= 62.0 mph (Exhibit 25-19)
S_0= 75.6 mph (Exhibit 25-19)
S = 65.9 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	HEFT NEB
Agency or Company		Junction	I-75 NB
Date Performed	9/25/2007	Jurisdiction	
Analysis Time Period	Existing w imp - No Backlogs	Analysis Year	2007 AM Peak Hour

Project Description Beacon Countyline DRI

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 55.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3701	0.95	Level	2	0	0.990	1.00	3935
Ramp	1248	0.95	Level	2	0	0.990	1.00	1327
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$
D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.260 using Equation (Exhibit 25-12)
V_{12} = 2005 pc/h
V_3 or V_{av34} 965 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	3935	Exhibit 25-14	9600	No
$V_{FO} = V_F - V_R$	2608	Exhibit 25-14	9600	No
V_R	1327	Exhibit 25-3	4400	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2005	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.0009 L_D$
D_R = -17.3 (pc/mi/ln)
LOS = A (Exhibit 25-4)

Speed Determination

D_s = 0.287 (Exhibit 25-19)
S_R= 62.0 mph (Exhibit 25-19)
S_0= 76.8 mph (Exhibit 25-19)
S = 67.7 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	HEFT NEB
Agency or Company		Junction	I-75 NB
Date Performed	9/25/2007	Jurisdiction	
Analysis Time Period	Future without Project	Analysis Year	2018 AM Peak Hour

Project Description with improvements to eliminate backlogs

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 70.0 mph S_{FR} = 55.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5581	0.95	Level	2	0	0.990	1.00	5933
Ramp	1643	0.95	Level	2	0	0.990	1.00	1747
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.260 using Equation (Exhibit 25-12)

V_{12} = 2835 pc/h

V_3 or V_{av34} 1549 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5933	Exhibit 25-14	9600	No
$V_{FO} = V_F - V_R$	4186	Exhibit 25-14	9600	No
V_R	1747	Exhibit 25-3	4400	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2835	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.0009 L_D$

D_R = -11.9 (pc/mi/ln)

LOS = A (Exhibit 25-4)

Speed Determination

D_s = 0.325 (Exhibit 25-19)

S_R= 60.9 mph (Exhibit 25-19)

S_0= 74.6 mph (Exhibit 25-19)

S = 67.4 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	HEFT NEB
Agency or Company		Junction	I-75 NB
Date Performed	9/25/2007	Jurisdiction	
Analysis Time Period	Future with Project	Analysis Year	2018 AM Peak Hour

Project Description with improvements to eliminate backlogs

Inputs

Upstream Adj Ramp: ☐ Yes ☐ On ☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 55.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp: ☐ Yes ☐ On ☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	5622	0.95	Level	2	0	0.990	1.00	5977
Ramp	1672	0.95	Level	2	0	0.990	1.00	1778
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.260 using Equation (Exhibit 25-12)

V_{12} = 2870 pc/h

V_3 or V_{av34} 1553 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5977	Exhibit 25-14	9600	No
$V_{FO} = V_F - V_R$	4199	Exhibit 25-14	9600	No
V_R	1778	Exhibit 25-3	4400	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2870	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = -11.6 (pc/mi/ln)

LOS = A (Exhibit 25-4)

Speed Determination

D_s = 0.328 (Exhibit 25-19)

S_R= 60.8 mph (Exhibit 25-19)

S_0= 74.6 mph (Exhibit 25-19)

S = 67.3 mph (Exhibit 25-15)

HEFT NEB TO I 75 NB DIVERGE
PM PEAK

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	HEFT NEB
Agency or Company		Junction	I-75 NB
Date Performed	9/25/2007	Jurisdiction	
Analysis Time Period	Existing	Analysis Year	2007 PM Peak Hour

Project Description: Beacon Countyline DRI

Inputs

Upstream Adj Ramp: ☐ Yes ☐ On ☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 55.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp: ☐ Yes ☐ On ☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	5653	0.95	Level	2	0	0.990	1.00	6010
Ramp	2199	0.95	Level	2	0	0.990	1.00	2338
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.450 using Equation (Exhibit 25-12)

V_{12} = 3990 pc/h

V_3 or V_{av34} 2020 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6010	Exhibit 25-14	7200	No
$V_{FO} = V_F - V_R$	3672	Exhibit 25-14	7200	No
V_R	2338	Exhibit 25-3	4400	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3990	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = -0.2 (pc/mi/ln)

LOS = A (Exhibit 25-4)

Speed Determination

D_s = 0.378 (Exhibit 25-19)

S_R= 59.4 mph (Exhibit 25-19)

S_0= 73.6 mph (Exhibit 25-19)

S = 63.1 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	HEFT NEB
Agency or Company		Junction	I-75 NB
Date Performed	9/25/2007	Jurisdiction	
Analysis Time Period	Existing w imp - No Backlogs	Analysis Year	2007 PM Peak Hour

Project Description Beacon Countyline DRI

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 55.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5653	0.95	Level	2	0	0.990	1.00	6010
Ramp	2199	0.95	Level	2	0	0.990	1.00	2338
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$
D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.260 using Equation (Exhibit 25-12)
V_{12} = 3293 pc/h
V_3 or V_{av34} 1358 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6010	Exhibit 25-14	9600	No
$V_{FO} = V_F - V_R$	3672	Exhibit 25-14	9600	No
V_R	2338	Exhibit 25-3	4400	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3293	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.0009 L_D$
D_R = -5.1 (pc/mi/ln)
LOS = A (Exhibit 25-4)

Speed Determination

D_s = 0.378 (Exhibit 25-19)
S_R= 59.4 mph (Exhibit 25-19)
S_0= 76.0 mph (Exhibit 25-19)
S = 65.1 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	HEFT NEB
Agency or Company		Junction	I-75 NB
Date Performed	9/25/2007	Jurisdiction	
Analysis Time Period	Future without Project	Analysis Year	2018 PM Peak Hour

Project Description with Improvements needed to eliminate backlogs at mainline

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 70.0 mph S_{FR} = 55.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	8246	0.95	Level	2	0	0.990	1.00	8767
Ramp	2902	0.95	Level	2	0	0.990	1.00	3085
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.260 using Equation (Exhibit 25-12)

V_{12} = 4562 pc/h

V_3 or V_{av34} 2102 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	8767	Exhibit 25-14	9600	No
$V_{FO} = V_F - V_R$	5682	Exhibit 25-14	9600	No
V_R	3085	Exhibit 25-3	4400	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4562	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = 3.0 (pc/mi/ln)

LOS = A (Exhibit 25-4)

Speed Determination

D_s = 0.446 (Exhibit 25-19)

S_R= 57.5 mph (Exhibit 25-19)

S_0= 72.5 mph (Exhibit 25-19)

S = 63.8 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	HEFT NEB
Agency or Company		Junction	I-75 NB
Date Performed	9/25/2007	Jurisdiction	
Analysis Time Period	Future with Project	Analysis Year	2018 PM Peak Hour

Project Description with improvements needed to eliminate backlogs

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 70.0 mph S_{FR} = 55.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	8944	0.95	Level	2	0	0.990	1.00	9509
Ramp	3393	0.95	Level	2	0	0.990	1.00	3607
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.260 using Equation (Exhibit 25-12)

V_{12} = 5142 pc/h

V_3 or V_{av34} 2183 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	9509	Exhibit 25-14	9600	No
$V_{FO} = V_F - V_R$	5902	Exhibit 25-14	9600	No
V_R	3607	Exhibit 25-3	4400	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5142	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = 8.0 (pc/mi/ln)

LOS = A (Exhibit 25-4)

Speed Determination

D_s = 0.493 (Exhibit 25-19)

S_R= 56.2 mph (Exhibit 25-19)

S_0= 72.2 mph (Exhibit 25-19)

S = 62.6 mph (Exhibit 25-15)

HEFT NEB TO I 75 NB MERGE
AM PEAK

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	HEFT NEB TO I-75 NB
Agency or Company		Junction	
Date Performed	9/27/2007	Jurisdiction	
Analysis Time Period	Existing	Analysis Year	2007 AM Peak Hour

Project Description Beacon Countyline DRI

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 55.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	2521	0.95	Level	2	0	0.990	1.00	2680
Ramp	1248	0.95	Level	2	0	0.990	1.00	1327
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 0.555 using Equation (Exhibit 25-5)

V_{12} = 1487 pc/h

V_3 or V_{av34} 1193 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 1531 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	4007	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2858	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 3.0 (pc/mi/ln)

LOS = A (Exhibit 25-4)

Speed Determination

M_S = -0.035 (Exibit 25-19)

S_R= 71.0 mph (Exhibit 25-19)

S_0= 67.7 mph (Exhibit 25-19)

S = 70.0 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.0009 L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	HEFT NEB TO I-75 NB
Agency or Company		Junction	
Date Performed	9/27/2007	Jurisdiction	
Analysis Time Period	Future without Project	Analysis Year	2018 AM Peak Hour

Project Description Beacon Countyline DRI

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 55.0 mph
Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3567	0.95	Level	2	0	0.990	1.00	3792
Ramp	1643	0.95	Level	2	0	0.990	1.00	1747
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = 0.209 using Equation (Exhibit 25-5)
V_{12} = 793 pc/h
V_3 or V_{av34} 1499 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes, V_{12a} = 1516 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	5539	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3263	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 6.0 (pc/mi/ln)
LOS = A (Exhibit 25-4)

Speed Determination

M_S = -0.001 (Exibit 25-19)
S_R = 70.0 mph (Exhibit 25-19)
S_0 = 67.7 mph (Exhibit 25-19)
S = 69.0 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.0009 L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R = mph (Exhibit 25-19)
S_0 = mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	HEFT NEB TO I-75 NB
Agency or Company		Junction	
Date Performed	9/27/2007	Jurisdiction	
Analysis Time Period	Future with Project	Analysis Year	2018 AM Peak Hour

Project Description Beacon Countyline DRI

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 55.0 mph
Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3567	0.95	Level	2	0	0.990	1.00	3792
Ramp	1672	0.95	Level	2	0	0.990	1.00	1778
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = 0.209 using Equation (Exhibit 25-5)
V_{12} = 793 pc/h
V_3 or V_{av34} 1499 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes, V_{12a} = 1516 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	5570	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3294	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$
D_R = 6.2 (pc/mi/ln)
LOS = A (Exhibit 25-4)

Speed Determination

M_S = 0.003 (Exibit 25-19)
S_R = 69.9 mph (Exhibit 25-19)
S_0 = 67.7 mph (Exhibit 25-19)
S = 69.0 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.0009 L_D$
D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R = mph (Exhibit 25-19)
S_0 = mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	HEFT NEB TO I-75 NB
Agency or Company		Junction	
Date Performed	9/27/2007	Jurisdiction	
Analysis Time Period	Future with Project w PM Imps	Analysis Year	2018 AM Peak Hour

Project Description Beacon Countyline DRI

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 55.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3567	0.95	Level	2	0	0.990	1.00	3792
Ramp	1672	0.95	Level	2	0	0.990	1.00	1778
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = 0.209 using Equation (Exhibit 25-5)
V_{12} = 618 pc/h
V_3 or V_{av34} 1170 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 1183 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	4736	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2961	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 3.6 (pc/mi/ln)
LOS = A (Exhibit 25-4)

Speed Determination

M_S = -0.027 (Exibit 25-19)
S_R= 70.8 mph (Exhibit 25-19)
S_0= 68.6 mph (Exhibit 25-19)
S = 69.9 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.0009 L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

HEFT NEB TO I 75 NB MERGE
PM PEAK

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	HEFT NEB TO I-75 NB
Agency or Company		Junction	
Date Performed	9/27/2007	Jurisdiction	
Analysis Time Period	Existing	Analysis Year	2007 PM Peak Hour

Project Description Beacon Countyline DRI

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 55.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5328	0.95	Level	2	0	0.990	1.00	5665
Ramp	2199	0.95	Level	2	0	0.990	1.00	2338
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 0.555 using Equation (Exhibit 25-5)

V_{12} = 3144 pc/h

V_3 or V_{av34} 2521 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 3237 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	8003	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5575	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 23.7 (pc/mi/ln)

LOS = F (Exhibit 25-4)

Speed Determination

M_S = 0.926 (Exibit 25-19)

S_R= 44.1 mph (Exhibit 25-19)

S_0= 62.7 mph (Exhibit 25-19)

S = 48.4 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.0009 L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	HEFT NEB TO I-75 NB
Agency or Company		Junction	
Date Performed	9/27/2007	Jurisdiction	
Analysis Time Period	Future without Project	Analysis Year	2018 PM Peak Hour

Project Description Beacon Countyline DRI

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 55.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6193	0.95	Level	2	0	0.990	1.00	6584
Ramp	2902	0.95	Level	2	0	0.990	1.00	3085
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = 0.209 using Equation (Exhibit 25-5)
V_{12} = 1376 pc/h
V_3 or V_{av34} 2604 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 2633 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	9669	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5718	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 24.5 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

M_S = 1.084 (Exibit 25-19)
S_R= 39.6 mph (Exhibit 25-19)
S_0= 64.7 mph (Exhibit 25-19)
S = 47.1 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.0009 L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	HEFT NEB TO I-75 NB
Agency or Company		Junction	
Date Performed	9/27/2007	Jurisdiction	
Analysis Time Period	Future with Project	Analysis Year	2018 PM Peak Hour

Project Description Beacon Countyline DRI

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 55.0 mph
Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6193	0.95	Level	2	0	0.990	1.00	6584
Ramp	3393	0.95	Level	2	0	0.990	1.00	3607
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = 0.209 using Equation (Exhibit 25-5)
V_{12} = 1376 pc/h
V_3 or V_{av34} 2604 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes, V_{12a} = 2633 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	10191	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	6240	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 28.3 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

M_S = 1.898 (Exibit 25-19)
S_R = 16.9 mph (Exhibit 25-19)
S_0 = 64.7 mph (Exhibit 25-19)
S = 23.6 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.0009 L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R = mph (Exhibit 25-19)
S_0 = mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	HEFT NEB TO I-75 NB
Agency or Company		Junction	
Date Performed	9/27/2007	Jurisdiction	
Analysis Time Period	Future with Project w Imps	Analysis Year	2018 PM Peak Hour

Project Description Beacon Countyline DRI

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 70.0 mph S_{FR} = 55.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6193	0.95	Level	2	0	0.990	1.00	6584
Ramp	3393	0.95	Level	2	0	0.990	1.00	3607
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 0.209 using Equation (Exhibit 25-5)

V_{12} = 1005 pc/h

V_3 or V_{av34} 1901 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 1922 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	8414	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5529	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 22.8 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Speed Determination

M_S = 0.880 (Exibit 25-19)

S_R= 45.4 mph (Exhibit 25-19)

S_0= 66.6 mph (Exhibit 25-19)

S = 50.9 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.0009 L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

I 75 SB TO HEFT SWB DIVERGE
AM PEAK

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I75 SB TO HEFT SWB
Agency or Company		Junction	
Date Performed	9/25/2007	Jurisdiction	
Analysis Time Period	Existing	Analysis Year	2007 AM Peak Hour

Project Description: Beacon Countyline DRI

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 70.0 mph S_{FR} = 55.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	7820	0.95	Level	2	0	0.990	1.00	8314
Ramp	3010	0.95	Level	2	0	0.990	1.00	3200
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.260 using Equation (Exhibit 25-12)

V_{12} = 4098 pc/h

V_3 or V_{av34} 1277 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6652	Exhibit 25-14	9600	No
$V_{FO} = V_F - V_R$	3452	Exhibit 25-14	9600	No
V_R	3200	Exhibit 25-3	4400	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4098	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = 17.0 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Speed Determination

D_s = 0.456 (Exhibit 25-19)

S_R= 57.2 mph (Exhibit 25-19)

S_0= 75.7 mph (Exhibit 25-19)

S = 63.1 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I75 SB TO HEFT SWB
Agency or Company		Junction	
Date Performed	9/25/2007	Jurisdiction	
Analysis Time Period	Future without Project	Analysis Year	2018 AM Peak Hour

Project Description: Beacon Countyline DRI

Inputs

Upstream Adj Ramp: ☐ Yes ☐ On ☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 55.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp: ☐ Yes ☐ On ☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	9299	0.95	Level	2	0	0.990	1.00	9886
Ramp	3836	0.95	Level	2	0	0.990	1.00	4078
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R = mph (Exhibit 25-19)

S_0 = mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.260 using Equation (Exhibit 25-12)

V_{12} = 5074 pc/h

V_3 or V_{av34} 1417 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	7909	Exhibit 25-14	9600	No
$V_{FO} = V_F - V_R$	3831	Exhibit 25-14	9600	No
V_R	4078	Exhibit 25-3	4400	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5074	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = 25.4 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Speed Determination

D_s = 0.535 (Exhibit 25-19)

S_R = 55.0 mph (Exhibit 25-19)

S_0 = 75.2 mph (Exhibit 25-19)

S = 60.9 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I75 SB TO HEFT SWB
Agency or Company		Junction	
Date Performed	9/25/2007	Jurisdiction	
Analysis Time Period	Future with Project	Analysis Year	2018 AM Peak Hour

Project Description: Beacon Countyline DRI

Inputs

Upstream Adj Ramp: ☐ Yes ☐ On ☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 55.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp: ☐ Yes ☐ On ☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	9817	0.95	Level	2	0	0.990	1.00	10437
Ramp	4354	0.95	Level	2	0	0.990	1.00	4629
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R = mph (Exhibit 25-19)

S_0 = mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.260 using Equation (Exhibit 25-12)

V_{12} = 5596 pc/h

V_3 or V_{av34} 1377 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	8350	Exhibit 25-14	9600	No
$V_{FO} = V_F - V_R$	3721	Exhibit 25-14	9600	No
V_R	4629	Exhibit 25-3	4400	Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5596	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = 29.9 (pc/mi/ln)

LOS = F (Exhibit 25-4)

Speed Determination

D_S = 0.585 (Exhibit 25-19)

S_R = 53.6 mph (Exhibit 25-19)

S_0 = 75.3 mph (Exhibit 25-19)

S = 59.3 mph (Exhibit 25-15)

I 75 SB TO HEFT SWB DIVERGE
PM PEAK

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I75 SB TO HEFT SWB
Agency or Company		Junction	
Date Performed	9/25/2007	Jurisdiction	
Analysis Time Period	Existing	Analysis Year	2007 PM Peak Hour

Project Description Beacon Countyline DRI

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 55.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6276	0.95	Level	2	0	0.990	1.00	6672
Ramp	1421	0.95	Level	2	0	0.990	1.00	1511
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$
D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.260 using Equation (Exhibit 25-12)
V_{12} = 2593 pc/h
V_3 or V_{av34} 1539 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5672	Exhibit 25-14	9600	No
$V_{FO} = V_F - V_R$	4161	Exhibit 25-14	9600	No
V_R	1511	Exhibit 25-3	4400	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2593	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.0009 L_D$
D_R = 4.1 (pc/mi/ln)
LOS = A (Exhibit 25-4)

Speed Determination

D_s = 0.304 (Exhibit 25-19)
S_R= 61.5 mph (Exhibit 25-19)
S_0= 74.7 mph (Exhibit 25-19)
S = 68.0 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I75 SB TO HEFT SWB
Agency or Company		Junction	
Date Performed	9/25/2007	Jurisdiction	
Analysis Time Period	Existing	Analysis Year	2007 PM Peak Hour

Project Description Beacon Countyline DRI

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 55.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6276	0.95	Level	2	0	0.990	1.00	6672
Ramp	1421	0.95	Level	2	0	0.990	1.00	1511
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$
D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.260 using Equation (Exhibit 25-12)
V_{12} = 2593 pc/h
V_3 or V_{av34} 1539 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5672	Exhibit 25-14	9600	No
$V_{FO} = V_F - V_R$	4161	Exhibit 25-14	9600	No
V_R	1511	Exhibit 25-3	4400	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2593	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.0009 L_D$
D_R = 4.1 (pc/mi/ln)
LOS = A (Exhibit 25-4)

Speed Determination

D_s = 0.304 (Exhibit 25-19)
S_R= 61.5 mph (Exhibit 25-19)
S_0= 74.7 mph (Exhibit 25-19)
S = 68.0 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I75 SB TO HEFT SWB
Agency or Company		Junction	
Date Performed	9/25/2007	Jurisdiction	
Analysis Time Period	Future with Project	Analysis Year	2018 PM Peak Hour

Project Description: Beacon Countyline DRI

Inputs

Upstream Adj Ramp: ☐ Yes ☐ On ☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 55.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp: ☐ Yes ☐ On ☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	8709	0.95	Level	2	0	0.990	1.00	9259
Ramp	2172	0.95	Level	2	0	0.990	1.00	2309
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R = mph (Exhibit 25-19)

S_0 = mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.260 using Equation (Exhibit 25-12)

V_{12} = 3635 pc/h

V_3 or V_{av34} 1886 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	7408	Exhibit 25-14	9600	No
$V_{FO} = V_F - V_R$	5099	Exhibit 25-14	9600	No
V_R	2309	Exhibit 25-3	4400	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3635	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = 13.0 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Speed Determination

D_S = 0.376 (Exhibit 25-19)

S_R = 59.5 mph (Exhibit 25-19)

S_0 = 73.3 mph (Exhibit 25-19)

S = 65.8 mph (Exhibit 25-15)

I 75 SB TO HEFT SWB MERGE
AM PEAK

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I-75 SB to HEFT SWB
Agency or Company		Junction	
Date Performed	9/27/2007	Jurisdiction	
Analysis Time Period	Existing	Analysis Year	2007 AM Peak Hour

Project Description Beacon Countyline DRI

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 50.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5444	0.95	Level	2	0	0.990	1.00	5788
Ramp	3010	0.95	Level	2	0	0.990	1.00	3200
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 0.555 using Equation (Exhibit 25-5)

V_{12} = 3212 pc/h

V_3 or V_{av34} 2576 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 3307 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	8988	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	6507	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 30.3 (pc/mi/ln)

LOS = F (Exhibit 25-4)

Speed Determination

M_S = 2.543 (Exibit 25-19)

S_R= -1.2 mph (Exhibit 25-19)

S_0= 62.4 mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.0009 L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I-75 SB to HEFT SWB
Agency or Company		Junction	
Date Performed	9/27/2007	Jurisdiction	
Analysis Time Period	Future without Project	Analysis Year	2007 AM Peak Hour

Project Description with Improvements to eliminate backlogs

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 70.0 mph S_{FR} = 55.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	8269	0.95	Level	2	0	0.990	1.00	8791
Ramp	3836	0.95	Level	2	0	0.990	1.00	4078
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 0.209 using Equation (Exhibit 25-5)

V_{12} = 1837 pc/h

V_3 or V_{av34} 3477 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 3391 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	12869	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	7469	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 33.6 (pc/mi/ln)

LOS = F (Exhibit 25-4)

Speed Determination

M_S = 6.662 (Exibit 25-19)

S_R= -116.5 mph (Exhibit 25-19)

S_0= 61.1 mph (Exhibit 25-19)

S = 528.9 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.0009 L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I-75 SB to HEFT SWB
Agency or Company		Junction	
Date Performed	9/27/2007	Jurisdiction	
Analysis Time Period	Future without Project	Analysis Year	2007 AM Peak Hour

Project Description with Improvements to eliminate backlogs

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 70.0 mph S_{FR} = 55.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	8269	0.95	Level	2	0	0.990	1.00	8791
Ramp	3836	0.95	Level	2	0	0.990	1.00	4078
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 0.209 using Equation (Exhibit 25-5)

V_{12} = 1837 pc/h

V_3 or V_{av34} 3477 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 3391 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	12869	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	7469	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 33.6 (pc/mi/ln)

LOS = F (Exhibit 25-4)

Speed Determination

M_S = 6.662 (Exibit 25-19)

S_R= -116.5 mph (Exhibit 25-19)

S_0= 61.1 mph (Exhibit 25-19)

S = 528.9 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

I 75 SB TO HEFT SWB MERGE
PM PEAK

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I-75 SB to HEFT SWB
Agency or Company		Junction	
Date Performed	9/27/2007	Jurisdiction	
Analysis Time Period	Existing	Analysis Year	2007 PM Peak Hour

Project Description Beacon Countyline DRI

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 70.0 mph S_{FR} = 55.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	2471	0.95	Level	2	0	0.990	1.00	2627
Ramp	1421	0.95	Level	2	0	0.990	1.00	1511
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 0.555 using Equation (Exhibit 25-5)

V_{12} = 1458 pc/h

V_3 or V_{av34} 1169 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 1501 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	4138	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3012	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 3.8 (pc/mi/ln)

LOS = A (Exhibit 25-4)

Speed Determination

M_S = -0.029 (Exibit 25-19)

S_R= 70.8 mph (Exhibit 25-19)

S_0= 67.7 mph (Exhibit 25-19)

S = 69.9 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.0009 L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I-75 SB to HEFT SWB
Agency or Company		Junction	
Date Performed	9/27/2007	Jurisdiction	
Analysis Time Period	Existing	Analysis Year	2007 PM Peak Hour

Project Description with Improvements to eliminate backlogs at the mainline

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 55.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	2471	0.95	Level	2	0	0.990	1.00	2627
Ramp	1421	0.95	Level	2	0	0.990	1.00	1511
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = 0.209 using Equation (Exhibit 25-5)
V_{12} = 549 pc/h
V_3 or V_{av34} 1039 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 1050 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	4138	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2561	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 0.3 (pc/mi/ln)
LOS = A (Exhibit 25-4)

Speed Determination

M_S = -0.057 (Exibit 25-19)
S_R= 71.6 mph (Exhibit 25-19)
S_0= 69.0 mph (Exhibit 25-19)
S = 70.6 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.0009 L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I-75 SB to HEFT SWB
Agency or Company		Junction	
Date Performed	9/27/2007	Jurisdiction	
Analysis Time Period	Future without Project	Analysis Year	2007 PM Peak Hour

Project Description with Improvements to eliminate backlogs

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 55.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3938	0.95	Level	2	0	0.990	1.00	4187
Ramp	1948	0.95	Level	2	0	0.990	1.00	2071
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 0.209 using Equation (Exhibit 25-5)

V_{12} = 875 pc/h

V_3 or V_{av34} 1656 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes, V_{12a} = 1674 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6258	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3745	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 9.3 (pc/mi/ln)

LOS = A (Exhibit 25-4)

Speed Determination

M_S = 0.057 (Exibit 25-19)

S_R = 68.4 mph (Exhibit 25-19)

S_0 = 67.3 mph (Exhibit 25-19)

S = 67.9 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.0009 L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R = mph (Exhibit 25-19)

S_0 = mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I-75 SB TO HEFT SWB
Agency or Company		Junction	
Date Performed	9/27/2007	Jurisdiction	
Analysis Time Period	Future with Project	Analysis Year	2018 PM Peak Hour

Project Description with Improvements to eliminate backlogs

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 55.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4032	0.95	Level	2	0	0.990	1.00	4287
Ramp	2172	0.95	Level	2	0	0.990	1.00	2309
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 0.209 using Equation (Exhibit 25-5)

V_{12} = 896 pc/h

V_3 or V_{av34} 1695 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes, V_{12a} = 1714 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6596	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4023	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 11.3 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Speed Determination

M_S = 0.110 (Exibit 25-19)

S_R = 66.9 mph (Exhibit 25-19)

S_0 = 67.2 mph (Exhibit 25-19)

S = 67.0 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.0009 L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R = mph (Exhibit 25-19)

S_0 = mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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HEFT / NW 170 STREET INTERCHANGE

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	HEFT/NW 170 STREET NB
Agency or Company		Junction	DIVERGE
Date Performed	9/25/2007	Jurisdiction	
Analysis Time Period	Future with Project with Imps	Analysis Year	2018 PM Peak Hour

Project Description Beacon Countyline DRI

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 55.0 mph S_{FR} = 40.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	8183	0.95	Level	2	0	0.990	1.00	8700
Ramp	388	0.95	Level	2	0	0.990	1.00	413
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.436 using Equation (Exhibit 25-12)

V_{12} = 3267 pc/h

V_3 or V_{av34} 1846 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6960	Exhibit 25-14	9000	No
$V_{FO} = V_F - V_R$	6547	Exhibit 25-14	9000	No
V_R	413	Exhibit 25-3	2100	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3267	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = 27.8 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Speed Determination

D_s = 0.400 (Exhibit 25-19)

S_R= 49.8 mph (Exhibit 25-19)

S_0= 57.0 mph (Exhibit 25-19)

S = 53.4 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	HEFT/NW 170 ST NB MERGE
Agency or Company		Junction	
Date Performed	9/27/2007	Jurisdiction	
Analysis Time Period	Future with Project w Imps	Analysis Year	2018 PM Peak Hour

Project Description Beacon Countyline DRI

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 55.0 mph S_{FR} = 40.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	8183	0.95	Level	2	0	0.990	1.00	8700
Ramp	783	0.95	Level	2	0	0.990	1.00	832
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = 0.253 using Equation (Exhibit 25-5)
V_{12} = 1570 pc/h
V_3 or V_{av34} 2315 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 2480 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	7032	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3312	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$
D_R = 27.8 (pc/mi/ln)
LOS = C (Exhibit 25-4)

Speed Determination

M_S = 0.388 (Exibit 25-19)
S_R= 50.0 mph (Exhibit 25-19)
S_0= 50.1 mph (Exhibit 25-19)
S = 50.0 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.0009 L_D$
D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	HEFT/NW 170 STREET SB
Agency or Company		Junction	DIVERGE
Date Performed	9/25/2007	Jurisdiction	
Analysis Time Period	Future with Project with Imps	Analysis Year	2018 PM Peak Hour

Project Description Beacon Countyline DRI

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 55.0 mph S_{FR} = 40.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5642	0.95	Level	2	0	0.990	1.00	5998
Ramp	579	0.95	Level	2	0	0.990	1.00	616
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.436 using Equation (Exhibit 25-12)

V_{12} = 2571 pc/h

V_3 or V_{av34} 1264 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5099	Exhibit 25-14	9000	No
$V_{FO} = V_F - V_R$	4483	Exhibit 25-14	9000	No
V_R	616	Exhibit 25-3	2100	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2571	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = 21.9 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Speed Determination

D_s = 0.418 (Exhibit 25-19)

S_R= 49.6 mph (Exhibit 25-19)

S_0= 59.3 mph (Exhibit 25-19)

S = 54.0 mph (Exhibit 25-15)

HCS+™ Version 5.21 Generated: 10/12/2007 8:30 AM

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	HEFT/NW 170 ST SB MERGE
Agency or Company		Junction	
Date Performed	9/27/2007	Jurisdiction	
Analysis Time Period	Future with Project w Imps	Analysis Year	2018 PM Peak Hour

Project Description Beacon Countyline DRI

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 55.0 mph S_{FR} = 40.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5642	0.95	Level	2	0	0.990	1.00	5998
Ramp	775	0.95	Level	2	0	0.990	1.00	824
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 0.254 using Equation (Exhibit 25-5)

V_{12} = 1159 pc/h

V_3 or V_{av34} 1700 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 1823 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	5383	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2647	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 22.6 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Speed Determination

M_S = 0.336 (Exibit 25-19)

S_R= 50.6 mph (Exhibit 25-19)

S_0= 51.9 mph (Exhibit 25-19)

S = 51.3 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.0009 L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

HCS+™ Version 5.21 Generated: 10/11/2007 11:03 AM

NW 138 STREET EB TO I 75 EB RAMPS
MERGE AM PEAK

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I 75 EB
Agency or Company		Junction	NW 138 ST
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Existing	Analysis Year	2007 AM Peak

Project Description BEACON COUNTYLINE DRI

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 55.0 mph S_{FR} = 50.0 mph Sketch (show lanes, L_A, L_D, V_R, V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4223	0.95	Level	2	0	0.990	1.00	4490
Ramp	593	0.95	Level	2	0	0.990	1.00	630
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 0.295 using Equation (Exhibit 25-5)

V_{12} = 1325 pc/h

V_3 or V_{av34} 1582 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes, V_{12a} = 1796 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	5120	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2426	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 19.7 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Speed Determination

M_S = 0.295 (Exibit 25-19)

S_R = 51.2 mph (Exhibit 25-19)

S_0 = 52.0 mph (Exhibit 25-19)

S = 51.6 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R = mph (Exhibit 25-19)

S_0 = mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I 75 EB
Agency or Company		Junction	NW 138 ST
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Future without Project	Analysis Year	2018 AM Peak

Project Description BEACON COUNTYLINE DRI

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 55.0 mph S_{FR} = 50.0 mph Sketch (show lanes, L_A, L_D, V_R, V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4779	0.95	Level	2	0	0.990	1.00	5081
Ramp	1437	0.95	Level	2	0	0.990	1.00	1528
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 0.183 using Equation (Exhibit 25-5)

V_{12} = 929 pc/h

V_3 or V_{av34} 2076 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes, V_{12a} = 2032 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6609	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3560	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 28.2 (pc/mi/ln)

LOS = D (Exhibit 25-4)

Speed Determination

M_S = 0.388 (Exibit 25-19)

S_R = 50.0 mph (Exhibit 25-19)

S_0 = 51.3 mph (Exhibit 25-19)

S = 50.6 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R = mph (Exhibit 25-19)

S_0 = mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I 75 EB
Agency or Company		Junction	NW 138 ST
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Future with Project	Analysis Year	2018 AM Peak

Project Description BEACON COUNTYLINE DRI

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 55.0 mph S_{FR} = 50.0 mph Sketch (show lanes, L_A, L_D, V_R, V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4779	0.95	Level	2	0	0.990	1.00	5081
Ramp	2180	0.95	Level	2	0	0.990	1.00	2318
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 0.084 using Equation (Exhibit 25-5)

V_{12} = 334 pc/h

V_3 or V_{av34} 1815 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes, V_{12a} = 1585 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6282	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3903	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 30.5 (pc/mi/ln)

LOS = D (Exhibit 25-4)

Speed Determination

M_S = 0.444 (Exibit 25-19)

S_R = 49.2 mph (Exhibit 25-19)

S_0 = 52.5 mph (Exhibit 25-19)

S = 50.4 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R = mph (Exhibit 25-19)

S_0 = mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

NW 138 STREET EB TO I 75 EB RAMPS
MERGE PM PEAK

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I 75 EB
Agency or Company		Junction	NW 138 ST
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Existing	Analysis Year	2007 PM Peak

Project Description BEACON COUNTYLINE DRI

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 55.0 mph S_{FR} = 50.0 mph Sketch (show lanes, L_A, L_D, V_R, V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5152	0.95	Level	2	0	0.990	1.00	5477
Ramp	602	0.95	Level	2	0	0.990	1.00	640
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 0.294 using Equation (Exhibit 25-5)

V_{12} = 1610 pc/h

V_3 or V_{av34} 1933 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes, V_{12a} = 2190 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6117	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2830	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 22.9 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Speed Determination

M_S = 0.317 (Exibit 25-19)

S_R = 50.9 mph (Exhibit 25-19)

S_0 = 50.9 mph (Exhibit 25-19)

S = 50.9 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R = mph (Exhibit 25-19)

S_0 = mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I 75 EB
Agency or Company		Junction	NW 138 ST
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Future without Project	Analysis Year	2018 PM Peak

Project Description BEACON COUNTYLINE DRI

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 55.0 mph S_{FR} = 50.0 mph Sketch (show lanes, L_A, L_D, V_R, V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6406	0.95	Level	2	0	0.990	1.00	6811
Ramp	1236	0.95	Level	2	0	0.990	1.00	1314
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 0.210 using Equation (Exhibit 25-5)

V_{12} = 1043 pc/h

V_3 or V_{av34} 1965 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes, V_{12a} = 1989 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6287	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3303	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 26.2 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Speed Determination

M_S = 0.357 (Exibit 25-19)

S_R = 50.4 mph (Exhibit 25-19)

S_0 = 51.4 mph (Exhibit 25-19)

S = 50.9 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R = mph (Exhibit 25-19)

S_0 = mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I 75 EB
Agency or Company		Junction	NW 138 ST
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Future with Project	Analysis Year	2018 PM Peak

Project Description BEACON COUNTYLINE DRI

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 55.0 mph S_{FR} = 50.0 mph Sketch (show lanes, L_A, L_D, V_R, V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6406	0.95	Level	2	0	0.990	1.00	6811
Ramp	1942	0.95	Level	2	0	0.990	1.00	2065
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 0.116 using Equation (Exhibit 25-5)

V_{12} = 789 pc/h

V_3 or V_{av34} 3011 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes, V_{12a} = 1411 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	8876	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3476	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 27.2 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Speed Determination

M_S = 0.377 (Exibit 25-19)

S_R = 50.1 mph (Exhibit 25-19)

S_0 = 46.1 mph (Exhibit 25-19)

S = 47.6 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R = mph (Exhibit 25-19)

S_0 = mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

I 75 WB TO NW 138 STREET WB RAMPS
DIVERGE AM PEAK

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I 75 WB
Agency or Company		Junction	NW 138 STREET
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Existing	Analysis Year	2007 AM Peak

Project Description BEACON COUNTYLINE DRI

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 55.0 mph S_{FR} = 50.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5572	0.95	Level	2	0	0.990	1.00	5924
Ramp	596	0.95	Level	2	0	0.990	1.00	634
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.260 using Equation (Exhibit 25-12)

V_{12} = 1779 pc/h

V_3 or V_{av34} 1628 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 2014 pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5036	Exhibit 25-14	9000	No
$V_{FO} = V_F - V_R$	4402	Exhibit 25-14	9000	No
V_R	634	Exhibit 25-3	4100	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	1779	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = 8.1 (pc/mi/ln)

LOS = A (Exhibit 25-4)

Speed Determination

D_s = 0.290 (Exhibit 25-19)

S_R= 51.2 mph (Exhibit 25-19)

S_0= 58.3 mph (Exhibit 25-19)

S = 55.3 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I 75 WB
Agency or Company		Junction	NW 138 STREET
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Future without Project	Analysis Year	2018 AM Peak

Project Description BEACON COUNTYLINE DRI

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 55.0 mph S_{FR} = 50.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	6655	0.95	Level	2	0	0.990	1.00	7075
Ramp	1437	0.95	Level	2	0	0.990	1.00	1528
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.260 using Equation (Exhibit 25-12)
V_{12} = 2602 pc/h
V_3 or V_{av34} 1529 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5660	Exhibit 25-14	9000	No
$V_{FO} = V_F - V_R$	4132	Exhibit 25-14	9000	No
V_R	1528	Exhibit 25-3	4100	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2602	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = 13.1 (pc/mi/ln)
LOS = B (Exhibit 25-4)

Speed Determination

D_s = 0.371 (Exhibit 25-19)
S_R= 50.2 mph (Exhibit 25-19)
S_0= 58.3 mph (Exhibit 25-19)
S = 54.3 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I 75 WB
Agency or Company		Junction	NW 138 STREET
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Future with Project	Analysis Year	2018 AM Peak

Project Description BEACON COUNTYLINE DRI

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 55.0 mph S_{FR} = 50.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	7399	0.95	Level	2	0	0.990	1.00	7866
Ramp	2180	0.95	Level	2	0	0.990	1.00	2318
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.260 using Equation (Exhibit 25-12)

V_{12} = 3351 pc/h

V_3 or V_{av34} 1471 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6293	Exhibit 25-14	9000	No
$V_{FO} = V_F - V_R$	3975	Exhibit 25-14	9000	No
V_R	2318	Exhibit 25-3	4100	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3351	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.0009 L_D$

D_R = 19.6 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Speed Determination

D_s = 0.442 (Exhibit 25-19)

S_R= 49.3 mph (Exhibit 25-19)

S_0= 58.5 mph (Exhibit 25-19)

S = 53.2 mph (Exhibit 25-15)

I 75 WB TO NW 138 STREET WB RAMPS
DIVERGE PM PEAK

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I 75 WB
Agency or Company		Junction	NW 138 STREET
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Existing	Analysis Year	2007 PM Peak

Project Description BEACON COUNTYLINE DRI

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 55.0 mph S_{FR} = 50.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4798	0.95	Level	2	0	0.990	1.00	5101
Ramp	713	0.95	Level	2	0	0.990	1.00	758
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.260 using Equation (Exhibit 25-12)

V_{12} = 1755 pc/h

V_3 or V_{av34} 1418 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 1836 pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	4591	Exhibit 25-14	9000	No
$V_{FO} = V_F - V_R$	3833	Exhibit 25-14	9000	No
V_R	758	Exhibit 25-3	4100	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	1755	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.0009 L_D$

D_R = 6.5 (pc/mi/ln)

LOS = A (Exhibit 25-4)

Speed Determination

D_s = 0.301 (Exhibit 25-19)

S_R= 51.1 mph (Exhibit 25-19)

S_0= 58.9 mph (Exhibit 25-19)

S = 55.5 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I 75 WB
Agency or Company		Junction	NW 138 STREET
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Future withou Project	Analysis Year	2018 PM Peak

Project Description BEACON COUNTYLINE DRI

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 55.0 mph S_{FR} = 50.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5933	0.95	Level	2	0	0.990	1.00	6308
Ramp	1094	0.95	Level	2	0	0.990	1.00	1163
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.260 using Equation (Exhibit 25-12)

V_{12} = 2255 pc/h

V_3 or V_{av34} 1553 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5362	Exhibit 25-14	9000	No
$V_{FO} = V_F - V_R$	4199	Exhibit 25-14	9000	No
V_R	1163	Exhibit 25-3	4100	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2255	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.0009 L_D$

D_R = 10.1 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Speed Determination

D_s = 0.338 (Exhibit 25-19)

S_R= 50.6 mph (Exhibit 25-19)

S_0= 58.2 mph (Exhibit 25-19)

S = 54.7 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I 75 WB
Agency or Company		Junction	NW 138 STREET
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Future with Project	Analysis Year	2018 PM Peak

Project Description BEACON COUNTYLINE DRI

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 55.0 mph S_{FR} = 50.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6255	0.95	Level	2	0	0.990	1.00	6650
Ramp	1416	0.95	Level	2	0	0.990	1.00	1505
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.260 using Equation (Exhibit 25-12)

V_{12} = 2583 pc/h

V_3 or V_{av34} 1535 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5653	Exhibit 25-14	9000	No
$V_{FO} = V_F - V_R$	4148	Exhibit 25-14	9000	No
V_R	1505	Exhibit 25-3	4100	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2583	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = 13.0 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Speed Determination

D_s = 0.368 (Exhibit 25-19)

S_R= 50.2 mph (Exhibit 25-19)

S_0= 58.2 mph (Exhibit 25-19)

S = 54.3 mph (Exhibit 25-15)

I 75 EB TO SR 826 SB RAMPS
DIVERGE AM PEAK

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I 75 EB
Agency or Company		Junction	SR 826 SB
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Existing	Analysis Year	2007 AM Peak

Project Description: BEACON COUNTYLINE DRI

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 55.0 mph S_{FR} = 50.0 mph Sketch (show lanes, L_A, L_D, V_R, V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4985	0.95	Level	2	0	0.990	1.00	5300
Ramp	2081	0.95	Level	2	0	0.990	1.00	2212
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R = mph (Exhibit 25-19)

S_0 = mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.436 using Equation (Exhibit 25-12)

V_{12} = 3327 pc/h

V_3 or V_{av34} 721 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	4770	Exhibit 25-14	9000	No
$V_{FO} = V_F - V_R$	2558	Exhibit 25-14	9000	No
V_R	2212	Exhibit 25-3	2100	Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3327	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = 19.4 (pc/mi/ln)

LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.432 (Exhibit 25-19)

S_R = 49.4 mph (Exhibit 25-19)

S_0 = 60.3 mph (Exhibit 25-19)

S = 52.3 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I 75 EB
Agency or Company		Junction	SR 826 SB
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Future without Project	Analysis Year	2018 AM Peak

Project Description with Improvements to eliminate backlogs

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 55.0 mph S_{FR} = 50.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5967	0.95	Level	2	0	0.990	1.00	6344
Ramp	2446	0.95	Level	2	0	0.990	1.00	2600
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.260 using Equation (Exhibit 25-12)

V_{12} = 3326 pc/h

V_3 or V_{av34} 1033 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5393	Exhibit 25-14	9000	No
$V_{FO} = V_F - V_R$	2793	Exhibit 25-14	9000	No
V_R	2600	Exhibit 25-3	4100	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3326	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = 1.4 (pc/mi/ln)

LOS = A (Exhibit 25-4)

Speed Determination

D_s = 0.467 (Exhibit 25-19)

S_R= 48.9 mph (Exhibit 25-19)

S_0= 60.2 mph (Exhibit 25-19)

S = 52.7 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I 75 EB
Agency or Company		Junction	SR 826 SB
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Future with Project	Analysis Year	2018 AM Peak

Project Description with Improvements to eliminate backlogs

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 55.0 mph S_{FR} = 50.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6009	0.95	Level	2	0	0.990	1.00	6389
Ramp	2460	0.95	Level	2	0	0.990	1.00	2615
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.260 using Equation (Exhibit 25-12)

V_{12} = 3347 pc/h

V_3 or V_{av34} 1042 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5431	Exhibit 25-14	9000	No
$V_{FO} = V_F - V_R$	2816	Exhibit 25-14	9000	No
V_R	2615	Exhibit 25-3	4100	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3347	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = 1.5 (pc/mi/ln)

LOS = A (Exhibit 25-4)

Speed Determination

D_s = 0.468 (Exhibit 25-19)

S_R= 48.9 mph (Exhibit 25-19)

S_0= 60.2 mph (Exhibit 25-19)

S = 52.7 mph (Exhibit 25-15)

I 75 EB TO SR 826 SB RAMPS
DIVERGE PM PEAK

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I 75 EB
Agency or Company		Junction	SR 826 SB
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Existing	Analysis Year	2007 PM Peak

Project Description BEACON COUNTYLINE DRI

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 55.0 mph S_{FR} = 50.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5754	0.95	Level	2	0	0.990	1.00	6117
Ramp	1735	0.95	Level	2	0	0.990	1.00	1845
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.436 using Equation (Exhibit 25-12)

V_{12} = 3308 pc/h

V_3 or V_{av34} 946 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5200	Exhibit 25-14	9000	No
$V_{FO} = V_F - V_R$	3355	Exhibit 25-14	9000	No
V_R	1845	Exhibit 25-3	2100	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3308	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = 19.2 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Speed Determination

D_s = 0.399 (Exhibit 25-19)

S_R= 49.8 mph (Exhibit 25-19)

S_0= 60.3 mph (Exhibit 25-19)

S = 53.2 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I 75 EB
Agency or Company		Junction	SR 826 SB
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Existing	Analysis Year	2007 PM Peak

Project Description with Improvements to eliminate (AM) Backlogs

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 55.0 mph S_{FR} = 50.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5754	0.95	Level	2	0	0.990	1.00	6117
Ramp	1735	0.95	Level	2	0	0.990	1.00	1845
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.260 using Equation (Exhibit 25-12)

V_{12} = 2717 pc/h

V_3 or V_{av34} 1241 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5200	Exhibit 25-14	9000	No
$V_{FO} = V_F - V_R$	3355	Exhibit 25-14	9000	No
V_R	1845	Exhibit 25-3	4100	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2717	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = -3.9 (pc/mi/ln)

LOS = A (Exhibit 25-4)

Speed Determination

D_s = 0.399 (Exhibit 25-19)

S_R= 49.8 mph (Exhibit 25-19)

S_0= 59.4 mph (Exhibit 25-19)

S = 54.0 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I 75 EB
Agency or Company		Junction	SR 826 SB
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Future without Project	Analysis Year	2018 PM Peak

Project Description with Improvements to eliminate (AM) Backlogs

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 55.0 mph S_{FR} = 50.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	7642	0.95	Level	2	0	0.990	1.00	8125
Ramp	2268	0.95	Level	2	0	0.990	1.00	2411
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.260 using Equation (Exhibit 25-12)

V_{12} = 3474 pc/h

V_3 or V_{av34} 1513 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6500	Exhibit 25-14	9000	No
$V_{FO} = V_F - V_R$	4089	Exhibit 25-14	9000	No
V_R	2411	Exhibit 25-3	4100	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3474	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = 2.6 (pc/mi/ln)

LOS = A (Exhibit 25-4)

Speed Determination

D_s = 0.450 (Exhibit 25-19)

S_R= 49.2 mph (Exhibit 25-19)

S_0= 58.3 mph (Exhibit 25-19)

S = 53.0 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I 75 EB
Agency or Company		Junction	SR 826 SB
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Future with Project	Analysis Year	2018 PM Peak

Project Description with Improvements to eliminate (AM) Backlogs

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 55.0 mph S_{FR} = 50.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	8348	0.95	Level	2	0	0.990	1.00	8875
Ramp	2514	0.95	Level	2	0	0.990	1.00	2673
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.260 using Equation (Exhibit 25-12)

V_{12} = 3824 pc/h

V_3 or V_{av34} 1638 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	7100	Exhibit 25-14	9000	No
$V_{FO} = V_F - V_R$	4427	Exhibit 25-14	9000	No
V_R	2673	Exhibit 25-3	4100	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3824	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = 5.6 (pc/mi/ln)

LOS = A (Exhibit 25-4)

Speed Determination

D_s = 0.474 (Exhibit 25-19)

S_R= 48.8 mph (Exhibit 25-19)

S_0= 57.8 mph (Exhibit 25-19)

S = 52.6 mph (Exhibit 25-15)

I 75 EB TO SR 826 SB RAMPS
MERGE AM PEAK

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I 75 EB
Agency or Company		Junction	SR 826 SB
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Existing	Analysis Year	2007 AM Peak

Project Description BEACON COUNTYLINE DRI

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 55.0 mph S_{FR} = 50.0 mph
Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3002	0.95	Level	2	0	0.990	1.00	3192
Ramp	2670	0.95	Level	2	0	0.990	1.00	2839
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = 0.555 using Equation (Exhibit 25-5)
V_{12} = 1772 pc/h
V_3 or V_{av34} 1420 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes, V_{12a} = 1824 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6031	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4663	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$
D_R = 12.3 (pc/mi/ln)
LOS = B (Exhibit 25-4)

Speed Determination

M_S = 0.284 (Exibit 25-19)
S_R = 51.3 mph (Exhibit 25-19)
S_0 = 51.9 mph (Exhibit 25-19)
S = 51.4 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$
D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R = mph (Exhibit 25-19)
S_0 = mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I 75 EB
Agency or Company		Junction	SR 826 SB
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Future without Project	Analysis Year	2018 AM Peak

Project Description with improvements to eliminate mainline backlogs

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 55.0 mph S_{FR} = 50.0 mph
Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4287	0.95	Level	2	0	0.990	1.00	4558
Ramp	3156	0.95	Level	2	0	0.990	1.00	3355
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = 0.209 using Equation (Exhibit 25-5)
V_{12} = 953 pc/h
V_3 or V_{av34} 1802 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes, V_{12a} = 1823 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	7913	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5178	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 16.1 (pc/mi/ln)
LOS = B (Exhibit 25-4)

Speed Determination

M_S = 0.563 (Exibit 25-19)
S_R = 47.7 mph (Exhibit 25-19)
S_0 = 51.9 mph (Exhibit 25-19)
S = 49.1 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R = mph (Exhibit 25-19)
S_0 = mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I 75 EB
Agency or Company		Junction	SR 826 SB
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Future with Project	Analysis Year	2018 AM Peak

Project Description with Improvements to eliminate mainline backlogs

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 55.0 mph S_{FR} = 50.0 mph
Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4287	0.95	Level	2	0	0.990	1.00	4558
Ramp	3170	0.95	Level	2	0	0.990	1.00	3370
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = 0.209 using Equation (Exhibit 25-5)
V_{12} = 953 pc/h
V_3 or V_{av34} 1802 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes, V_{12a} = 1823 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	7928	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5193	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$
D_R = 16.2 (pc/mi/ln)
LOS = B (Exhibit 25-4)

Speed Determination

M_S = 0.573 (Exibit 25-19)
S_R = 47.6 mph (Exhibit 25-19)
S_0 = 51.9 mph (Exhibit 25-19)
S = 49.0 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$
D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R = mph (Exhibit 25-19)
S_0 = mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I 75 EB
Agency or Company		Junction	SR 826 SB
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Future with Project w PM Imps	Analysis Year	2018 AM Peak

Project Description with Improvements to eliminate mainline backlogs

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 55.0 mph S_{FR} = 50.0 mph
Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4287	0.95	Level	2	0	0.990	1.00	4558
Ramp	3170	0.95	Level	2	0	0.990	1.00	3370
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = 0.209 using Equation (Exhibit 25-5)
V_{12} = 743 pc/h
V_3 or V_{av34} 1406 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes, V_{12a} = 1422 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6926	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4792	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 13.1 (pc/mi/ln)
LOS = B (Exhibit 25-4)

Speed Determination

M_S = 0.341 (Exibit 25-19)
S_R = 50.6 mph (Exhibit 25-19)
S_0 = 53.0 mph (Exhibit 25-19)
S = 51.3 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R = mph (Exhibit 25-19)
S_0 = mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

I 75 EB TO SR 826 SB RAMPS
MERGE PM PEAK

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I 75 EB
Agency or Company		Junction	SR 826 SB
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Existing	Analysis Year	2007PM Peak

Project Description BEACON COUNTYLINE DRI

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 55.0 mph S_{FR} = 50.0 mph Sketch (show lanes, L_A, L_D, V_R, V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4389	0.95	Level	2	0	0.990	1.00	4666
Ramp	2617	0.95	Level	2	0	0.990	1.00	2782
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 0.555 using Equation (Exhibit 25-5)

V_{12} = 2590 pc/h

V_3 or V_{av34} 2076 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes, V_{12a} = 2666 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	7448	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5448	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 18.5 (pc/mi/ln)

LOS = F (Exhibit 25-4)

Speed Determination

M_S = 0.777 (Exibit 25-19)

S_R = 44.9 mph (Exhibit 25-19)

S_0 = 49.6 mph (Exhibit 25-19)

S = 46.1 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R = mph (Exhibit 25-19)

S_0 = mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I 75 EB
Agency or Company		Junction	SR 826 SB
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Existing	Analysis Year	2007 PM Peak

Project Description with Improvements to eliminate backlogs on mainline

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 55.0 mph S_{FR} = 50.0 mph
Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4389	0.95	Level	2	0	0.990	1.00	4666
Ramp	2617	0.95	Level	2	0	0.990	1.00	2782
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = 0.209 using Equation (Exhibit 25-5)
V_{12} = 975 pc/h
V_3 or V_{av34} 1845 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes, V_{12a} = 1866 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	7448	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4648	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 12.2 (pc/mi/ln)
LOS = B (Exhibit 25-4)

Speed Determination

M_S = 0.278 (Exibit 25-19)
S_R = 51.4 mph (Exhibit 25-19)
S_0 = 51.8 mph (Exhibit 25-19)
S = 51.5 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R = mph (Exhibit 25-19)
S_0 = mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I 75 EB
Agency or Company		Junction	SR 826 SB
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Future without Project	Analysis Year	2018 PM Peak

Project Description with Improvements to elimionate mainline backlogs

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 55.0 mph S_{FR} = 50.0 mph
Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4938	0.95	Level	2	0	0.990	1.00	5250
Ramp	3385	0.95	Level	2	0	0.990	1.00	3599
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = 0.209 using Equation (Exhibit 25-5)
V_{12} = 1097 pc/h
V_3 or V_{av34} 2076 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes, V_{12a} = 2100 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	8849	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5699	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 20.1 (pc/mi/ln)
LOS = C (Exhibit 25-4)

Speed Determination

M_S = 1.035 (Exibit 25-19)
S_R = 41.5 mph (Exhibit 25-19)
S_0 = 51.1 mph (Exhibit 25-19)
S = 44.5 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R = mph (Exhibit 25-19)
S_0 = mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I 75 EB
Agency or Company		Junction	SR 826 SB
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Future with Project	Analysis Year	2018 PM Peak

Project Description with Improvements to elimionate mainline backlogs

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 55.0 mph S_{FR} = 50.0 mph
Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4938	0.95	Level	2	0	0.990	1.00	5250
Ramp	3631	0.95	Level	2	0	0.990	1.00	3860
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = 0.209 using Equation (Exhibit 25-5)
V_{12} = 1097 pc/h
V_3 or V_{av34} 2076 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes, V_{12a} = 2100 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	9110	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5960	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 22.0 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

M_S = 1.383 (Exibit 25-19)
S_R = 37.0 mph (Exhibit 25-19)
S_0 = 51.1 mph (Exhibit 25-19)
S = 40.9 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R = mph (Exhibit 25-19)
S_0 = mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	I 75 EB
Agency or Company		Junction	SR 826 SB
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Future with Project w Imps	Analysis Year	2018 PM Peak
Project Description	with Improvements to elimionate mainline backlogs		

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 55.0 mph S_{FR} = 50.0 mph Sketch (show lanes, L_A, L_D, V_R, V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4938	0.95	Level	2	0	0.990	1.00	5250
Ramp	3631	0.95	Level	2	0	0.990	1.00	3860
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 0.209 using Equation (Exhibit 25-5)

V_{12} = 856 pc/h

V_3 or V_{av34} 1620 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes, V_{12a} = 1638 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	7956	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5498	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 18.4 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Speed Determination

M_S = 0.823 (Exibit 25-19)

S_R = 44.3 mph (Exhibit 25-19)

S_0 = 52.4 mph (Exhibit 25-19)

S = 46.5 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R = mph (Exhibit 25-19)

S_0 = mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

SR 826 NB TO I 75 WB RAMP
DIVERGE AM PEAK

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	SR 826 NB
Agency or Company		Junction	I 75 WB
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Existing	Analysis Year	2007 AM Peak

Project Description BEACON COUNTYLINE DRI

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 55.0 mph S_{FR} = 50.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4837	0.95	Level	2	0	0.990	1.00	5142
Ramp	1519	0.95	Level	2	0	0.990	1.00	1615
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.260 using Equation (Exhibit 25-12)

V_{12} = 2398 pc/h

V_3 or V_{av34} 1115 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	4628	Exhibit 25-14	9000	No
$V_{FO} = V_F - V_R$	3013	Exhibit 25-14	9000	No
V_R	1615	Exhibit 25-3	4100	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2398	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = -6.6 (pc/mi/ln)

LOS = A (Exhibit 25-4)

Speed Determination

D_s = 0.378 (Exhibit 25-19)

S_R= 50.1 mph (Exhibit 25-19)

S_0= 59.9 mph (Exhibit 25-19)

S = 54.4 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	SR 826 NB
Agency or Company		Junction	I 75 WB
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Future without Project	Analysis Year	2018 AM Peak

Project Description BEACON COUNTYLINE DRI

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 55.0 mph S_{FR} = 50.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6027	0.95	Level	2	0	0.990	1.00	6408
Ramp	1884	0.95	Level	2	0	0.990	1.00	2003
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.260 using Equation (Exhibit 25-12)

V_{12} = 2898 pc/h

V_3 or V_{av34} 1274 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5447	Exhibit 25-14	9000	No
$V_{FO} = V_F - V_R$	3444	Exhibit 25-14	9000	No
V_R	2003	Exhibit 25-3	4100	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2898	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = -11.3 (pc/mi/ln)

LOS = A (Exhibit 25-4)

Speed Determination

D_s = 0.413 (Exhibit 25-19)

S_R= 49.6 mph (Exhibit 25-19)

S_0= 59.3 mph (Exhibit 25-19)

S = 53.7 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	SR 826 NB
Agency or Company		Junction	I 75 WB
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Future with Project	Analysis Year	2018 AM Peak

Project Description BEACON COUNTYLINE DRI

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 55.0 mph S_{FR} = 50.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6285	0.95	Level	2	0	0.990	1.00	6682
Ramp	2143	0.95	Level	2	0	0.990	1.00	2278
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.260 using Equation (Exhibit 25-12)

V_{12} = 3163 pc/h

V_3 or V_{av34} 1258 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5680	Exhibit 25-14	9000	No
$V_{FO} = V_F - V_R$	3402	Exhibit 25-14	9000	No
V_R	2278	Exhibit 25-3	4100	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3163	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.0009 L_D$

D_R = -9.0 (pc/mi/ln)

LOS = A (Exhibit 25-4)

Speed Determination

D_s = 0.438 (Exhibit 25-19)

S_R= 49.3 mph (Exhibit 25-19)

S_0= 59.3 mph (Exhibit 25-19)

S = 53.3 mph (Exhibit 25-15)

SR 826 NB TO I 75 WB RAMP
DIVERGE PM PEAK

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	SR 826 NB
Agency or Company		Junction	I 75 WB
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Existing	Analysis Year	2007 PM Peak

Project Description BEACON COUNTYLINE DRI

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 55.0 mph S_{FR} = 50.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	9009	0.95	Level	2	0	0.990	1.00	9578
Ramp	3045	0.95	Level	2	0	0.990	1.00	3237
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.260 using Equation (Exhibit 25-12)

V_{12} = 4388 pc/h

V_3 or V_{av34} 1637 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	7663	Exhibit 25-14	9000	No
$V_{FO} = V_F - V_R$	4426	Exhibit 25-14	9000	No
V_R	3237	Exhibit 25-3	4100	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4388	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = 1.5 (pc/mi/ln)

LOS = A (Exhibit 25-4)

Speed Determination

D_s = 0.524 (Exhibit 25-19)

S_R= 48.2 mph (Exhibit 25-19)

S_0= 57.9 mph (Exhibit 25-19)

S = 51.9 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	SR 826 NB
Agency or Company		Junction	I 75 WB
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Future without Project	Analysis Year	2018 PM Peak

Project Description BEACON COUNTYLINE DRI

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 55.0 mph S_{FR} = 50.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	10475	0.95	Level	2	0	0.990	1.00	11137
Ramp	3562	0.95	Level	2	0	0.990	1.00	3787
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.260 using Equation (Exhibit 25-12)

V_{12} = 5119 pc/h

V_3 or V_{av34} 1895 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	8910	Exhibit 25-14	9000	No
$V_{FO} = V_F - V_R$	5123	Exhibit 25-14	9000	No
V_R	3787	Exhibit 25-3	4100	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5119	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = 7.8 (pc/mi/ln)

LOS = A (Exhibit 25-4)

Speed Determination

D_s = 0.574 (Exhibit 25-19)

S_R= 47.5 mph (Exhibit 25-19)

S_0= 56.8 mph (Exhibit 25-19)

S = 51.1 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	SR 826 NB
Agency or Company		Junction	I 75 WB
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Future with Project	Analysis Year	2018 PM Peak

Project Description BEACON COUNTYLINE DRI

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 55.0 mph S_{FR} = 50.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	10587	0.95	Level	2	0	0.990	1.00	11256
Ramp	3674	0.95	Level	2	0	0.990	1.00	3906
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.260 using Equation (Exhibit 25-12)

V_{12} = 5232 pc/h

V_3 or V_{av34} 1886 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	9005	Exhibit 25-14	9000	Yes
$V_{FO} = V_F - V_R$	5099	Exhibit 25-14	9000	No
V_R	3906	Exhibit 25-3	4100	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5232	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.0009 L_D$

D_R = 8.7 (pc/mi/ln)

LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.585 (Exhibit 25-19)

S_R= 47.4 mph (Exhibit 25-19)

S_0= 56.9 mph (Exhibit 25-19)

S = 51.0 mph (Exhibit 25-15)

SR 826 NB TO I 75 WB RAMP
MERGE AM PEAK

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	SR 826 NB
Agency or Company		Junction	I 75 WB
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Existing	Analysis Year	2007 AM Peak

Project Description BEACON COUNTYLINE DRI

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 55.0 mph S_{FR} = 50.0 mph
Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4053	0.95	Level	2	0	0.990	1.00	4309
Ramp	1519	0.95	Level	2	0	0.990	1.00	1615
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = 0.555 using Equation (Exhibit 25-5)
V_{12} = 2391 pc/h
V_3 or V_{av34} 1918 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes, V_{12a} = 2462 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	5924	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4077	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$
D_R = 8.3 (pc/mi/ln)
LOS = A (Exhibit 25-4)

Speed Determination

M_S = 0.101 (Exibit 25-19)
S_R = 53.7 mph (Exhibit 25-19)
S_0 = 50.2 mph (Exhibit 25-19)
S = 52.5 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$
D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R = mph (Exhibit 25-19)
S_0 = mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	SR 826 NB
Agency or Company		Junction	I 75 WB
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Future without Project	Analysis Year	2007 AM Peak

Project Description BEACON COUNTYLINE DRI

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 55.0 mph S_{FR} = 50.0 mph
Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5420	0.95	Level	2	0	0.990	1.00	5762
Ramp	1884	0.95	Level	2	0	0.990	1.00	2003
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = 0.555 using Equation (Exhibit 25-5)
V_{12} = 3198 pc/h
V_3 or V_{av34} 2564 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes, V_{12a} = 3292 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	7765	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5295	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 17.6 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

M_S = 0.648 (Exibit 25-19)
S_R = 46.6 mph (Exhibit 25-19)
S_0 = 47.5 mph (Exhibit 25-19)
S = 46.8 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R = mph (Exhibit 25-19)
S_0 = mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	SR 826 NB
Agency or Company		Junction	I 75 WB
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Future with Project	Analysis Year	2007 AM Peak

Project Description: BEACON COUNTYLINE DRI

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 55.0 mph S_{FR} = 50.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5905	0.95	Level	2	0	0.990	1.00	6278
Ramp	2143	0.95	Level	2	0	0.990	1.00	2278
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 0.555 using Equation (Exhibit 25-5)

V_{12} = 3484 pc/h

V_3 or V_{av34} 2794 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes, V_{12a} = 3578 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	8556	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5856	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 21.9 (pc/mi/ln)

LOS = F (Exhibit 25-4)

Speed Determination

M_S = 1.233 (Exibit 25-19)

S_R = 39.0 mph (Exhibit 25-19)

S_0 = 46.1 mph (Exhibit 25-19)

S = 41.0 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R = mph (Exhibit 25-19)

S_0 = mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	SR 826 NB
Agency or Company		Junction	I 75 WB
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Future with Project w Imps	Analysis Year	2007 AM Peak
Project Description	BEACON COUNTYLINE DRI		

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 55.0 mph S_{FR} = 50.0 mph Sketch (show lanes, L_A, L_D, V_R, V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5905	0.95	Level	2	0	0.990	1.00	6278
Ramp	2143	0.95	Level	2	0	0.990	1.00	2278
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 0.209 using Equation (Exhibit 25-5)

V_{12} = 1312 pc/h

V_3 or V_{av34} 2483 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes, V_{12a} = 2511 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	8556	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4789	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 13.6 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Speed Determination

M_S = 0.340 (Exibit 25-19)

S_R = 50.6 mph (Exhibit 25-19)

S_0 = 50.0 mph (Exhibit 25-19)

S = 50.3 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R = mph (Exhibit 25-19)

S_0 = mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

SR 826 NB TO I 75 WB RAMP MERGE PM PEAK

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	SR 826 NB
Agency or Company		Junction	I 75 WB
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Existing	Analysis Year	2007 PM Peak

Project Description BEACON COUNTYLINE DRI

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 55.0 mph S_{FR} = 50.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	1754	0.95	Level	2	0	0.990	1.00	1865
Ramp	3045	0.95	Level	2	0	0.990	1.00	3237
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = 0.555 using Equation (Exhibit 25-5)
V_{12} = 1035 pc/h
V_3 or V_{av34} 830 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 1065 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	5102	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4302	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$
D_R = 9.3 (pc/mi/ln)
LOS = A (Exhibit 25-4)

Speed Determination

M_S = 0.159 (Exibit 25-19)
S_R= 52.9 mph (Exhibit 25-19)
S_0= 53.9 mph (Exhibit 25-19)
S = 53.1 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.0009 L_D$
D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	SR 826 NB
Agency or Company		Junction	I 75 WB
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Future without Project	Analysis Year	2007 PM Peak

Project Description BEACON COUNTYLINE DRI

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 55.0 mph S_{FR} = 50.0 mph
Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	2371	0.95	Level	2	0	0.990	1.00	2521
Ramp	3562	0.95	Level	2	0	0.990	1.00	3787
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = 0.555 using Equation (Exhibit 25-5)
V_{12} = 1399 pc/h
V_3 or V_{av34} 1122 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes, V_{12a} = 1440 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6308	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5227	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 16.3 (pc/mi/ln)
LOS = B (Exhibit 25-4)

Speed Determination

M_S = 0.597 (Exibit 25-19)
S_R = 47.2 mph (Exhibit 25-19)
S_0 = 52.9 mph (Exhibit 25-19)
S = 48.1 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R = mph (Exhibit 25-19)
S_0 = mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	SR 826 NB
Agency or Company		Junction	I 75 WB
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Future with Project	Analysis Year	2007 PM Peak

Project Description BEACON COUNTYLINE DRI

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 55.0 mph S_{FR} = 50.0 mph
Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	2581	0.95	Level	2	0	0.990	1.00	2744
Ramp	3674	0.95	Level	2	0	0.990	1.00	3906
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = 0.555 using Equation (Exhibit 25-5)
V_{12} = 1523 pc/h
V_3 or V_{av34} 1221 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes, V_{12a} = 1568 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6650	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5474	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 18.2 (pc/mi/ln)
LOS = B (Exhibit 25-4)

Speed Determination

M_S = 0.801 (Exibit 25-19)
S_R = 44.6 mph (Exhibit 25-19)
S_0 = 52.6 mph (Exhibit 25-19)
S = 45.8 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R = mph (Exhibit 25-19)
S_0 = mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	DPA	Freeway/Dir of Travel	SR 826 NB
Agency or Company		Junction	I 75 WB
Date Performed	10/2/2007	Jurisdiction	
Analysis Time Period	Future with Project w AM Imps	Analysis Year	2007 PM Peak

Project Description BEACON COUNTYLINE DRI

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 55.0 mph S_{FR} = 50.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	2581	0.95	Level	2	0	0.990	1.00	2744
Ramp	3674	0.95	Level	2	0	0.990	1.00	3906
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 0.209 using Equation (Exhibit 25-5)

V_{12} = 573 pc/h

V_3 or V_{av34} 1085 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes, V_{12a} = 1097 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6650	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5003	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 14.5 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Speed Determination

M_S = 0.452 (Exibit 25-19)

S_R = 49.1 mph (Exhibit 25-19)

S_0 = 53.8 mph (Exhibit 25-19)

S = 50.2 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.0009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R = mph (Exhibit 25-19)

S_0 = mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

APPENDIX 21-3
Transportation Improvements Documentation

MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION
TRANSPORTATION IMPROVEMENT PROGRAM
PRIMARY STATE HIGHWAYS AND INTERMODAL

HIGHWAYS

MPO Project Num.	Facility/Project Name	Length (miles)	Type of Work	Project Cost ($000s)	Prior Years Cost ($000s)
Agency Project Num.	From/Location To/Location				
	Detailed Project Description				

DT4182381	SR 7/NW 7TH AVE	0.752	PEDESTRIAN SAFETY IMPROV.		0
4182381	NW 101ST ST NW 113TH ST				

Activity /Phase	Funding Source	Proposed Funding (in $000s) 2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	2011 - 2012
CST	XA	14	0	0	0	0

DT4164191	SR 7/US-441/NW 7 AVE	0.733	SIDEWALK		0
4164191	FROM SW 8TH ST TO NW 3RD ST (ADA)				

Activity /Phase	Funding Source	Proposed Funding (in $000s) 2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	2011 - 2012
INC	DS	0	12	0	0	0
CST	DIH	33	0	0	0	0
CST	DS	321	0	0	0	0

DT4124701	SR 817/NW 27 AVENUE	2.813	RESURFACING		30
4124701	SR 9/N.W. 27 AVENUE N.W. 187 STREET				
	The project consists of milling and resurfacing of N.W. 27th Avenue from Ali Baba Avenue to N.W. 187th Street. In addition the project will also upgrade signalization along the corridor, update pedestrian ramps to meet ADA				

Activity /Phase	Funding Source	Proposed Funding (in $000s) 2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	2011 - 2012
INC	XA	160	0	0	0	0

DT2499412	SR 823/NW 57 AVE	1.591	ADD LANES & RECONSTRUCT		4929
2499412	FROM SR 934/WEST 21 ST TO WEST 34TH ST				

Activity /Phase	Funding Source	Proposed Funding (in $000s) 2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	2011 - 2012
ROW	DS	1,398	4,920	0	0	0
PE	DIH	10	0	0	0	0

MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION
TRANSPORTATION IMPROVEMENT PROGRAM
PRIMARY STATE HIGHWAYS AND INTERMODAL

HIGHWAYS

MPO Project Num.	Facility/Project Name	Length (miles)	Type of Work	Project Cost ($000s)	Prior Years Cost ($000s)
Agency Project Num.	From/Location To/Location				
	Detailed Project Description				

MPO Project Num.	Facility/Project Name	Length (miles)	Type of Work	Project Cost ($000s)	Prior Years Cost ($000s)
DT4226991	SR 25/OKEECHOBEE RD	0.000	SAFETY PROJECT		
Agency Project Num. 4226991	From/Location AT NW 154 AVE To/Location (TRAFFIC SIGNAL)				
	Detailed Project Description				

Activity /Phase	Funding Source	Proposed Funding (in $000s) 2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	2011 - 2012
PE	DIH	2	0	0	0	0
CST	HSP	0	853	0	0	0

MPO Project Num.	Facility/Project Name	Length (miles)	Type of Work	Project Cost ($000s)	Prior Years Cost ($000s)
DT2501054	SR 25/OKEECHOBEE RD.	0.329	LANDSCAPING		
Agency Project Num. 2501054	From/Location EAST OF W. 12 AVE To/Location WEST 19TH ST				
	Detailed Project Description				

Activity /Phase	Funding Source	Proposed Funding (in $000s) 2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	2011 - 2012
CST	DS	68	0	0	0	0

MPO Project Num.	Facility/Project Name	Length (miles)	Type of Work	Project Cost ($000s)	Prior Years Cost ($000s)
DT4124731	SR 5/BRICKELL AVE	1.689	RIGID PAVEMENT REHABILITATION		0
Agency Project Num. 4124731	From/Location S OF S.E. 25TH RD To/Location S.E. 4TH ST				
	Detailed Project Description				

Activity /Phase	Funding Source	Proposed Funding (in $000s) 2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	2011 - 2012
INC	XU	0	0	0	320	0
PE	DS	300	0	0	0	0
CST	XU	0	0	7,214	0	0
CST	DS	0	0	70	0	0

MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION
TRANSPORTATION IMPROVEMENT PROGRAM
PRIMARY STATE HIGHWAYS AND INTERMODAL

HIGHWAYS

MPO Project Num.	Facility/Project Name	Length (miles)	Type of Work	Project Cost ($000s)	Prior Years Cost ($000s)
Agency Project Num.	From/Location To/Location				
	Detailed Project Description				

MPO Project Num.	Facility/Project Name	Length (miles)	Type of Work	Project Cost ($000s)	Prior Years Cost ($000s)	Activity /Phase	Funding Source	Proposed Funding (in $000s) 2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	2011 - 2012
DT4075772	SR 25/NW 103 ST	3.265	INTERSECTION (MINOR)		0							
4075772	SR 25/OKEECHOBEE RD WEST 2ND AVE. (ADA)					INC	DDR	30	0	0	0	0
						CST	DDR	94	0	0	0	0
DT4164232	SR 25/OKEECHOBEE RD	0.257	INTERSECTION (MINOR)		0							
4164232	AT SR 997/KROME AVE					INC	DDR	28	0	0	0	0
DT4164233	SR 25/OKEECHOBEE RD	0.327	INTERSECTION (MINOR)		0							
4164233	AT NW 138TH ST					INC	DDR	12	0	0	0	0
DT4164234	SR 25/OKEECHOBEE RD	0.347	ADD TURN LANE(S)		0							
4164234	AT NW 105TH WAY Ana Arvelo is PM.					INC	DDR	30	0	0	0	0

MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION
TRANSPORTATION IMPROVEMENT PROGRAM
IMPROVEMENTS BY PRIVATE SECTOR

Subdivision Improvements

MPO Project Num. / Agency Project Num.	Facility/Project Name / From/Location / To/Location	Length (miles)	Type of Work / Remarks	Project Cost ($000s)	Prior Years Funding ($000s)	Constr. Year	Compl (Y/N)	Zoning Applicant Name / Zoning Application No.	Commission Res. or Covenant Ord. Pg. #
PS0000101A	NW 82 Street	0.2	2 lanes, sidewalks and drainage			N/A	No	Doral Isles North, Section 3	
	NW 114 Avenue / NW 115 Avenue (so.side)							T-21630	
PS0000102A	NW 112 Avenue	0.05	2 lanes, sidewalks and drainage			N/A	No	Islands at Doral Northwest	
	NW 84 Street / NW 85 Street							T-21674	
PS0000102B	NW 82 Street	0.4	2 lanes, sidewalks and drainage			N/A	No	Islands at Doral Northwest	
	NW 113 Avenue / NW 117 Avenue							T-21674	
PS0000103	SW 147 Avenue	0.25	Additional pavement and markings			N/A	No	Villa Capri	
	SW 280 Street / SW 284 Street							T-21693	
PS0000104	SW 147 Avenue	0.75	2 lanes	400		N/A	No	Laroc Commercial Tract	
	SW 15 Street / SW 22 Street		Part financed by Contribut'n in Lieu of RIF Dist.4					T-19791	
PS0000105	SW 147 Avenue	0.22	2 lanes			N/A	Yes	Laroc Commercial Tract	
	SW 8 Street / SW 10 Street							T-19791	

MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION
TRANSPORTATION IMPROVEMENT PROGRAM
IMPROVEMENTS BY PRIVATE SECTOR

Construction in Lieu of Road Impact Fee District 1

MPO Project Num. / Agency Project Num.	Facility/Project Name / From/Location / To/Location	Length (miles)	Type of Work / Remarks	Project Cost ($000s)	Prior Years Funding ($000s)	Constr. Year	Compl (Y/N)	Zoning Applicant Name / Zoning Application No.	Commission Res. or Covenant Ord. Pg. #
PS000023	NW 107 Avenue	0.5	Reconstruct NW 107 Ave./New flyover ramp	1,972		N/A	No	Pan American Business Park	
000023	NW 122 Street — S. River Drive		Includes flyover ramp						
PS000025	NW 90 Street	0.25	New construction: 2 lanes			N/A	No	Jannette Villas at Doral	
000025	NW 114 Avenue — NW 112 Avenue								
PS0000306	NW 97 Avenue	1.0	Widening: 2 to 4 lanes			N/A	No	Century Dev.	
0000306	NW 25 Street — NW 41 Street								

MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION

TRANSPORTATION IMPROVEMENT PROGRAM

ROAD IMPACT FEES (RIF)

Road Impact Fee District: **3** ***Municipalities:*** ***Aventura / Bal Harbour / Bay Harbor Islands / Golden Beach / Hialeah / Indian Creek / Miami Lakes / Opa-Locka / Miami Gardens / North Miami / North Miami Beach / Sunny Isles Beach / Surfside / Uninc.Miami-Dade County***

MPO Project Num.	Facility/Project Name		Bicycle	Type of Work	Project Cost ($000s)	Prior Years' Funding ($000s)
	From/Location	To/Location	Length (miles)			
Agency Project Num.	Detailed Project Description					
	Status		Remarks			

PW0000110	NW 97 Avenue			New 4 lanes								
	NW 138 Street	NW 154 Street	1									
0000110	New 4 lanes				3,440	3,440	Activity /Phase	Funding (in $000s)				
								Proposed		Tentative Three Year Program		
								2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	2011 - 2012
	Under construction		JPA with City of Hialeah for CST.									

PW0000111	NW 138 Street			Widening: 2 to 6 lanes and canal relocaiton								
	NW 107 Avenue	I-75	1.3									
0000111	Widen from 2 to 6 lanes and canal relocation. Prior Years Funding as follows: $2,750,000 for CST.				12,300	2,750	Activity /Phase	Funding (in $000s)				
								Proposed		Tentative Three Year Program		
								2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	2011 - 2012
	Under design		JPA with City of Hialeah for CST. LRTP.				CST	2,750	0	0	3,000	3,000

B - Requires full consideration of bicycle accommodations in accordance with Bicycle Facilities Plan
BOND - Capital Asset Acquisition Special Obligation Bonds
B.R. - Repayment of Capital Asset Acquisition Special Obligation Bonds
CIGP - County Incentive Grant Program
LRTP - Subject to Long Range Plan Amendment

PE Preliminary Engineering
CST Construction
CEI Construction Engineering Inspection
COMB Combined Funding in Prior Years

Totals reflect expenditures based on latest budgetary information of anticipated revenues, and may differ from actual amounts received.

MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION

TRANSPORTATION IMPROVEMENT PROGRAM

ROAD IMPACT FEES (RIF)

Road Impact Fee District: **3** ***Municipalities:*** ***Aventura / Bal Harbour / Bay Harbor Islands / Golden Beach / Hialeah / Indian Creek / Miami Lakes / Opa-Locka / Miami Gardens / North Miami / North Miami Beach / Sunny Isles Beach / Surfside / Uninc.Miami-Dade County***

MPO Project Num.	Facility/Project Name	Bicycle	Type of Work	Project Cost ($000s)	Prior Years' Funding ($000s)	
	From/Location To/Location	Length (miles)				
Agency Project Num.	Detailed Project Description					
	Status	Remarks				

PW0000117	Int Imprv: N. Miami Avenue and 135 Street		Intersection Improvements	25	25	Activity /Phase	Funding (in $000s)					
0000117	Add pro/perm WBLT						Proposed		Tentative Three Year Program			
							2006 - 2007	2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	
	Design completed											

PW0000118	Int Imprv: Red Road and NW 138 Street		Intersection Improvements	100	100	Activity /Phase	Funding (in $000s)					
0000118	Lengthen SBLT						Proposed		Tentative Three Year Program			
							2006 - 2007	2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	

B - Requires full consideration of bicycle accommodations in accordance with Bicycle Facilities Plan
BOND - Capital Asset Acquisition Special Obligation Bonds
B.R. - Repayment of Capital Asset Acquisition Special Obligation Bonds
CIGP - County Incentive Grant Program
LRTP - Subject to Long Range Plan Amendment

PE Preliminary Engineering
CST Construction
CEI Construction Engineering Inspection
COMB Combined Funding in Prior Years

Totals reflect expenditures based on latest budgetary information of anticipated revenues, and may differ from actual amounts received.

MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION

TRANSPORTATION IMPROVEMENT PROGRAM

ROAD IMPACT FEES (RIF)

Road Impact Fee District: **3** ***Municipalities:*** ***Aventura / Bal Harbour / Bay Harbor Islands / Golden Beach / Hialeah / Indian Creek / Miami Lakes / Opa-Locka / Miami Gardens / North Miami / North Miami Beach / Sunny Isles Beach / Surfside / Uninc.Miami-Dade County***

MPO Project Num.	Facility/Project Name		Bicycle	Type of Work	Project Cost ($000s)	Prior Years' Funding ($000s)	
	From/Location	To/Location	Length (miles)				
Agency Project Num.	Detailed Project Description						
	Status		Remarks				

PW0000119	Int Imprv: Red Road and Miami Lakes Drive		Intersection Improvements	175	175	Activity /Phase	Funding (in $000s)					
0000119	Change the middle EB lane to LT and improve turbo lane operation						Proposed		Tentative Three Year Program			
							2006 - 2007	2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	

PW0000120	Int Imprv: SR-856 and US-1		Intersection Improvements	10	10	Activity /Phase	Funding (in $000s)					
0000120	Change WB lane assignment						Proposed		Tentative Three Year Program			
							2006 - 2007	2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	

B - Requires full consideration of bicycle accommodations in accordance with Bicycle Facilities Plan
BOND - Capital Asset Acquisition Special Obligation Bonds
B.R. - Repayment of Capital Asset Acquisition Special Obligation Bonds
CIGP - County Incentive Grant Program
LRTP - Subject to Long Range Plan Amendment

PE Preliminary Engineering
CST Construction
CEI Construction Engineering Inspection
COMB Combined Funding in Prior Years

Totals reflect expenditures based on latest budgetary information of anticipated revenues, and may differ from actual amounts received.

MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION
TRANSPORTATION IMPROVEMENT PROGRAM
ROAD IMPACT FEES (RIF)

Road Impact Fee District: **3** ***Municipalities:*** ***Aventura / Bal Harbour / Bay Harbor Islands / Golden Beach / Hialeah / Indian Creek / Miami Lakes / Opa-Locka / Miami Gardens / North Miami / North Miami Beach / Sunny Isles Beach / Surfside / Uninc.Miami-Dade County***

MPO Project Num.	Facility/Project Name		Bicycle	Type of Work	Project Cost ($000s)	Prior Years' Funding ($000s)
	From/Location	To/Location	Length (miles)			
Agency Project Num.	Detailed Project Description					
	Status		Remarks			

PW0000123	Int Imprv: Red Road and SR-826 (N)		Intersection Improvements	50	50
0000123	Legnthen SBLT bay				

Activity /Phase	Funding (in $000s)				
	Proposed		Tentative Three Year Program		
	2006 - 2007	2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011

PW0000124	Int Imprv: Red Road and SR-826 (S)		Intersection Improvements	50	50
0000124	Legnthen NBLT bay				

Activity /Phase	Funding (in $000s)				
	Proposed		Tentative Three Year Program		
	2006 - 2007	2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011

B - Requires full consideration of bicycle accommodations in accordance with Bicycle Facilities Plan
BOND - Capital Asset Acquisition Special Obligation Bonds
B.R. - Repayment of Capital Asset Acquisition Special Obligation Bonds
CIGP - County Incentive Grant Program
LRTP - Subject to Long Range Plan Amendment

PE Preliminary Engineering
CST Construction
CEI Construction Engineering Inspection
COMB Combined Funding in Prior Years

Totals reflect expenditures based on latest budgetary information of anticipated revenues, and may differ from actual amounts received.

MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION
TRANSPORTATION IMPROVEMENT PROGRAM
ROAD IMPACT FEES (RIF)

Road Impact Fee District: **3**

Municipalities: ***Aventura / Bal Harbour / Bay Harbor Islands / Golden Beach / Hialeah / Indian Creek / Miami Lakes / Opa-Locka / Miami Gardens / North Miami / North Miami Beach / Sunny Isles Beach / Surfside / Uninc.Miami-Dade County***

MPO Project Num.	Facility/Project Name		Bicycle	Type of Work	Project Cost ($000s)	Prior Years' Funding ($000s)
	From/Location	To/Location	Length (miles)			
Agency Project Num.	Detailed Project Description					
	Status		Remarks			

PW0000125	Int Imprv: Red Road and NW 165 Terrace		Intersection Improvements	30	30	Activity /Phase
0000125	Re-stripe EB approach to LT, T, and RT					
	Design completed					

Funding (in $000s)					
Proposed		Tentative Three Year Program			
2006 - 2007	2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	

PW0000126	Int Imprv: NW 7 Avenue and 15900 Block		Intersection Improvements	250	250	Activity /Phase
0000126	Increase the WBRT radius and add a 2nd NB thru lane and a SB turbo lane					

Funding (in $000s)					
Proposed		Tentative Three Year Program			
2006 - 2007	2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	

B - Requires full consideration of bicycle accommodations in accordance with Bicycle Facilities Plan
BOND - Capital Asset Acquisition Special Obligation Bonds
B.R. - Repayment of Capital Asset Acquisition Special Obligation Bonds
CIGP - County Incentive Grant Program
LRTP - Subject to Long Range Plan Amendment

PE Preliminary Engineering
CST Construction
CEI Construction Engineering Inspection
COMB Combined Funding in Prior Years

Totals reflect expenditures based on latest budgetary information of anticipated revenues, and may differ from actual amounts received.

MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION
TRANSPORTATION IMPROVEMENT PROGRAM
ROAD IMPACT FEES (RIF)

Road Impact Fee District: **1** ***Municipalities: Doral / South Miami / West Miami / Sweetwater / Virginia Gardens / Miami Springs / Medley / Uninc. Miami-Dade Co.***

MPO Project Num.	Facility/Project Name		Bicycle	Type of Work	Project Cost ($000s)	Prior Years' Funding ($000s)	
	From/Location	To/Location	Length (miles)				
Agency Project Num.	Detailed Project Description						
	Status		Remarks				

PW662347	NW 72 Avenue			Widening: 2 to 4 lanes and bridge				Funding (in $000s)				
	NW 74 Street	Okeechobee Road	0.5					Proposed		Tentative Three Year Program		
662347	R/W, Widen from 2 to 4 lanes and bridge. Prior Years Funding as follows: $2,342,000 for CST.				9,528	2,342	Activity /Phase	2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	2011 - 2012
	Design completed		Additional funding by SGT.				CST	1,000	1,700	0	0	0

PW000031	NW 74 Street			New Construction: 4 lanes				Funding (in $000s)				
	NW 87 Avenue	NW 84 Avenue	0.3					Proposed		Tentative Three Year Program		
	Construction of 4 new lanes. Settlement Agreement R-480-04 . Prior Years Funding as follows: $130,000 for PE.				1,350	130	Activity /Phase	2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	2011 - 2012
	Design by Developer.		CST to be funded by PTP.									

B - Requires full consideration of bicycle accommodations in accordance with Bicycle Facilities Plan
BOND - Capital Asset Acquisition Special Obligation Bonds
B.R. - Repayment of Capital Asset Acquisition Special Obligation Bonds
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PE Preliminary Engineering
CST Construction
CEI Construction Engineering Inspection
COMB Combined Funding in Prior Years

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MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION
TRANSPORTATION IMPROVEMENT PROGRAM
ROAD IMPACT FEES (RIF)

Road Impact Fee District: **9** ***Municipalities: Hialeah / Hialeah Gardens / Unincorporated Miami-Dade County***

MPO Project Num.	Facility/Project Name		Bicycle	Type of Work	Project Cost ($000s)	Prior Years' Funding ($000s)
	From/Location	To/Location	Length (miles)			
Agency Project Num.	Detailed Project Description					
	Status		Remarks			

PW000075	W 60 Street			Widening: 2 to 3 lanes	2,300	58	Activity /Phase	Funding (in $000s)				
	W 12 Avenue	W 4 Avenue	1					Proposed		Tentative Three Year Program		
000075	Widen from 2 to 3 lanes. Remaining balance will be funded through PTP Neighborhood Improvements under Commission Dirstrict 13.							2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	2011 - 2012
	Construction completed		LRTP				CST	40	0	0	0	0

PW671916	NW 62 Avenue		B	Widening: 2 to 3 lanes	5,500	1800	Activity /Phase	Funding (in $000s)				
	NW 105 Street	NW 138 Street	2					Proposed		Tentative Three Year Program		
671916	Widen from 2 to 3 lanes. Construction by City of Hialeah (JPA). Construction partially funded by PTP, loan repayment to Peoples Transportation Plan District 13. RIF 9 is financing $2.4M, PTP is financing $3.1M, PTP will front amount of $5.5M and will be reimbursed $600K/year from FY04-05 through FY 07-08							2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	2011 - 2012
	Construction completed						LR	600	0	0	0	0

B - Requires full consideration of bicycle accommodations in accordance with Bicycle Facilities Plan
BOND - Capital Asset Acquisition Special Obligation Bonds
B.R. - Repayment of Capital Asset Acquisition Special Obligation Bonds
CIGP - County Incentive Grant Program
LRTP - Subject to Long Range Plan Amendment

PE Preliminary Engineering
CST Construction
CEI Construction Engineering Inspection
COMB Combined Funding in Prior Years

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MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION
TRANSPORTATION IMPROVEMENT PROGRAM
PEOPLE'S TRANSPORTATION PLAN (PTP)

Commission District 13

Natacha Seijas

MPO Project Num. / Agency Project Num.	Facility/Project Name / From/Location	To/Location	Bicycle Accom. / Length (miles)	Type of Work / Remarks	Project Cost ($000s)	Prior Years Funding ($000s)	Activity /Phase	Funding Source	Proposed Funding (in $000s) 2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	2011 - 2012
PW000328	NW 62 Avenue (W 8 Avenue)		B	Widening: 2 to 3 lanes	5,500	4,900							
20040357	NW 138 Street	NW 105 Street	2	Construction completed. See NOTE 2.			REIMB	PTP	-600	0	0	0	0
PW20040390	NW 87 Avenue		B	Widening: 2 to 4 lanes	11,501	640							
20040390	NW 154 Street	NW 186 Street	2	Prior Years Funding as follows: $640,000 for PE			CST	PTP	1,000	8,000	1,861	0	0
PW000329	PTP Neighborhood Improvements					1,652							
				(See NOTE 1 below)				PTP	413	413	413	413	413
PW000329a	Right-of-Way			Right-of-Way	3,210	40							
000329a				R/W for Acquisition for Construction Projects			R/W	PTP	2,070	1,100	0	0	0

NOTE 1: PTP NEIGHBORHOOD IMPROVEMENTS INCLUDE: Modifications of intersections; resurfacing of local and arterial roads; installation / repairs of guardrails; installation of school flashing signals, enhancement of greenways and bikeways, A.D.A. curb cuts / repairs, pavement markings, roadway lighting, traffic calming, traffic signals, and traffic sign replacement / repair. Such improvements also include replacement / repair of sidewalks, repair / installation of drainage and landscape beautification (including community image enhancements) related to the development, construction, operation or maintenance of roads and bridges in the County or to the expansion, operation or maintenance of bus and fixed guideway system.

NOTE 2: The following applies only to project No. 20040357 (671916) in Commission District 13 - NW 62nd Avenue (W 8 Avenue) from NW 138 Street to NW 105 Street - :
REIMB = Loan Repayment from Road Impact Fee (RIF) 9. Negative numbers in Total Costs row reflect repayment amounts exceed expenditures. Cost Estimates do not reflect repayment amounts.
RIF 9 is financing $2.4 Million, PTP is financing $3.1 Million. PTP will front total amount of $5.5 Million and will be reimbursed $600,000 per year from FY 04-05 through FY 07-08..

NOTE 3: B = Requires full consideration of bicycle accommodations in accordance with the Bicycle Facilities Plan.
PE = Preliminary Engineering; CST = Construction; FS = Feasbility Study.

MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION
TRANSPORTATION IMPROVEMENT PROGRAM
ROAD IMPACT FEES (RIF)

Road Impact Fee District: **1** ***Municipalities: Doral / South Miami / West Miami / Sweetwater / Virginia Gardens / Miami Springs / Medley / Uninc. Miami-Dade Co.***

MPO Project Num.	Facility/Project Name		Bicycle	Type of Work	Project Cost ($000s)	Prior Years' Funding ($000s)	
	From/Location	To/Location	Length (miles)				
Agency Project Num.	Detailed Project Description						
	Status		Remarks				

PW000501	NW 112 Avenue/138 Street		Sonovoid Bridge Renovation	120		
	Miami Canal					
	Construction completed					

Activity /Phase	Funding (in $000s)				
	Proposed		Tentative Three Year Program		
	2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	2011 - 2012

PW000086	SW 112 Avenue over Westwood Lakes Canal		Feasibility Study	75		
000086	Approximately SW 50 Terrace					
	Study completed					

Activity /Phase	Funding (in $000s)				
	Proposed		Tentative Three Year Program		
	2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	2011 - 2012

B - Requires full consideration of bicycle accommodations in accordance with Bicycle Facilities Plan
BOND - Capital Asset Acquisition Special Obligation Bonds
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LRTP - Subject to Long Range Plan Amendment

PE Preliminary Engineering
CST Construction
CEI Construction Engineering Inspection
COMB Combined Funding in Prior Years

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My Neighborhood
Miami-Dade County, Florida

Transportation Improvement Detail Window

1 Arterial/Collector Road Project(s) found in 0.42 square mile

Records: 1 to 1 of 1.

 # 1 Project No. PW1000016 **Project Name** NW 77 Court & NW 154 Street **Project Type** Arterial/Collector Road

Contact Person: Delfin Molins **Contact Phone:** (305) 375-1682 **Contact E-Mail:** delfin@miamidade.gov

Location: from Intersection **to** **Status**

Comments:	Remarks/Comments:	Project Description:
New Construction: left turn lane	Need northbound left turn lane	Construction of a left turn lane

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MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION
TRANSPORTATION IMPROVEMENT PROGRAM
ROAD IMPACT FEES (RIF)

Road Impact Fee District: **3**

Municipalities: ***Aventura / Bal Harbour / Bay Harbor Islands / Golden Beach / Hialeah / Indian Creek / Miami Lakes / Opa-Locka / Miami Gardens / North Miami / North Miami Beach / Sunny Isles Beach / Surfside / Uninc.Miami-Dade County***

MPO Project Num.	Facility/Project Name		Bicycle	Type of Work	Project Cost ($000s)	Prior Years' Funding ($000s)
	From/Location	To/Location	Length (miles)			
Agency Project Num.	Detailed Project Description					
	Status		Remarks			

PW671308A	NW 17 Avenue		B	Widening: to 5 lanes		
	NW 119 Street	Opa Locka Boulevard	1			
671308	Widen to 5 lanes.				4,000	
	Under construction					

Activity /Phase	Funding (in $000s)				
	Proposed		Tentative Three Year Program		
	2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	2011 - 2012

PW20040271	NW 87 Avenue			Widening: 2 to 4 lanes		
	NW 162 Street	NW 170 Street	0.5			
20040271	Widen from 2 to 4 lanes. Prior Years Funding as follows: $2,820,000 for CST.				2,820	2,820
	Design completed					

Activity /Phase	Funding (in $000s)				
	Proposed		Tentative Three Year Program		
	2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	2011 - 2012

B - Requires full consideration of bicycle accommodations in accordance with Bicycle Facilities Plan
BOND - Capital Asset Acquisition Special Obligation Bonds
B.R. - Repayment of Capital Asset Acquisition Special Obligation Bonds
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LRTP - Subject to Long Range Plan Amendment

PE Preliminary Engineering
CST Construction
CEI Construction Engineering Inspection
COMB Combined Funding in Prior Years

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MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION
TRANSPORTATION IMPROVEMENT PROGRAM
PEOPLE'S TRANSPORTATION PLAN (PTP)

Commission District 12

Jose "Pepe" Diaz

MPO Project Num. / Agency Project Num.	Facility/Project Name / From/Location	To/Location	Bicycle Accom. / Length (miles)	Type of Work / Remarks	Project Cost ($000s)	Prior Years Funding ($000s)	Activity /Phase	Funding Source	Proposed Funding (in $000s) 2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	2011 - 2012
PW20040355	NW 74 Street		B	New 6 lanes	32,200	18,200							
20040355	HEFT	NW 82 Avenue	3.5	Prior Years Funding as follows: $2,200,000 for PE, $16,000,000 for CST			CST	PTP	10,000	4,000	0	0	0
PW20040356	NW 97 Avenue		B	Widening: 2 to 4 lanes	35	35							
20040356	NW 25 Street	NW 41 Street	1	Prior Years Funding as follows: $30,000 for PE, $5,000 for CST. Final design and construction by developer.									
PW000326	NW 138 Street Bridge			Bridge construction	6,390	2,580							
20030191	Bridge over Miami River Canal at	NW 138 Street	0.1	Prior Years Funding as follows: $280,000 for PE, $2,300,000 for CST			CST	PTP	3,810	0	0	0	0
PW000327	PTP Neighborhood Improvements					3,784							
				(See NOTE 1 below)				PTP	946	946	946	946	946

NOTE 1: PTP NEIGHBORHOOD IMPROVEMENTS INCLUDE: Modifications of intersections; resurfacing of local and arterial roads; installation / repairs of guardrails; installation of school flashing signals, enhancement of greenways and bikeways, A.D.A. curb cuts / repairs, pavement markings, roadway lighting, traffic calming, traffic signals, and traffic sign replacement / repair. Such improvements also include replacement / repair of sidewalks, repair / installation of drainage and landscape beautification (including community image enhancements) related to the development, construction, operation or maintenance of roads and bridges in the County or to the expansion, operation or maintenance of bus and fixed guideway system.

NOTE 2: The following applies only to project No. 20040357 (671916) in Commission District 13 - NW 62nd Avenue (W 8 Avenue) from NW 138 Street to NW 105 Street - :

REIMB = Loan Repayment from Road Impact Fee (RIF) 9. Negative numbers in Total Costs row reflect repayment amounts exceed expenditures. Cost Estimates do not reflect repayment amounts.

RIF 9 is financing $2.4 Million, PTP is financing $3.1 Million. PTP will front total amount of $5.5 Million and will be reimbursed $600,000 per year from FY 04-05 through FY 07-08..

NOTE 3: B = Requires full consideration of bicycle accommodations in accordance with the Bicycle Facilities Plan.

PE = Preliminary Engineering; CST = Construction; FS = Feasbility Study.

MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION
TRANSPORTATION IMPROVEMENT PROGRAM
PEOPLE'S TRANSPORTATION PLAN (PTP)

Commission District 13

Natacha Seijas

MPO Project Num. / Agency Project Num.	Facility/Project Name / From/Location	To/Location	Bicycle Accom. / Length (miles)	Type of Work / Remarks	Project Cost ($000s)	Prior Years Funding ($000s)	Activity /Phase	Funding Source	Proposed Funding (in $000s) 2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	2011 - 2012
PW000328	NW 62 Avenue (W 8 Avenue)		B	Widening: 2 to 3 lanes	5,500	4,900							
20040357	NW 138 Street	NW 105 Street	2	Construction completed. See NOTE 2.			REIMB	PTP	-600	0	0	0	0
PW20040390	NW 87 Avenue		B	Widening: 2 to 4 lanes	11,501	640							
20040390	NW 154 Street	NW 186 Street	2	Prior Years Funding as follows: $640,000 for PE			CST	PTP	1,000	8,000	1,861	0	0
PW000329	PTP Neighborhood Improvements					1,652							
				(See NOTE 1 below)				PTP	413	413	413	413	413
PW000329a	Right-of-Way			Right-of-Way	3,210	40							
000329a				R/W for Acquisition for Construction Projects			R/W	PTP	2,070	1,100	0	0	0

NOTE 1: PTP NEIGHBORHOOD IMPROVEMENTS INCLUDE: Modifications of intersections; resurfacing of local and arterial roads; installation / repairs of guardrails; installation of school flashing signals, enhancement of greenways and bikeways, A.D.A. curb cuts / repairs, pavement markings, roadway lighting, traffic calming, traffic signals, and traffic sign replacement / repair. Such improvements also include replacement / repair of sidewalks, repair / installation of drainage and landscape beautification (including community image enhancements) related to the development, construction, operation or maintenance of roads and bridges in the County or to the expansion, operation or maintenance of bus and fixed guideway system.

NOTE 2: The following applies only to project No. 20040357 (671916) in Commission District 13 - NW 62nd Avenue (W 8 Avenue) from NW 138 Street to NW 105 Street - :
REIMB = Loan Repayment from Road Impact Fee (RIF) 9. Negative numbers in Total Costs row reflect repayment amounts exceed expenditures. Cost Estimates do not reflect repayment amounts.
RIF 9 is financing $2.4 Million, PTP is financing $3.1 Million. PTP will front total amount of $5.5 Million and will be reimbursed $600,000 per year from FY 04-05 through FY 07-08..

NOTE 3: B = Requires full consideration of bicycle accommodations in accordance with the Bicycle Facilities Plan.
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MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION
TRANSPORTATION IMPROVEMENT PROGRAM
SECONDARY GAS TAX - (SGT)

MPO Project Num.	Facility/Project Name		Bicycle Accom.	Type of Work		
	From/Location	To/Location	Length (miles)	Remarks	Project Cost ($000s)	Prior Years' Funding ($000s)
Agency Project Num.	Detailed Project Description					

PW000108	Mast Arm Upgrades					
000108						

Activity /Phase	Funding (in $000s)				
	Proosed		Tentative Three Year Program		
	2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	2011 - 2012
	2,118	2,118	2,118	2,118	2,118

PW000109	Illuminated Street Signs					
000109						

Activity /Phase	Funding (in $000s)				
	Proosed		Tentative Three Year Program		
	2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	2011 - 2012
	1,000	1,000	940	0	0

PW610157S	W 24 Avenue			Widening: 2 to 5 lanes		
	W 52 Street	W 76 Street	1.5	Design completed (LOGT)		
610157	Widen road from 2 to 5 lanes				9,472	

Activity /Phase	Funding (in $000s)				
	Proosed		Tentative Three Year Program		
	2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	2011 - 2012
CST	0	0	2,368	2,368	2,368

Note: Totals reflect expenditures based on latest budgetary information of anticipated revenues, and may differ from actual amounts received.

MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION
TRANSPORTATION IMPROVEMENT PROGRAM
ROAD IMPACT FEES (RIF)

Road Impact Fee District: **1** ***Municipalities: Doral / South Miami / West Miami / Sweetwater / Virginia Gardens / Miami Springs / Medley / Uninc. Miami-Dade Co.***

MPO Project Num.	Facility/Project Name		Bicycle	Type of Work	Project Cost ($000s)	Prior Years' Funding ($000s)	
	From/Location	To/Location	Length (miles)				
Agency Project Num.	Detailed Project Description						
	Status		Remarks				

PW662347	NW 72 Avenue			Widening: 2 to 4 lanes and bridge				Funding (in $000s)				
	NW 74 Street	Okeechobee Road	0.5					Proposed		Tentative Three Year Program		
662347	R/W, Widen from 2 to 4 lanes and bridge. Prior Years Funding as follows: $2,342,000 for CST.				9,528	2,342	Activity /Phase	2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	2011 - 2012
	Design completed		Additional funding by SGT.				CST	1,000	1,700	0	0	0

PW000031	NW 74 Street			New Construction: 4 lanes				Funding (in $000s)				
	NW 87 Avenue	NW 84 Avenue	0.3					Proposed		Tentative Three Year Program		
	Construction of 4 new lanes. Settlement Agreement R-480-04 . Prior Years Funding as follows: $130,000 for PE.				1,350	130	Activity /Phase	2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	2011 - 2012
	Design by Developer.		CST to be funded by PTP.									

B - Requires full consideration of bicycle accommodations in accordance with Bicycle Facilities Plan
BOND - Capital Asset Acquisition Special Obligation Bonds
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LRTP - Subject to Long Range Plan Amendment

PE Preliminary Engineering
CST Construction
CEI Construction Engineering Inspection
COMB Combined Funding in Prior Years

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MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION
TRANSPORTATION IMPROVEMENT PROGRAM
ROAD IMPACT FEES (RIF)

Road Impact Fee District: **3**

Municipalities: ***Aventura / Bal Harbour / Bay Harbor Islands / Golden Beach / Hialeah / Indian Creek / Miami Lakes / Opa-Locka / Miami Gardens / North Miami / North Miami Beach / Sunny Isles Beach / Surfside / Uninc.Miami-Dade County***

MPO Project Num.	Facility/Project Name	Bicycle	Type of Work	Project Cost ($000s)	Prior Years' Funding ($000s)
	From/Location To/Location	Length (miles)			
Agency Project Num.	Detailed Project Description				
	Status	Remarks			

PW000050	NW 42 Avenue @ NW 178 Street Bridge		Bridge Enhancement/Renovations and Structural Repairs			Activity /Phase	Funding (in $000s)				
							Proposed		Tentative Three Year Program		
000050	Bridge #: 874023			140			2006 - 2007	2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011
	Construction completed										

PW671311A	NW 87 Avenue	B	Bridge over I-75 & approaches			Activity /Phase	Funding (in $000s)				
	NW 138 Street NW 154 Street	1.0					Proposed		Tentative Three Year Program		
671311	Construction of new bridge over I-75			6,840			2006 - 2007	2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011
	Construction completed	FDOT FM#4105101 (CIGP)									

B - Requires full consideration of bicycle accommodations in accordance with Bicycle Facilities Plan
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PE Preliminary Engineering
CST Construction
CEI Construction Engineering Inspection
COMB Combined Funding in Prior Years

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MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION
TRANSPORTATION IMPROVEMENT PROGRAM
UNFUNDED PRIORITY NEEDS

MD Public Works

MPO Project Num.	Facility/Project Name		Type of Work	Project Cost ($000s)	Unfunded Projects
Agency Project Num.	From/Location	To/Location	Remarks		
	Detailed Project Description				
PW671915A	NW 107 Avenue		Widening: 2 to 5 lanes		
671915	Okeechobee Road	NW 138 Street	Unfunded		
	Widen from 2 to 5 lanes				

Activity /Phase	(in $000s)				
	Year 1	Year 2	Year 3	Year 4	Year 5
	0	0	0	0	0

MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION
TRANSPORTATION IMPROVEMENT PROGRAM
ROAD IMPACT FEES (RIF)

Road Impact Fee District: **9** ***Municipalities: Hialeah / Hialeah Gardens / Unincorporated Miami-Dade County***

MPO Project Num.	Facility/Project Name		Bicycle	Type of Work	Project Cost ($000s)	Prior Years' Funding ($000s)
	From/Location	To/Location	Length (miles)			
Agency Project Num.	Detailed Project Description					
	Status		Remarks			

PW000075	W 60 Street			Widening: 2 to 3 lanes	2,300	58	Activity /Phase	Funding (in $000s)				
	W 12 Avenue	W 4 Avenue	1					Proposed		Tentative Three Year Program		
000075	Widen from 2 to 3 lanes. Remaining balance will be funded through PTP Neighborhood Improvements under Commission Dirstrict 13.							2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	2011 - 2012
	Construction completed		LRTP				CST	40	0	0	0	0

PW671916	NW 62 Avenue		B	Widening: 2 to 3 lanes	5,500	1800	Activity /Phase	Funding (in $000s)				
	NW 105 Street	NW 138 Street	2					Proposed		Tentative Three Year Program		
671916	Widen from 2 to 3 lanes. Construction by City of Hialeah (JPA). Construction partially funded by PTP, loan repayment to Peoples Transportation Plan District 13. RIF 9 is financing $2.4M, PTP is financing $3.1M, PTP will front amount of $5.5M and will be reimbursed $600K/year from FY04-05 through FY 07-08							2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	2011 - 2012
	Construction completed						LR	600	0	0	0	0

B - Requires full consideration of bicycle accommodations in accordance with Bicycle Facilities Plan
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PE Preliminary Engineering
CST Construction
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COMB Combined Funding in Prior Years

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MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION
TRANSPORTATION IMPROVEMENT PROGRAM
ROAD IMPACT FEES (RIF)

Road Impact Fee District: **9** ***Municipalities: Hialeah / Hialeah Gardens / Unincorporated Miami-Dade County***

MPO Project Num.	Facility/Project Name		Bicycle	Type of Work	Project Cost ($000s)	Prior Years' Funding ($000s)
	From/Location	To/Location	Length (miles)			
Agency Project Num.	Detailed Project Description					
	Status		Remarks			

PW671951	W 68 Street		B	Add lane on south side and signalization	1,671	1,050
	W 19 Court	W 17 Court	0.25			
671951	Add lane on south side of W 68 St and signalization. Prior Years Funding as follows: $1,050,000 for CST.					
	Design completed					

Activity /Phase	Funding (in $000s)				
	Proposed		Tentative Three Year Program		
	2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	2011 - 2012
CST	621	0	0	0	0

PW000071	Engineering Administration			Administration		
	Engineering Administration					

Activity /Phase	Funding (in $000s)				
	Proposed		Tentative Three Year Program		
	2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	2011 - 2012
	80	60	60	60	60

B - Requires full consideration of bicycle accommodations in accordance with Bicycle Facilities Plan
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B.R. - Repayment of Capital Asset Acquisition Special Obligation Bonds
CIGP - County Incentive Grant Program
LRTP - Subject to Long Range Plan Amendment

PE Preliminary Engineering
CST Construction
CEI Construction Engineering Inspection
COMB Combined Funding in Prior Years

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MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION
TRANSPORTATION IMPROVEMENT PROGRAM
FDOT TURNPIKE DISTRICT

MPO Project Num.	Facility/Project Name	Length (miles)	Type of Work	Project Cost ($000s)	Prior Years Cost ($000s)
Agency Project Num.	From/Location To/Location				
	Detailed Project Description				

TP2511562	PORT OF MIAMI TUNNEL		NEW ROAD CONSTRUCTION		
2511562	PORT OF MIAMI SR836/I-395				

Activity /Phase	Funding Source	Proposed Funding (in $000s) 2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	2011 - 2012
PE		850	1,900	2,200	1,800	750

TP2519381	HEFT (SR821)	0.4	INTERCHANGE (MAJOR)		
2519381	FLORIDAS TURNPIKE (HEFT)/ I-75 INTERCHANGE				

Activity /Phase	Funding Source	Proposed Funding (in $000s) 2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	2011 - 2012
PE	PKYI	0	0	4,000	0	0

TP4060961	HEFT WIDEN FROM	6	ADD LANES & RECONSTRUCT		
4060961	S OF SW 117TH ST TO S OF KENDALL				

Activity /Phase	Funding Source	Proposed Funding (in $000s) 2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	2011 - 2012
CST		0	0	349,170	0	0
INC	PKBD	0	0	0	1,000	0
RRU	PKBD	0	0	3,000	0	0

TP4150511	HEFT (SR 821) WIDEN	8.016	ADD LANES & RECONSTRUCT		
4150511	KENDALL TO SR836 (MP20TO MP 26) 6 TO 10 LANES				

Activity /Phase	Funding Source	Proposed Funding (in $000s) 2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	2011 - 2012
		0	0	0	0	0
PE		15,000	0	0	5,000	0

MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION
TRANSPORTATION IMPROVEMENT PROGRAM
FDOT TURNPIKE DISTRICT

TURNPIKE

MPO Project Num.	Facility/Project Name	Length (miles)	Type of Work	Project Cost ($000s)	Prior Years Cost ($000s)
Agency Project Num.	From/Location To/Location				
	Detailed Project Description				

TP4061041	NW 74TH ST	1	INTERCHANGE (MAJOR)		0
4061041	INTERCHANGE				

Activity /Phase	Funding Source	Proposed Funding (in $000s) 2006 - 2007	2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011
CST		31,798	0	0	0	0

TP4150211	HEFT (SR821) / NW106ST	0.047	TOLL PLAZA		
4150211	SUNPASS ONLY RAMP CONVERSION (MP 34)				

Activity /Phase	Funding Source	Proposed Funding (in $000s) 2006 - 2007	2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011
CST	PKYI	222	0	0	0	0
CST	PKYR	532	0	0	0	0

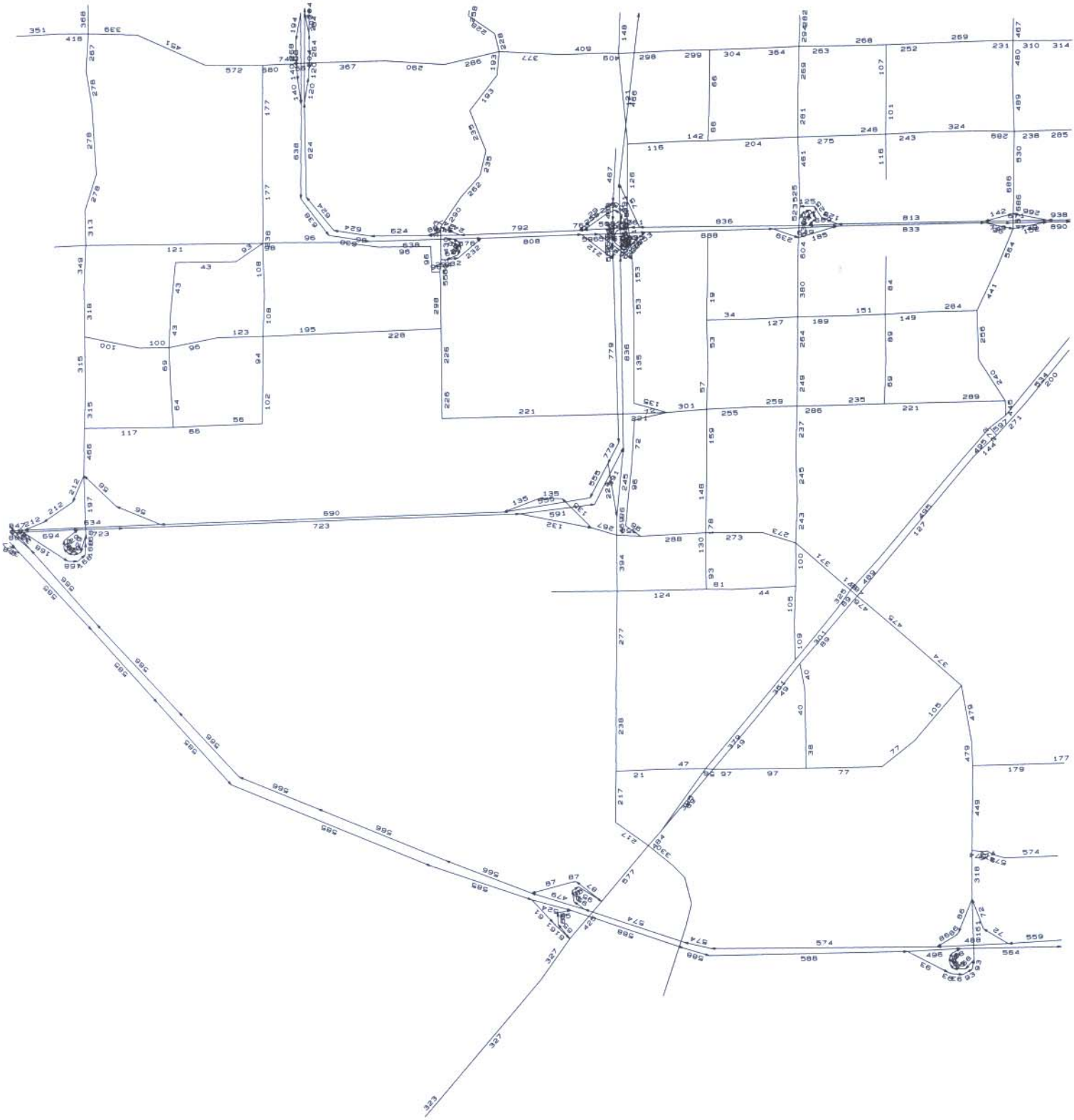
TP4150511	WIDEN HOMESTEAD	8.016	ADD LANES & RECONSTRUCT		1,800
4150511	EXTENSION FL TPK FROM KENDALL TO SR 836-8 LANES				

Activity /Phase	Funding Source	Proposed Funding (in $000s) 2006 - 2007	2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011
ENV		0	0	0	0	834
PE		20,305	0	0	0	0

TP4154622	CONSTRUCT TOLL PLAZA	0.916	TOLL PLAZA		2048
4154622	AT GOLDEN GLADES				

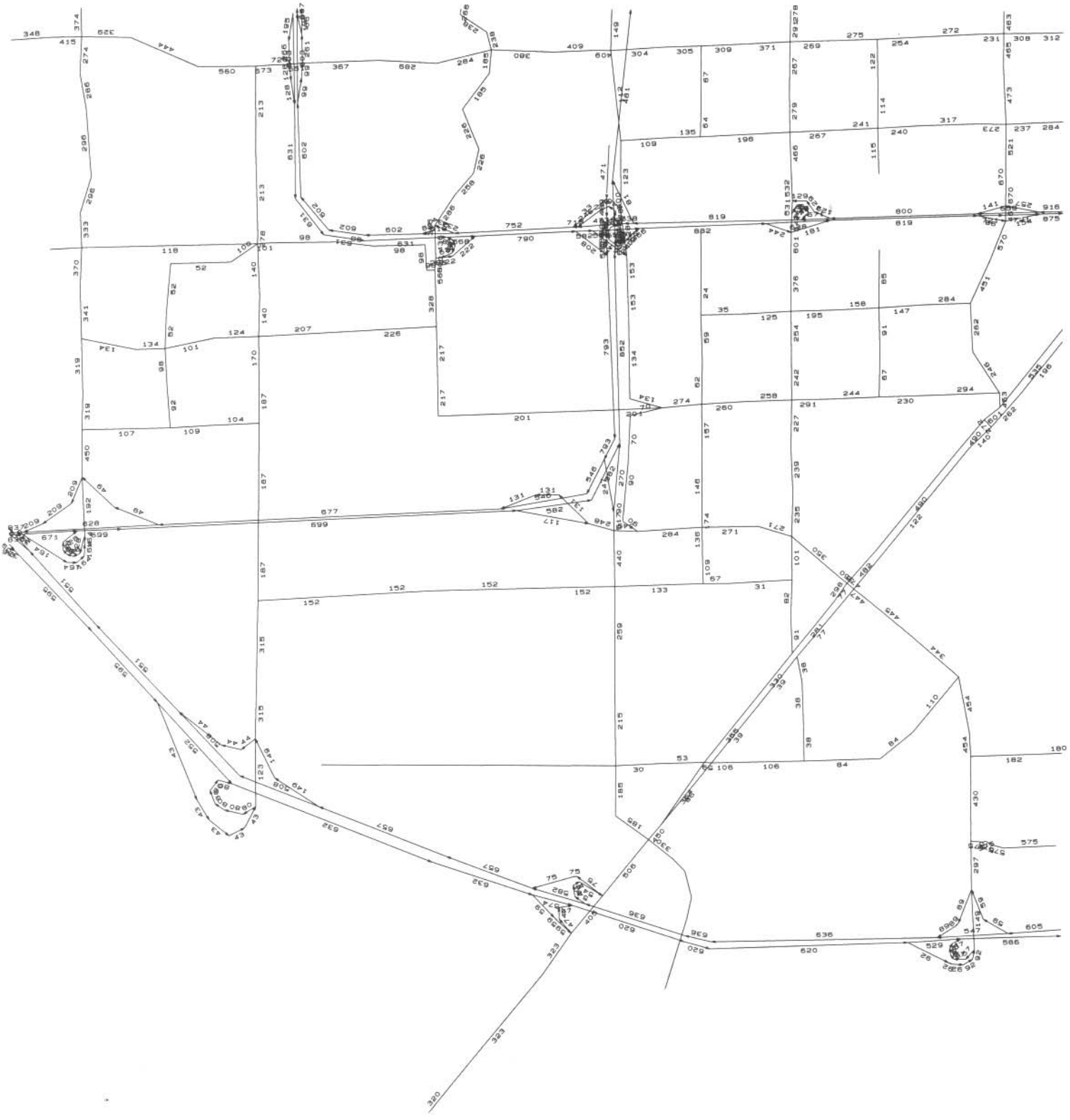
Activity /Phase	Funding Source	Proposed Funding (in $000s) 2006 - 2007	2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011
RRU		0	2,000	0	0	0
INC		0	0	1,000	0	0
CST		0	57,122	0	0	0

APPENDIX 21-4
Traffic Diversions Documentation



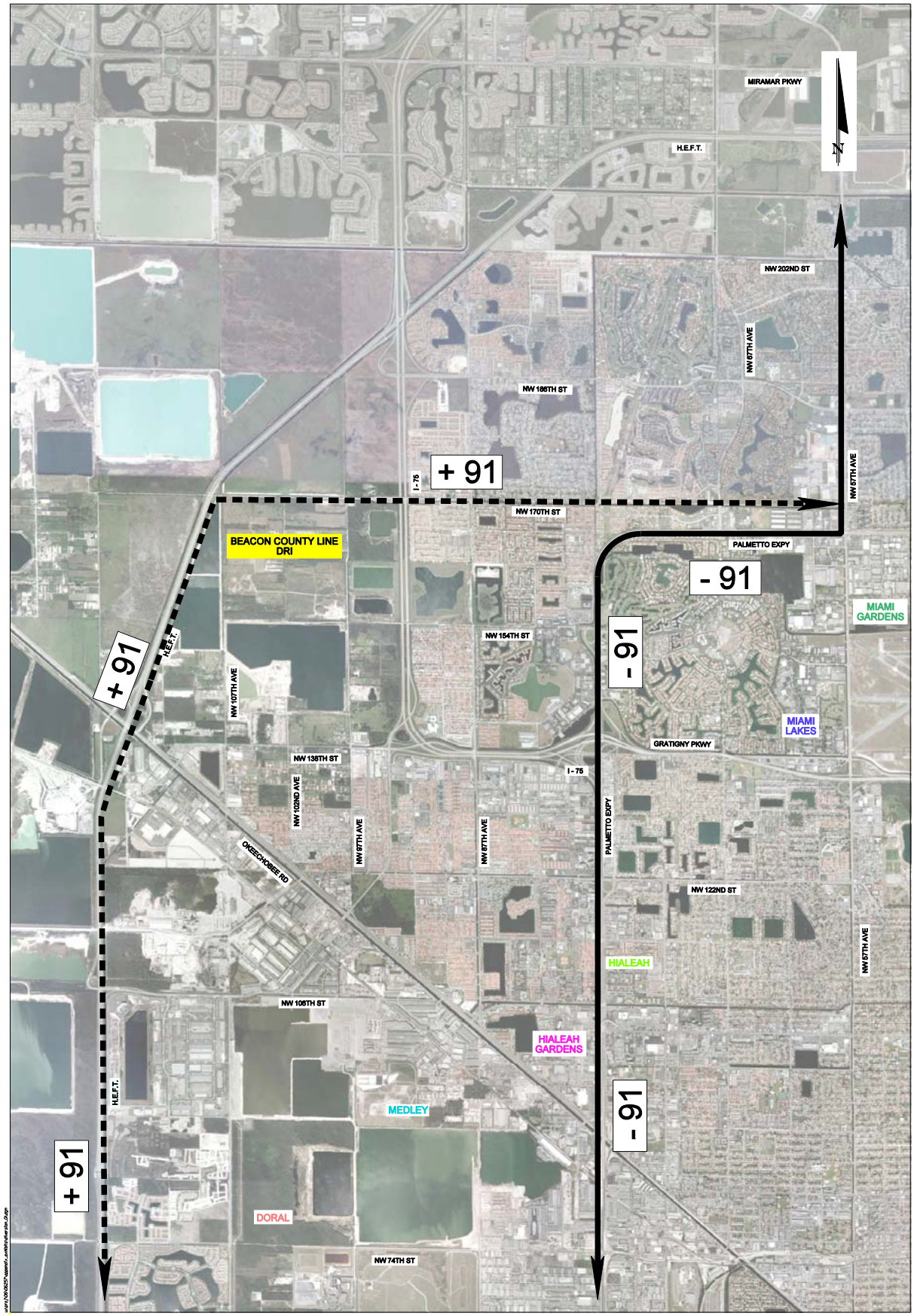
Miami

Beacon County DRI (wo 170 Int wo Proj) - #06257
PLOT HIGHWAY LOAD -- TWO-WAY LINK VOLUMES
(IN HUNDREDS)
07SEP07 10:13:44



Miami

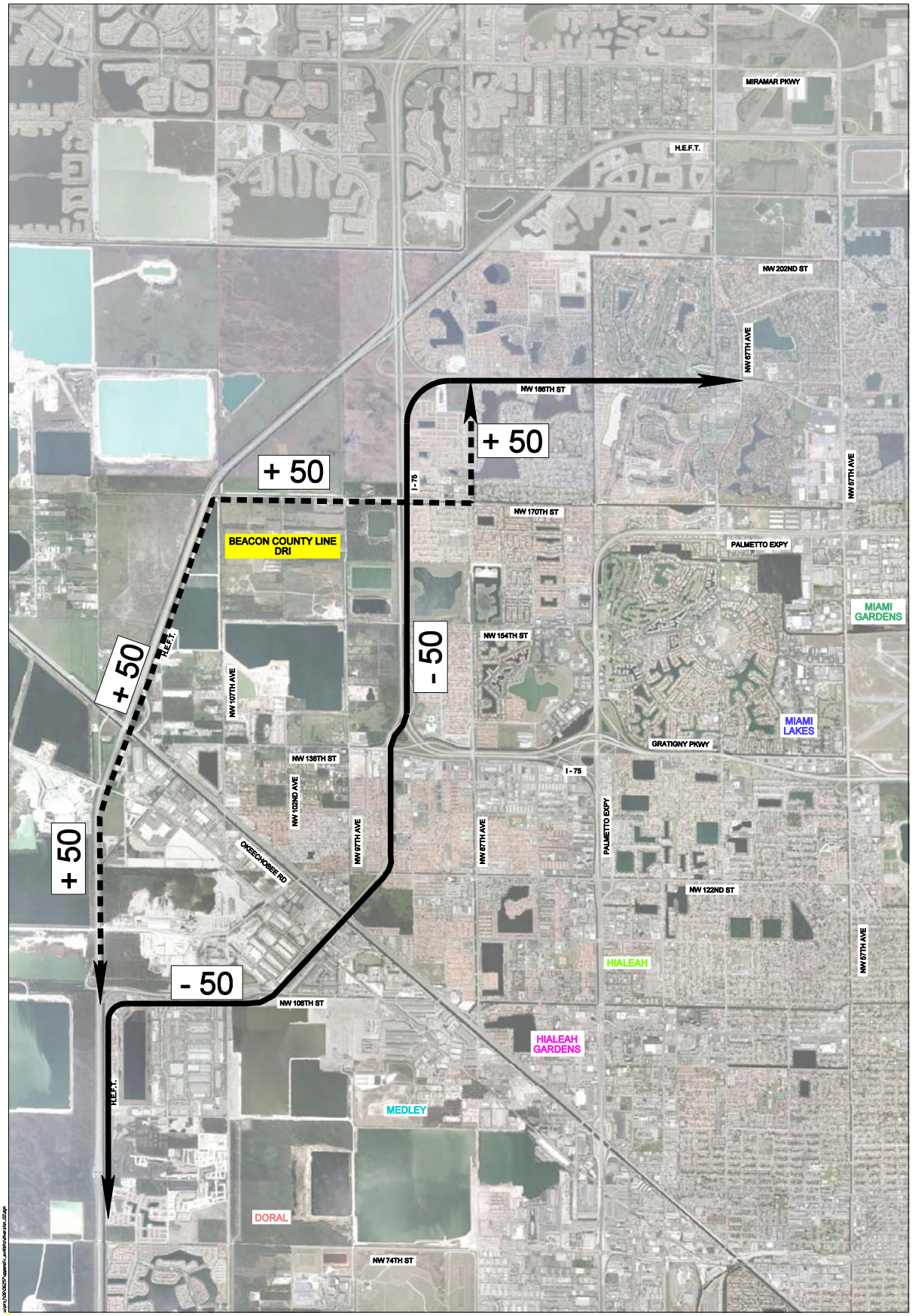
Beacon County DRI (w 170 Int wo Proj) - #06257
PLOT HIGHWAY LOAD -- TWO-WAY LINK VOLUMES
(IN HUNDREDS)
07SEP07 10:13:27



Source: David Plummer & Associates

Diversion 1

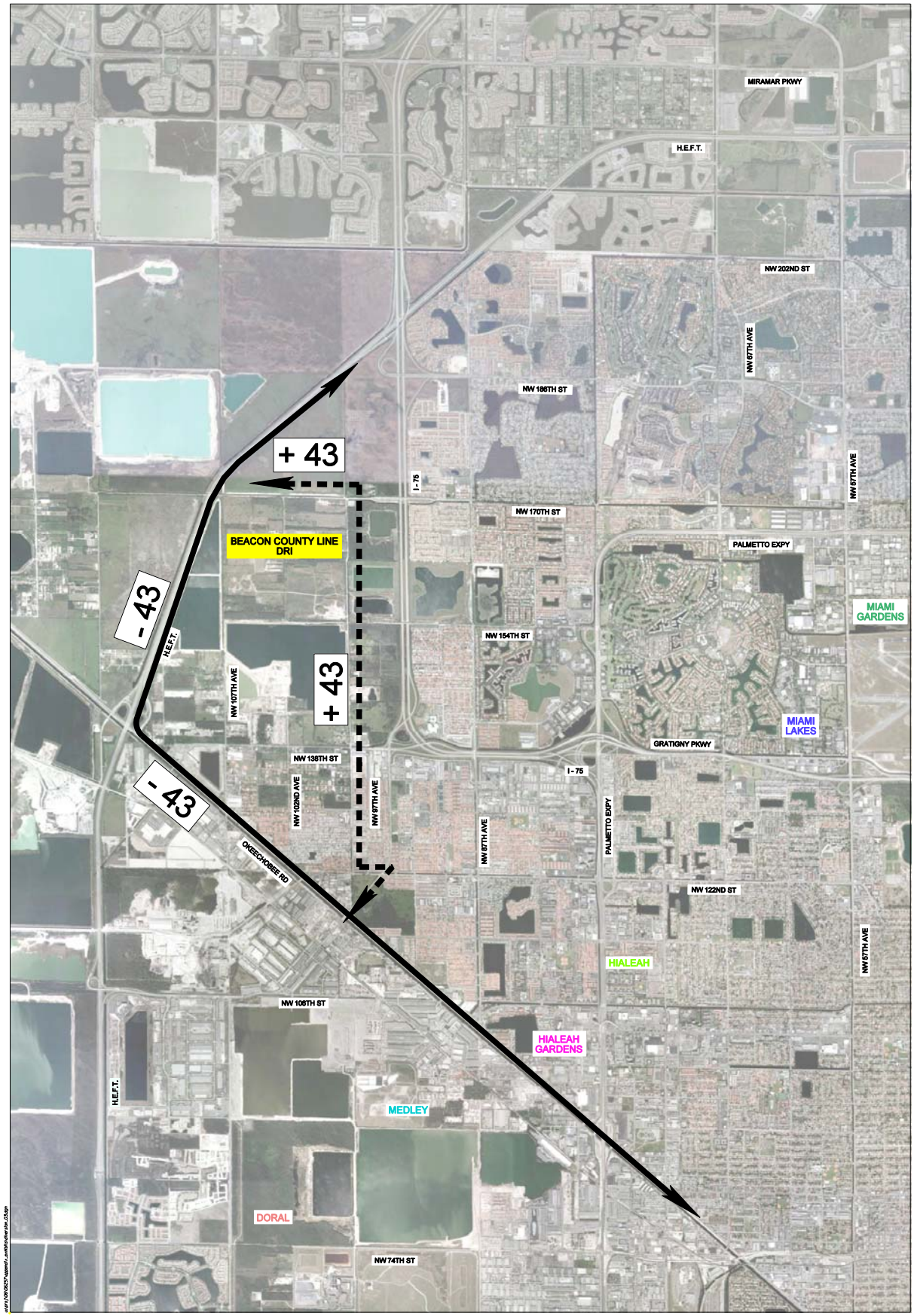
Beacon County Line DRI



Source: David Plummer & Associates

Diversion 2

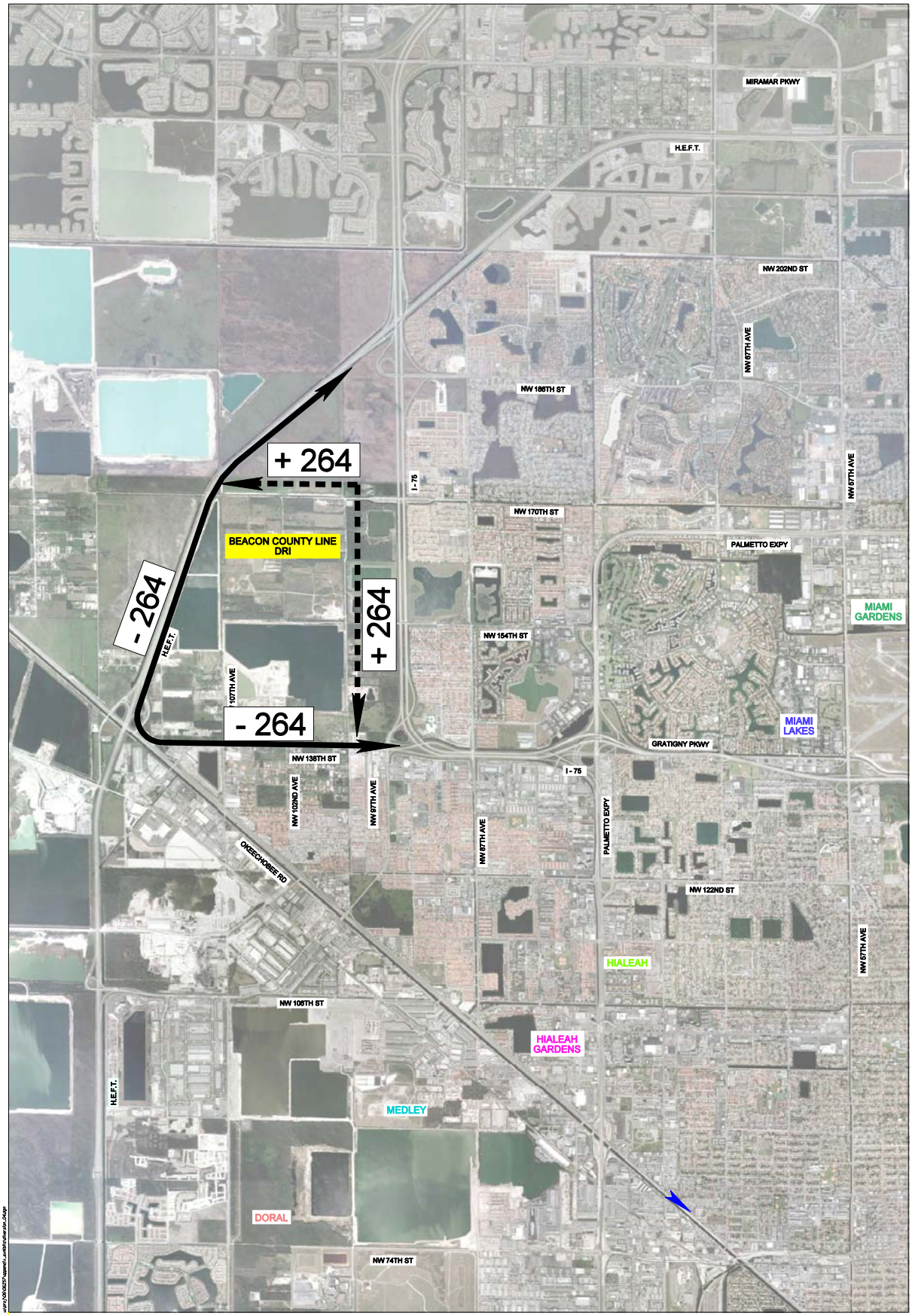
Beacon County Line DRI



Source: David Plummer & Associates

Diversion 3

Beacon County Line DRI

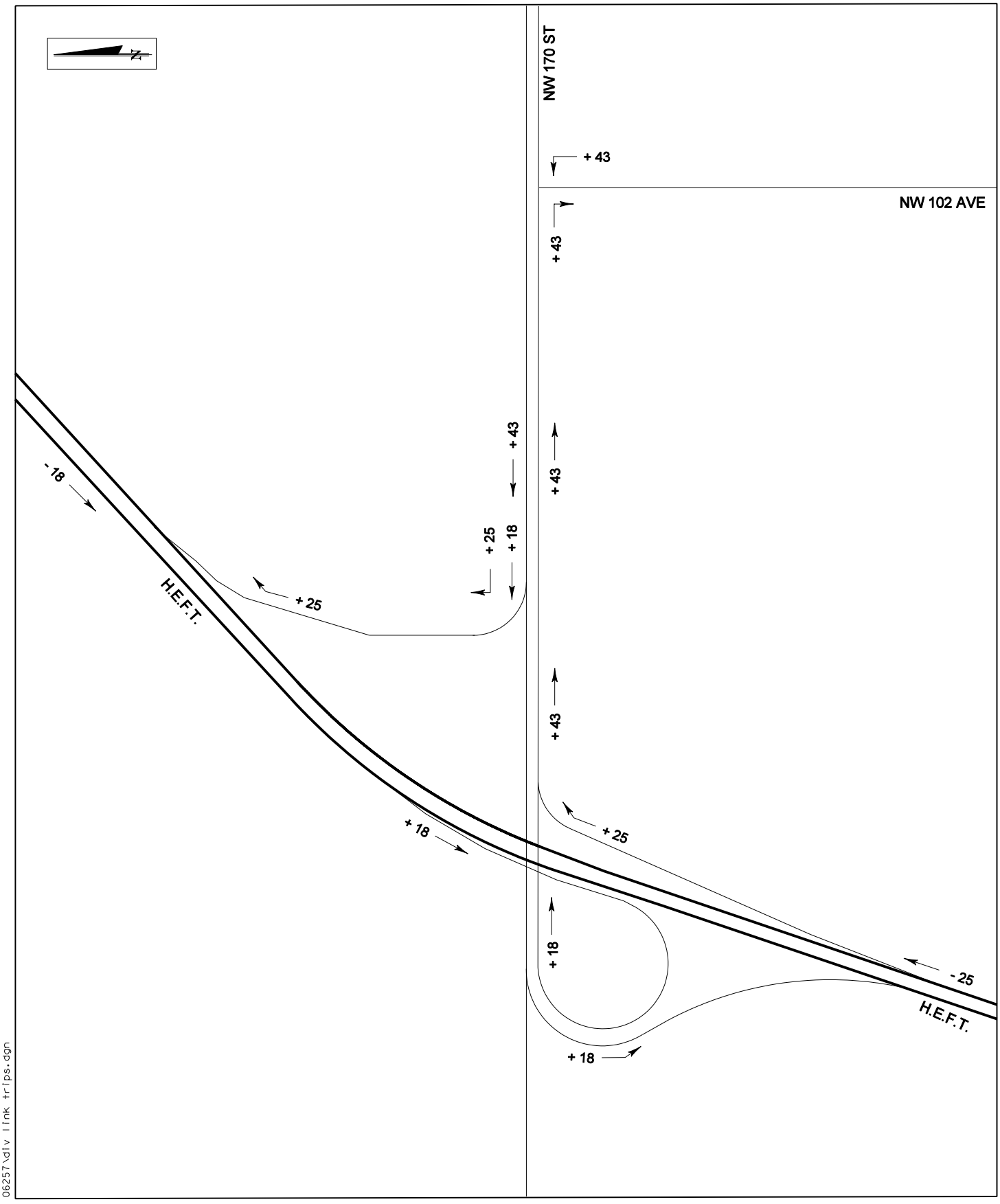


Source: David Plummer & Associates

Diversion 4

Beacon County Line DRI

APPENDIX 21-5
Diverted Linked Trips Assignments



Source: David Plummer & Associates

Diverted Linked Trips

Beacon County Line DRI

APPENDIX 21-6
Beacon Lakes Vehicle Classification Counts

Vehicle Classification Study at Beacon Lakes

Beacon Countyline DRI

Day 1 - July 31, 2007

Time	NW 25 Street East of Beacon Lakes East Driveway			NW 25 Street West of Beacon Lakes West Driveway			Vehicles to/from Beacon Lakes			% Trucks
	Cars	Trucks	Total	Cars	Trucks	Total	Cars	Trucks	Total	
12:00 AM	23	13	***36***	6	7	***13***	17	6	***23***	***26.1%***
1:00 AM	7	11	***18***	6	10	***16***	1	1	***2***	***50.0%***
2:00 AM	9	12	***21***	9	12	***21***	0	0	***0***	***0.0%***
3:00 AM	11	13	***24***	7	11	***18***	4	2	***6***	***33.3%***
4:00 AM	17	15	***32***	16	14	***30***	1	1	***2***	***50.0%***
5:00 AM	38	29	***67***	19	29	***48***	19	0	***19***	***0.0%***
6:00 AM	169	108	***277***	74	92	***166***	95	16	***111***	***14.4%***
7:00 AM	229	163	***392***	79	144	***223***	150	19	***169***	***11.2%***
8:00 AM	264	194	***458***	57	152	***209***	207	42	***249***	***16.9%***
9:00 AM	165	206	***371***	60	157	***217***	105	49	***154***	***31.8%***
10:00 AM	145	208	***353***	79	151	***230***	66	57	***123***	***46.3%***
11:00 AM	138	201	***339***	63	145	***208***	75	56	***131***	***42.7%***
12:00 PM	231	180	***411***	70	138	***208***	161	42	***203***	***20.7%***
1:00 PM	244	182	***426***	87	132	***219***	157	50	***207***	***24.2%***
2:00 PM	218	129	***347***	54	79	***133***	164	50	***214***	***23.4%***
3:00 PM	221	63	***284***	60	31	***91***	161	32	***193***	***16.6%***
4:00 PM	157	84	***241***	69	31	***100***	88	53	***141***	***37.6%***
5:00 PM	206	53	***259***	51	16	***67***	155	37	***192***	***19.3%***
6:00 PM	167	22	***189***	28	4	***32***	139	18	***157***	***11.5%***
7:00 PM	88	15	***103***	18	1	***19***	70	14	***84***	***16.7%***
8:00 PM	55	12	***67***	9	1	***10***	46	11	***57***	***19.3%***
9:00 PM	42	14	***56***	11	2	***13***	31	12	***43***	***27.9%***
10:00 PM	37	8	***45***	8	1	***9***	29	7	***36***	***19.4%***
11:00 PM	39	7	***46***	11	0	***11***	28	7	***35***	***20.0%***
TOTAL			***4,862***			***2,311***		***582***	***2,551***	***22.8%***

Day 2 - August 1, 2007

Time	NW 25 Street East of Beacon Lakes East Driveway			NW 25 Street West of Beacon Lakes West Driveway			Vehicles to/from Beacon Lakes			% Trucks
	Cars	Trucks	Total	Cars	Trucks	Total	Cars	Trucks	Total	
12:00 AM	20	3	***23***	5	1	***6***	15	2	***17***	***11.8%***
1:00 AM	7	0	***7***	4	0	***4***	3	0	***3***	***0.0%***
2:00 AM	7	7	***14***	5	3	***8***	2	4	***6***	***66.7%***
3:00 AM	6	0	***6***	6	0	***6***	0	0	***0***	***0.0%***
4:00 AM	21	0	***21***	16	0	***16***	5	0	***5***	***0.0%***
5:00 AM	42	27	***69***	17	23	***40***	25	4	***29***	***13.8%***
6:00 AM	174	105	***279***	77	101	***178***	97	4	***101***	***4.0%***
7:00 AM	197	185	***382***	62	153	***215***	135	32	***167***	***19.2%***
8:00 AM	229	204	***433***	61	170	***231***	168	34	***202***	***16.8%***
9:00 AM	198	212	***410***	68	161	***229***	130	51	***181***	***28.2%***
10:00 AM	163	225	***388***	60	174	***234***	103	51	***154***	***33.1%***
11:00 AM	165	227	***392***	60	173	***233***	105	54	***159***	***34.0%***
12:00 PM	192	206	***398***	56	155	***211***	136	51	***187***	***27.3%***
1:00 PM	253	191	***444***	69	126	***195***	184	65	***249***	***26.1%***
2:00 PM	241	142	***383***	55	98	***153***	186	44	***230***	***19.1%***
3:00 PM	226	69	***295***	82	33	***115***	144	36	***180***	***20.0%***
4:00 PM	149	71	***220***	40	18	***58***	109	53	***162***	***32.7%***
5:00 PM	195	32	***227***	49	6	***55***	146	26	***172***	***15.1%***
6:00 PM	166	28	***194***	32	11	***43***	134	17	***151***	***11.3%***
7:00 PM	85	19	***104***	13	6	***19***	72	13	***85***	***15.3%***
8:00 PM	55	16	***71***	9	1	***10***	46	15	***61***	***24.6%***
9:00 PM	41	4	***45***	12	2	***14***	29	2	***31***	***6.5%***
10:00 PM	51	13	***64***	11	1	***12***	40	12	***52***	***23.1%***
11:00 PM	21	4	***25***	5	3	***8***	16	1	***17***	***5.9%***
TOTAL			***4,894***			***2,293***		***571***	***2,601***	***22.0%***

Average of the two days

Time	NW 25 Street East of Beacon Lakes East Driveway			NW 25 Street West of Beacon Lakes West Driveway			Vehicles to/from Beacon Lakes			% Trucks
	Cars	Trucks	Total	Cars	Trucks	Total	Cars	Trucks	Total	
12:00 AM	22	8	***30***	6	4	***10***	16	4	***20***	***20.0%***
1:00 AM	7	6	***13***	5	5	***10***	2	1	***3***	***20.0%***
2:00 AM	8	10	***18***	7	8	***15***	1	2	***3***	***66.7%***
3:00 AM	9	7	***15***	7	6	***12***	2	1	***3***	***33.3%***
4:00 AM	19	8	***27***	16	7	***23***	3	1	***4***	***14.3%***
5:00 AM	40	28	***68***	18	26	***44***	22	2	***24***	***8.3%***
6:00 AM	172	107	***278***	76	97	***172***	96	10	***106***	***9.4%***
7:00 AM	213	174	***387***	71	149	***219***	143	26	***168***	***15.2%***
8:00 AM	247	199	***446***	59	161	***220***	188	38	***226***	***16.9%***
9:00 AM	182	209	***391***	64	159	***223***	118	50	***168***	***29.9%***
10:00 AM	154	217	***371***	70	163	***232***	85	54	***139***	***39.0%***
11:00 AM	152	214	***366***	62	159	***221***	90	55	***145***	***37.9%***
12:00 PM	212	193	***405***	63	147	***210***	149	47	***195***	***23.8%***
1:00 PM	249	187	***435***	78	129	***207***	171	58	***228***	***25.2%***
2:00 PM	230	136	***365***	55	89	***143***	175	47	***222***	***21.2%***
3:00 PM	224	66	***290***	71	32	***103***	153	34	***187***	***18.2%***
4:00 PM	153	78	***231***	55	25	***79***	99	53	***152***	***35.0%***
5:00 PM	201	43	***243***	50	11	***61***	151	32	***182***	***17.3%***
6:00 PM	167	25	***192***	30	8	***38***	137	18	***154***	***11.4%***
7:00 PM	87	17	***104***	16	4	***19***	71	14	***85***	***16.0%***
8:00 PM	55	14	***69***	9	1	***10***	46	13	***59***	***22.0%***
9:00 PM	42	9	***51***	12	2	***14***	30	7	***37***	***18.9%***
10:00 PM	44	11	***55***	10	1	***11***	35	10	***44***	***21.6%***
11:00 PM	30	6	***36***	8	2	***10***	22	4	***26***	***15.4%***
TOTAL			***4,878***			***2,302***		***577***	***2,576***	***22.4%***

Adjustment Factor for Heavy Vehicles:

f HV = 1 / (1 + 0.35 (1.5 - 1) = 0.85

As calculated from equation 21-4 in page 21-7 of the HCM 2000

Appendix 21-7
Alternate HEFT Analysis

ALTERNATE HEFT ANALYSIS

Future Traffic Conditions without Project - (weekday, one-way, PM peak)

Beacon Countyline DRI

Roadway	Limits		Direction	# of Lanes	Roadway Type	Municipality	LOS STD	Volume (2018)	Service Volume (1)	V/SV	Meets LOS STD?
	From	To									
HEFT	NW 57 Av (Red Road)	I-75	NB	2 LD	FIHS	Miramar	D	3,824	3,580	1.07	No
			SB	2 LD				2,775	3,580	0.78	Yes
	I-75	NW 170 Street	NB	4 LD	FIHS	Miami-Dade	D	6,832	7,480	0.91	Yes
			SB	4 LD				4,913	7,480	0.66	Yes
	NW 170 Street	Okeechobee Rd/US 27	NB	4 LD	FIHS	Miami-	D	6,949	7,480	0.93	Yes
			SB	4 LD		Dade/Hialeah		4,957	7,480	0.66	Yes
	Okeechobee Rd/US 27	NW 106 Street	NB	4 LD	FIHS	Miami-	D	7,439	7,480	0.99	Yes
			SB	4 LD		Dade/Medley		5,267	7,480	0.70	Yes
	NW 106 Street	NW 74 Street	NB	4 LD	FIHS	Miami-Dade	D	7,899	7,480	1.06	No
			SB	4 LD				5,805	7,480	0.78	Yes

Notes:

(1) Consistent with the adoption of HB 7203, the Service Volumes included in this table include improvements needed to reduce or eliminate existing backlogs.

Source: David Plummer and Associates, Inc.

ALTERNATE HEFT ANALYSIS

Future Traffic Conditions with Project - (weekday, one-way, PM peak)

Beacon Countyline DRI

Roadway	Limits		Direction	# of Lanes	Roadway Type	Municipality	Volume (2018)	LOS STD	Service Volume	V/SV	Meets LOS STD?
	From	To									
HEFT	NW 57 Av (Red Road)	I-75	NB	2 LD	FIHS	Miramar	4,031	D	3,580	1.13	No
			SB	2 LD			2,869		3,580	0.80	Yes
	I-75	NW 170 Street	NB	4 LD	FIHS	Miami-Dade	7,530	D	7,480	1.01	No
			SB	4 LD			5,231		7,480	0.70	Yes
	NW 170 Street	Okeechobee Rd/US 27	NB	4 LD	FIHS	Miami-	7,178	D	7,480	0.96	Yes
			SB	4 LD		Dade/Hialeah	5,460		7,480	0.73	Yes
	Okeechobee Rd/US 27	NW 106 Street	NB	4 LD	FIHS	Miami-	7,668	D	7,480	1.03	No
			SB	4 LD		Dade/Medley	5,770		7,480	0.77	Yes
	NW 106 Street	NW 74 Street	NB	4 LD	FIHS	Miami-Dade	8,118	D	7,480	1.09	No
			SB	4 LD			6,285		7,480	0.84	Yes

Notes:
(1) Consistent with the adoption of HB 7203, the Service Volumes included in this table include improvements needed to reduce or eliminate existing backlogs.

Source: David Plummer and Associates, Inc.

APPENDIX 21-8
Background Growth Rate Calculations

Growth Trend Calculations

Beacon Countyline DRI

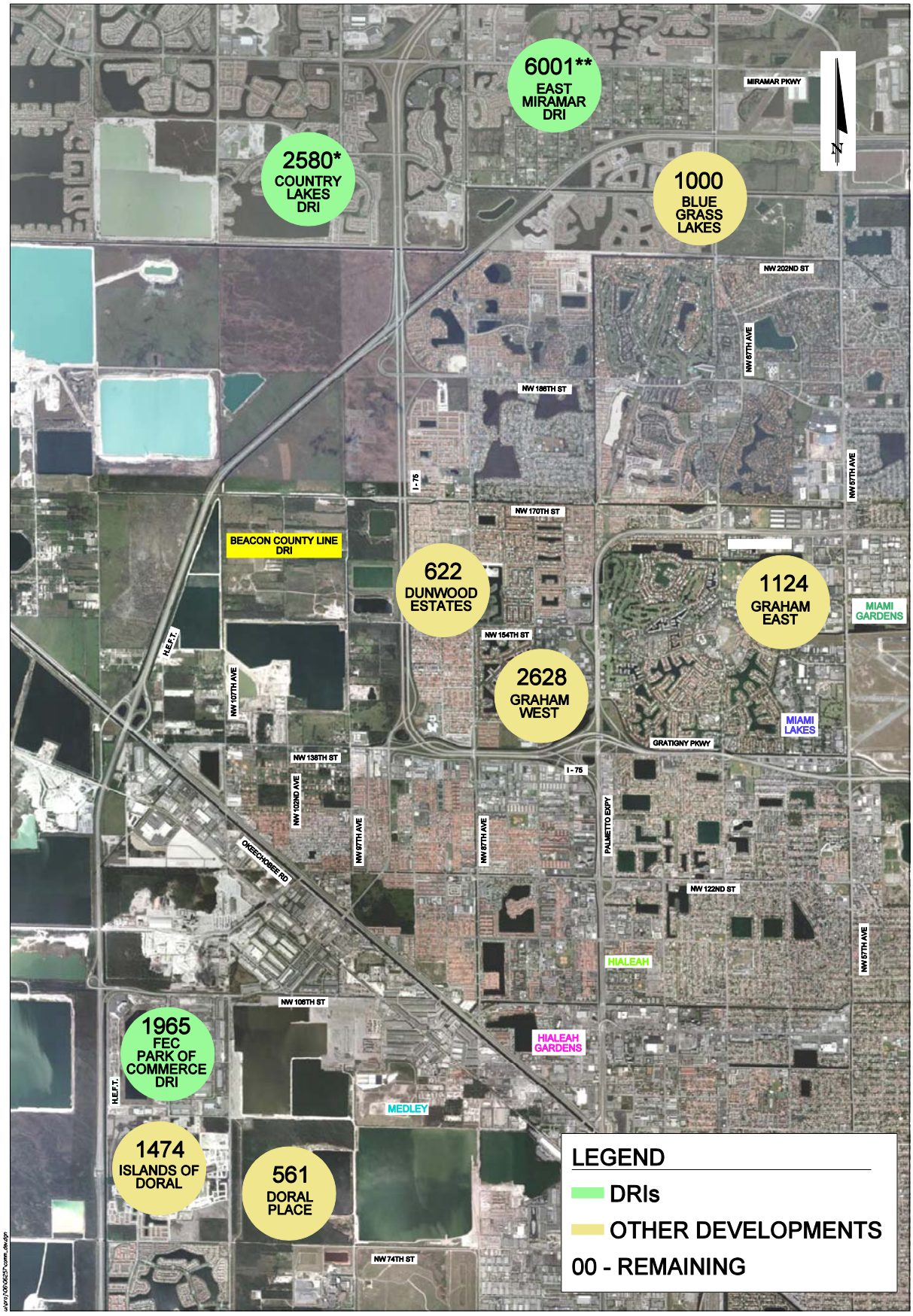
Station	Location	2006	2005	2004	2003	2002	2001
137	SR 826 - W OF NW 67 Avenue	135,313	133,799	135,467	136,326	132,956	102,000
553	Palmetto Expressway - N of Okechobee Rd	170,500	173,000	197,000	203,000	172,000	172,500
573	SR 826 - N OF NW 74 Street	178,500	185,000	206,000	191,000	190,000	189,500
574	SR 826 - N OF NW 103 Street	164,000	158,000	201,500	181,000	177,500	149,000
575	SR 826 - N OF NW 122 Street	157,000	133,000	147,000	169,500	162,500	152,500
576	SR 826 - N OF NW 138 Street	102,500	115,500	138,500	119,000	91,500	95,000
	TOTAL	**907,813**	**898,299**	**1,025,467**	**999,826**	**926,456**	**860,500**
	SR 826 Growth	***1.1%***	***-12.4%***	***2.6%***	***7.9%***	***7.7%***	**1.4%**

Station	Location	2006	2005	2004	2003	2002	2001
2000	I-75 S OF Miramar Parkway	163,000	162,000	157,500	143,500	141,500	128,000
2500	I-75 - W of Palmetto Expressway	112,000	114,000	120,000	107,000	108,000	99,000
2501	I-75 - S of Miami Gardens Drive	108,500	111,000	118,500	102,500	106,500	105,000
2503	I-75 N OF HEFT	146,500	139,500	146,500	138,500	137,500	144,500
	TOTAL	**530,000**	**526,500**	**542,500**	**491,500**	**493,500**	**476,500**
	I-75 Growth	***0.7%***	***-2.9%***	***10.4%***	***-0.4%***	***3.6%***	***2.3%***

Station	Location	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996
2268	HEFT @ Okeechobee Plaza	102,800	99,800	91,300	79,000	73,400	69,600	62,600	53,700	51,300	49,800	59,500
		3.0%	***9.3%***	***15.6%***	***7.6%***	***5.5%***	***11.2%***	***16.6%***	***4.7%***	***3.0%***	***-16.3%***	***6.0%***

Station	Location	2006	2005	2004	2003	2002	2001
7	Okeechobee Rd - NW of HEFT	25,500	27,500	29,500	23,000	22,000	20,400
38	Red Road - N of NW 159 Street	49,000	58,000	59,500	51,000	49,000	47,000
109	Okeechobee Rd - NW of 103 St	39,500	45,000	46,000	40,000	41,500	38,000
136	NW 138 Street - E of W 12 Avenue	17,100	18,900	18,600	17,600	21,500	18,300
324	Red Rd - N of W 21 Street	29,500	25,500	26,500	26,500	28,000	25,000
360	Red Road - S of NW 138 Street	46,500	47,500	54,500	52,000	50,000	47,500
534	NW 74 St - E of 72 Avenue	42,500	43,500	43,500	38,500	40,500	40,500
535	NW 74 St - W of 57 Avenue	41,000	40,000	40,000	40,000	40,000	40,000
536	NW 74 Street - W of Palm Avenue	28,000	37,500	37,500	32,000	34,000	33,500
1190	Red Road - S of NW 173 Drive	53,000	57,500	63,000	53,500	54,500	54,500
1216	NW 103 Street E of W 16 Avenue	57,000	57,000	45,500	51,000	50,500	43,000
1217	NW 103 Street E of W 28 Avenue	21,000	21,800	19,500	16,700	16,000	16,300
2514	Red Road - N of NW 183 Street	45,500	50,000	48,000	48,000	46,500	51,500
2515	NW 57 Avenue - S of County Line	40,500	37,500	42,000	36,500	43,500	33,500
2516	Miami Gardens Drive - N of Red Road	39,000	35,000	45,000	34,500	35,500	37,000
2530	NW 103 St - E of 3rd Av	46,500	52,000	49,500	47,000	49,000	46,500
2536	Okeechobee Rd - N of HEFT	24,500	24,000	26,000	26,000	25,000	23,500
2537	Okeechobee Rd - NW of SR 826	45,000	45,000	39,500	39,500	42,000	47,000
2551	Red Road - N of Gratigny Drive	32,500	32,500	37,000	33,500	37,000	36,000
5252	Okeechobee Rd - SE of W 12 Av	20,400	29,000	23,000	32,500	31,000	30,000
5322	Miramar Parkway - E of I-75	47,500	43,500	43,000	40,000	36,000	36,000
5371	Red Road - S of W 42 Street	42,500	39,000	38,500	39,000	40,500	42,500
5372	Red Road - N of W 49 Street	36,500	35,000	34,000	33,000	36,500	38,500
	TOTAL	**870,000**	**902,200**	**909,100**	**851,300**	**870,000**	**846,000**
	Surface Streets Growth	***-3.6%***	***-0.8%***	***6.8%***	***-2.1%***	***2.8%***	***0.6%***

APPENDIX 21-9
Committed Developments Documentation



Committed Developments

Source: David Plummer & Associates

Committed Developments Trip Generation

Beacon Countyline DRI

Development	Location	Land Use	Approved	Built	Remaining		PM Peak Hour Tgen*	
							In	Out
East Miramar Areawide DRI (1)	1		10,538 PM Trips	4,537 PM Trips	6,001 PM Trips		1,980	4,021
		Retail	1,836,400 SF	114,081 SF	1,722,319 SF			
		Office	1,450,000 SF	92,758 SF	1,357,242 SF			
		Industrial	9,449,000 SF	3,634,126 SF	5,814,874 SF			
		Single Family	1,640 DU	781 DU	859 DU			
		Multi Family	5,820 DU	2,770 DU	3,050 DU			
		Hotel	200 Rooms	0 Rooms	200 Rooms			
FEC Park of Commerce DRI (2)	2	Warehouse	5,550,000 SF	3,284,962 SF	2,265,038 SF	Approved (ITE)	1,366	3,065
		Office	1,109,220 SF	579,037 SF	530,183 SF	Built (ITE)	555	1,564
		Retail	3,634,126 SF	43,600 SF	3,590,526 SF	Internal	15%	15%
		Hotel	250 Rooms	0 Rooms	250 Rooms	Remaining	689	1,276
Country Lakes West DRI (3)	3	Trips	7,005 PM Trips	3,873 PM Trips	3,132 PM Trips	Remaining	814	2,318
		Retail	3,634,126 SF	43,600 SF	3,590,526 SF		26.0%	74.0%
		Lt Industrial	5,550,000 SF	3,284,962 SF	2,265,038 SF			
		Office	1,109,220 SF	579,037 SF	530,183 SF			
		Hotel	250 Rooms	0 Rooms	250 Rooms			
		Single Family	1,640 DU	781 DU	859 DU			
		Multi Family	5,820 DU	2,770 DU	3,050 DU			
Blue Grass Lakes (4)	4	Single Family	1,254 DU	80%	20%	Remaining	528	475
		Retail	140,000 SF	80%	20%			
Dunwoody Estates (5)	5	Residential/ Commercial	NA				417	205
Graham Vested Development East (5)	6	Mixed Use	NA				753	371
Graham Vested Development West (5)	7	Mixed Use	NA				1,761	867
Doral Place (6)	8	Condominium	160 DU				56	27
		Condominium	690 DU				241	117
		Single Family	119 DU				76	44
Islands of Doral (6)	9	Townhouse	2,074 DU				726	353
		Condominium	580 DU				203	99
		Single Family	92 DU				59	34

* PM Peak Hour trip generation for the approved unbuilt portion of the development.

(1) Source: October 16, 2006 Annual Report. The largest portion of this site is located north of Miramar Parkway (outside the study area). Only 1/2 of the trip generation oif the remaining development was used for this analysis

(2) Source: October 4, 2006 Annual Report.

(3) Source: November 1, 2005 Annual Report.

(4) The originally approved Blue Grass Lakes DRI was abandoned and an amended Development Order dated 11/7/01 amended the uses to those refected in this table.

(5) Source: Town of Miami Lakes, January 2006, Concurrency Management Report,

(6) City of Doral Website.

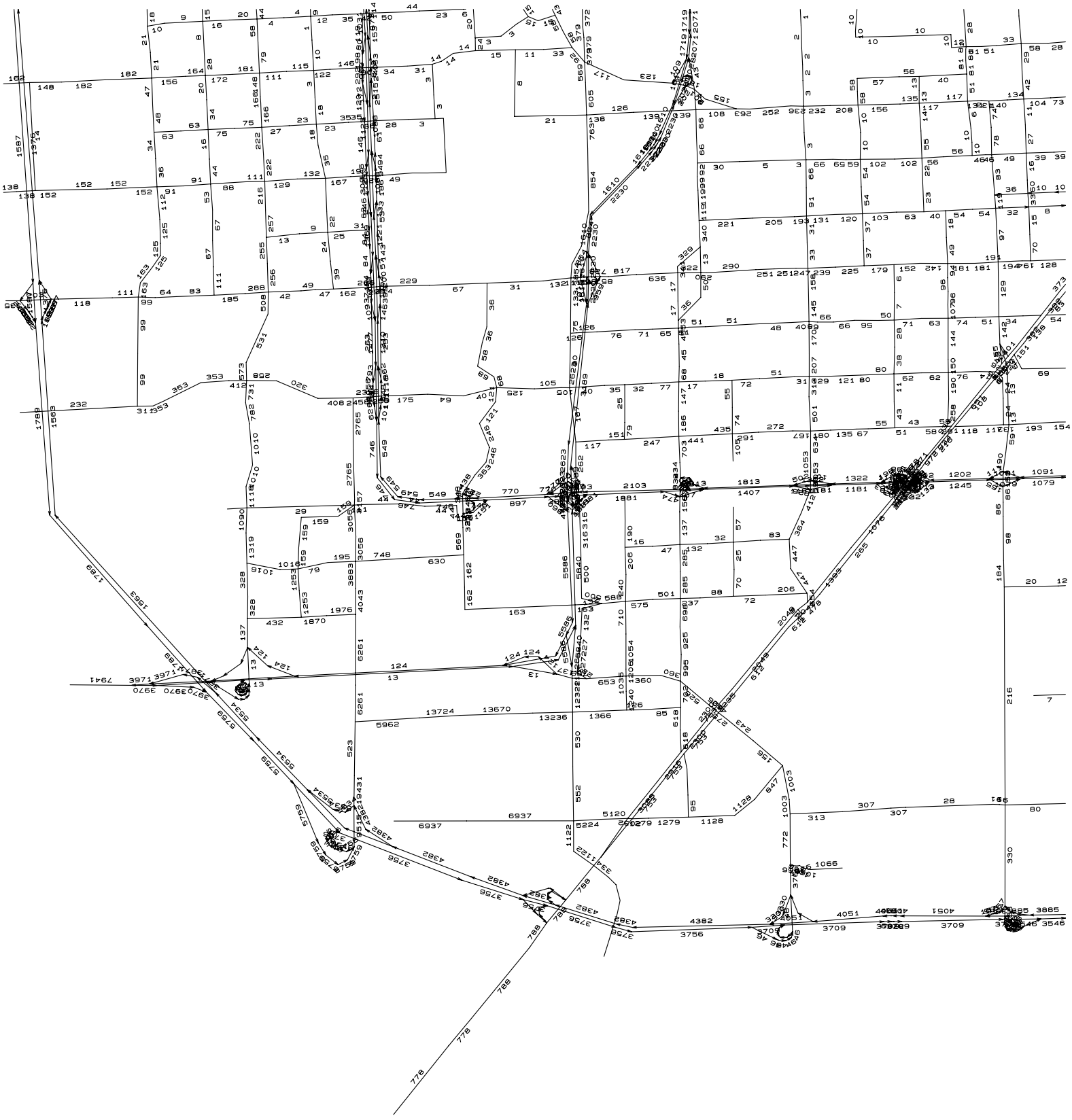
Committed Developments Assignment
Beacon Countyline DRI

Roadway	Limits		Direction	Islands at Doral	Doral Place	Dunwoody Estates	Graham Vested Dev	Graham Vested Dev	Blue Grass Lakes	Country Lakes West DRI	East Miramar Areawide DRI	FEC Park of Industry & Commerce DRI
	From	To										
Palmetto Expressway (SR 826)	Red Road/NW 57 Av	NW 67 Av/Ludlam Rd	EB	32	13	30	67	165	32	9	20	179
			WB	64	25	60	136	335	36	3	10	96
	NW 67 Av/Ludlam Rd	Miami Lakes Drive	NEB	32	13	37	0	165	54	0	0	179
			SWB	64	25	75	0	335	48	0	0	96
	Miami Lakes Drive	I-75	NB	38	16	98	230	87	54	0	0	179
			SB	77	31	48	114	176	48	0	0	96
	I-75	W 68 St/NW 122 Street	NB	63	37	75	136	352	31	95	10	0
			SB	128	73	37	67	173	28	271	20	0
	W 68 St/NW 122 Street	W 49 Street/NW 103 St	NB	69	39	71	129	317	27	87	10	0
			SB	141	78	35	63	156	24	248	20	0
	W 49 Street/NW 103 St	Okeechobee Rd/US 27	NB	76	42	64	129	282	22	79	10	0
			SB	154	84	31	63	139	20	225	20	0
	Okeechobee Rd/US 27	NW 74 Street	NB	76	42	60	108	247	13	71	10	87
			SB	154	84	30	53	121	12	202	20	161
NW 87 Avenue / West 28 Avenue	Miami Gardens Drive	NW 170 Street	NB	5	0	39	18	49	8	7	0	10
			SB	10	0	79	37	99	8	21	0	5
	NW 170 Street	Miami Lakes Drive	NB	0	0	53	30	86	7	7	0	0
			SB	0	0	108	60	174	7	19	0	0
	Miami Lakes Drive	I-75	NB	0	0	58	0	0	6	6	0	0
			SB	0	0	29	0	0	6	17	0	0
I-75	Miramar Parkway	HEFT	NB	9	6	37	34	61	0	347	20	71
			SB	19	11	75	69	123	0	987	40	39
	HEFT	NW 186 Street	NB	0	4	37	34	61	0	319	20	0
			SB	0	8	75	69	123	0	909	40	0
	NW 186 Street	NW 138 Street	NB	0	4	0	10	0	13	188	20	0
			SB	0	8	0	20	0	11	535	40	0
	NW 138 Street	SR 826	EB	0	8	0	95	211	0	503	40	259
			WB	0	4	0	47	104	0	177	20	140
NW 97 Avenue	NW 170 Street	NW 154 Street	NB	0	0	0	0	0	0	0	0	0
			SB	0	0	0	0	0	0	0	0	0
	NW 154 Street	NW 138 Street	NB	0	0	0	0	0	0	0	0	0
			SB	0	0	0	0	0	0	0	0	0
	NW 138 Street	W 68 Street	NB	0	0	0	0	0	0	0	0	0
			SB	0	0	0	0	0	0	0	0	0
NW 107 Avenue	NW 166 Street	NW 162 Street	NB	0	0	0	0	0	0	0	0	0
			SB	0	0	0	0	0	0	0	0	0
	NW 162 Street	NW 154 Street	NB	0	0	0	0	0	0	0	0	0
			SB	0	0	0	0	0	0	0	0	0
	NW 154 Street	NW 138 Street	NB	0	0	0	0	0	0	0	0	0
			SB	0	0	0	0	0	0	0	0	0
	NW 138 Street	Okeechobee Rd/US 27	NB	0	0	0	0	0	0	0	0	0
			SB	0	0	0	0	0	0	0	0	0
HEFT	NW 57 Av (Red Road)	I-75	NB	19	3	8	6	23	0	0	63	153
			SB	40	7	16	12	46	0	0	129	83
	I-75	NW 170 Street	NB	34	5	8	6	23	0	28	63	255
			SB	69	10	16	12	46	0	79	129	138
	NW 170 Street	Okeechobee Rd/US 27	NB	46	5	0	0	0	24	28	63	287
			SB	94	10	0	0	0	21	79	129	155
	Okeechobee Rd/US 27	NW 106 Street	NB	49	6	0	8	86	24	24	59	293
			SB	99	12	0	4	42	21	70	121	158
	NW 106 Street	NW 74 Street	NB	49	6	19	12	134	32	24	59	158
			SB	99	12	9	6	66	26	70	121	293

Committed Developments Assignment
Beacon Countyline DRI

Roadway	Limits		Direction	Islands at Doral	Doral Place	Dunwoody Estates	Graham Vested Dev	Graham Vested Dev	Blue Grass Lakes	Country Lakes West DRI	East Miramar Areawide DRI	FEC Park of Industry & Commerce DRI
	From	To										
NW 170 Street	HEFT	NW 97 Avenue	EB	12	0	16	12	46	24	0	0	31
			WB	25	0	8	6	23	21	0	0	17
	NW 97 Avenue	I-75	EB	9	0	17	14	49	26	0	0	30
			WB	18	0	8	7	24	24	0	0	16
	I-75	NW 87 Avenue	EB	8	0	0	16	56	29	0	0	29
			WB	16	0	0	8	28	26	0	0	16
	NW 87 Avenue	NW 77 Avenue	EB	6	0	0	0	0	0	0	0	0
			WB	13	0	0	0	0	0	0	0	0
	NW 77 Avenue	NW 67 Avenue	EB	5	0	0	0	0	0	0	0	0
			WB	11	0	0	0	0	0	0	0	0
NW 138 Street	Okeechobee Rd/US 27	NW 107 Avenue	EB	0	0	0	18	104	4	0	0	0
			WB	0	0	0	9	51	4	0	0	0
	NW 107 Avenue	NW 97 Avenue	EB	0	0	0	18	106	4	0	0	0
			WB	0	0	0	9	52	4	0	0	0
	NW 97 Avenue	Beacon Station Blvd	EB	0	0	0	21	113	5	0	0	0
			WB	0	0	0	10	56	5	0	0	0
NW 130 Street (W 76 Street)	NW 97 Av	Beacon Station Blvd	EB	0	0	0	0	0	0	0	0	0
			WB	0	0	0	0	0	0	0	0	0
	Beacon Station Blvd	NW 87 Av	EB	0	0	0	0	0	0	0	0	0
			WB	0	0	0	0	0	0	0	0	0
	NW 87 Av	W of SR 826	EB	0	0	0	0	0	0	0	0	0
			WB	0	0	0	0	0	0	0	0	0
Okeechobee Rd/US 27	West	HEFT	NWB	0	0	5	5	4	2	0	8	3
			SEB	0	0	3	2	2	2	0	4	6
	HEFT	NW 138 Street	NWB	0	0	6	6	55	3	0	0	0
			SEB	0	0	3	3	27	2	0	0	0
	NW 138 Street	Beacon Station Blvd	NWB	0	0	6	0	0	0	0	0	0
			SEB	0	0	3	0	0	0	0	0	0
	Beacon Station Blvd	NW 87 Avenue	NWB	0	0	0	0	0	0	10	0	191
			SEB	0	0	0	0	0	0	29	0	103
	NW 87 Avenue	SR 826	NWB	0	0	4	0	0	2	9	0	166
			SEB	0	0	9	0	0	2	26	0	90
	SR 826	NW 74 St	NWB	0	0	4	0	0	2	0	0	14
			SEB	0	0	8	0	0	2	0	0	8
West Okeechobee Rd / Frontage Road	US 27/NW 138 Street	NW 107 Avenue	NWB	0	2	0	0	0	0	0	0	0
			SEB	0	1	0	0	0	0	0	0	0
	NW 107 Avenue	Hialeah Gardens Blvd	NWB	0	0	0	0	0	0	0	0	0
			SEB	0	0	0	0	0	0	0	0	0
	Hialeah Gardens Blvd	NW 87 Avenue	NWB	0	0	0	0	0	0	0	0	0
			SEB	0	0	0	0	0	0	0	0	0
	NW 87 Avenue	NW 77 Avenue	NWB	0	0	0	0	0	0	0	0	0
			SEB	0	0	0	0	0	0	0	0	0
Gratigny Expressway	SR 826	Red Road/W 4 Av	EB	25	17	11	0	217	20	232	40	86
			WB	51	34	23	0	440	22	81	20	47
W 68 Street/NW 122 Street	Okeechobee Road	NW 97 Avenue	EB	0	0	0	2	0	0	0	0	0
			WB	0	0	0	1	0	0	0	0	0
	NW 97 Avenue	NW 87 Av / W 28 Av	EB	0	0	0	5	0	0	0	0	45
			WB	0	0	0	2	0	0	0	0	24
	NW 87 Av / W 28 Av	SR 826	EB	0	0	3	5	0	0	0	0	38
			WB	0	0	7	3	0	0	0	0	21

Appendix 21-10
Model Outputs



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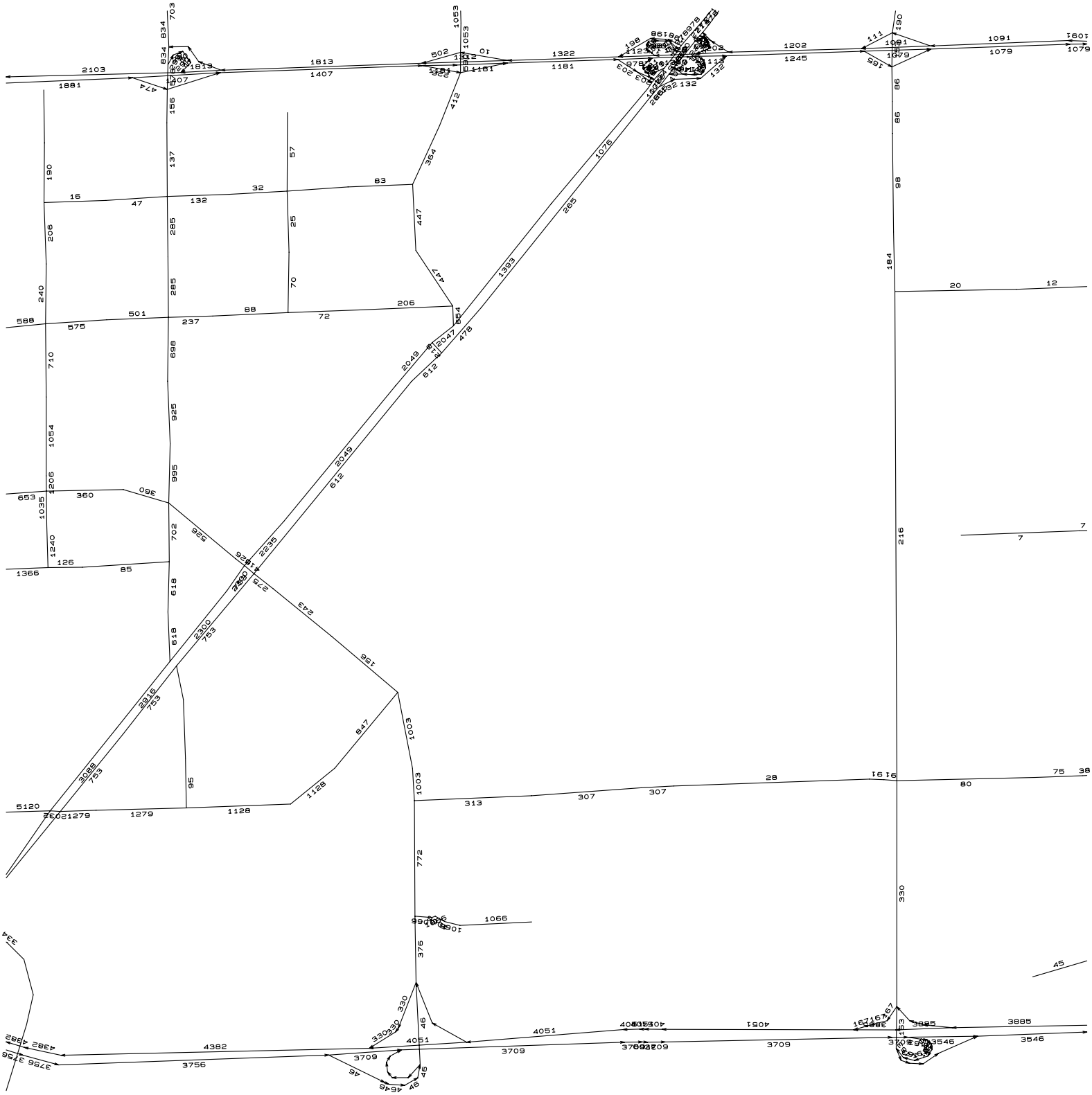

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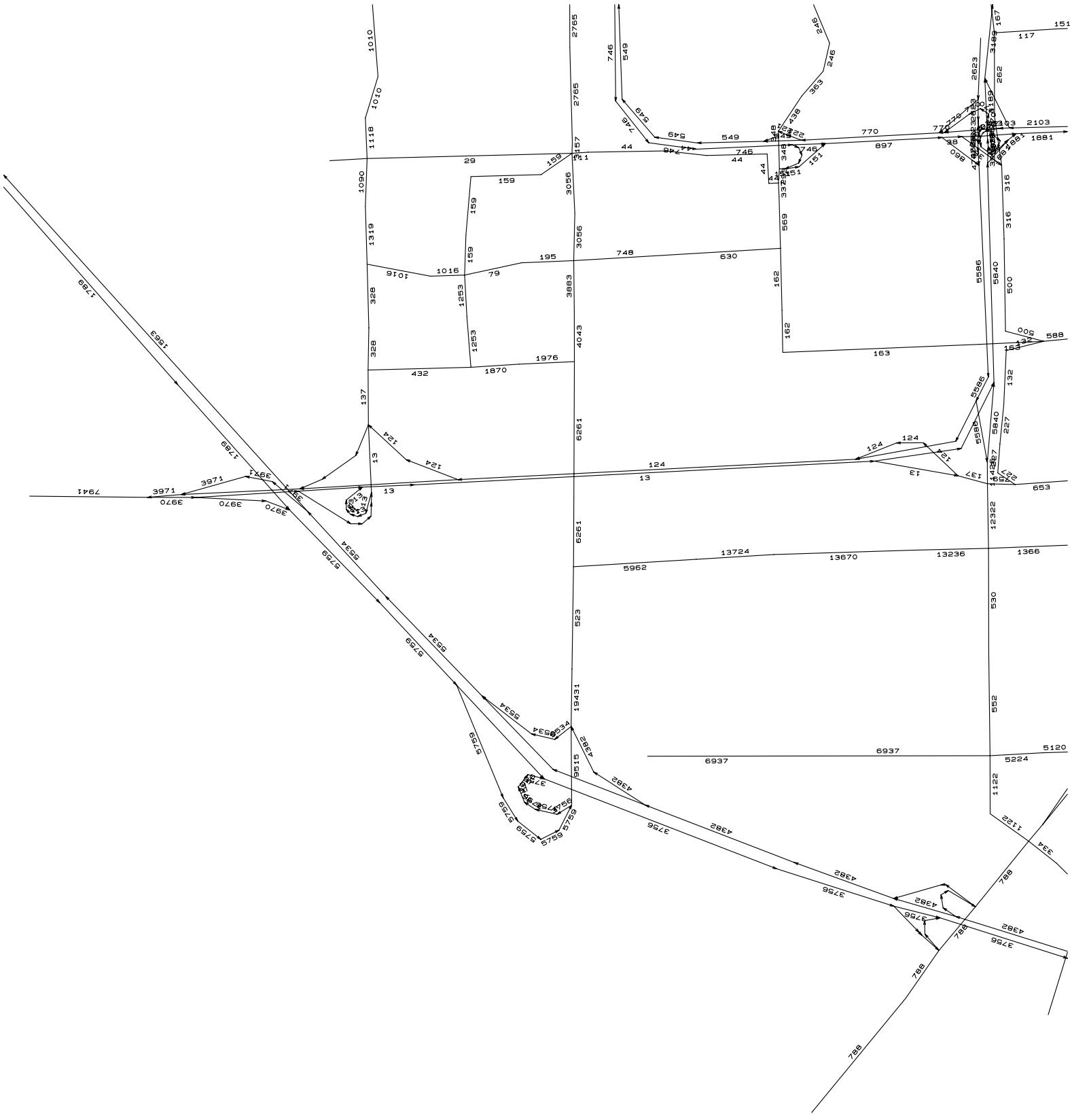

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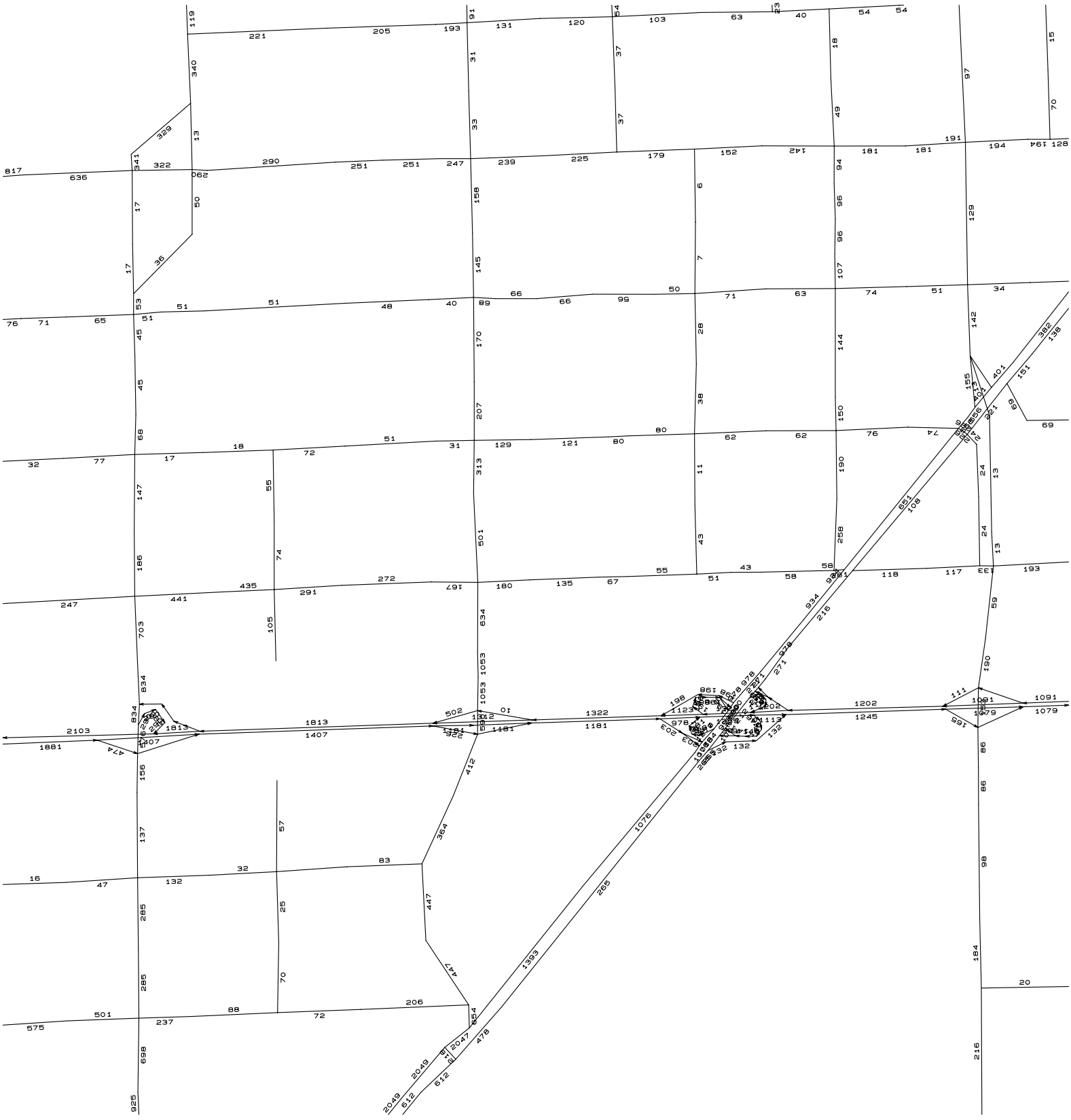

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PLOT HIGHWAY LOAD -- SELZONE TWO-WAY LINK VOLUMES

03OCT07 10:36:24

Appendix 21-11
Broward County Project Trip Assignment

Broward Ramp Counts

Beacon County DRI

NB I-75 to EB Miramar Parkway Off-Ramp

Time	31-Jul-07					1-Aug-07					Average		
	NB		SB		Total	NB		SB		Total	NB	SB	Total
	Raw	Adjusted	Raw	Adjusted		Raw	Adjusted	Raw	Adjusted				
4:00 PM	147	159	0	0	159	193	208	0	0	208	184	0	184
4:15 PM	171	185	0	0	185	166	179	0	0	179	182	0	182
4:30 PM	153	165	0	0	165	180	194	0	0	194	180	0	180
4:45 PM	184	199	0	0	199	219	237	0	0	237	218	0	218
5:00 PM	166	179	0	0	179	190	205	0	0	205	192	0	192
5:15 PM	207	224	0	0	224	287	310	0	0	310	267	0	267
5:30 PM	230	248	0	0	248	226	244	0	0	244	246	0	246
5:45 PM	238	257	0	0	257	219	237	0	0	237	247	0	247
Pk Hr Vol	**841**	**908**	**0**	**0**	**908**	**922**	**996**	**0**	**0**	**996**	**952**	**0**	**952**

Seasonal Factor = 1.08

NB I-75 to WB Miramar Parkway Off-Ramp

Time	14-Aug-07					15-Aug-07					Average		
	NB		SB		Total	NB		SB		Total	NB	SB	Total
	Raw	Adjusted	Raw	Adjusted		Raw	Adjusted	Raw	Adjusted				
4:00 PM	247	267	0	0	0	274	296	0	0	296	281	0	281
4:15 PM	332	359	0	0	0	314	339	0	0	339	349	0	349
4:30 PM	311	336	0	0	0	328	354	0	0	354	345	0	345
4:45 PM	307	332	0	0	0	351	379	0	0	379	355	0	355
5:00 PM	350	378	0	0	0	344	372	0	0	372	375	0	375
5:15 PM	369	399	0	0	0	422	456	0	0	456	427	0	427
5:30 PM	387	418	0	0	0	363	392	0	0	392	405	0	405
5:45 PM	355	383	0	0	0	365	394	0	0	394	389	0	389
Pk Hr Vol	**1,461**	**1,578**	**0**	**0**	**0**	**1,494**	**1,614**	**0**	**0**	**1,614**	**1,596**	**0**	**1,596**

Seasonal Factor = 1.08

Project Assignment to Miramar Parkway Ramps

Beacon Countyline DRI

Movement	Existing (2007) Conditions		NB Project Volume from	NB Project Volume	% Outbound Assignment	SB Project Volume
	Volume	% of Mainline				
Mainline NB Volume	7,527	---	491	---	17.2%	---
NB I-75 to EB Miramar Off-Ramp Volume	952	12.6%	---	62	2.2%	---
SB I-75 from Miramar On-Ramp from the east	---	---	---	---	---	28
NB I-75 to WB Miramar Off-Ramp Volume	1,596	21.2%	---	104	3.6%	---
SB I-75 from Miramar On-Ramp from the west	---	---	---	---	---	48
			Outbound Project Volume:	2,862	Inbound Project Volume:	1,305

Appendix 21-12
Project Consumption Calculations

Project Traffic Assignment (weekday, one-way, PM peak)
Beacon Countyline DRI

Roadway	Limits		Direction	# of Lanes	Service Volume (1)	Net New External Project	
	From	To				Project Traffic	% Consumption
Red Road / W 4 Avenue / NW 57 Avenue / SR 823	Miramar Parkway	HEFT	NB	3LD	2,684	21	0.6%
			SB	3LD	2,684	9	
	HEFT	County Line	NB	3LD	2,684	7	0.2%
			SB	3LD	2,684	3	
	County Line	Honey Hill Drive	NB	3LD	2,570	7	0.2%
			SB	3LD	2,570	3	
	Honey Hill Drive	Miami Gardens Drive	NB	3LD	2,570	8	0.2%
			SB	3LD	2,570	4	
	Miami Gardens Drive	SR 826	NB	3LD	2,570	6	0.2%
			SB	3LD	2,570	3	
	SR 826	Miami Lakes Drive	NB	3LD	2,570	9	0.3%
			SB	3LD	2,570	4	
	Miami Lakes Drive	Gratigny Parkway	NB	3LD	2,570	5	0.1%
			SB	3LD	2,570	2	
	Gratigny Parkway	W 65 Street/Gratigny Dr	NB	3 LD	2,710	22	1.3%
			SB	3 LD	2,710	48	
	W 65 Street/Gratigny Dr	W 49 Street/NW 103 St	NB	2LD	1,800	8	0.7%
			SB	2LD	1,800	17	
	W 49 Street/NW 103 St	W 25 Street/NW 79 St	NB	3LD	2,710	5	0.3%
			SB	3LD	2,710	12	
Flamingo Road / W 12 Avenue / NW 67 Avenue / Ludlam Road	Miramar Parkway	County Line	NWB	2LD	1,620	20	0.9%
			SEB	2LD	1,620	9	
	County Line	Miami Gardens Drive	NWB	3LD	2,450	22	0.7%
			SEB	3LD	2,450	10	
	Miami Gardens Drive	SR 826	NWB	3LD	3,096	72	1.7%
			SEB	3LD	3,096	33	
	SR 826	Miami Lakes Drive	NB	2 LD	2,580	3	0.2%
			SB	2 LD	2,580	6	
	Miami Lakes Drive	Gratigny Parkway	NB	2 LD	2,580	3	0.2%
			SB	2 LD	2,580	7	
	Gratigny Parkway	W 68 Street	NB	2 LD	2,064	1	0.1%
			SB	2 LD	2,064	3	
	W 68 Street	W 49 Street/NW 103 St	NB	2 LD	2,064	1	0.1%
			SB	2 LD	2,064	2	
	W 49 Street/NW 103 St	W 25 Street/NW 79 St	NB	2 LD	2,064	3	0.2%
			SB	2 LD	2,064	6	
NW 87 Avenue / West 28 Avenue	I-75	W 68 Street	NB	2 LD	1,620	16	1.5%
			SB	2 LD	1,620	34	
	W 68 Street	Okeechobee Rd/US 27	NB	2 LD	1,620	4	0.4%
			SB	2 LD	1,620	9	
Beacon Station Blvd/ Hialeah Gardens Boulevard (NW 116 Way/NW 106 St)	I-75	W 68 Street	NB	2 LD	1,620	15	1.5%
			SB	2 LD	1,620	33	
	W 68 Street	Okeechobee Rd/US 27	NEB	2 LD	1,620	15	1.5%
			SWB	2 LD	1,620	33	
	Okeechobee Rd/US 27	NW 107 Avenue	NEB	2 LD	1,620	15	1.5%
			SWB	2 LD	1,620	33	
	NW 107 Avenue	HEFT	EB	3 LD	2,450	28	1.0%
			WB	3 LD	2,450	20	
Miramar Parkway	SW 184 Av	SW 172 Avenue	EB	2 LD	1,860	41	3.5%
			WB	2 LD	1,860	89	
	SW 172 Avenue	Dykes Road	EB	3 LD	2,790	46	2.6%
			WB	3 LD	2,790	99	
	Dykes Road	I-75	EB	3 LD	2,790	48	2.7%
			WB	3 LD	2,790	104	
	I-75	Flamingo Road	EB	3 LD	2,790	62	1.5%
			WB	3 LD	2,790	20	
	Flamingo Road	Red Road/W 4 Av	EB	3 LD	2,790	56	1.3%
			WB	3 LD	2,790	18	
Miami Gardens Drive (NW 186 Street)	I-75	NW 87 Avenue	EB	2 LD	2,710	4	0.2%
			WB	2 LD	2,710	8	
	NW 87 Avenue	NW 77 Avenue	EB	2 LD	1,800	66	2.7%
			WB	2 LD	1,800	30	
	NW 77 Avenue	NW 67 Avenue	EB	2 LD	1,800	57	2.3%
			WB	2 LD	1,800	26	
Gratigny Frontage Road	Beacon Station Blvd	NW 87 Av	EB	2 LD	1,620	12	0.5%
			WB	2 LD	1,620	5	
	NW 87 Av	W of SR 826	EB	2 LD	1,620	25	1.1%
			WB	2 LD	1,620	11	
W 68 Street/NW 122 Street	SR 826	NW 67 Av / 12 Av	EB	2 LD	1,720	29	1.2%
			WB	2 LD	1,720	13	
	NW 67 Av / 12 Av	Red Road/W 4 Av	EB	2 LD	1,720	3	0.1%
			WB	2 LD	1,720	1	
Hialeah Gardens Drive (W 49 St/NW 103 St)	Okeechobee Road	SR 826	EB	2 L	1,720	29	1.2%
			WB	2 L	1,720	13	
	SR 826	NW 67 Av / 12 Av	EB	3 LD	3,096	44	1.0%
			WB	3 LD	3,096	20	
	NW 67 Av / 12 Av	Red Road/W 4 Av	EB	3 LD	3,096	11	0.3%
			WB	3 LD	3,096	5	
NW 74 Street / W 21 Street	HEFT	NW 107 Avenue	EB	2LD	1,620	20	0.9%
			WB	2LD	1,620	9	
	NW 107 Avenue	NW 97 Avenue	EB	2LD	1,620	13	0.6%
			WB	2LD	1,620	6	
	NW 97 Avenue	NW 87 Avenue	EB	NA	1,620	13	0.6%
			WB	NA	1,620	6	
	NW 87 Avenue	SR 826	EB	2LD	1,710	7	0.3%
			WB	2LD	1,710	3	
	SR 826	NW 72 Avenue	EB	2LD	1,800	8	0.3%
			WB	2LD	1,800	4	
	NW 72 Avenue	Okeechobee Rd/US 27	EB	3 LD	2,710	1	0.0%
			WB	3 LD	2,710	0	
	Okeechobee Rd/US 27	Red Road/W 4 Av	EB	2LD	1,800	8	0.3%
			WB	2LD	1,800	4	

Source: David Plummer and Associates, Inc.

Appendix 21-13
Sensitivity Analysis

SENSITIVITY ANALYSIS

Future Traffic Conditions without Project - (weekday, one-way, PM peak)

Beacon Countyline DRI

Roadway	Limits		Direction	# of Lanes	Roadway Type	Municipality	LOS STD	Volume (2018)	Service Volume (1)	V/SV	Meets LOS STD?
	From	To									
Palmetto Expressway (SR 826)	Red Road/NW 57 Av	NW 67 Av/Ludlam Rd	EB	4 LD (1)	FIHS	Miami Lakes	D	8,103	7,380	1.10	No
			WB	4 LD (1)				6,664	7,380	0.90	Yes
	NW 67 Av/Ludlam Rd	Miami Lakes Drive	NEB	4 LD (1)	FIHS	Miami Lakes	D	6,773	7,380	0.92	Yes
			SWB	4 LD (1)				5,495	7,380	0.74	Yes
	Miami Lakes Drive	I-75	NB	4 LD (1)	FIHS	Miami Lakes	D	6,995	7,380	0.95	Yes
			SB	4 LD (1)				5,442	7,380	0.74	Yes
	I-75	W 68 St/NW 122 Street	NB	5 LD (1)	FIHS	Hialeah	D	10,472	9,340	1.12	No
			SB	5 LD (1)				8,296	9,340	0.89	Yes
	W 68 St/NW 122 Street	W 49 Street/NW 103 St	NB	6 LD (1)	FIHS	Hialeah	D	10,857	11,310	0.96	Yes
			SB	6 LD (1)				8,606	11,310	0.76	Yes
	W 49 Street/NW 103 St	Okeechobee Rd/US 27	NB	6 LD (1)	FIHS	Hialeah/Hialeah	D	11,214	11,310	0.99	Yes
			SB	6 LD (1)				8,893	11,310	0.79	Yes
	Okeechobee Rd/US 27	NW 74 Street	NB	6 LD (1)	FIHS	Medley	D	11,721	11,310	1.04	No
			SB	6 LD (1)				9,387	11,310	0.83	Yes
NW 87 Avenue / West	Miami Gardens Drive	NW 170 Street	NB	2LD (2)	Collector	Miami-Dade	D	497	1,620	0.31	Yes
			SB	2LD (2)				813	1,620	0.50	Yes
	NW 170 Street	Miami Lakes Drive	NB	2LD (2)	Collector	Miami Lakes	D	182	1,620	0.11	Yes
			SB	2LD (2)				362	1,620	0.22	Yes
	Miami Lakes Drive	I-75	NB	2 LD	Collector	Miami Lakes	D	1,215	1,620	0.75	Yes
			SB	2 LD				922	1,620	0.57	Yes
I-75	Miramar Parkway	HEFT	NB	5 LD	FIHS	Miramar	D	9,130	9,340	0.98	Yes
			SB	5 LD				8,556	9,340	0.92	Yes
	HEFT	NW 186 Street	NB	4 LD	FIHS	Miami-Dade	D	6,223	7,380	0.84	Yes
			SB	4 LD				6,195	7,380	0.84	Yes
	NW 186 Street	NW 138 Street	NB	4 LD	FIHS	Miami	D	6,627	7,380	0.90	Yes
			SB	4 LD				5,943	7,380	0.81	Yes
	NW 138 Street	SR 826	EB	5 LD	FIHS	Miami	D	6,088	9,340	0.65	Yes
			WB	5 LD				6,773	9,340	0.73	Yes
NW 97 Avenue	NW 170 Street	NW 154 Street	NB	2LD (3)	NA	Hialeah	D	137	1,620	0.08	Yes
			SB	2LD (3)				169	1,620	0.10	Yes
	NW 154 Street	NW 138 Street	NB	2LD (2)	NA	Hialeah	D	137	1,620	0.08	Yes
			SB	2LD (2)				169	1,620	0.10	Yes
	NW 138 Street	W 68 Street	NB	1 L	Collector	Hialeah/Hialeah	D	263	760	0.35	Yes
			SB	1 L				160	760	0.21	Yes
NW 107 Avenue	NW 166 Street	NW 162 Street	NB	1 L (3)	Collector	Hialeah/Hialeah	D	0	798	0.00	Yes
			SB	1 L (3)				0	798	0.00	Yes
	NW 162 Street	NW 154 Street	NB	1 L (3)	Collector	Hialeah/Hialeah	D	0	798	0.00	Yes
			SB	1 L (3)				0	798	0.00	Yes
	NW 154 Street	NW 138 Street	NB	1 L (3)	Collector	Hialeah/Hialeah	D	124	798	0.16	Yes
			SB	1 L (3)		Gardens		121	798	0.15	Yes
	NW 138 Street	Okeechobee Rd/US 27	NB	2 LD (2)	Collector	Hialeah Gardens	D	471	1,620	0.29	Yes
			SB	2 LD (2)				348	1,620	0.21	Yes
HEFT	NW 57 Av (Red Road)	I-75	NB	2 LD	FIHS	Miramar	D	4,615	3,580	1.29	No
			SB	2 LD				3,282	3,580	0.92	Yes
	I-75	NW 170 Street	NB	4 LD (1)	FIHS	Miami-Dade	D	8,254	7,480	1.10	No
			SB	4 LD (1)				5,855	7,480	0.78	Yes
	NW 170 Street	Okeechobee Rd/US 27	NB	4 LD (1)	FIHS	Miami-	D	8,340	7,480	1.11	No
			SB	4 LD (1)		Dade/Hialeah		5,909	7,480	0.79	Yes
	Okeechobee Rd/US 27	NW 106 Street	NB	4 LD (1)	FIHS	Miami-	D	8,917	7,480	1.19	No
			SB	4 LD (1)		Dade/Medley		6,279	7,480	0.84	Yes
	NW 106 Street	NW 74 Street	NB	4 LD (1)	FIHS	Miami-Dade	D	9,518	7,480	1.27	No
			SB	4 LD (1)				6,897	7,480	0.92	Yes

Notes:

(1) Number of Lanes and Service Volume reflect improvement necessary to reduce or eliminate existing backlog.

(2) Committed Roadway Improvement.

(3) Project related Improvement.

Source: David Plummer and Associates, Inc.

SENSITIVITY ANALYSIS
Future Traffic Conditions without Project - (weekday, one-way, PM peak)
Beacon Countyline DRI

Roadway	Limits		Direction	# of Lanes	Roadway Type	Municipality	LOS STD	Volume (2018)	Service Volume (1)	V/SV	Meets LOS STD?
	From	To									
NW 170 Street	HEFT	NW 97 Avenue	EB	2LD (3)	NA	Miami-Dade/Hialeah	D	255	1,620	0.16	Yes
			WB	2LD (3)				192	1,620	0.12	Yes
	NW 97 Avenue	I-75	EB	1 L (3)	NA	Miami-	D	86	798	0.11	Yes
			WB	1 L (3)				55	798	0.07	Yes
	I-75	NW 87 Avenue	EB	1 L	Collector	Miami-	D	148	760	0.19	Yes
			WB	1 L				148	760	0.19	Yes
	NW 87 Avenue	NW 77 Avenue	EB	1 L	Collector	Miami-	D	385	760	0.51	Yes
			WB	1 L				434	760	0.57	Yes
	NW 77 Avenue	NW 67 Avenue	EB	1 L	Collector	Miami-	D	371	760	0.49	Yes
			WB	1 L				428	760	0.56	Yes
NW 138 Street	Okeechobee Rd/US 27	NW 107 Avenue	EB	2LD	Collector	Hialeah/Hialeah	D	574	1,620	0.35	Yes
			WB	2LD				404	1,620	0.25	Yes
	NW 107 Avenue	NW 97 Avenue	EB	2LD (2)	Collector	Hialeah/Hialeah	D	538	1,620	0.33	Yes
			WB	2LD (2)				373	1,620	0.23	Yes
	NW 97 Avenue	Beacon Station Blvd	EB	2LD (1, 2)	Collector	Hialeah	D	665	1,620	0.41	Yes
			WB	2LD (1, 2)				641	1,620	0.40	Yes
NW 130 Street (W 76 Street)	NW 97 Av	Beacon Station Blvd	EB	2LD (2)	County Minor Arterial	Hialeah	D	398	1,620	0.25	Yes
			WB	2LD (2)				571	1,620	0.35	Yes
	Beacon Station Blvd	NW 87 Av	EB	1 L	County Minor Arterial	Hialeah	D	584	760	0.77	Yes
			WB	1 L				645	760	0.85	Yes
	NW 87 Av	W of SR 826	EB	1 L	County Minor	Hialeah	C	425	760	0.56	Yes
			WB	1 L				503	760	0.66	Yes
Okeechobee Rd/US 27	West	HEFT	NWB	2 LD	FIHS	Hialeah Gardens	C	1,321	2,500	0.53	Yes
			SEB	2 LD				1,109	2,500	0.44	Yes
	HEFT	NW 138 Street	NWB	3 LD	FIHS	Hialeah/Hialeah Gardens	D	1,293	2,790	0.46	Yes
			SEB	3 LD				1,066	2,790	0.38	Yes
	NW 138 Street	Beacon Station Blvd	NWB	3 LD	FIHS	Hialeah Gardens	D	1,229	2,790	0.44	Yes
			SEB	3 LD				1,036	2,790	0.37	Yes
	Beacon Station Blvd	NW 87 Avenue	NWB	3 LD	FIHS	Hialeah Gardens	D	2,206	2,790	0.79	Yes
			SEB	3 LD				1,825	2,790	0.65	Yes
	NW 87 Avenue	SR 826	NWB	3 LD	FIHS	Hialeah Gardens	D	2,463	2,790	0.88	Yes
			SEB	3 LD				2,054	2,790	0.74	Yes
	SR 826	NW 74 St	NWB	3 LD	State Principal Arterial	Hialeah	E + 20%	3,064	3,348	0.92	Yes
			SEB	3 LD				2,164	3,348	0.65	Yes
West Okeechobee Rd / Frontage Road	US 27/NW 138 Street	NW 107 Avenue	NWB	1 L	Collector	Hialeah Gardens	D	396	760	0.52	Yes
			SEB	1 L				531	760	0.70	Yes
	NW 107 Avenue	Hialeah Gardens Blvd	NWB	1 L	Collector	Hialeah Gardens	D	489	760	0.64	Yes
			SEB	1 L				245	760	0.32	Yes
	Hialeah Gardens Blvd	NW 87 Avenue	NWB	1 L	Collector	Hialeah Gardens	D	272	760	0.36	Yes
			SEB	1 L				291	760	0.38	Yes
	NW 87 Avenue	NW 77 Avenue	NWB	1 L	Collector	Hialeah Gardens	D	766	760	1.01	No
			SEB	1 L				349	760	0.46	Yes
Gratigny Expressway	SR 826	Red Road/W 4 Av	EB	3 LD	FIHS	Hialeah/Miami Lakes	D	2,858	7,380	0.39	Yes
			WB	3 LD				3,313	7,380	0.45	Yes
W 68 Street/NW 122 Street	Okeechobee Road	NW 97 Avenue	EB	1 L	Collector	Hialeah Gardens	D	327	608	0.54	Yes
			WB	1 L				237	608	0.39	Yes
	NW 97 Avenue	NW 87 Av / W 28 Av	EB	1 L	County Minor Arterial	Hialeah	D	566	608	0.93	Yes
			WB	1 L				611	608	1.01	No
	NW 87 Av / W 28 Av	SR 826	EB	2 LD	County Minor Arterial	Hialeah	D	1,385	1,620	0.86	Yes
			WB	2 LD				1,666	1,620	1.03	No

Notes:
(1) Number of Lanes and Service Volume reflect improvement necessary to reduce or eliminate existing backlog.
(2) Committed Roadway Improvement.
(3) Project related Improvement.

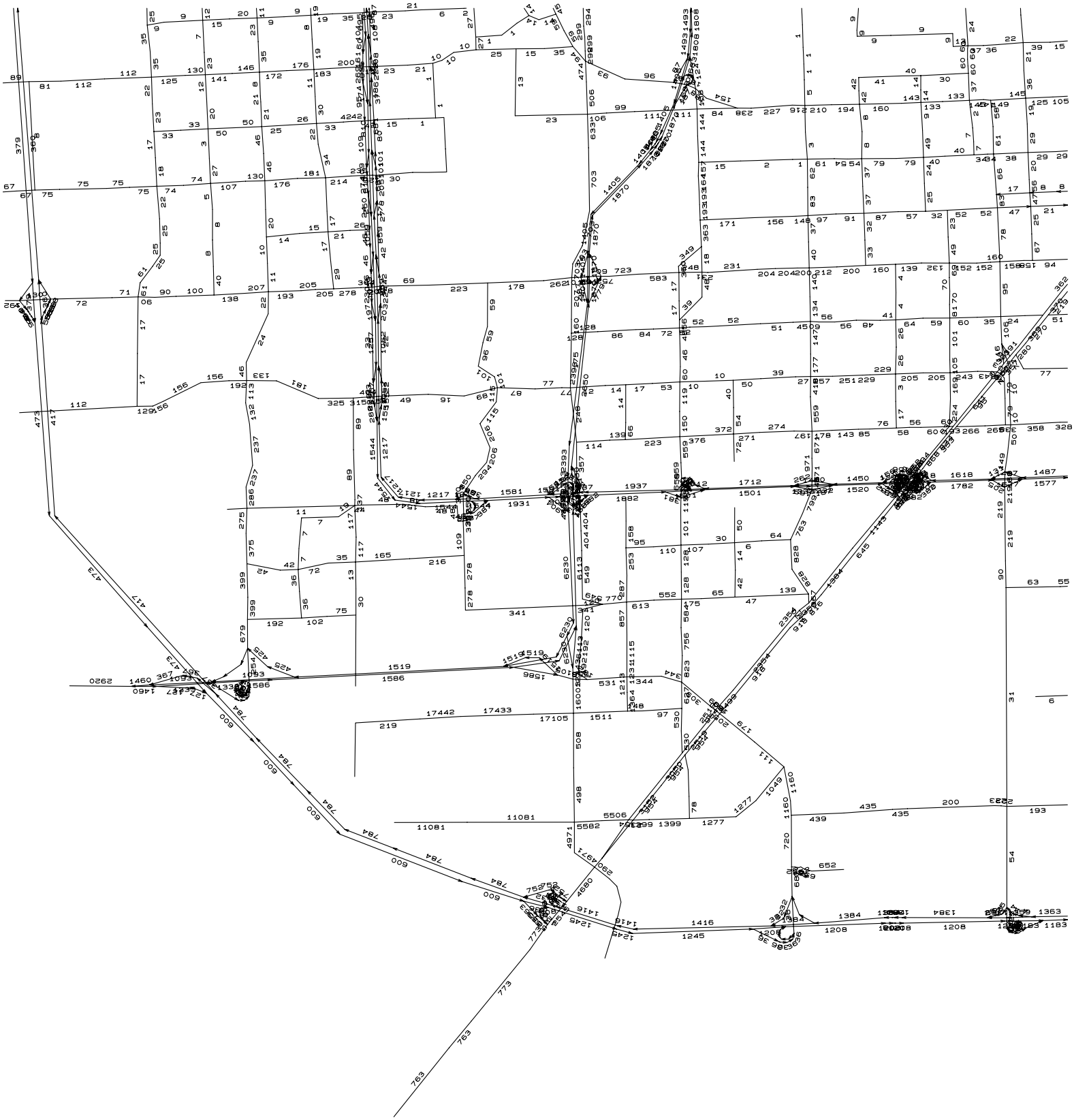
Source: David Plummer and Associates, Inc.

SENSITIVITY ANALYSIS
Future Traffic Conditions without Project - (weekday, one-way, PM peak)
Beacon Countyline DRI

Roadway	Limits		Direction	# of Lanes	Roadway Type	Municipality	LOS STD	Volume (2018)	Service Volume (1)	V/SV	Meets LOS STD?
	From	To									
NW 170 Street	HEFT	NW 97 Avenue	EB	2LD (3)	NA	Miami-Dade/Hialeah	D	255	1,620	0.16	Yes
			WB	2LD (3)				192	1,620	0.12	Yes
	NW 97 Avenue	I-75	EB	1 L (3)	NA	Miami-	D	86	798	0.11	Yes
			WB	1 L (3)				55	798	0.07	Yes
	I-75	NW 87 Avenue	EB	1 L	Collector	Miami-	D	148	760	0.19	Yes
			WB	1 L				148	760	0.19	Yes
	NW 87 Avenue	NW 77 Avenue	EB	1 L	Collector	Miami-	D	385	760	0.51	Yes
			WB	1 L				434	760	0.57	Yes
	NW 77 Avenue	NW 67 Avenue	EB	1 L	Collector	Miami-	D	371	760	0.49	Yes
			WB	1 L				428	760	0.56	Yes
NW 138 Street	Okeechobee Rd/US 27	NW 107 Avenue	EB	2LD	Collector	Hialeah/Hialeah	D	574	1,620	0.35	Yes
			WB	2LD				404	1,620	0.25	Yes
	NW 107 Avenue	NW 97 Avenue	EB	2LD (2)	Collector	Hialeah/Hialeah	D	538	1,620	0.33	Yes
			WB	2LD (2)				373	1,620	0.23	Yes
	NW 97 Avenue	Beacon Station Blvd	EB	2LD (1, 2)	Collector	Hialeah	D	665	1,620	0.41	Yes
			WB	2LD (1, 2)				641	1,620	0.40	Yes
NW 130 Street (W 76 Street)	NW 97 Av	Beacon Station Blvd	EB	2LD (2)	County Minor Arterial	Hialeah	D	398	1,620	0.25	Yes
			WB	2LD (2)				571	1,620	0.35	Yes
	Beacon Station Blvd	NW 87 Av	EB	1 L	County Minor Arterial	Hialeah	D	584	760	0.77	Yes
			WB	1 L				645	760	0.85	Yes
	NW 87 Av	W of SR 826	EB	1 L	County Minor	Hialeah	C	425	760	0.56	Yes
			WB	1 L				503	760	0.66	Yes
Okeechobee Rd/US 27	West	HEFT	NWB	2 LD	FIHS	Hialeah Gardens	C	1,321	2,500	0.53	Yes
			SEB	2 LD				1,109	2,500	0.44	Yes
	HEFT	NW 138 Street	NWB	3 LD	FIHS	Hialeah/Hialeah Gardens	D	1,293	2,790	0.46	Yes
			SEB	3 LD				1,066	2,790	0.38	Yes
	NW 138 Street	Beacon Station Blvd	NWB	3 LD	FIHS	Hialeah Gardens	D	1,229	2,790	0.44	Yes
			SEB	3 LD				1,036	2,790	0.37	Yes
	Beacon Station Blvd	NW 87 Avenue	NWB	3 LD	FIHS	Hialeah Gardens	D	2,206	2,790	0.79	Yes
			SEB	3 LD				1,825	2,790	0.65	Yes
	NW 87 Avenue	SR 826	NWB	3 LD	FIHS	Hialeah Gardens	D	2,463	2,790	0.88	Yes
			SEB	3 LD				2,054	2,790	0.74	Yes
	SR 826	NW 74 St	NWB	3 LD	State Principal Arterial	Hialeah	E + 20%	3,064	3,348	0.92	Yes
			SEB	3 LD				2,164	3,348	0.65	Yes
West Okeechobee Rd / Frontage Road	US 27/NW 138 Street	NW 107 Avenue	NWB	1 L	Collector	Hialeah Gardens	D	396	760	0.52	Yes
			SEB	1 L				531	760	0.70	Yes
	NW 107 Avenue	Hialeah Gardens Blvd	NWB	1 L	Collector	Hialeah Gardens	D	489	760	0.64	Yes
			SEB	1 L				245	760	0.32	Yes
	Hialeah Gardens Blvd	NW 87 Avenue	NWB	1 L	Collector	Hialeah Gardens	D	272	760	0.36	Yes
			SEB	1 L				291	760	0.38	Yes
	NW 87 Avenue	NW 77 Avenue	NWB	1 L	Collector	Hialeah Gardens	D	766	760	1.01	No
			SEB	1 L				349	760	0.46	Yes
Gratigny Expressway	SR 826	Red Road/W 4 Av	EB	3 LD	FIHS	Hialeah/Miami Lakes	D	2,858	7,380	0.39	Yes
			WB	3 LD				3,313	7,380	0.45	Yes
W 68 Street/NW 122 Street	Okeechobee Road	NW 97 Avenue	EB	1 L	Collector	Hialeah Gardens	D	327	608	0.54	Yes
			WB	1 L				237	608	0.39	Yes
	NW 97 Avenue	NW 87 Av / W 28 Av	EB	1 L	County Minor Arterial	Hialeah	D	566	608	0.93	Yes
			WB	1 L				611	608	1.01	No
	NW 87 Av / W 28 Av	SR 826	EB	2 LD	County Minor Arterial	Hialeah	D	1,385	1,620	0.86	Yes
			WB	2 LD				1,666	1,620	1.03	No

Notes:
(1) Number of Lanes and Service Volume reflect improvement necessary to reduce or eliminate existing backlog.
(2) Committed Roadway Improvement.
(3) Project related Improvement.

Source: David Plummer and Associates, Inc.



Miami

Beacon County DRI (Sensativity) - #06257
PLOT HIGHWAY LOAD -- SELZONE TWO-WAY LINK VOLUMES

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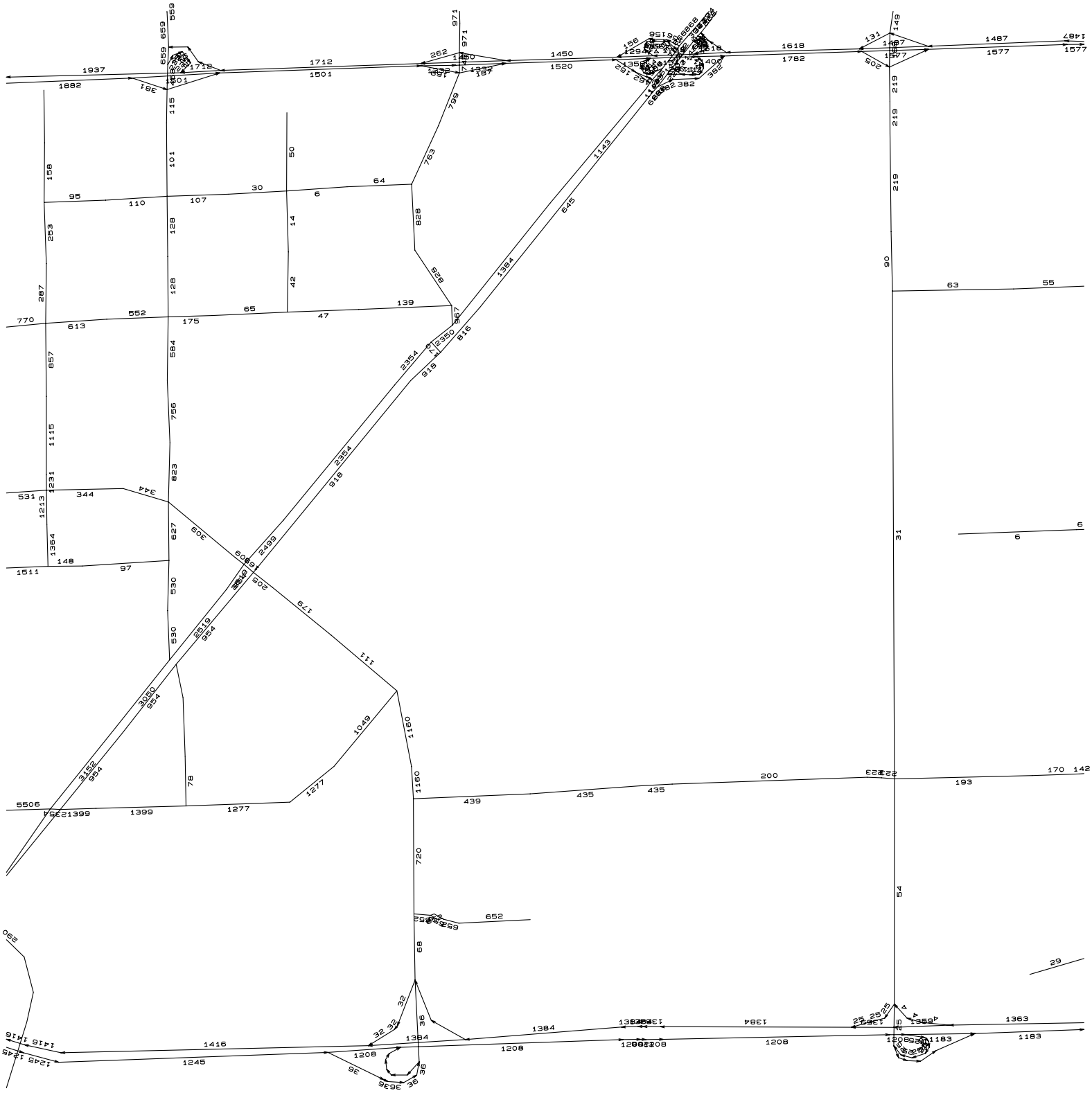

Miami

Beacon County DRI (Sensativity) - #06257
PLOT HIGHWAY LOAD -- SELZONE TWO-WAY LINK VOLUMES

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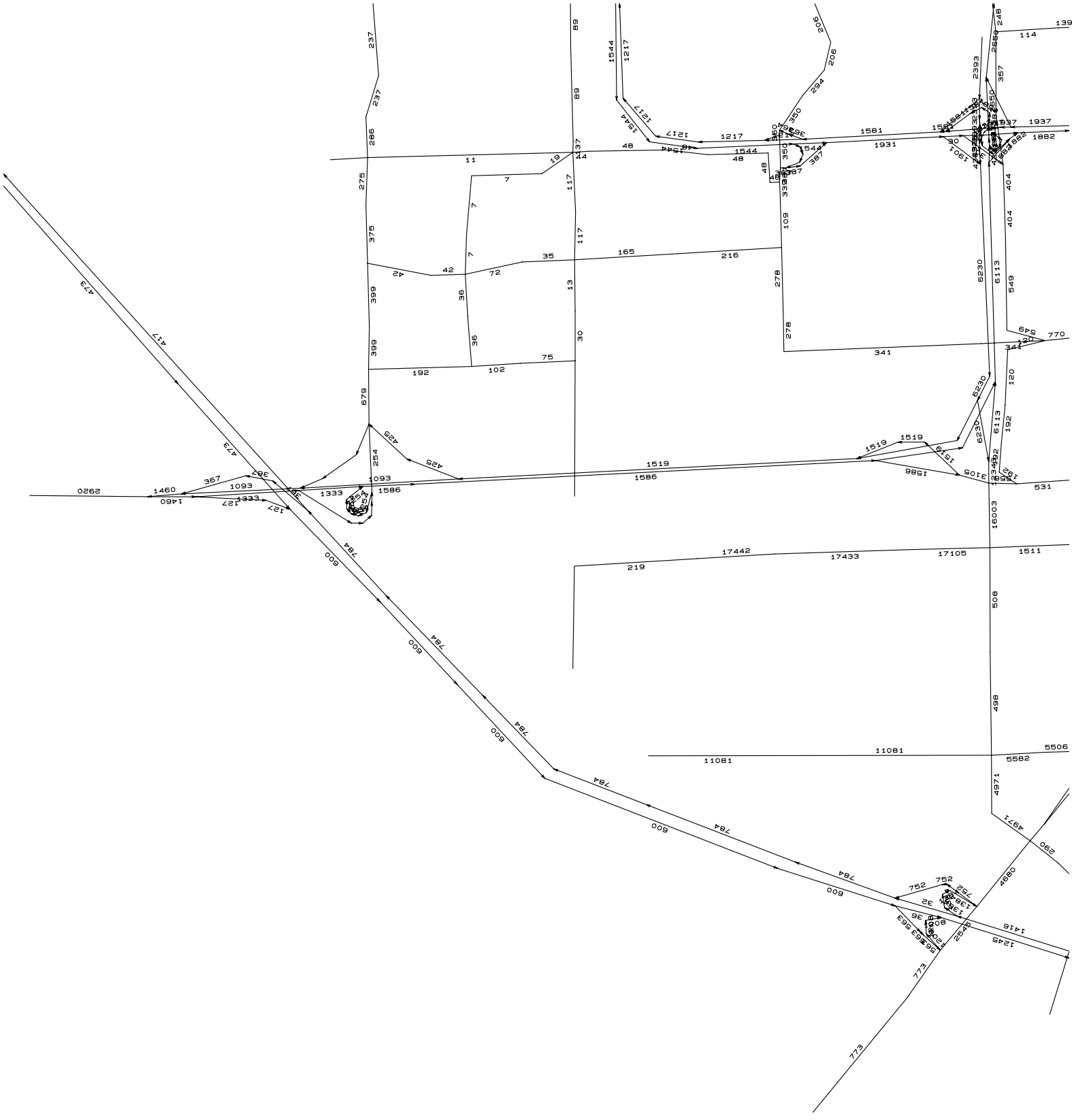


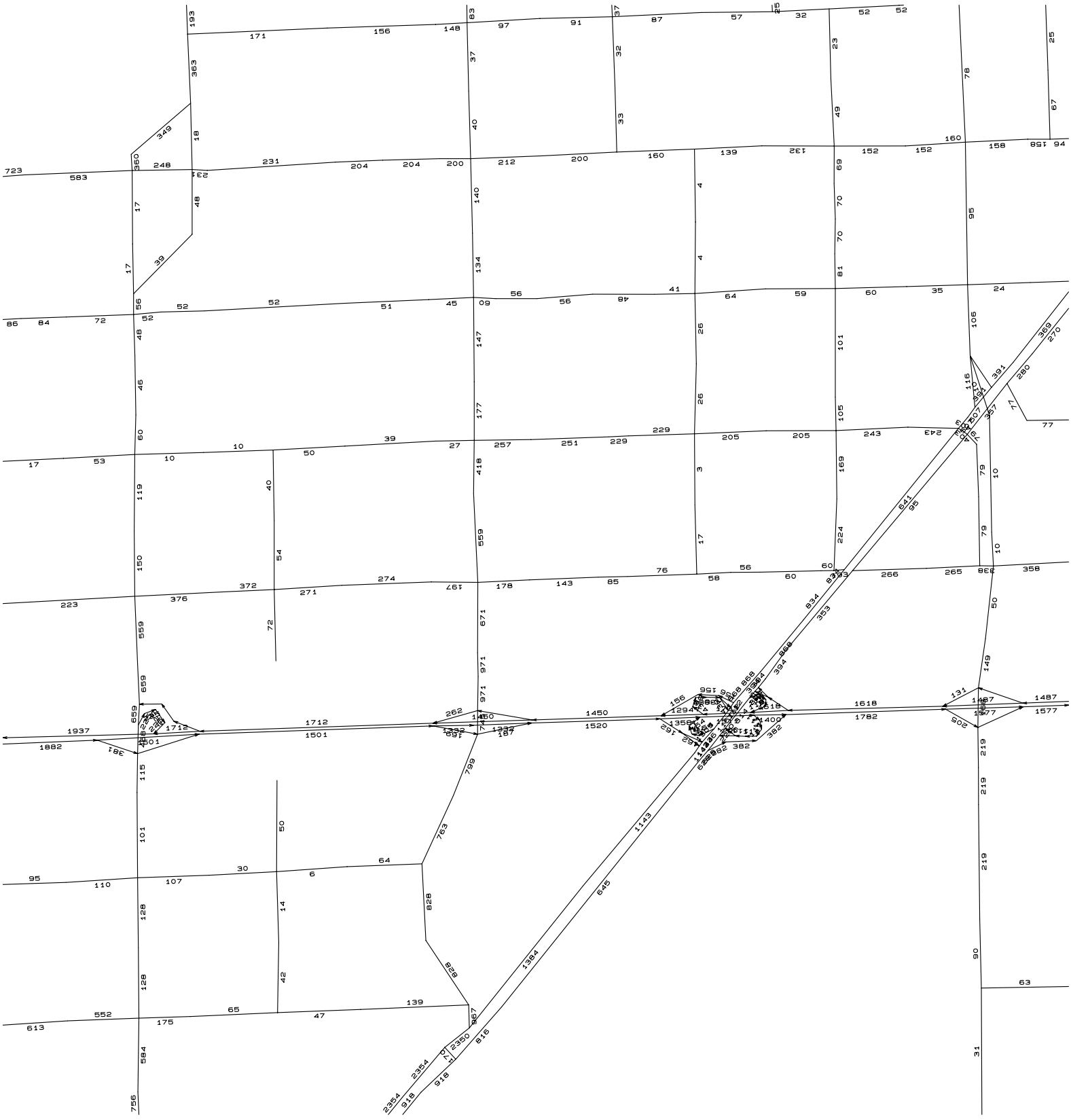
Miami Beacon County DRI (Sensativity) - #06257
PLOT HIGHWAY LOAD -- SELZONE TWO-WAY LINK VOLUMES

030CT07 10:44:24

Miami

Beacon County DRI (Sensativity) - #06257
PLOT HIGHWAY LOAD -- SELZONE TWO-WAY LINK VOLUMES

030CT07 10:44:45



Miami

Beacon County DRI (Sensativity) - #06257
PLOT HIGHWAY LOAD -- SELZONE TWO-WAY LINK VOLUMES

03OCT07 10:45:12

Sensitivity Analysis - Future Traffic Conditions without the NW 170 Street Interchange

Beacon County Line DRI

Unconstrained Internalization Demand - PM Peak Hour

Retail		Office		Warehouse			
Land Use 820		Land Use 710		Land Use 150			
50,000 SF GLA		150,000 SF GFA		3,570,000 SF GFA			1,855
Ln (Trips) = 0.66 Ln (1,000 SF) + 3.40		*Trips = 0.37 (1,000 SF) + 60.08*		*Ln (Trips) = 0.79 Ln (1,000 SF) + 0.54*			
In	**Out**	**In**	**Out**	**In**	**Out**		
190	**206**	**42**	**205**	**275**	**824**	**1,742**	**TOTAL ITE**
	3%	*15%*					
	6	**6**	*6*				
2%			*23%*				
4		**4**	*47*				
	3%			*15%*			
	6		**6**	*41*			
2%					*23%*		
4			**4**		*190*		
			1%	*6%*			
			2	**2** *17*			
		6%			*1%*		
		3		**3**	*8*		

Balanced Internalization Demand - PM Peak Hour

Retail		Office		Warehouse			
Land Use 820		Land Use 710		Land Use 150			
50,000 SF GLA		150,000 SF GFA		3,570,000 SF GFA			
n (Trips) = 0.66 Ln (1,000 SF) + 3.4		Trips = 0.37 (1,000 SF) + 60.08		Ln (Trips) = 0.79 Ln (1,000 SF) + 0.54			
In	**Out**	**In**	**Out**	**In**	**Out**		
190	**206**	**42**	**205**	**275**	**824**	**1,742**	**TOTAL ITE**
	-6	*-6*					Adjustment Factors
-4			*-4*				0%
	-6			*-6*			0%
-4					*-4*		
			-2	*-2*			0%
		-3			*-3*		
182	**194**	**33**	**199**	**267**	**817**	**1,692**	**External Trips**
	5.05%		***6.07%***		***1.36%***	***2.87%***	
-3	-3	0	-3	-4	-12	**1.5%**	
0	0					**0%**	**Pass-By**
0	0					**0%**	**Diverted Linked Trips**
179	**191**	**33**	**196**	**263**	**805**	**1,667**	**Net New External Trips**
				46	142	**0.85**	**Truck Adjustment Factor (f HV)**
179	**191**	**33**	**196**	**309**	**947**	**1,855**	**Net New External Trips adjusted for Heavy**

SENSITIVITY ANALYSIS

Project Traffic Assignment (weekday, one-way, PM peak)

Beacon Countyline DRI

Roadway	Limits		Direction	# of Lanes	Roadway Type	LOS STD	Service Volume	Net New External Project Traffic		
	From	To						Project Traffic	% Project	% Consumption
Palmetto Expressway (SR 826)	Red Road/NW 57 Av	NW 67 Av/Ludlam Rd	EB	4 LD	FIHS	D	7,380	109	8%	1.0%
			WB	4 LD			7,380	43		
	NW 67 Av/Ludlam Rd	Miami Lakes Drive	NEB	4 LD	FIHS	D	7,380	130	10%	1.2%
			SWB	4 LD			7,380	51		
	Miami Lakes Drive	I-75	NB	4 LD	FIHS	D	7,380	165	12%	1.6%
			SB	4 LD			7,380	65		
	I-75	W 68 St/NW 122 Street	NB	5 LD	FIHS	D	9,340	70	13%	1.3%
			SB	5 LD			9,340	180		
	W 68 St/NW 122 Street	W 49 Street/NW 103 St	NB	6 LD	FIHS	D	11,310	59	11%	0.9%
			SB	6 LD			11,310	151		
	W 49 Street/NW 103 St	Okeechobee Rd/US 27	NB	6 LD	FIHS	D	11,310	55	11%	0.9%
			SB	6 LD			11,310	140		
	Okeechobee Rd/US 27	NW 74 Street	NB	6 LD	FIHS	D	11,310	62	12%	1.0%
			SB	6 LD			11,310	160		
NW 87 Avenue / West 28 Avenue	Miami Gardens Drive	NW 170 Street	NB	2LD	Collector	D	1,620	6	0%	0.2%
			SB	2LD			1,620	2		
	NW 170 Street	Miami Lakes Drive	NB	2LD	Collector	D	1,620	0	0%	0.0%
			SB	2LD			1,620	0		
	Miami Lakes Drive	I-75	NB	2 LD	Collector	D	1,620	6	1%	0.7%
			SB	2 LD			1,620	16		
I-75	Miramar Parkway	HEFT	NB	5 LD	FIHS	D	9,340	137	10%	1.0%
			SB	5 LD			9,340	54		
	HEFT	NW 186 Street	NB	4 LD	FIHS	D	7,380	114	9%	1.1%
			SB	4 LD			7,380	45		
	NW 186 Street	NW 138 Street	NB	4 LD	FIHS	D	7,380	146	11%	1.4%
			SB	4 LD			7,380	57		
	NW 138 Street	SR 826	EB	5 LD	FIHS	D	9,340	581	44%	4.3%
			WB	5 LD			9,340	227		
NW 97 Avenue	NW 170 Street	NW 154 Street	NB	2LD	NA	D	1,620	321	62%	35.2%
			SB	2LD			1,620	821		
	NW 154 Street	NW 138 Street	NB	2LD	NA	D	1,620	317	61%	34.9%
			SB	2LD			1,620	813		
	NW 138 Street	W 68 Street	NB	1 L	Collector	D	760	11	2%	2.6%
			SB	1 L			760	28		
NW 107 Avenue	NW 166 Street	NW 162 Street	NB	1 L	Collector	D	798	102	20%	22.7%
			SB	1 L			798	261		
	NW 162 Street	NW 154 Street	NB	1 L	Collector	D	798	204	39%	45.4%
			SB	1 L			798	521		
	NW 154 Street	NW 138 Street	NB	1 L	Collector	D	798	204	39%	45.4%
			SB	1 L			798	521		
	NW 138 Street	Okeechobee Rd/US 27	NB	2 LD	Collector	D	1,620	102	20%	11.2%
			SB	2 LD			1,620	261		
HEFT	NW 57 Av (Red Road)	I-75	NB	2 LD	FIHS	D	3,580	42	3%	0.8%
			SB	2 LD			3,580	16		
	I-75	NW 170 Street	NB	4 LD	FIHS	D	7,480	65	5%	0.6%
			SB	4 LD			7,480	25		
	NW 170 Street	Okeechobee Rd/US 27	NB	4 LD	FIHS	D	7,480	65	5%	0.6%
			SB	4 LD			7,480	25		
	Okeechobee Rd/US 27	NW 106 Street	NB	4 LD	FIHS	D	7,480	49	9%	1.2%
			SB	4 LD			7,480	125		
	NW 106 Street	NW 74 Street	NB	4 LD	FIHS	D	7,480	48	9%	1.1%
			SB	4 LD			7,480	122		

Source: David Plummer and Associates, Inc.

SENSITIVITY ANALYSIS
Project Traffic Assignment (weekday, one-way, PM peak)
Beacon Countyline DRI

Roadway	Limits		Direction	# of Lanes	Roadway Type	LOS STD	Service Volume (1)	Net New External Project Traffic		
	From	To						Project Traffic	% Project	% Consumption
NW 170 Street	HEFT	NW 97 Avenue	EB	2LD	NA	D	1,620	53	5.4%	3.1%
			WB	2LD			1,620	47		
	NW 97 Avenue	I-75	EB	1 L	NA	D	798	0	0.0%	0.0%
			WB	1 L			798	0		
	I-75	NW 87 Avenue	EB	1 L	Collector	D	760	0	0.0%	0.0%
			WB	1 L			760	0		
	NW 87 Avenue	NW 77 Avenue	EB	1 L	Collector	D	760	1	0.1%	0.1%
			WB	1 L			760	0		
	NW 77 Avenue	NW 67 Avenue	EB	1 L	Collector	D	760	6	0.4%	0.5%
			WB	1 L			760	2		
NW 138 Street	Okeechobee Rd/US 27	NW 107 Avenue	EB	2LD	Collector	D	1,620	91	17.5%	10.0%
			WB	2LD			1,620	234		
	NW 107 Avenue	NW 97 Avenue	EB	2LD	Collector	D	1,620	9	1.8%	1.0%
			WB	2LD			1,620	24		
	NW 97 Avenue	Beacon Station Blvd	EB	2LD	Collector	D	1,620	753	56.4%	32.3%
			WB	2LD			1,620	294		
NW 130 Street (W 76 Street)	NW 97 Av	Beacon Station Blvd	EB	2LD	County Minor Arterial	D	1,620	61	4.6%	2.6%
			WB	2LD			1,620	24		
	Beacon Station Blvd	NW 87 Av	EB	1 L	County Minor 0	D	760	50	3.8%	4.6%
			WB	1 L			760	20		
	NW 87 Av	W of SR 826	EB	1 L	County Minor Arterial	C	760	11	0.8%	1.0%
			WB	1 L			760	4		
Okeechobee Rd/US 27	West	HEFT	NWB	2 LD	FIHS	C	2,500	14	2.7%	1.0%
			SEB	2 LD			2,500	36		
	HEFT	NW 138 Street	NWB	3 LD	FIHS	D	2,790	86	16.5%	5.5%
			SEB	3 LD			2,790	220		
	NW 138 Street	Beacon Station Blvd	NWB	3 LD	FIHS	D	2,790	132	9.9%	3.3%
			SEB	3 LD			2,790	52		
	Beacon Station Blvd	NW 87 Avenue	NWB	3 LD	FIHS	D	2,790	112	8.4%	2.8%
			SEB	3 LD			2,790	44		
	NW 87 Avenue	SR 826	NWB	3 LD	FIHS	D	2,790	59	4.4%	1.5%
			SEB	3 LD			2,790	23		
	SR 826	NW 74 St	NWB	3 LD	State Principal Arterial	E + 20%	3,348	37	2.8%	0.8%
			SEB	3 LD			3,348	15		
West Okeechobee Rd / Frontage Road	US 27/NW 138 Street	NW 107 Avenue	NWB	1 L	Collector	D	760	0	0.0%	0.0%
			SEB	1 L			760	0		
	NW 107 Avenue	Hialeah Gardens Blvd	NWB	1 L	Collector	D	760	45	3.4%	4.1%
			SEB	1 L			760	18		
	Hialeah Gardens Blvd	NW 87 Avenue	NWB	1 L	Collector	D	760	43	3.2%	3.9%
			SEB	1 L			760	17		
	NW 87 Avenue	NW 77 Avenue	NWB	1 L	Collector	D	760	65	4.9%	5.9%
			SEB	1 L			760	25		
Gratigny Expressway	SR 826	Red Road/W 4 Av	EB	3 LD	FIHS	D	7,380	237	17.8%	2.2%
			WB	3 LD			7,380	93		
W 68 Street/NW 122 Street	Okeechobee Road	NW 97 Avenue	EB	1 L	Collector	D	608	25	1.9%	2.9%
			WB	1 L			608	10		
	NW 97 Avenue	NW 87 Av / W 28 Av	EB	1 L	County Minor Arterial	D	608	33	2.5%	3.8%
			WB	1 L			608	13		
	NW 87 Av / W 28 Av	SR 826	EB	2 LD	County Minor Arterial	D	1,620	6	0.4%	0.2%
			WB	2 LD			1,620	2		

Source: David Plummer and Associates, Inc.

SENSITIVITY ANALYSIS

Future Traffic Conditions with Project - (weekday, one-way, PM peak)

Beacon Countyline DRI

Roadway	Limits		Direction	# of Lanes	Roadway Type	Municipality	Volume (2018)	LOS STD	Service Volume	V/SV	Meets LOS STD?
	From	To									
Palmetto Expressway (SR 826)	Red Road/NW 57 Av	NW 67 Av/Ludlam Rd	EB	4 LD	FIHS	Miami Lakes	8,212	D	7,380	1.11	No
			WB	4 LD			6,707		7,380	0.91	Yes
	NW 67 Av/Ludlam Rd	Miami Lakes Drive	NEB	4 LD	FIHS	Miami Lakes	6,903	D	7,380	0.94	Yes
			SWB	4 LD			5,546		7,380	0.75	Yes
	Miami Lakes Drive	I-75	NB	4 LD	FIHS	Miami Lakes	7,160	D	7,380	0.97	Yes
			SB	4 LD			5,507		7,380	0.75	Yes
	I-75	W 68 St/NW 122 Street	NB	5 LD	FIHS	Hialeah	10,542	D	9,340	1.13	No
			SB	5 LD			8,476		9,340	0.91	Yes
	W 68 St/NW 122 Street	W 49 Street/NW 103 St	NB	6 LD	FIHS	Hialeah	10,916	D	11,310	0.97	Yes
			SB	6 LD			8,757		11,310	0.77	Yes
	W 49 Street/NW 103 St	Okeechobee Rd/US 27	NB	6 LD	FIHS	Hialeah/Hialeah	11,269	D	11,310	1.00	Yes
			SB	6 LD			9,033		11,310	0.80	Yes
	Okeechobee Rd/US 27	NW 74 Street	NB	6 LD	FIHS	Medley	11,783	D	11,310	1.04	No
			SB	6 LD			9,547		11,310	0.84	Yes
NW 87 Avenue / West 28 Avenue	Miami Gardens Drive	NW 170 Street	NB	2LD	Collector	Miami-Dade	503	D	1,620	0.31	Yes
			SB	2LD			815		1,620	0.50	Yes
	NW 170 Street	Miami Lakes Drive	NB	2LD	Collector	Miami Lakes	182	NA	1,620	0.11	Yes
			SB	2LD			362		1,620	0.22	Yes
	Miami Lakes Drive	I-75	NB	2 LD	Collector	Miami Lakes	1,221	D	1,620	0.75	Yes
			SB	2 LD			938		1,620	0.58	Yes
I-75	Miramar Parkway	HEFT	NB	5 LD	FIHS	Miramar	9,267	D	9,340	0.99	Yes
			SB	5 LD			8,610		9,340	0.92	Yes
	HEFT	NW 186 Street	NB	4 LD	FIHS	Miami-Dade	6,337	D	7,380	0.86	Yes
			SB	4 LD			6,240		7,380	0.85	Yes
	NW 186 Street	NW 138 Street	NB	4 LD	FIHS	Miami	6,773	D	7,380	0.92	Yes
			SB	4 LD			6,000		7,380	0.81	Yes
	NW 138 Street	SR 826	EB	5 LD	FIHS	Miami	6,669	D	9,340	0.71	Yes
			WB	5 LD			7,000		9,340	0.75	Yes
NW 97 Avenue	NW 170 Street	NW 154 Street	NB	2LD	Collector	Hialeah	458	NA	1,620	0.28	Yes
			SB	2LD			990		1,620	0.61	Yes
	NW 154 Street	NW 138 Street	NB	2LD	Collector	Hialeah	454	NA	1,620	0.28	Yes
			SB	2LD			982		1,620	0.61	Yes
	NW 138 Street	W 68 Street	NB	1 L	Collector	Hialeah/Hialeah	274	D	760	0.36	Yes
			SB	1 L			188		760	0.25	Yes
NW 107 Avenue	NW 166 Street	NW 162 Street	NB	1 L	Collector	Hialeah/Hialeah	102	NA	798	0.13	Yes
			SB	1 L			261		798	0.33	Yes
	NW 162 Street	NW 154 Street	NB	1 L	Collector	Hialeah/Hialeah	204	NA	798	0.26	Yes
			SB	1 L			521		798	0.65	Yes
	NW 154 Street	NW 138 Street	NB	1 L	Collector	Hialeah/Hialeah	328	D	798	0.41	Yes
			SB	1 L		Gardens	642		798	0.80	Yes
	NW 138 Street	Okeechobee Rd/US 27	NB	2 LD	Collector	Hialeah Gardens	573	D	1,620	0.35	Yes
			SB	2 LD			609		1,620	0.38	Yes
HEFT	NW 57 Av (Red Road)	I-75	NB	2 LD	FIHS	Miramar	4,657	D	3,580	1.30	No
			SB	2 LD			3,298		3,580	0.92	Yes
	I-75	NW 170 Street	NB	4 LD	FIHS	Miami-Dade	8,319	D	7,480	1.11	No
			SB	4 LD			5,880		7,480	0.79	Yes
	NW 170 Street	Okeechobee Rd/US 27	NB	4 LD	FIHS	Miami-	8,405	D	7,480	1.12	No
			SB	4 LD		Dade/Hialeah	5,934		7,480	0.79	Yes
	Okeechobee Rd/US 27	NW 106 Street	NB	4 LD	FIHS	Miami-	8,966	D	7,480	1.20	No
			SB	4 LD		Dade/Medley	6,404		7,480	0.86	Yes
	NW 106 Street	NW 74 Street	NB	4 LD	FIHS	Miami-Dade	9,566	D	7,480	1.28	No
			SB	4 LD			7,019		7,480	0.94	Yes

Source: David Plummer and Associates, Inc.

SENSITIVITY ANALYSIS

Future Traffic Conditions with Project - (weekday, one-way, PM peak)

Beacon Countyline DRI

Roadway	Limits		Direction	# of Lanes	Roadway Type	Municipality	Volume (2018)	LOS STD	Service Volume	V/SV	Meets LOS STD?
	From	To									

SENSITIVITY ANALYSIS

Future Traffic Conditions with Project - (weekday, one-way, PM peak)

Beacon Countyline DRI

Roadway	Limits		Direction	# of Lanes	Roadway Type	Municipality	Volume (2018)	LOS STD	Service Volume	V/SV	Meets LOS STD?
	From	To									
NW 170 Street	HEFT	NW 97 Avenue	EB	2LD	Collector	Miami-Dade/Hialeah	308	NA	1,620	0.19	Yes
			WB	2LD			239		1,620	0.15	Yes
	NW 97 Avenue	I-75	EB	1 L	Collector	Miami-	86	NA	798	0.11	Yes
			WB	1 L			55		798	0.07	Yes
	I-75	NW 87 Avenue	EB	1 L	Collector	Miami-	148	D	760	0.19	Yes
			WB	1 L			148		760	0.19	Yes
	NW 87 Avenue	NW 77 Avenue	EB	1 L	Collector	Miami-	386	D	760	0.51	Yes
			WB	1 L			434		760	0.57	Yes
	NW 77 Avenue	NW 67 Avenue	EB	1 L	Collector	Miami-	377	D	760	0.50	Yes
			WB	1 L			430		760	0.57	Yes
NW 138 Street	Okeechobee Rd/US 27	NW 107 Avenue	EB	2LD	Collector	Hialeah/Hialeah	665	D	1,620	0.41	Yes
			WB	2LD			638		1,620	0.39	Yes
	NW 107 Avenue	NW 97 Avenue	EB	2LD	Collector	Hialeah/Hialeah	547	D	1,620	0.34	Yes
			WB	2LD			397		1,620	0.25	Yes
	NW 97 Avenue	Beacon Station Blvd	EB	2LD	Collector	Hialeah	1,418	D	1,620	0.88	Yes
			WB	2LD			935		1,620	0.58	Yes
NW 130 Street (W 76 Street)	NW 97 Av	Beacon Station Blvd	EB	2LD	County Minor Arterial	Hialeah	459	D	1,620	0.28	Yes
			WB	2LD			595		1,620	0.37	Yes
	Beacon Station Blvd	NW 87 Av	EB	1 L	County Minor Arterial	Hialeah	634	D	760	0.83	Yes
			WB	1 L			665		760	0.88	Yes
	NW 87 Av	W of SR 826	EB	1 L	County Minor Arterial	Hialeah	436	C	760	0.57	Yes
			WB	1 L			507		760	0.67	Yes
Okeechobee Rd/US 27	West	HEFT	NWB	2 LD	FIHS	Hialeah Gardens	1,335	C	2,500	0.53	Yes
			SEB	2 LD			1,145		2,500	0.46	Yes
	HEFT	NW 138 Street	NWB	3 LD	FIHS	Hialeah/Hialeah Gardens	1,379	D	2,790	0.49	Yes
			SEB	3 LD			1,286		2,790	0.46	Yes
	NW 138 Street	Beacon Station Blvd	NWB	3 LD	FIHS	Hialeah Gardens	1,361	D	2,790	0.49	Yes
			SEB	3 LD			1,088		2,790	0.39	Yes
	Beacon Station Blvd	NW 87 Avenue	NWB	3 LD	FIHS	Hialeah Gardens	2,318	D	2,790	0.83	Yes
			SEB	3 LD			1,869		2,790	0.67	Yes
	NW 87 Avenue	SR 826	NWB	3 LD	FIHS	Hialeah Gardens	2,522	D	2,790	0.90	Yes
			SEB	3 LD			2,077		2,790	0.74	Yes
	SR 826	NW 74 St	NWB	3 LD	State Principal Arterial	Hialeah	3,101	E + 20%	3,348	0.93	Yes
			SEB	3 LD			2,179		3,348	0.65	Yes
West Okeechobee Rd / Frontage Road	US 27/NW 138 Street	NW 107 Avenue	NWB	1 L	Collector	Hialeah Gardens	396	D	760	0.52	Yes
			SEB	1 L			531		760	0.70	Yes
	NW 107 Avenue	Hialeah Gardens Blvd	NWB	1 L	Collector	Hialeah Gardens	534	D	760	0.70	Yes
			SEB	1 L			263		760	0.35	Yes
	Hialeah Gardens Blvd	NW 87 Avenue	NWB	1 L	Collector	Hialeah Gardens	315	D	760	0.41	Yes
			SEB	1 L			308		760	0.41	Yes
	NW 87 Avenue	NW 77 Avenue	NWB	1 L	Collector	Hialeah Gardens	831	D	760	1.09	No
			SEB	1 L			374		760	0.49	Yes
Gratigny Expressway	SR 826	Red Road/W 4 Av	EB	3 LD	State Principal Arterial	Hialeah/Miami Lakes	3,095	D	7,380	0.42	Yes
			WB	3 LD			3,406		7,380	0.46	Yes
W 68 Street/NW 122 Street	Okeechobee Road	NW 97 Avenue	EB	1 L	Collector	Hialeah Gardens	352	D	608	0.58	Yes
			WB	1 L			247		608	0.41	Yes
	NW 97 Avenue	NW 87 Av / W 28 Av	EB	1 L	County Minor Arterial	Hialeah	599	D	608	0.99	Yes
			WB	1 L			624		608	1.03	No
	NW 87 Av / W 28 Av	SR 826	EB	2 LD	County Minor Arterial	Hialeah	1,391	D	1,620	0.86	Yes
			WB	2 LD			1,668		1,620	1.03	No

Source: David Plummer and Associates, Inc.

Appendix 21-14
Transportation Demand Strategies

The following is a general list of Transportation Demand Management Strategies (TDM) that may be used to mitigate project impacts:

1. On-Site Employer Transportation Coordinator (ETC): An on-site person assigned to coordinate transportation activities of major employers. This is a person who is responsible for coordinating ridersharing activities at the company's site.

2. Establishment of Shuttle Service: Bus or van service that provides transportation between the company's facilities or from the employer's site to transportation facilities such as: Park and Ride lots & Tri-rail stations.

3. Ridersharing: A vehicle shared by several persons for trips to and from work. The following categories are defined in this strategy:

    a. Carpooling: Use of a private car to carry fellow employees to work. Not necessarily limited to employees of the same company.

    b. Vanpooling: Use of an 8-15 passenger van, driven by one of the employees. Participants pay a monthly fee to share capital and operating costs.

    c. Subscription Bus: Use of a mini-bus to provide transportation to a transit facility or place of employment. This service is usually sponsored by employers to facilitate the commute of their employees. However, participants pay a monthly fee to cover operational costs. This is a subscription service that participants may cancel at any time.

4. Marketing Information Programs: Transit and traffic congestion marketing and educational programs are developed by employers and government agencies to promote travel reduction strategies for employees. Areas of focus in this strategy are: Mobility improvement, congestion alleviation and air quality improvement. The campaign is oriented to create public awareness of transit services and alternatives. This can be done by using printed materials, visual aids, conferences, seminars and workshops, among others.

5. Preferential Parking: Employers provide preferential parking spaces and treatments for carpool and vanpool vehicles. These parking spaces usually are located within close proximity to the main entrance.

6. Emergency Ride Home Program: Employer provides an allowance for a taxi or a company vehicle for ridesharing employees when and if an emergency situation arises. This is an incentive for ridesharing.

7. Employer Subsidized Transit Use: Employer provides full or partially paid transit passes to employees for commuting by public transit.

8. Employee Transportation Allowance: Transportation allowance provided by employers to employees exclusively for or to encourage use of public transit or nontraditional modes such as carpool, vanpool, walk or bike. This allowance usually replaces free parking provisions.

9. Parking Management: Many options are considered in this strategy. Some of these are: employers eliminate or reduce the number of parking spaces for employees to discourage driving alone to work; parking enforcement; construction of peripheral parking garages; elimination of subsidies to employees for parking costs; eliminate on-street parking and; development of advanced parking information systems.

10. Alternative Work Hours: This strategy spreads the demand for travel at peak-periods. Some alternatives are:

    a. Staggered Work Hours: Different work groups are assigned to begin work at different times.

    b. Flex-Time: Employees are allowed to choose their own working schedules within company guidelines.

    c. Compressed Work Week: Employees are allowed to work four ten-hour days.

11. Telecommuting: Employees are allowed to work from home or a satellite office using Personal Computer Systems and phone lines connected to the main office.

12. Areawide Commute Management Organization: A public or private organization that coordinates and promotes matching services.

13. Formation of Transportation Management Association (TMAs): A partnership between business and location government looking for transportation solutions within a specific area. This strategy promotes private sector involvement in the decision-making process. Local governments are not necessarily part of the TMAs.