



City of Dania Beach

Chapter 3 Transportation Element

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TRANSPORTATION ELEMENT

TABLE OF CONTENTS

I.	INTRODUCTION - HISTORICAL SUMMARY OF COUNTY-WIDE MODELING ANALYSIS	1
A.	Intergovernmental Coordination	2
B.	Selecting the Land Use Pattern	2
C.	Land Use Intensities	6
D.	Travel Demand Forecasting Model	7
E.	Preliminary Modeling Results	9
F.	Final Modeling Results	12
G.	Future Land Use Implications and Recommendations	14
II.	DATA REQUIREMENTS	16
A.	The Transportation System	17
1.	Roadway Network	17
2.	Public Transit Network	26
3.	Bicycle Network	34
4.	Airports and Related Facility Services	35
5.	Intermodal Terminals & Access to Intermodal Facilities	36
B.	Transportation Level of Service Standard	37
1.	Roadway LOS Standards	37
2.	Concurrency Management System	39
III.	DATA ANALYSIS REQUIREMENTS	42
A.	Land Use and Transportation Interaction	42
1.	Growth Trends and Travel Patterns	42
2.	Establishment of Community Redevelopment Area and Local Activity Center Land Use Designation	43
3.	Availability of Transportation Facilities and Modes To Serve Existing Land Use	43
4.	Adequacy of Transportation System for Evacuation	46
5.	Compatibility of Fort Lauderdale/Hollywood International Airport with Adjacent Development in the City of Dania Beach	47

B.	Existing Transportation System Level of Service and System Needs	48
1.	Roadway Network	48
2.	Public Transit Network	49
C.	Projected Transportation System Levels of Service and System Needs	50
1.	Roadway Network	50
2.	Public Transit Network	53
3.	Bikeways Network	54
4.	Pedestrian Network	54
5.	Railways Network	55
6.	Intermodal Facilities	55
D.	Maintaining the Adopted Level of Service Standards	56
1.	Concurrency Management System.	56
2.	Transportation System Management	57
3.	Transportation Demand Management	58
4.	The Florida Intrastate Highway System	60
5.	Transportation Concurrency Exception Areas	61
6.	Transit Oriented Concurrency	61
E.	Consistency Between the Future Transportation Element with Future Land Use Element & Other Plans	62
1.	The Future Land Use Element	62
2.	Broward County Land Use Plan	62
3.	Long Range Transportation Plan	63
4.	Year 2030 Cost Feasible Plan	64
5.	Florida Department of Transportation Adopted Work Program	64
6.	Transportation Improvement Program	64
7.	Port Everglades Master Plan	65
8.	Tri-County Rail Transit Development Plan	65
9.	Broward County Bicycle Facilities Network Plan	65
10.	Broward County Five-Year Pedestrian Facilities Development Program	65
11.	Fort Lauderdale-Hollywood International Airport	65
IV.	GOALS, OBJECTIVES, AND POLICIES	66
V.	DEFINITIONS, ACRONYMS AND ABBREVIATIONS	91
A.	Definitions	91
B.	Acronyms and Abbreviations	101

TABLES

1-1	Preliminary Results of 2015 Model Runs	9
1-2	Final Results of 2015 Model Runs	13
2-1	Federal Functional Classification System	18
2-2	Functional Classification by Trip Purpose	19
2-3	Functional Classification of Major Dania Beach Roadways	20
2-4	Strategic Intermodal System / Florida Intrastate Highway System	21
2-5	Hurricane Evacuation Routes and Other Pertinent Information	25
2-6	Bridges Critical to Hurricane Evacuation	25
2-7	Bus Stop Inventory	27
2-8	Fixed Public Transit Routes Exceeding the Load Factor One	29
2-9	Tri-Rail Feeder Bus Service	29
2-10	Local Bus Service	30
2-11	Generalized Two-Way Peak Hour Volumes for LOS D	38
3-1	2004 Peak Hour Conditions	48
3-2	Projected 2015 Peak-Hour Traffic Volume and Capacity	50
3-3	2030 Peak Hour Conditions	51
3-4	Broward County Transportation Improvement Program (FY 2006/07 – FY 2010/11)	52
3-5	BCT Transit Service Coverage	53

MAPS

- 2-1 Existing Road and Parking Facilities
- 2-2.1 Broward County Transit Route Map - Existing Routes
- 2-2.2 Transit Route Coverage Map
- 2-2.3 Community Bus Route Map
- 2-3 Existing Major Public Transit Generators And Attractors
- 2-4 Significant Bikeways
- 2-5 Community Redevelopment Agency and Local Activity Center

ADOPTION REFERENCES

04/11/89	Transportation Element Adopted	Original
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I. INTRODUCTION - HISTORICAL SUMMARY OF COUNTY-WIDE MODELING ANALYSIS

This Transportation Element is one portion of the Comprehensive Plan for the City of Dania Beach. It includes the planning for all forms of transportation with emphasis upon public transportation. Dania Beach is located within the geographic boundaries of the Broward County Metropolitan Planning Organization. Because of this location, the Transportation Element includes planning and analysis in the following areas: traffic circulation; mass transit; ports; airports; bicycle facilities; provisions for pedestrian movement and provisions for hurricane evacuation. This Element is comprised of a Historical Analysis of County-Wide Transportation Modeling (Section I), Data and Analysis (Sections II and III), and Goals, Objectives and Policies (Section IV).

The final chapter (Section V) is a listing of definitions intended to assist the reader in understanding the technical terminology used within this Element.

There is also, within this Element, a series of maps that support the data and analysis. These maps will aid the reader in further understanding the location, inter-relationships and complexities of the various modes of transportation utilized within Dania Beach.

Another important aspect of this Element is that it be consistent with the rest of the City's Comprehensive Plan Elements. Within the other Elements of the Comprehensive Plan are policies that relate to transportation. These policies have been identified and repeated within this Element to ensure that issues raised elsewhere in the Comprehensive Plan are addressed in a consistent manner.

The minimum requirements of what is to be contained within the Transportation Element are outlined in Rule 9J-5 of the Florida Administrative Code. These standards are very broad, yet provide for very complex analysis. Addressing these requirements would be financially burdensome upon Dania Beach, if the City was required to under-go the required transportation modeling on its own.

As such, several cities have joined with the County in cooperatively modeling the transportation system. It is the results of this joint effort that forms the basis of the data and analysis within this Transportation Element. The following is a discussion of how that process was conducted and the results that were produced.

A. Intergovernmental Coordination

On March 24 and July 29, 1997, the Department of Community Affairs (“DCA”) met with the Broward County League of Cities Technical Advisory Committee (TAC), of which Dania Beach is a member. The TAC noted that it was not practical for each of Broward County’s 29 municipalities to independently model changes to land use intensities and that a coordinated county wide effort would be preferred, with Broward County taking the lead. The TAC further noted that the Evaluation and Appraisal Report amendment schedule did not promote a coordinated approach. As a consequence, the DCA, Broward County, and the TAC negotiated an agreement that would allow the municipalities to adopt their Transportation Element subsequent to Broward County’s adoption of its Transportation Element, thereby allowing each municipality to consider the impacts an increase in land use intensities would have on public transportation.

The TAC also established a Transportation Element subcommittee to assist it in implementing Subsection 163.3177(6)(j) 8., FS. The following TAC subcommittee consists of representatives from the following cities:

- City of Deerfield Beach
- City of Hallandale Beach
- City of Hollywood
- City of Cooper City
- Town of Davie
- City of Plantation
- Broward County Planning Council
- South Florida Regional Planning Council

B. Selecting the Land Use Pattern

Monday, August 25, 1997, the Transportation Element subcommittee (“TE subcommittee”) met to consider the selection of alternative future land use scenarios for modeling purposes. Seven (7) future land use scenarios were provided for their consideration and members were encouraged to develop additional scenarios. The seven (7) initial scenarios provided for discussion included:

- Scenario 1: The 2015 long-range
This approach would apply the future land uses as shown on the Broward County Land Use Plan to the 2015 roadway network in order to determine the impacts to the roadway and public transportation network. This scenario is equivalent to the “do nothing” approach and could serve as the baseline for comparison with other scenarios.
- Scenario 2: The Florida Department of Transportation’s (FDOT) designated public transportation corridors
The FDOT designated and proposed for designation various corridors as public transportation corridors. This approach would raise densities and intensities along those corridors designated or proposed for designation by the FDOT. The criteria for FDOT designation is primarily whether a public transit route has a ridership of 5,000 persons daily along a corridor.
- Scenario 3: Municipal designated public transportation corridors
This approach would require every municipality to review their future land use maps and determine which corridors are appropriate for higher densities and intensities.
- Scenario 4: Modified municipal designated public transportation corridors
This approach would require every municipality to review their future land use maps and determine which corridors are appropriate for higher densities and intensities. This map would then be modified by vote of the TAC, or some other entity, to assure continuity of corridors.
- Scenario 5: Exclusive public transportation corridor mixed use nodes
The only exclusive public transportation corridor is Tri-Rail. This approach would increase densities and intensities within a quarter mile radius of a Tri-Rail terminal.
- Scenario 6: Regional Activity Center
This “node” approach would increase densities and intensities within Broward County’s Regional Activity Centers (RACs).

- Scenario 7: Criteria based corridors
This approach would require that criteria be established that would be used in identifying a public transportation corridor (similar to the FDOT), and then applying these criteria to see which corridors would be affected. Densities and intensities along these corridors would be increased.

At the meeting, the subcommittee members present proposed five additional scenarios for consideration. These scenarios included:

- Scenario 8: Scenario 2 plus or minus Scenario 3
This approach would raise densities and intensities along those corridors designated by the FDOT as modified by the municipalities. A municipality could either add corridors to those already designated by the FDOT or delete portions of the designated FDOT corridors.
- Scenario 9: Scenarios 5 plus 6
This approach would increase densities and intensities within a ¼ mile radius of a Tri-Rail terminal and increase densities and intensities within Broward County's RACs.
- Scenario 10: Broward County Thoroughfare Plan Buildout Model
This approach would apply the future land uses as shown on the Broward County Land Use Plan to the buildout roadway network as shown on the Thoroughfare Plan and determine the impacts to the roadway and public transportation network. This scenario also is equivalent to a "do nothing" approach and could serve as an alternative baseline to Scenario 1.
- Scenario 11: Scenario 6 plus the proposed Davie RAC plus the Fort Lauderdale-Hollywood International Airport, and Port Everglades
This approach would increase densities and intensities within Broward County's RACs, the proposed Town of Davie RAC, the Airport and Port Everglades.
- Scenario 12: Scenario 5 plus Scenario 11
This would add the Tri-Rail corridor to Scenario 11.

After a brief presentation of each scenario and discussion among the subcommittee members of the merits of each scenario, members were asked to select four alternatives from the list of 12.

The preferred or first alternative would receive 4 points, the second alternative 3 points, the third alternative 2 points, and the final alternative 1-point. The top three scenarios would be taken to the TAC as the subcommittee's recommendation. The top three scenarios each received a total of 20 points. These three scenarios were:

- Scenario 10: Broward County Thoroughfare Plan Buildout Model
This approach would apply the future land uses as shown on the Broward County Land Use Plan to the buildout roadway network as shown on the Thoroughfare Plan and determine the impacts to the roadway and public transportation network. This scenario also is equivalent to a "do nothing" approach and could serve as an alternative baseline to Scenario 1.
- Scenario 8: Scenario 2 plus or minus Scenario 3
This approach would raise densities and intensities along those corridors designated by the FDOT as modified by the municipalities. The FDOT public transportation roadway corridors include three (3) previously designated roadway corridors (i.e., Hollywood Boulevard/SR 820, Broward Boulevard/SR 842, and University Drive/SR 817), three (3) proposed roadway corridors (US 441/SR 7, Oakland Park Boulevard/SR 816, and Sample Road/SR 834), and the Tri-Rail Commuter Corridor. The subcommittee did not recommend modifying these corridors, with the consequence that Scenario 8 was equivalent to Scenario 2.
- Scenario 12: Scenario 5 (Tri-Rail) plus Scenario 11
This approach would increase densities and intensities within Broward County's RACs, the proposed Town of Davie RAC, the Fort Lauderdale-Hollywood International Airport, Port Everglades, and within ¼ mile radius of a Tri-Rail terminal.

The TAC at their September 8, 1997 meeting, with one exception, ratified the TE subcommittee's three (3) preferred scenarios

The Fort Lauderdale Beach RAC was excluded from Scenario 8 because increased densities in this area are inconsistent with state planning law.

Subsequently, the Broward County Transportation Planning Division, which serves as staff to the Metropolitan Planning Organization ("MPO"), notified the TAC that Scenario 10 (i.e., Buildout) could not be used as a baseline because the travel demand-forecasting model does not provide buildout public transit data. Consequently, Scenario 1, the 2015 Long-Range Plan, was chosen as the baseline to replace Scenario 10.

C. Land Use Intensities

The Transportation Element subcommittee met to consider the appropriate land use intensities to be used for Scenario 8, the corridor approach, and Scenario 11, the "node" approach.

A literature search was conducted to find the minimum land use intensities that would support public transit for the corridor and node approach.

The literature revealed that average residential densities of at least seven dwelling units per acre (7 du/ac) within the service area of a route are considered the minimum level to justify the use of local bus routes with 30 minute headways, whereas densities of 15 dwelling units per acre are needed for 10 minute headways (See E. Kadesh, Encouraging Public Transportation Through Effective Land Use Actions, Municipality of Seattle, U.S. Department of Transportation, 1987; and B.S. Pushkarev and J. M. Zupan, Public Transportation and Land Use Policy, Indiana University Press, Bloomington, 1977).

Broward County Transit (BCt) operates many routes on 30-minute headways and, as a consequence, a density of eight (8) dwelling units per acre was chosen as the land use intensity for the corridor approach. To implement this land use intensity, densities were increased in all those traffic analysis zones (TAZs) with ¼ mile of the identified transit corridor.

The literature was sparse for minimum land use intensities in nodes needed to support public transportation. The sole source found was Robert Cervero's Transit Villages in the Twenty First Century. Mr. Cervero found that minimum densities of 12 dwelling units per acre (as well as 40,000 square feet of commercial space and a regional attraction) were necessary to support a transit village. Consequently, a density of 12 dwelling units per acre was chosen as the land use intensity for the node approach. To implement this land use intensity, densities were increased in all those TAZs located within a RAC and within ¼ mile of a Tri-Rail station. For Port Everglades and Fort Lauderdale-Hollywood International Airport, nodes that have no populations, residential densities were assumed to be zero. In these nodes, only non-residential intensities were increased.

To address non-residential land use intensities, the subcommittee recommended a housing-jobs balance methodology be used.

D. Travel Demand Forecasting Model

The Florida Standard Urban Transportation Model Structure ("FSUTMS"), maintained by the Broward County MPO, was the travel demand forecast model used to model alternative land use intensities. The FSUTMS model is a four-stage gravity model. At the most basic level, the typical forecasting model is structured around the following four sequential steps:

- ◇ Trip Generation - Estimation of number of trips produced by and attracted to each "traffic analysis" zone.
- ◇ Trip Distribution - Determination of the origin and destination zone for each trip.
- ◇ Modal Choice - Calculation of number of trips using the different modes of transportation such as auto, transit, pedestrian and other.
- ◇ Assignment - "Loading" of auto trips onto the highway network or person trips onto the transit network.

1. Land Use Inputs

Land use inputs are addressed in the model by dividing the County into a number of traffic analysis zones ("TAZs"). A TAZ is a compact geographic area that coincides with census tract boundaries and usually bounded by roadways, and physical barriers such as expressways, rivers, canals, or other physical structures that limits the crossing of motorized vehicles. Broward County has 892 TAZs. Two databases are associated with each TAZ. Database 1 includes population and housing information, depicting the production side of the trip generation step. Database 2 comprises employment and school data, displaying the attraction side of the trip generation step. In addition, the model includes information on special generators (i.e., major ports, parks, and shopping malls), internal-external trips for travel across the county lines either south to Miami-Dade County or north to Palm Beach County, and external-external trips for trips passing through Broward County.

2. Transportation System Inputs

The transportation system inputs include information on roadway geometry (such as number of lanes, facility type, area type etc.). The transit network uses mainly the highway network, and other transit system information such as headway, bus travel speed, bus stops, and bus capacity.

The FSUTMS model generates trips at each traffic analysis zone (TAZ) from land use variables (population and employment). Trips are distributed between zones using gravity concept and friction factors.

Trips are then split between highway, transit and other modes using mode choice concept. Highway trips are converted to auto trips using an appropriate auto occupancy rate. Auto trips are assigned to the highway network according to equilibrium concept based on speed and capacity of each highway facility in the network.

Before using the model in traffic projection, it should be validated for the most recent year in which travel and census data are available. In Broward County, the model was validated for the year 1990. Transit coefficients are developed

based on current transit market shares. Model runs are made until simulated model output matches the ground count for the year being validated. Then, the validated model coefficients and parameters are applied to future years. In this case, the year 1990 validated model coefficients and parameters were applied. For the purpose of this analysis, the main variable that was modified in the year 2015 model was the land use data and transit connectivity to affected TAZ's.

E. Preliminary Modeling Results

The preliminary results for the first model run using baseline, node, and corridor scenarios are depicted in Table 1-1. Under Broward County's adopted year 2015 Long Range Transportation Plan, the total number of person trips was estimated at 5.2 million trips per day in the baseline scenario. The node intensification scenario of 12 du/ac produced 261,752 additional person trips per day over the baseline scenario, a 5 percent increase. The corridor intensification scenario of 8 du/ac produced 2,530,863 additional person trips per day over the baseline scenario, a 48.6 percent increase.

It was observed by the MPO staff that the increase in land use density (population and employment) in each zone was accompanied by an increase in intrazonal trips. Intrazonal trips are those trips that are attracted to developments within a TAZ and are not loaded onto the highway network. Intrazonal trips increased by 9,814 in the nodes scenario and by 120,574 in the corridor scenario over the baseline scenario. This increase in intrazonal trips reduces total trips loaded on the highway network, meaning fewer trips for public transit.

Table 1-1 Preliminary Results of 2015 Model Runs			
Characteristic	Baseline	Nodes	Corridors
Total Person Trips/Day	5,212,253	5,474,005	7,743,116
Intrazonal Person Trips/day	153,888	163,702	274,462
Mode Split (includes Tri-Rail)	1.51	1.41	1.26

Table 1-1 Preliminary Results of 2015 Model Runs			
Characteristic	Baseline	Nodes	Corridors
Total VMT	36,482,580	37,748,840	47,676,784
Total VHT	1,536,529	1,594,888	2,254,994
Congested Speed (mph)	25.2	25.6	22.4
Daily Transit Ridership (Includes P&R and Tri-Rail)	78,855	78,327	97,584
Source: Broward County Transportation Planning Division, 1998.			

Vehicle miles traveled (“VMT”) is used as a performance tool to measure the overall use of a road segment. VMT is a measurement derived by multiplying the traffic volume on a roadway segment times the length of that segment in miles. The node intensification scenario produced 1,266,260 VMT per day over the baseline scenario, a 3.5 percent increase. The corridor intensification scenario produced 11,194,204 VMT per day over the baseline scenario, a 30.7 percent increase.

The two most significant characteristics for public transit on Table 1-1 are mode split and daily transit ridership. Mode split is the term used to describe the percent of total trips attributed to public transit that, for this analysis, would include regular buses, express buses and Tri-Rail.

The initial FSUTMS model runs showed a decline in mode split for both the node intensification and corridor intensification scenarios as compared with the baseline scenario. Under the node intensification scenario, daily transit ridership declined by 528 trips as compared with the baseline scenario. The corridor intensification scenario, however, produced 18,729 additional person trips in daily transit ridership, a 23.8 percent increase over the baseline scenario.

The preliminary FSUTMS model results were distributed to the TAC, the FDOT District 4, and the DCA. The model results were presented to the TAC and discussed at their January 16, 1998 meeting. The TAC agreed with MPO staff that mode split and

daily transit ridership should be reexamined because the results, which represented only local bus ridership, were inconsistent with the increased intensities that should have *improved* mode split and increased daily transit ridership. The MPO staff noted that the preliminary model run for the node and corridor intensification scenarios did not include any attempts to check zonal connections to transit and availability of existing routes to absorb additional transit riders. Further, data adjustments were not made where a TAZ had existing intensity that was greater than the intensity proposed under the node and corridor scenarios. Finally, total populations under the node and corridor intensification scenarios were not reviewed for consistency with the projected 2015 high range population estimates. The MPO staff noted that land use intensity increase in one area should be accompanied by a decrease in other area to maintain a realistic population control total. The MPO staff requested the TAC to provide direction on these issues before making additional FSUTMS runs.

The TAC requested the MPO staff to make the following modifications to the model before a second run:

- Check zonal connections to transit routes,
- Check the availability of adequate transit vehicles to absorb additional ridership,
- Make any appropriate changes in land use density to maintain consistency and stay within the high-range population control total for year 2015,
- Zonal connections should be formulated such that they are within $\frac{1}{4}$ mile of a bus stop. The $\frac{1}{4}$ mile distance is equivalent to a 5-minute walk, the generally accepted maximum walking time for public transit,
- Public transit headway should be decreased where appropriate to accommodate potential increase in ridership,
- Use existing intensities in a TAZ where such exceeded the intensities under the node and corridor intensification scenarios, and
- Make necessary correction to zonal data.

With this direction, the MPO staff agreed to make additional model runs. The MPO staff made corrections/adjustments to the data and zonal connections as recommended by the TAC, and ran the model a second time for both the corridor and nodes

scenarios. The second model run produced higher mode split than observed in the first run. Mode split for the corridor scenario was estimated at 1.37, which was still lower than the base year. Therefore, no further adjustments were made to the node scenario.

Further adjustments were made to the corridor scenario including zonal adjustments (additional walk connectors) were made to those TAZs projected to experience a huge growth in both population and employment densities. A third model run was made for the corridor scenario. In this run, mode split increased from 1.37 to 1.43 but was still lower than the baseline.

A fourth run was made after correcting zonal data associated with TAZ 830. The fourth run model split for the corridor scenario was estimated at 1.4, still lower than base year.

Since daily transit ridership was not increasing proportional to that of population density, existing transit on routes servicing targeted corridors (Route 2, 7, 18, 22, 72, and 83) were enhanced to attract additional riders. The model was using hard coded headway based on existing condition ranging from 30 to 60 minutes. Further, the model that recommended headway was usually lower than the hard coded headway, therefore a fifth model run was made with transit headway adjusted between the model recommended headway and the hard coded headway for the heavily used transit routes. Mode split after the fifth run was 1.70 higher than the baseline scenario.

At this point no further runs were anticipated for the corridor scenario. However, total population estimated by the model was higher than the higher range as reported in the Florida Statistical Abstract. Therefore, a sixth and final run was made after decreasing the population density from 8 units/per acres to 6/units per acre. The purpose for modifying acres/units was to reduce the permanent population projections for Year 2015 from 2,514,130 to below the population control total of 2,232,300. The sixth run mode split for the corridor scenario after adjusting population total was 1.62, which is still higher than the baseline scenario.

F. Final Modeling Results

The final modeling results using the FSUTMS are depicted in Table 1-2. The baseline characteristics are the same for the preliminary and final model runs. The node intensification scenario produced 353,632 person trips per day over the baseline scenario, a 6.8 percent increase over baseline. The corridor intensification scenario produced 1,926,219 total person trips per day over the baseline scenario, a 37 percent increase over baseline.

Table 1-2 Final Results of 2015 Model Runs			
Characteristic	Baseline	Nodes	Corridors
Total Person Trips/Day	5,212,253	5,565,885	7,138,472
Intrazonal Person Trips/day	153,888	167,252	249,678
Mode Split (includes Tri-Rail)	1.51	1.61	1.63
Total VMT	36,482,580	38,141,252	44,653,860
Total VHT	1,536,529	1,615,902	2,017,919
Congested Speed (mph)	25.2	25.5	23.5
Daily Transit Ridership (Includes P&R and Tri-Rail)	78,855	89,655	116,040
Source: Broward County Transportation Planning Division, 1998.			

For intrazonal person trips, trips occurring between different land uses inside a TAZ, the node intensification scenario produced 13,364 person trips and the corridor intensification scenario produced 95,790 person trips per day over the baseline scenario. This increase in intrazonal person trip making is attributed to the

increase in both productions and attractions within the modified TAZs.

The increase in land use density, after the sixth model run, showed an increase in mode split under both node and corridor scenarios. Mode split increased from 1.51 under the baseline scenario to 1.61 under the node intensification scenario and to 1.63 under the corridor intensification scenario. Daily transit ridership also improved under both scenarios. The node intensification scenario produced 89,655 daily transit riders per day and the corridor intensification scenario produced 116,040 daily transit riders per day.

The node intensification scenario produced 1,658,672 VMT per day over baseline, while the corridor intensification scenario produced 8,171,280 VMT per day over the baseline. The increase in VMT is always accompanied by an increase in congestion and air pollution. This impact should be weighed against the increase in transit ridership and the improvement in modal split demonstrated by both the node and corridor scenarios.

G. Future Land Use Implications and Recommendations

The modeling results are consistent with the weight of data that shows that intensifying land uses along public transit corridors can improve transit ridership. The modeling results also indicate that land use intensification must include some form of transit enhancements as needed in order to attract and absorb additional riders generated by land use intensification such as headway reduction. The modeling exercise, however, has several important constraints that militate against wholesale future land use map amendments along the identified corridors:

- Inadequacy of FSUTMS: The FSUTMS model was not intended to be used for land use analysis although it is used for this purpose throughout Florida. The existing problem with using FSUTMS for this purpose is not the land use data but the connectivity to the highway network and the relationship between the land uses within a TAZ. Existing connections are sometimes not representative of existing conditions and the same connector used by residential development connects commercial development.

Commercial development occurs primarily along the perimeter of a TAZ while residential development occurs primarily within a TAZ. These factors must be weighted before accepting the results of this analysis.

- Macro not microanalysis: The model runs assumed the TAZ at densities higher than those existing. Higher densities are practical when a TAZ is primarily undeveloped, but are unlikely when they are more fully developed.
- Political constraints: The governing bodies for Broward County and its municipalities are not likely to accept future land use map amendments based upon the results of a modeling exercise.

Based on the model results, and consistent with an incremental approach, the following two (2) recommendations are offered and have been incorporated into the TE:

- Broward County, in conjunction with the affected municipalities, the MPO, the FDOT, and the DCA, should select at least one of the six (6) identified roadway corridors for a demonstration project on transit oriented design and development. The corridor selection should be based upon such factors as:
 - ◇ The degree of municipal interest in the corridor.
 - ◇ The amount of undeveloped land and the potential for redevelopment of existing land.
 - ◇ The potential for implementation.
- The demonstration project should include the following components:
 - ◇ Preparation of an overlay transit oriented corridor (TOC) zoning district that would be adopted by each municipality along the corridor. There already is some precedent for identical zoning provisions among adjoining municipalities. For example, although Port Everglades is owned and operated by Broward County, it is located within

the Cities of Dania Beach, Hollywood and Fort Lauderdale.

These municipalities have a zoning district within their land development regulations that is identical, thereby facilitating development within Port Everglades.

- ◇ Development of incentives for transit-oriented development (TOD) located within a TOC zoning district. These incentives could include such things as: reduced parking requirements; waiver or partial waiver of impact fees and other development related costs; public funding of transit-oriented development improvements (such as bus bays, bus benches and shelters, pedestrian facilities and connections to bus stop, etc.).
- ◇ Development of a long-term roadway and public transit monitoring system. The monitoring system should measure, at least on an annual basis, the roadway and transit impacts along the corridor, the roadway and transit impacts of TODs versus auto-oriented developments along the corridor.
- ◇ Grant funding for the demonstration project, including the hiring of a full time transit corridor coordinator by Broward County.
- ◇ Improving public transit access along the corridor.

II. DATA REQUIREMENTS

The Transportation Element is based upon identification of the following information:

- General location of the transportation networks;
- Functional classification of roadways;
- Maintenance Responsibilities;
- Transit trip generators and attractors;
- Designated transportation facilities for hurricane evacuation;
- Peak direction of level of service for roads, public transit facilities, and corridors or routes; and,

- Capacity of significant parking facilities and duration limitations.

The information required to be included in the Transportation Element is spelled out in Rule 9J-5 of the Florida Administrative Code.

A. The Transportation System

The transportation system encompasses the following networks: roadways, public transit, bikeways, pedestrian ways, waterways, airports, railways, recreational traffic, and intermodal facilities.

2. Roadway Network

The roadway network includes the following features: roadway segments or links, road intersections, bridges, rights-of-way, signalization, signage, roadway amenities, and significant parking facilities. This subsection also presents safety-related roadway network data.

a. Segments

A roadway segment or link is a portion of a roadway defined for the purpose of traffic analysis. The segment origination and termination points are typically signaled intersections or the point where the number of lanes on a roadway changes. Segments can be classified by lanes and functions.

Number of lanes. Rule 9J-5.019(2)(a) 9., FAC, requires the number of through lanes for each roadway be identified on an existing transportation map or map series. A map depicting the roadways within the City that are utilized to achieve the mobility goals for the community and the number of lanes on each facility is provided as Map 2-1.

Functional classification and maintenance responsibilities. Rule 9J-5.019(2)(a) 8, FAC, also requires the existing functional classification and maintenance responsibilities for all roads be shown on the existing transportation map series. Functional classification was developed for transportation planning purposes and is the grouping of

roadways by the character of service they provide. Table 2-1 depicts the federal functional classification system for urban roadways. These classifications are defined in Section V of this Element.

Table 2-1
Federal Functional Classification System
Urban
Principal Arterial
Minor Arterial
Collector
Local
Source: <u>Highway Functional Classification Concepts, Criteria and Procedures</u> , Federal Highway Administration.

The designation of federal functional classification is made following the publication of the decennial U.S. Census or whenever required by federal regulation. When evaluating the function of a road, the U.S. Department of Transportation (US DOT) considers a road’s trip purposes in relation to the total public roadway network. A road is classified based upon its most significant trip purpose; however, a road may serve more than one significant trip purpose.

The federal functional classification system recognizes twelve (12) significant trip purposes. Table 2-2 lists the significant trip purposes related to each functional classification. Arterial roadways are classified as either principal or minor.

A roadway serving only one of the arterial road defined purposes is classified as a minor arterial, while one serving more than a single defined purpose is classified as a principal arterial road. All limited access highways and roads that connect urbanized areas are considered to serve several trip purposes, and thus are classified as principal arterial roads. A collector road’s purpose is to provide access to minor public facilities, cross-connection between roads, access to concentrated land use areas, and access to diffuse land use areas.

Table 2-2 Functional Classification by Trip Purpose	
Trip Purpose	Functional Classification
Travel to and through urbanized areas	Arterial
Travel to and through small urban areas	Arterial
National defense	Arterial
Interstate and regional commerce	Arterial
Access to airports, seaports, and major rail terminals or intermodal facilities	Arterial
Access to major public facilities	Arterial
Interconnection of major thoroughfares	Collector
Access to minor public facilities	Collector
Interconnection of minor thoroughfares	Collector
Access to concentrated land use areas	Collector
Access to diffuse land use areas	Collector
Travel between home, work, entertainment, and shopping destinations and nearest road on the primary network composed of arterial and collector roads	Local
Source: <u>Highway Functional Classification Concepts, Criteria and Procedures</u> , Federal Highway Administration.	

The functional classification and maintenance responsibility as major roadways in the City of Dania Beach is provided in Table 2-3.

TABLE 2-3 Functional Classification and Maintenance Responsibility of Major Dania Beach Roadways		
Roadway	Classification	Maintenance Responsibility
I-95	Principal Arterial	Florida Department of Transportation
I-595	Principal Arterial	Florida Department of Transportation
S.R. 84	Minor Arterial	Florida Department of Transportation
Griffin Road	Principal Arterial	Florida Department of Transportation
U.S. 1	Principal Arterial	Florida Department of Transportation
Stirling Road	Minor Arterial	Florida Department of Transportation
Sheridan Street	Minor Arterial	Florida Department of Transportation
Dania Beach Blvd.	Minor Arterial	Florida Department of Transportation
Dixie Highway	Collector	Broward County
Ravenswood/Anglers Avenue	Collector	Broward County
Old Griffin Road	Collector	Broward County
Bryan Road	Collector	Broward County
S.E. 5 th Avenue	Collector	Broward County
27 th Avenue	Collector	Broward County
S.W. 40 th Avenue	Collector	City of Dania Beach
Source: Broward County Highway Functional Classifications, Broward County Department of Transportation Planning		

The maintenance responsibility of the roadway system is shared by Federal, State, County, and municipal governments.

In general, Broward County is responsible for the maintenance of all County roads and the State is responsible for maintaining principal arterial roads. Map 2-1, Existing Roads, shows the existing maintenance responsibility for roadways located within Dania Beach.

Florida Intrastate Highway System. Section 334.03, FS, defines the "Florida Intrastate Highway System" (FIHS) as a system of limited access and controlled access facilities on the State Highway System, which have the capacity to provide high-speed and high-volume traffic movements in an efficient and safe manner. State legislation enacted in 2004 has created a Strategic Intermodal System (SIS) that is a regional network of transportation facilities including the FIHS roadway component. SIS/FIHS requires the establishment of strategies to facilitate local traffic use of alternatives to the FIHS. Table 2-4 lists those roadway segments on the Florida Intrastate Highway System (FIHS) that are located within Dania Beach.

Table 2-4 Strategic Intermodal System (SIS) Florida Intrastate Highway System (FIHS)		
SIS / FIHS Roadways	Roadway Segments	Centerline Footage
Interstate 95	Hollywood (north city limits) to vicinity of the airport	10,000+ feet
Interstate 595	I-95 west to Dania Beach city limits	3,800+ feet
Total		13,800+ feet
Source: Florida Department of Transportation.		

b. Intersections and Interchanges

An intersection is defined as the general area where two or more roadways join or cross at grade, including the roadway and roadside facilities for traffic movements within the intersection. An intersection is an important part of the roadway network because its design influences the efficiency, safety, speed, cost of operation, and

capacity of roadways. Interchanges are designed to permit traffic to move freely from one road to another without crossing another line of traffic. The north half of the Stirling Road/I-95 Interchange, all of the Griffin Road/I-95 Interchange and a portion of the I-595/I-95 Interchange are located within Dania Beach.

c. Right-of-way

Right-of-way often is the major cost for transportation improvement projects; therefore, the acquisition of the needed land should be planned far in advance of the scheduled construction time. The Broward County Trafficways Plan, administered by the Broward County Planning Council, is a roadway right-of-way preservation plan. To accommodate the impacts of new development, right-of-way is dedicated by developing parcels to provide for an adequate regional roadway network.

A dedication for at least half of the roadway width that the Trafficways Plan calls for is normally required to be dedicated to the public at the platting stage. This dedication can also be obtained during site plan other development permit processes. Objective VIII and related implementing policies address right-of-way protection and preservation.

Currently there are four main classifications designated in the Trafficways Plan: limited access/controlled freeways; arterial; collector; and one-way pair. The right-of-way width for the limited access and controlled freeways is 325 feet; for arterial roadways, it varies from 100 to 200 feet; for collector roads, it ranges from 70 to 94 feet; and for one-way pairs, the range is from 42 to 54 feet.

d. Signalization

Signalization is an important part of the roadway system. It controls the flow of traffic; therefore, it affects the traffic volume passing through a particular intersection. For isolated (that is, non-system or uncoordinated) operation, the signal type indicates the degree to which a traffic signal's cycle length, phase plan, and phase times are preset or actuated. There are currently two types of

signals in use: actuated signals and semi-actuated signals. Intersections that have actuated signals will have vehicle detectors for all approaches. Each phase is subject to a minimum and maximum green time and some phases may be "skipped" if no vehicle demand is detected. Intersections installed with semi-actuated signals only have detectors located on the minor street. The signal is set such that the green is always on the major street unless a vehicle is detected on the minor street. The pre-timed signal has a preset sequence of phases in repetitive order. Each phase has a fixed green time and change interval that is repeated in each cycle. The Broward County Traffic Engineering Division is responsible for installing and maintaining all signal systems in the County. The purpose of traffic signal computerization is to optimize signal operation, thereby, providing a more efficient transportation system. Coordination of traffic signals through computerization has been recognized as one of most effective ways to improve the traffic flows.

e. Signage

Signing and markings are features of traffic control and operation that must be considered in the geometric layout of each facility. The FDOT, Broward County, and the municipalities create and maintain signage on their functionally assigned roadways.

f. Amenities

Landscaping is the primary highway amenity. Landscape design of completed highways serves functional, as well as aesthetic purposes. Plants can aid with glare reduction, acoustical control, erosion control, and traffic control, if they are well chosen and judiciously placed. Plants also can create and define spaces, by complementing and improving the attractiveness of certain sites, while masking undesirable views. Landscape design can influence speed through control of road focal points.

g. Significant parking facilities and durational limits

Significant public parking facilities in Broward County are defined as greater than 500 parking spaces. Long-term

parking facilities are defined as more than a day parking duration. Parking facilities that meet these definitions are depicted on Map 2-1. The closest facility to Dania Beach that meets these definitions is Fort Lauderdale Hollywood International Airport which has over 8,000 spaces for long and short term parking. The Sportsman Park Tri-Rail station also provides long and short term parking for approximately 180 vehicles. The Dania Jai Alai fronton on Dania Beach Boulevard is another significant parking facility in close proximity to the downtown area. Parking policies at these facilities are determined by the respective owners. Two centrally located city-owned facilities with significant parking include city hall (100 spaces) and Frost Park (130 spaces). In addition, approximately 100 on-street parking spaces exist in the downtown area. The City maintains and implements land development regulations that require new development and redevelopment to provide adequate on-site parking for all uses.

h. Safety

A safe roadway network enhances the protection of life and property. Safety concerns are monitored by tracking measures such as crash indicators, access management standards, and hurricane evacuation.

Crash Indicators

The City Police Department (Broward Sheriff's Office) supplies the Florida Department of Highway Safety (FDHS) with accident data collected in the City. Accident data is also compiled by the State Highway Patrol and other municipal police departments. The City supports legislation which establishes a consistent statewide road safety database that would be readily available to municipalities and the public so that the appropriate agencies could be better prepared to correct safety problems.

The City continues to support efforts by FDOT and Broward County to identify, fund and construct improvements to reduce the number of accidents.

Access management

Transportation Element Policy 3.4 provides for Dania Beach to prepare land development regulations to control the

connection of access points of driveways and roads to roadways.

Hurricane evacuation

No residential development is located on the barrier island. That portion of the City that is located on the barrier island is limited to the Florida Atlantic University Sea Tech Research Facility, a public park, and the public beach. Persons east of Federal Highway that are to be evacuated during a Hurricane need not cross bridges to the mainland. The designated roadway facilities utilized to evacuate the coastal populations are shown on Map 2-1. Table 2-5 shows the two east-west evacuation routes leading from and into the Coastal High Hazard Area. All bridges crossing the Intracoastal Waterway are moveable bascule bridges as identified on Table 2-6.

Table 2-5 Hurricane Evacuation Routes and Other Pertinent Information		
Route	General Area Served for Evacuation	Lanes: SR A1A to US 1
Dania Beach Blvd.	Dania Beach Blvd. to Sheridan Street	4 & 6 lanes
Sheridan Street	Dania Beach Blvd. To Hollywood Blvd.	4 lanes

Source: South Florida Regional Hurricane Evacuation Study, South Florida Regional Planning Council.

In addition to routes identified in the SFRPC Study, two other existing roadways also provide access from Dania Beach Boulevard to I-95. These are “Dania Beach Boulevard to Stirling Road” and “Dania Beach Boulevard to Griffin Road.” Both Griffin / Stirling Roads are six lane arterials located closer to Dania Beach Boulevard than Sheridan Street.

Table 2-6 Bridges Critical to Hurricane Evacuation		
Bridge Name	Length and Deck Width in Feet	Closed Clearance in Feet
Dania Beach Blvd. Bridge	495/59	18
Sheridan Street Bridge	354/57	22

Source: Broward County Emergency Management Division, Transportation Planning Division, FDOT, and US Chart Series.

3. Public Transit Network

Map 2-2.1, the 2007 Broward County Public Transit Network, shows Broward County Transit public transit routes, terminals and transfer stations.

a. Public transit facilities

Public transit facilities include bus terminals, transfer stations, rights-of-way, motorized vehicles (buses and vans), transit bus stops, transit amenities, and other facilities. There are no terminals or transfer stations in the City of Dania Beach.

Rights-Of-Way and Exclusive Public Transit Corridors. Additional right-of-way is acquired along major arterial roadways during the roadway widening process for bus pullout bays, also called bus bays. Bus pullout bays are specialized bus stop auxiliary lanes, independent of the through traffic travel lane. The bus bays are designed to minimize traffic obstruction and maximize passenger safety. Right of way for bus bays is also obtained through the platting process.

Exclusive public transit corridors are roadways or railways exclusively designated by the FDOT or a local government for public transit, which are physically separated from general use corridors and to which access is highly restricted. The South Florida Rail Corridor, previously known as the CSX Transportation railway corridor, is the currently the only exclusive public transportation corridor in Dania Beach and all of Broward County. The City of Dania Beach, in conjunction with the SFRPC and other eastern cities, are studying the feasibility of introducing passenger/commuter rail traffic on the Florida East Coast railway.

Public Transit Vehicles. Broward County Transit's ("BCt") 2005 vehicle inventory consists of 275 full-size transit coaches, each with seating capacities of 40-42 persons. All vehicles are air-conditioned and have kneeling mechanisms, which lower the steps of a bus to accommodate persons who have mobility impairments. All

buses are equipped with wheelchair lifts for facilitating boarding and disembarking, which extend from the bus to the at-grade level of the bus stop (either sidewalk or roadway). The average age of the BCt fleet is 5 years.

Public Transit Bus Stops. BCt maintains, monitors, and updates its' Bus Stop Inventory. Each stop has a unique code for the bus route and a unique location code that that shows that there are shared bus stops. A non-accessible bus stop is one that does not have a 5-foot by 8-foot concrete pad, connected to a sidewalk with a curb cut.

Public Transit Amenities. The Bus Stop Inventory reports data regarding amenities, including bus benches, shelters, pull-out bays, right turn lanes, and trashcans. Shelters located in municipalities are coordinated with the municipalities in accordance with BCt standards. The City of Dania Beach has contracts with private advertising companies to provide bus benches and bus shelters where the City and the respective company mutually agree to their placement.

Table 2-7 Bus Stop Inventory				
Stops	Benches	Shelters	Bays	Trash
141	49	5	12	21
Source: Broward County Transit Development Master Plan 2005-2009				

Other facilities. A bus maintenance facility is located on Angler’s Avenue south of Griffin Road within Dania Beach. This site has the capacity to park and maintain up to 150 buses.

b. Public transit services.

Public transit services are passenger services provided by public, private or non-profit entities. They include the following surface transit modes: fixed route bus service, express route bus service, feeder bus service, demand responsive service, municipal transit service, intercounty service, and other services. Map 2-2.1, Broward County

Transit Routes, shows the existing fixed public transit routes.

Fixed-Route Bus Service. The Broward County Mass Transit Division operates Broward County Transit (BCT), a fixed-route bus system servicing nearly all of Broward County's developable area. It provides service on a repetitive, fixed-schedule basis. Each fixed-route trip serves the same origins and designations. Currently, BCT operates 40 transit routes, 35 as regular open-door service and one as a park-and-ride service.

Fixed-route transit service is provided seven days a week, although at reduced levels on Sundays and certain holidays. Regular routes operate from as early as 5:00 a.m. until 10:30 p.m. on weekdays and Saturday, and from 9:00 a.m. to 8:00 p.m. on Sundays. Park-and-ride routes operate at the beginning and end of each weekday. Regular routes primarily operate on 30-minute headways during the week and Saturday, 60 minutes on Sundays.

The City of Dania Beach is currently served by several BCT fixed routes including Routes 1, 3, 4, 6, 12, 15, and 17. These routes, in conjunction with the Community Shuttle, provide transit coverage to over 80% of the area in the City as reflected in Map 2-2.2, Transit Route Coverage Map. The transit route load factor is a capacity performance measure used in the Congestion Management System (CMS). A bus route with a load factor of one (1) is operating at capacity, meaning all seats are occupied. Table 2-8 shows there is one transit route that achieves the load factor of one (1) during peak hours within Dania Beach. With only one of many transit routes that serve operating at capacity, there is generally adequate capacity in the current BCT system to accommodate additional riders who live and work in Dania Beach. With respect to Route No. 1 (US 1), the City supports BCT efforts to expand capacity, increase operating hours, and reduce headways.

Table 2-8 Fixed Public Transit Routes Exceeding the Load Factor One	
Roadway Segment	Route No.
US 1 from Broward Terminal (Ft. Laud) to Aventura Mall	1
Source: Broward County Congestion Management System: Performance Evaluation and Monitoring, Broward County Transportation Planning Division.	

Express Bus Services. There is not any express bus service currently serving the City of Dania Beach.

Feeder Bus Services. Feeder bus service routes are defined as local transit service that picks up and delivers passengers to a rail transit terminal, express bus stop, transfer point, or terminal. Feeder bus service is currently provided to Tri-Rail stations under a private contract. Broward County, through a contract with the Tri-County Commuter Rail Authority, supplies feeder services to the Tri-Rail terminal located in Dania Beach and identified in Table 2-9.

Table 2-9 Tri-Rail Feeder Bus Service		
Station Name	Route's Main Roadways	Vehicles
Ft. Lauderdale Airport	Griffin Road and Ravenswood Road	3
Source: Train Schedule and System Information , Tri-County Commuter Rail Authority.		

Community Bus Service. Community Bus Service, operated by the City under a contract with Broward County, provides intracity (local) bus service from neighborhoods to local destinations, including shopping centers, medical facilities, community centers, parks, the municipal beach, and Broward County Transit transfer locations. Under this contract, the City leases ADA accessible minibuses from BCt for \$10 per year. BCt pays an annual stipend to assist in the maintenance and operation of the vehicles. The mini buses have a capacity of 16 passenger vehicles and all are wheel chair accessible. The City staff work closely with BCt and citizens to design route alignments and operating

characteristics. The Community Bus Service, while a fixed route facility, can be modified by the City based on citizen user demand and capacity. The City periodically evaluates the Community Bus System in conjunction with BCt to assess ridership rates and identify system improvements.

The City currently operates three community bus service routes. These routes are identified on Map 2-2.3, Community Bus route Map. While the service is designed to provide local bus service, another function is to provide access to the regional transit system including Tri-Rail.

The routes are designed to provide links with BCt Routes. These links provide those who live and work in the City who are not served by BCt fixed route service with access to the regional transit system. Hours of operation are Monday through Friday from 9 am to 5 pm. The community bus service operates on 40 minute headways. Total transit coverage area in the City is over 80% including the BCt and the Community Bus service. See Map 2-2.2.

Table 2-10 Local Community Bus Service		
Average Headway	Route's Main Roadways	Vehicles
60 Minutes	East Route: City Beach, SR A1A,	2
60 Minutes	Dania Beach Boulevard, SE 3 rd Avenue, S.E. 5 th Avenue	
60 Minutes	West Route: Dania Beach Boulevard, NW 2 nd Street, Bryan Road, Oakwood Boulevard. West of I-95 between Griffin Rd and Stirling Rd along Angler's Ave, Park Rd, SW 53 St, and SW 31 Ave.	
Source: City of Dania Beach, Community Bus Service.		

Demand Responsive Service. Broward County funds and administers the Transportation Options Program (TOPS), which provides door-to-door service, upon request, to residents who are transportation or economically disadvantaged, for several specific trip purposes. The Mass Transit Division reports that in 1997 there were approximately 164 privately operated taxi and limousine companies registered in Broward County. These companies have licensed vehicles with capacities of eight (8) passengers or less.

Intercounty Services. BCt fixed routes provide intercounty service to Miami Dade and Palm Beach Counties. Route 1 which runs from the Broward Downtown terminal to the Aventura Mall travels through the City of Dania Beach along US1. BCt routes also connect with Palm Beach County's transit system at the Boca Town Center and Mizner Park Developments in the City of Boca Raton.

Other Transportation Services. Other transportation providers within Broward County that provide service to Dania Beach include the Broward County School Board and various private companies, as well as over 30 social service agencies.

c. FDOT designated public transportation corridors

The purpose of corridor designation and subsequent planning is to relieve congestion by increasing people carrying capacity through the use of high occupancy vehicles. FDOT has identified seven designated public transportation corridors in Broward County. The Tri-Rail corridor is the only currently designated public transportation corridor in the City of Dania Beach. Details about the corridor, including justifications are provided in the public transportation corridor reports prepared by FDOT. The City of Dania Beach, in conjunction with the SFRPC and other eastern cities, are studying the feasibility of introducing passenger rail traffic on the Florida East Coast railway.

The Tri-Rail corridor travels through the City of Dania Beach along the west side of I-95. The current and future land use plan designations along the corridor are generally

compatible with the transit corridor and include nonresidential uses such as commercial, industrial and FLL. The Dania Beach Tri-Rail station is located on Griffin Road and is an integral part of the Sportsman Park retail and entertainment center. In order to further enhance the attractiveness of the Tri-Rail system and improve the linkage between land uses and transit service, residential uses should be developed at and around the Tri-Rail stations, where appropriate, to create an urban village development pattern.

In order to promote and protect this public transportation corridor, the City will continue to coordinate with Broward County Planning Council, FDOT and the MPO along with other municipalities to establish a transit oriented corridor overlay zoning district as a means of promoting public transit use and reducing the impact on the Florida Interstate Highway System.

d. Major public transit trip generators and attractors

Major public transit generators and attractors are concentrated areas of intense land use or activity that produce or attract a significant number of local trip ends. Public transit generators are typified by residential land uses.

Public transit attractors include commercial, industrial, office, commercial recreation, educational, institutional, and transportation land uses. Ideally, public transit should connect major transit generators to major transit attractors.

Broward County defines a major public transit generator as one of the 40 Traffic Analysis Zones (TAZs) with the highest population density. A major public transit attractor is one of the 40 TAZs with the highest employment density. The number 40 was chosen because it approximately represents five (5) percent of all TAZs within Broward County. The major public transit generator and attractor TAZs are displayed in Map 2-3.

Other activity centers in and adjacent to the City are provided below:

Activity Center	Activity Type
City Hall	Employment
Dania Jai Alai Fronton	Recreation
Dania Beach	Recreation
John U Lloyd State Park	Recreation
Outdoor World/ Sportsman Park	Shopping, Museum

All of these activity centers are served by BCT or Community Bus routes.

e. Safety

(Broward County Transit: BCT) Public transit safety addresses such issues as the safety certification process, transit fatalities and injuries, security surveillance at terminals and on buses, and hurricane evacuation.

Safety certification. BCT is in full compliance with the safety requirements mandated by the System Safety Program Plan (SSPP), Chapter 14-90, "Equipment and Operational Safety Standards Governing Public Sector Bus Transit Systems".

Security detail and surveillance. BCT has a security detail composed of Broward County Sheriff deputies. Additionally, all new buses purchased are equipped with security cameras.

Hurricane evacuation. BCT provides bus service to the Coastal High Hazard Area.

4. Bicycle Network

The bicycle network includes bicycle facilities and services designed to enable and encourage the use of bicycles for recreational and utilitarian purposes. Recreational trips include travel for leisure, enjoyment, or pleasure and utilitarian trips include travel for work or errands.

a. Bicycle facilities

Bicycle facilities include bikeways, bicycle parking racks and bicycle transport racks.

Bikeways. A bikeway is any road, path or way that is open to bicycle travel and from which motor vehicles are excluded. Bikeways may be located within a roadway right-of-way, but are usually within an independent right-of-way. Broward County bikeways include paths, lanes, and wide curb lanes, which total almost 299 miles. The locations of bikeways are displayed on Map 2-4, "Significant Bikeways". Bikeways predominantly follow state roads, although scattered segments follow local roads.

A bike path is a bikeway that is physically separated by an open space or barrier. The bike path follows the east side of S.E. 5th Avenue, between Sheridan Street and East Dania Beach Boulevard. There is a substandard bike lane in Dania Beach Boulevard from S.E. 5th Avenue to the public beach across the Intracoastal Waterway. Upgrading this facility is addressed in Objective 1, Policy 1-16.

Bicycle transport racks. Bicycle transport racks are facilities provided on public transit vehicles and allow a passenger to carry a bike from a point of origin to a destination. Public transport racks enable the public transit user to reach destinations not served by the public transit system, thereby increasing the service area. Currently transport racks are provided on several BCt bus routes and are planned for all routes. Tri-Rail provides bicycle transport racks on each car.

b. Bicycle services

Bicycle services include bicycle repair services and educational programs.

Repair. Bike repair and maintenance are integral to bike ownership. The private sector provides bicycle repair services. There are numerous bicycle repair shops located throughout the county.

5. Airports and Related Facility Services

Civil aviation activities can be subdivided into passenger air carrier, air cargo, and general aviation facilities. Broward

County owns, operates and maintains the Fort Lauderdale/Hollywood International Airport (FLL) which is located immediately adjacent to the corporate limits of the City of Dania Beach. FLL is a regional facility that serves international and domestic air carriers. It occupies a site of 1,718 acres located south of I-595 and north of Griffin Road. The airport is accessible by roadway (from I-95, I-595, Griffin Road and US-1), by Tri-Rail shuttle service and by a BCT bus route.

The airfield consists of three active runways and supporting taxi ways and taxi lanes. The southern runway is a utility runway, designed for use by general aviation and commuter aircrafts. The other runways are designed to accommodate air carrier aircraft.

The existing terminal complex includes three terminal building units with five concourses. The terminals provide facilities to accommodate passengers and their baggage including ticket counter, passenger waiting areas, baggage claim, baggage handling, concessions, customs and immigration, as well as airline operations base. The terminals combined exceed 900,000 square feet. Parking structure and surface parking lots accommodate short and long term parking for over 10,000 vehicles.

FLL has experienced significant growth in recent years and future growth is projected. Due to the scale and activity at FLL, one of the City's biggest challenges regarding transportation and land use planning is to ensure that future expansion on the airport is consistent and compatible with established 30+ year old residential neighborhoods adjacent to the airport. To assure that airport and airfield development is compatible with established residential development abutting the airport, city staff and elected officials participate in the planning processes related to FLL.

6. Intermodal Terminals and Access to Intermodal Facilities

An intermodal facility is a facility designed to relate to two or more modes of transportation using single or closely related transportation facility and service.

FDOT's Corridor Management Procedure defines it as the provision of connections between different transportation modes, such as adequate highways to ports or bus feeder services to rail transit, individual modes working together to provide the user with the best choices of services. For purposes of this Transportation Element only passenger intermodal facilities are addressed.

Intermodal facilities include terminals, high-occupancy vehicle (HOV) lanes and park-and-ride facilities. Intermodal facilities that serve Dania Beach include the Sportsman Park Tri-Rail station and the Fort Lauderdale Hollywood International Airport (FLL). FLL is served by roadways, rail and transit service which makes it a primary intermodal facility in the region. The Sportsman Park Tri-Rail station is the closest to FLL and shuttle service is provided to connect Tri-Rail to FLL. Plans are currently being developed by Broward County to expand the intermodal connections at FLL with a rail facility that will link FLL with Port Everglades.

B. Transportation Level of Service Standard

Florida law requires transportation level of service standards be adopted for roads and public transit facilities within the local government's jurisdiction.

1. Roadway LOS Standards

The roadway level of service (LOS) standard is a qualitative assessment of the road user's perception of the quality of flow of traffic. The LOS standard is represented by a letter scale "A" through "F," with "A" being the most favorable conditions and "F" being the least favorable. The LOS is measured by dividing the number of vehicle trips (i.e., volume) on the facility by the capacity of that facility. While this is the most prevalent LOS standard, other standards could be employed. This includes LOS standards based on the number of person trips, vehicle miles traveled, vehicle hours traveled, or average speed can be used.

a. Strategic Intermodal System (SIS) / Florida Intrastate Highway System.

Rule 9J-5.0055(2)(c), FAC, requires local governments to

adopt the LOS standards established by the Florida Department of Transportation by rule for facilities on the SIS / FIHS. The only SIS/FIHS roadways in Dania Beach are I-95 and I-595.

Roadway	Link	Two-Way Peak Hour Volumes	Lanes
I-95	Miami Dade County to I-595	14,300	10
I-595	SR 7 to US 1	8,500	3

b. Roadway LOS standard exemptions.

The Florida Statutes allow local and county governments to adopt a number of exceptions to the traffic concurrency requirements. The exceptions apply to geographic areas (e.g., transportation concurrency exception areas), to specific roadway segments (e.g., constrained roadways), and to specific developments (e.g., de minimis impacts).

The entire City was located within the Broward County Urban Infill Transportation Concurrency Exception Area which allowed development to proceed in infill areas without meeting the concurrency standards. The TCEA (adopted in 1995) extends from the Atlantic Ocean to Florida’s Turnpike in the southern half of Broward County.

Broward County has replaced the TCEA with Transit Oriented Concurrency (TOC). The City of Dania Beach is incorporating TOC into its Comprehensive Plan.

c. Other non-local and non-municipal roadways.

Rule 9J-5.0055(2) (c), FAC, requires local governments to adopt LOS standards for county and state roads. While the City of Dania Beach has adopted the generalized two-way peak hour volumes for Florida’s Urbanized Areas at the LOS “D” standard as shown in Table 2-11, the City of Dania Beach addresses and establishes the LOS within Transit Oriented Concurrency.

Table 2-11 Generalized Two-Way Peak Hour Volumes for LOS D						
Lanes	2-lane Undiv.	4-lane Div.	6-lane Div.	8-lane Div.	10 –lane div.	12 lanes
State 2-way arterials Uninterrupted Flow	1,720	5,870	8,810	---	---	---
Interrupted Flow Class I (0 to 1.99)	1,560	3,390	5,080	6,440	---	---
Interrupted Flow Class II	1,460	3,110	4,680	6,060	---	---
Interrupted Flow Class III	1,200	2,750	4,240	5,580	---	---
Freeways, Group 1	---	6,510	10,050	13,600	17,160	20,710
Freeways, Group 2	---	6,250	9,840	13,420	16,980	20,560
Non-State Roadways Major City/County Rd	1,390	2,950	4,450	---	---	---
Other Signalized Rds.	950	2,070	---	---	---	---

Source: Level of Service Handbook, Table 4-4, FDOT.

2. Concurrency Management System

The Community Development Department implements the Concurrency Management System (CMS) as it relates to municipal roadways. The Broward County Department of Environmental Protection implements the CMS for County and State roadways. The CMS provides a development order or permit shall be issued when a roadway exceeds the applicable adopted LOS standard provided one or more of the following mitigation measures apply:

- 1). The proposed development does not place any trips on, or create any, overcapacity links within the impact area. The impact area consists of all property within the impact distance of the boundary of the proposed development site, where the impact distance is defined below:

Proposed Use:	Impact Distance (miles):
Church	1
Commercial, less than 200,000 square feet GFA	1
Commercial, between 200,000 & 1 million sq ft GFA	2
Commercial, greater than 1 million square feet GFA	3

Proposed Use:	Impact Distance (miles):
Commercial recreation	1
Community Facility	1
Day Care	1
Hotel	1
Industrial / Warehouse	2
Office	2
Park (local)	1
Park (regional)	2
Regional Cultural/Tourism Facility	3
Residential	1.5
School	1

Proposed developments with mixed use will be assigned the impact distance from the above table that is closest to the weighted average of impact distances of the individual uses in the proposed development, with the weights based on trips generated. Traffic studies submitted by an applicant shall be considered in reaching this determination.

- 2). The proposed development places trips on, or creates overcapacity links within the impact area but one of the following conditions applies:
 - a. There is an approved action plan to accommodate the traffic impact of the development; or
 - b. The necessary improvements to provide the applicable level of service are either under construction or are the subject of a executed contract for the immediate implementation of the improvements at the time the permit is issued; or
 - c. The necessary improvements to provide the applicable level of service have been included in the first two (2) years of the adopted municipal, state or county schedule of transportation improvements and the applicable government entity makes a determination that a binding contract for the implementation of said improvements will be executed no later than the final day of the second

fiscal year of the original schedule; provided, however, that for an improvement to a FIHS facility, inclusion in the third year of the adopted state program may also be acceptable; or

- d. The necessary improvements for the applicable LOS are provided for in an enforceable development agreement and will be available prior to certificates of occupancy that require those facilities. An enforceable development agreement may include, but is not limited to, development agreements pursuant to section 163.3220, Florida Statutes; or
- e. The development permit will be issued in accordance with, and as authorized by, an approved Florida Quality Development (FQD) or Development of Regional Impact (DRI) development order which development order was either issued prior to the adoption of the 1989 Broward County Comprehensive Plan or was issued after being reviewed for concurrency; or
- f. The proposed development is found to have vested rights with regard to any affected road segment in accordance with the provisions of Chapter 163, Part II, Florida Statutes, or a common law vested rights determination made as to that road segment in accordance with Section 5-181(l) of this Article. The proposed development must meet concurrency for any road segment for which a vested rights determination has not been made; or
- g. The proposed development meets the de minimis criteria.
- h. The proposed development is within an area designated on the Broward County Land Use Plan for urban infill, urban redevelopment or downtown revitalization transportation concurrency area.
- i. The proposed development would promote public transportation. Specifically, the proposed development is either:

- (ii) a public transit capital facility, including transit terminals, lines, shelters and stations; or
- (iii) an office building or office project that includes fixed-rail or transit terminals as part of the building

This CMS was modified from the one that was adopted in the City's previous Traffic Circulation Element. The revisions will be incorporated in the City's Land Development Code as stated in Policy 1.29. Policy 1.25 addresses coordination with Broward County concerning overcapacity roadway segments and roadway segments approaching capacity.

III. DATA ANALYSIS REQUIREMENTS

The Transportation Element is based upon the following series of analysis: land use and transportation system interaction; existing and projected transportation level of service and system needs, including existing and projected intermodal needs; maintaining the adopted transportation level of service standards; consistency between future land use and transportation elements, and consistency with other transportation plans; and promotion and support of public transportation system in designated public transportation corridors. The minimum requirements for this analysis are spelled out in Rule 9J-5.0199(3) of the Florida Administrative Code (FAC.).

A. Land Use and Transportation System Interaction

This section is broken down into four parts: Subsection 1 addresses growth trends and travel patterns associated with the transportation system, i.e., the roadway and public transit networks (9J-5.019(3)(d), FAC). Subsection 2 focuses on the adequacy of the transportation system for evacuation (9J-5.019(3)(c), FAC). Subsection 3 looks at the availability of the transportation system to serve existing land uses (9J-5.019(3)(b), FAC). Subsection 4 addresses land use compatibility around airports (9J-5.019(3)(d), FAC).

1. Growth Trends and Travel Patterns

No single force has had a greater impact on the pattern of land development in American cities in this century than the construction of roadways (See, The Transportation/Land Use Connection, Moore and Thorsnes, 1994). Initially, better roadways decreased the cost (both time and money) of transportation within and between urban areas. In recent years, roadway construction has gone hand in hand with what has become known as urban sprawl.

Broward County's historic growth and development were primarily linked to the construction of the Atlantic Intracoastal Waterway and Flagler's railroad. These improvements allowed the movement of freight and passengers to and from Broward County. It was the development of the railroad that specifically led to the development of Dania Beach as an agricultural center. It became a City in 1904 not only making

it the oldest municipality in Broward County; it was a legal entity prior to the creation of Broward County. Construction of US 1 and then I-95 through Broward County provided Dania Beach with greatly enhanced roadway access. More recent growth in Broward County has been westward following the opening of lands for development through drainage projects and subsequent building of high volume roadways. Broward County is now attempting to re-direct part of this growth that has been going to the west through its participation in the Eastward Ho! Initiative. This initiative has seen significant interest in development and redevelopment within the City of Dania Beach.

2. Establishment of Community Redevelopment Area and Local Activity Center Land Use Designation

In April 2004, the Broward County Commission approved the City of Dania Beach Community Redevelopment Area ("CRA") Plan for a 500 acre CRA to include commercial properties along the US 1 corridor, the Dania Beach Boulevard Corridor, as well as the central business district surrounding city hall. Also in 2004, both Broward County and DCA approved the City's 150 acre "Local Activity Center" land use plan amendment designation within the urban core of the CRA (See Map 2-5). Both the CRA and LAC land use designations are intended to foster redevelopment of Dania Beach's 100 year old business district as a mixed-use pedestrian friendly urban village incorporating Transit-Oriented-Design (TOD) to increase transit usage and reduce reliance on single occupancy vehicle usage.

3. Availability of Transportation Facilities and Modes to Serve Existing Land Use

Availability, as used here, refers to the extent to which the transportation system provides access to serve existing land uses. Roadways, public transit, bikeways, and pedestrian ways are transportation modes that require an extensive network of connections in order to serve existing uses. Consequently, this section addresses availability of the roadway, public transit, bikeways, and pedestrian way networks to serve existing land use.

a. Roadway network

Availability of the roadway network to serve existing land uses is primarily a function of the existing *local roadway system*. New development in the City is assured adequate access to local roadways by the Dania Beach City Code. Collector and arterial roadways, as a secondary or tertiary function, often provided direct access to existing land uses. This occurred more often prior to the implementation of current access management standards.

b. Public transit network

Availability of public transit to service existing land uses is based on the functional area coverage of the existing fixed-route bus network. Functional area coverage is defined as a ½ mile corridor surrounding a bus route, ¼ mile in each direction. The ¼ mile radius is based upon studies showing a person would walk up to ¼ mile to access the public transit network. The level of service standard adopted by Broward County for public transit is to maintain a 70 percent peak hour functional coverage for residential and employment areas. Data provided in Section C below indicates that these standards are met and there are no transit concurrency deficiencies in the County-wide transit system. Route coverage maps provided as Map 2-2.2 indicate that over 80 percent of the City is currently served by the Broward County transit system and the Community Bus Service. The City continues to coordinate with the MPO and BCt to expand and enhance transit service in the City. The City is committed to providing the Community Bus Service in conjunction with Broward County to serve these areas of the City that are not within the BCt fixed route service coverage area.

The Americans with Disabilities Act (ADA) requires that BCt, as an operator of a fixed-route bus system, offer complementary service to persons with disabilities who are unable to use the fixed-route system. A complementary paratransit service should operate at the level of service comparable to what is provided to persons without disabilities who use the fixed-route system. Since 1996,

Broward County Transit has been in full compliance with the service criteria established by the ADA.

c. Bikeways Network

As previously described, the bikeway system in Dania Beach is limited and deficient, especially along state roads. The City continues to work with FDOT (who has sole jurisdiction over state roads) to obtain funding for bike lane improvements, particularly along Dania Beach Boulevard between Downtown and the Beach. The City also requires the addition of bike paths and bike lanes along all state roads scheduled for resurfacing or reconstruction.

This link between the bicycle and public transit is possible because BCt and Tri-Rail are making provision to carry bicycles on their vehicles. Lack of appropriate bicycle facilities at terminals, however, limits the effectiveness of the connection between the bicycle and public transit. Placing bicycle lockers at Tri-Rail stations and BCt transfer points would increase security for parked bicycles, but requires administration over the locker rentals. Providing this service would eliminate two (2) major disincentives to riding a bicycle to a transit location: lack of parking and bicycle theft.

Allowing bicycles access on board commuter trains and buses has been successful in many areas around the country. In 1995, Tri-Rail developed a policy that would allow bicycles to be brought onto trains. Initially, this policy restricted the hours a bicycle could be brought on board. In 1997, however, Tri-Rail changed its policy regarding bicycles and now allows bicycles on all of its trains. Also, in 1997, BCt began receiving Congestion Mitigation and Air Quality funds to equip the entire fleet of buses with bicycle racks.

d. Pedestrian ways/Sidewalks

Availability of pedestrian ways to service existing land uses is primarily a product of the functional area coverage of the existing pedestrian way. As noted in the public transit availability discussion, the distance a person would be

willing to walk for transit is approximately ¼ mile or 1,320 feet. While this distance is the industry standard, 95% of the Local Activity Center and 75% of the CRA is located within 500 feet of a transit stop. The City of Dania Beach requires construction of sidewalks along local, collector, and arterial roadways as part of the City's site plan review process of new residential and non-residential construction. The City requests the addition of bike paths and bike lanes along all state roads scheduled for resurfacing or reconstruction.

4. Adequacy of Transportation System for Evacuation

a. Evacuation Routes

No residential development is located on the barrier island. That portion of the City that is located on the barrier island is limited to the Florida Atlantic University Sea Tech Research Facility, a public park, and the public beach. Those persons of east of Federal Highway that are to be evacuated during a Hurricane need not cross bridges to the mainland. Thus, evacuation for a Hurricane event is significantly less difficult for Dania Beach than it is for most coastal communities.

b. Transportation and Hazard Constraints on Routes

Again, due to the fact that Dania Beach residents are not required to cross bridges to the mainland in order to evacuate there are not the constraints faced by other communities.

c. Evacuation Time

The Hurricane Evacuation Study conducted by the South Florida Regional Planning Council estimates that residents having to evacuate from the barrier islands using Dania Beach Boulevard could do so in about 3.5 hours. Dania Beach residents will be able to evacuate in significantly less time. Again, the Dania Beach hurricane evacuation time is significantly less as a result of not having to deal with the bridge constraint issue.

5. Compatibility of Fort Lauderdale / Hollywood International Airport with Adjacent Development in the City of Dania Beach

Fort Lauderdale/Hollywood International Airport is a 1,718-acre facility that abuts the City of Dania Beach to the west, south, and east. Properties to the east of the airport are made up of petroleum tank farms; vacant industrial land, car rental facilities, manufacturing and warehouses. Properties to the south and west of the airport are made up of established single-family, residential neighborhoods. In the case of Dania Beach:

- 1) Airport development has been relatively recent in the City's history,
- 2) Airport development has occurred subsequent to development of nearby residential properties, and
- 3) Airport development is often is incompatible with adjacent uses.

While acknowledging the airports presence as a major transportation facility, the City's first concern is too assure that airport expansion and development does not adversely affect existing residential development or the city's fiscal ability to provide municipal services.

Accessibility. Residents of the City and the Tri-County area can access the airport through a number of modes of transportation.

Local access to the airport is primarily by road from U.S. Route 1, which has east west connections via I-595 and Griffin Road. These two roads in turn provide connections to Interstate 95 and the Florida Turnpike. Broward County Transit Route 1 serves the airport. A Tri-Rail connection at Sportsman's Park in Dania Beach was recently completed. A shuttle bus will be able to bring passengers to the airport terminals from the Tri-Rail Depot at Sportsman's Park. With the convergence of these modes of transportation, the airport is a primary multi-modal transportation facility.

B. Existing Transportation System Level of Service and System Needs

Analysis of the existing transportation levels of service (LOS) and system needs are based on the following data (9J-5.019(3)(a), FAC): existing design and operating capacities; most recently available estimates for average daily and peak hour vehicle trips; existing modal split and vehicle occupancy rates; existing public transit facilities; population characteristics; and the existing characteristics of the major trip generators and attractors within the community.

1. Roadway Network

Table 3-1 depicts the existing roadway network segments that are approaching capacity, that is, those roads with a V/C ratio between 0.90 and 0.99, and those segments that are overcapacity. The figures, including committed trips, are derived from the Traffic Review and Impact Planning System (TRIPS) model, which is operated and maintained by Broward County. Information developed through the model is provided to the City. Table 3-1 depicts the existing levels of service based on p.m. peak hour traffic counts derived from the TRIPS model.

Table 3-1 2004 – Peak Hour Conditions				
Road	Lanes	Volume	Capacity	LOS
<u>SHERIDAN STREET</u>				
East of Dixie Highway	4	2,534	3,110	D
East of US 1	4	2,748	3,390	B
<u>STIRLING ROAD</u>				
East of SR 7	6	4,272	4,680	D
East of Park Road	6	4,254	4,680	D
East of I-95	6	3,937	4,680	D
<u>DANIA BEACH BLVD</u>				
East of US 1	4	1,991	3,390	B
East of NE 2 nd Avenue	6	1,592	5,080	B
East of Gulfstream Rd	4	1,193	3,390	B
<u>GRIFFIN ROAD</u>				
East of SR 7	6	3,756	4,680	C
East of I-95	6	2,489	4,680	C

Table 3-1 2004 – Peak Hour Conditions				
Road	Lanes	Volume	Capacity	LOS
<u>RAVENSWOOD ROAD</u>				
North of Stirling Road	2	1,066	1,390	D
North of Griffin Road	2	1,047	1,390	D
<u>I-595</u>				
East of I-95	8	14,238	13,420	F
<u>I-95</u>				
North of Sheridan St.	10	21,038	16,980	F
North of Stirling Road	10	20,808	16,980	F
North of Griffin Road	10	19,890	16,980	F
<u>US 1</u>				
North of Sheridan St.	4	3,526	3,110	F
North of Stirling Road	4	4,096	3,110	F
North of Griffin Road	6	6,015	5,080	F
Source: MPO Roadway Level of Service Analysis for Years 2004 and 2030				

2. Public Transit Network

The City’s Plan shall establish the following transportation level of service (LOS) standards:

- Within transit oriented concurrency districts, the transportation LOS standards, for the purpose of issuing development orders and permits, are to achieve and maintain the following by FY 2009:

Southeast District – Achieve headways of 30 minutes or less on 80% of routes. Establish at least one neighborhood transit center. Establish at least one additional bus route. Establish at least one additional community bus route.

Overall – Increase number of bus stop shelters by 30%.

Map 2-2.2 displays the coverage currently provided to the City by BCt and the Community Bus Service. It is estimated that the City actually enjoys Functional Coverage rate of greater than 80 percent,

which means that more than 13,500 residents are served by BCt pursuant to this standard.

C. Projected Transportation System Levels of Service and System Needs

Rule 9J-5.019(3)(f), FAC, requires an analysis on the projected transportation LOS and system needs based on the future land uses shown on the future land use map. Rule 9-J-5.019 (3)(e), FAC, requires an analysis of projected intermodal needs. This section addresses the above requirements.

1. Roadway Network

The data and analysis included herein is based on the MPO’s Year 2015 and 2030 Long Range Plan Needs Assessment.

Table 3-2 below documents the projected peak hour level of service for 2015. The volumes in Table 3-2 are based on the Broward County Land Use Plan which establishes a future land use map designation for all properties within Broward County. Because of this land use coordination process, the data in Table 3-2 also reflects the current City Dania Land Use Plan.

Table 3-2 Projected 2015 Peak Hour Traffic Volume and Capacity				
Roadway	Link	2015 Peak Hour Volume	2015 Peak Hour Capacity	2015 LOS
Sheridan Street	E of Dixie Hwy	2,416	2,620	D
	E of US 1	1,392	3,320	B
Stirling Rd	E of SR 7	3,473	4,420	D
	E of Park Rd	5,372	4,420	F
	E of I-95	6,798	3,750	F
Dania Bch Blvd	E of US 1	1,949	3,320	B
	E of NE 2 Ave	1,621	3,320	B
	E of Gulfstream Rd	1,234	3,320	B
Tigertail Blvd	E of Ravenswood Rd	872	930	D
Griffin Rd	E of SR 7	5,379	5,000	F
	E of I-95	5,771	4,420	F
Taylor Rd	E of US 1	541	930	D
Ravenswood Rd	N of Stirling Rd	2,290	2,060	F
	N of Griffin Rd	2,131	2,060	E
I-595	East of I-95	N/A	N/A	N/A
I-95	N of Sheridan St	24,512	14,300	F
	N of Stirling Rd	23,385	14,300	F
	N of Griffin Rd	23,832	14,300	F

Table 3-2 Projected 2015 Peak Hour Traffic Volume and Capacity				
Roadway	Link	2015 Peak Hour Volume	2015 Peak Hour Capacity	2015 LOS
US 1	N or Sheridan St	4,261	3,320	F
	N of Stirling Rd	7,358	2,690	F
	N of Griffin Rd	5,000	5,000	F

Source: Broward County Department of Planning and Environmental Protection, Metropolitan Planning Organization.

Table 3-3 below reflects the projected peak hour conditions for level of service for 2030.

Table 3-3 2030 – Peak Hour Conditions				
Road	Lanes	Volume	Capacity	LOS
<u>SHERIDAN STREET</u>				
East of Dixie Highway	6	3,506	3,107	C
East of US 1	4	2,846	3,107	C
<u>STIRLING ROAD</u>				
East of SR 7	6	5,365	4,674	F
East of Park Road	6	4,871	4,674	E
East of I-95	6	4,341	4,674	D
<u>DANIA BEACH BLVD</u>				
East of US 1	4	2,757	3,392	B
East of NE 2 nd Avenue	6	2,196	3,392	B
East of Gulfstream Rd	4	1,756	3,392	B
<u>GRIFFIN ROAD</u>				
East of SR 7	6	4,995	4,674	F
East of I-95	6	4,889	4,674	E
<u>RAVENSWOOD ROAD</u>				
North of Stirling Road	4	2,524	2,955	D
North of Griffin Road	4	1,374	2,955	C
<u>I-595</u>				
East of I-95	8	14,480	13,600	E
<u>I-95</u>				
North of Sheridan St.	10	33,336	17,347	F
North of Stirling Road	10	33,601	17,347	F
North of Griffin Road	10	30,202	17,347	F

Table 3-3 2030 – Peak Hour Conditions				
Road	Lanes	Volume	Capacity	LOS
US 1				
North of Sheridan St.	4	3,946	3,107	F
North of Stirling Road	4	3,806	3,107	F
North of Griffin Road	6	5,516	5,083	F
Source: MPO Roadway Level of Service Analysis for Years 2004 and 2030				

Table 3-4 below reflects the improvements in the Broward County Transportation Improvement Program FY 2007 – FY 2011 that benefit the City of Dania Beach.

Table 3-4 Broward County Transportation Improvement Program			
Project	Limits	Type of Work	Schedule
Ravenswood Rd	Griffin Rd. to Stirling Rd	Add 2L (4LD)	2007
US 1	NW 3 St. to City Limit	Bike Path	2008
Source: Broward County Transportation Improvement Program FY 2007 – FY 2011, Broward County Department of Planning and Environmental Protection, Metropolitan Planning Organization.			

Even with these improvements, portions of Griffin, Stirling, and US 1 will operate at an unacceptable LOS in the year 2030 due to the following reasons:

- 1). Griffin and Stirling Road, due to their proximity to I-95, I-595, and Fort Lauderdale International Airport, serve primarily east/west commuter traffic in south and central Broward that neither originates nor terminates in Dania Beach. U.S. 1, due to its proximity to I-595, Fort Lauderdale International Airport, and the cities of Fort Lauderdale and Hollywood, serves primarily north/south traffic that neither originates nor terminates in Dania Beach. Because most of the traffic using U.S. 1, Griffin, and Stirling are external to Dania Beach, the city has limited control over the projected increases in traffic on these facilities.

2).Griffin, Stirling and U.S. 1 are constrained facilities. As such, additional right-of-way can only be acquired through condemnation of commercial properties abutting these roads. Neither FDOT nor the MPO has identified any funding for this purpose in the current Long Range (20 year) Transportation Plan. Even if funded, the acquisition of commercial land for roadway expansion along U.S. 1 would result in a substantial loss of tax base, render many properties unusable, and significantly reduce redevelopment potential.

3).A previous FDOT proposal to create an alternate U.S. 1 by extending Dixie Highway from Sheridan Street north to Old Griffin Road was rejected by the City Commission in the mid-1990’s due to neighborhood impact concerns.

Due to these circumstances, the City is implementing Transit Oriented Concurrency and works closely with the Broward County MPO and FDOT to identify alternative transportation solutions to improve the efficiency of the existing roadway network and focus on transit improvements to alleviate existing and potential congestion. The City cannot implement traffic or transit related improvements without the support and funding assistance of these agencies.

Policy 4.1 provides for the City to support Broward County’s programs to study constrained roadways so as to provide for an adequate level of service and to improve mobility.

2. Public Transit Network

Map 2.2 reflects the BCt transit service coverage area in the City of Dania Beach. Data provided in Table 3-5 demonstrate that 80% of the total area of the City is served by BCt transit.

Table 3-5 BCt Transit Service Coverage				
Population	Square Mileage	# of Bus Routes	# of Bus Stops	% Area Served
27,000	7.8	7	141	80
Source: Broward County Transit Development Plan, 2005-2009				

The TOC LOS standards adopted with this Element will further enhance these facilities.

Another important area of public transit service is to accommodate the special needs of the transportation disadvantaged. These needs are documented in the Broward County Transportation Disadvantaged Service Plan, 2004. The City of Dania Beach continues to work closely with the MPO and BCt to maintain and improve the transit level of service in the City in order to improve overall mobility.

3. Bikeways Network

The summary of projected needs included in this subsection is based upon the Broward County Bicycle Facilities Network Plan. The primary need is to develop a bicycle facility network that will provide access to the majority of trip generators.

In recent years the consideration of bikeways as part of the roadway design, like landscaping, has gradually become part of the roadway's design process. However, because bicycle lanes were rare in all of Broward County and immediate connectivity between the few existing facilities was not financially feasible, a construction by opportunity approach was utilized to begin development of the county's on-road bicycle facility network.

As new roads are being constructed, on-road bicycle facilities are included. Because most bikeway deficiencies are located within FDOT right-of-way (ie, Dania Beach Boulevard to Beach), the City cannot implement bikeway system improvements without the support and financial assistance of the Florida Department of Transportation.

Policies 1-11 through 1.16 further the above initiatives as it relates to improved bikeways.

4. Pedestrian Network

The City requires all new development to include provisions for sidewalks. As new construction takes place sidewalks are installed.

5. Railways Network

Projected railway network needs is based on the Tri-County Rail Master Plan, the Transit Development Plan, Fiscal Year 2004 update, and the Florida Rail System Plan. Planning for the railway network is different than other transportation modes as the most of the network is owned and operated by the private sector. As such, the City has limited input regarding railroad decisions. FDOT's role is limited to the "proper maintenance, safety, revitalization, and expansion of the rail system to assure its continued and increased availability to respond to statewide mobility needs."

Tri-Rail has completed the Airport Station located at I-95 and Griffin Road. This facility is linked to the airport, Tri-Rail shuttle services, and the City Community Bus.

6. Intermodal Facilities

The summary of projected needs included in this subsection is based on the Transit Needs Assessment (1996), prepared by Carr Smith Corradino for the Broward County Mass Transit Division, and the Transit Development Plan (TDP), Fiscal Year 2004 Update, prepared by the Tri-County Commuter Rail Authority. The following analysis of the projected deficiencies and needs are focused on terminals, connections, high occupancy vehicle lanes, and park-and-ride lots.

a. Intermodal facilities of state.

Port Everglades and Fort Lauderdale-Hollywood International Airport needs are respectively addressed in waterway network and airport network needs. With regard to heavy rail, there is a continuing need for federal subsidies to keep CSX, the FEC, and other rail related facilities operational.

b. Terminals.

Tri-Rail has completed construction of a train depot in the Sportsman's Park Development in Dania Beach. This facility serves the City as well as the airport and the port. The City will encourage redevelopment in the area to incorporate mixed uses which will enhance ridership.

c. Connections.

A Major Investment Study (MIS) funded by the FDOT is currently underway to develop alternatives for an intermodal connection between the Port and the Airport. Additionally, the Major Investment Study should identify the most appropriate technology, anticipating that potential technologies range from fixed-guideway systems to "special" public transit buses operating primarily in mixed traffic with some priority treatment.

D. Maintaining the Adopted Level of Service Standards

Prior to discussing how Dania Beach can maintain the adopted transportation LOS standards, several caveats are in order. The transportation system is a function of the previously made land use decisions. Most of the historical land use decisions impacting transportation LOS standards in Dania Beach were made by other cities, Broward County, and the State of Florida.

These previously made land use decisions include: the location and intensity of built development and constructed roadways; the location and intensity of approved but unbuilt (i.e., vested) development; and public transit investments. Dania Beach and surrounding cities are infill communities with constrained roadways. As such, with the exception of public transit investment, these historical decisions cannot be retracted.

The availability of transportation funding, especially at the federal level, can greatly influence local government's ability to maintain the adopted LOS standard. The City works closely through the Broward County Transportation Planning Technical Coordinating Committee and the Broward County toward supporting level of service Standards.

1. Concurrency Management System (CMS)

Due to the amount of development that occurred in the City prior to the adoption of CMS requirements and the lack of available right-of-way for roadway improvements, constructing roadway improvements to meet the adopted level of service on all roadways is cost prohibitive.

In order to balance mobility goals with the need for development and redevelopment in the community, the entire City was previously included in a Transportation Concurrency Exception Area that allows infill development even when the road network does not currently maintain LOS. Broward County adopted Transit Oriented Concurrency in 2005 and Dania Beach is incorporating that program into the Transportation Element.

The City also supports FDOT and MPO efforts to improve Tri-Rail service to create an attractive alternative for commuters in the region. The City supports continued improvements in the system as well as shuttle service to the stations to improve intermodal connections.

The Broward County MPO Long Range (20 year) Transportation Plan recommends that Sheridan Street from U.S. 1 to Dixie Highway should be expanded from four lane to six lanes. However, no funding for right-of-way or construction has been identified, and none is expected to be available (if at all) prior to 2010.

Policies 1.20 and 1.21 incorporate the City's LOS standards.

2. Transportation System Management (TSM)

TSM means improving roads, intersections, and other related facilities to make the existing transportation system operate more efficiently. TSM techniques include demand management strategies, incident management strategies, and other actions that increase the operating efficiency of the existing system.

In lieu of traditional widening and construction, the City cooperates with the Broward County MPO and FDOT to identify alternative solutions to eliminate traffic problems. The City also supports requiring new development to construct turn lanes at intersection and driveways during the platting process. Although these improvements do not add through lanes, they do improve the operating conditions on roadways.

Access management is the control and regulation of spacing and design of driveways, ramps, medians, median openings, traffic signals and intersections on arterial and collector roads

to improve safe and efficient traffic flow on the road system. Access management is implemented through the platting and site plan process for new developments. While desirable in most locations, application of access management regulations can adversely impact redevelopment in the CRA, particularly along Dania Beach Boulevard.

Computerization of signals on roadways has been recognized as one of the most effective ways to improve traffic flows. Broward County Traffic Engineering is responsible for managing all the traffic signals in the County. Through participation in the TCC and MPO meetings, the City supports all efforts by the County to computerize traffic signals.

3. Transportation Demand Management (TDM)

TDM means strategies and techniques that can be used to increase the efficiency of the transportation system. Demand management focuses on ways of influencing the amount and demand for transportation by encouraging alternatives to the single-occupant automobile and by altering peak hour travel demand. These strategies and techniques include: ridesharing programs, flexible work hours, telecommuting, shuttle services, and parking management.

The report entitled Proposed Transportation Demand Management Options prepared by the Broward County Transportation Planning Division in cooperation with the FDOT addresses TDM programs. A summary of its findings is addressed below.

a. Ridesharing programs.

Ridesharing is a form of transportation, other than public transit, in which more than one person shares the use of the vehicle, such as a car or van, to make a trip. Ridesharing requires only moderate densities at the home-end of trips and a common work destination; long commutes are actually conducive to ridesharing since time lost in picking up other passengers is balanced by real cost savings on the commute itself.

The ridesharing program Broward County is managed by Gold Coast Commuter Services (GCCS), a FDOT regional

commuter assistance program. The GCCS provides computerized rideshare matching service free of charge to area residents and employers.

Transportation Element Policies 2.6 and 2.7 addresses ridesharing and other TDM strategies as a means of increasing the vehicle occupancy rate.

b. Flexible work hours

Broward County still needs to establish more viable TDM programs to modify peak hour travel demand and reduce the number of vehicle miles traveled per capita within the community and region. Flexible working hours' policy needs to be promoted more widely.

b. Telecommuting

It is used in many offices, but is still needed to be more widely publicized to encourage greater use.

c. Shuttle services

This strategy needs to be implemented not only to the airports but also to daily commuting demands.

d. Congestion Management Plan (CMP)

Broward County has completed a Congestion Management Plan (CMP). The strategies developed within the Congestion Management Plan give priority to corridors serving the urban infill area. The CMP includes the following:

- Establishment of measures and standards to assess mobility patterns and the performance of roadways and transit systems;
- Identification of congested corridors and areas;
- Identification of short and long range transportation strategies;

- Establishment of a monitoring process to assess the effectiveness of the congestion management strategies.

4. The Strategic Intermodal System (SIS) / Florida Intrastate Highway System (FIHS)

The SIS/FIHS is designed for interregional and intrastate functions. Even though most of the traffic on the SIS/FIHS today is local traffic making trips less than 25 miles in length, it is still vital for the City, FDOT and Broward County to establish methods of monitoring the impacts on the system and strategies to facilitate local traffic to use alternatives to the system to protect its interregional function.

a. SIS/FIHS impacts monitoring report.

The average annual daily traffic and volume to capacity ratios for the two SIS/FIHS segments within Dania Beach for 1991 had a volume to capacity ratio of less than 1.0.

By 1997, this had changed and the volume to capacity ratios were 1.69 for I-95 and 1.27 for I-595.

b. Strategies to relieve traffic from the SIS/FIHS.

Transportation Element Policies 1.6 and 1.28 identifies strategies to help relieve SIS/FIHS traffic. These strategies are premised on the assumption that improving roads parallel to SIS/FIHS roads will make those roads more attractive as a means of travel. These strategies include improving roadway and public transit LOS, double tracking of the South Florida Rail Corridor, implementation of the congestion management plan, and use of transit-oriented design

Additional strategies relate to public transit. These include enhancing feeder bus service to Tri-Rail, expanding community/municipal bus service, improving access to transit, and public education.

Another strategy addresses implementation of an intelligent transportation system (ITS). ITS is the use of technology, in whatever form, to assist motorists in the safe and efficient use of the transportation system. It

includes the computerized traffic signal system, a new ITS control center for Broward County, the recently completed I-595 Changeable Message Sign System, variable messages signs for the bridge crossings of the intracoastal waterway, cameras for surveillance and vehicle detection, incident management, emergency management, motorist information system via the use of radio on the Florida Turnpike, and transit vehicle locator system, Tri-Rail information system, and so on.

5. Transportation Concurrency Exception Areas (“TCEAs”)

The purpose of a TCEA is to reduce the adverse impact transportation concurrency may have on urban infill development and redevelopment as well as the achievement of other goals and policies of the state comprehensive plan, such as promoting the development of public transportation and encouraging appropriate infill development and redevelopment to reduce reliance on single occupancy passenger vehicles. Under limited circumstances, it allows exceptions to the transportation concurrency requirement in specifically defined urban areas of a jurisdiction.

Dania Beach was previously included within the Broward County TCEA. Broward County has adopted Transit Oriented Concurrency and Dania Beach is incorporating that program into the Transportation Element.

6. Transit Oriented Concurrency

The City is including the Transit Oriented Concurrency program to replace what previously was the Transportation Concurrency Exception Area to address traffic concurrency issues within the community. Transit Oriented Concurrency is a compact geographic area which includes the entire City and its existing network of roads and other means of transportation. A level of service standard has been established for the district affecting the City of Dania Beach. The program is incorporating a previously adopted program by Broward County and includes the Southeast District and the Port/Airport District as it relates to the City of Dania Beach.

E. Consistency between the Future Land Use Element and Transportation Systems and with Other Plans

This section addresses Rule 9J-5.019(3)(d), FAC, which requires an analysis of the compatibility/consistency of the future land use and transportation elements; Rule 9J-5.019(3)(g), FAC, which requires an analysis that considers the compatibility/consistency of the Transportation Element with the policies and guidelines of other transportation plans; and Rule 9J-5.019(3)(h) and (I), FAC, which requires an analysis of compatibility/consistency with other elements of the Comprehensive Plan.

1. The Future Land Use Element

Internal consistency between the Future Land Use Element (FLUE) and the Transportation Element is maintained through objectives and policies in both the FLUE and the Transportation Element. The FLUE includes a number of policies regarding transportation issues that are consistent with those in the Transportation Element such as:

- The location of land uses in relation to transportation facilities.
- Analyzing the impacts of land use amendments on transportation facilities.
- Requiring dedication of right-of-way during the development approval process

The Transportation Element also included policies regarding land use issues that are consistent with those in the FLUE such as;

- Impact analysis of transportation improvements on existing/proposed land uses.
- Provision of adequate on site parking for all land uses.

2. Broward County Land Use Plan

The Broward County Charter established the Broward County Planning Council. The Planning Council is responsible for preparing a countywide land use plan, known as the Broward County Land Use Plan (BCLUP), for adoption by the Board of County Commissioners. The City future land use element and

map as well as any amendments must be consistent with the BCLUP.

Through certification of future land use elements subsequent to a determination of compliance by the Florida Department of Community Affairs, consistency between future land use elements and the transportation system are assured.

The Broward County Planning Council, has exclusive jurisdiction over the Broward County Trafficways Plan, a right-of-way identification map. To accommodate the impacts of new development, right-of-way is required from developing parcels to provide for an adequate regional roadway network. A dedication for at least half of the roadway width that the Trafficways Plan calls for is normally required at the platting stage. No plat of lands lying within Broward County, either in the incorporated or unincorporated areas, may be recorded in the Official Records prior to approval by the County Commission.

3. Long Range Transportation Plan

The Long Range Transportation Plan ("LRTP") is the primary source for identifying priority projects for inclusion in the countywide Transportation Improvement Program (TIP) and guides the expenditure of federal, state, and local transportation funds. It provides a coordinated planning effort to mitigate traffic congestion, minimize reconstruction of existing facilities, and allow for adjustment of growth management policies and transportation strategies. The LRTP consists of five major sections: Goals, Objectives, and Evaluation Criteria; Financial Resources; Needs Assessment; Cost Feasible Plan; and Public Involvement. The Broward Urban Area Transportation Study Year 2030 Transportation Plan ("TP") represents the currently adopted LRTP. The Year 2030 TP's objectives and policies are consistent with the provisions of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), under which 15 specific factors were identified.

One of its goals is to provide a balanced multi-modal transportation system with a mixture of roadways and transit services that provides for the local and regional movement of

people and goods, which is consistent with the purpose of the TE.

The Year 2030 TP as well as the Year 2030 TP served as the basis for some of the data and analysis used in the development of this Element. Further, the Year 2030 TP was reviewed for consistency with this Transportation Element.

4. Year 2030 Cost Feasible Plan (“CFP”).

The Year 2030 CFP is a transportation plan that identifies major capacity-enhancing improvements recommended for implementation based on projected fund availability. The CFP serves as the basis for funding of the county’s roadway and transit programs, bicycle plan, pedestrian plan, and seaport and airport master plans.

5. Florida Department of Transportation's Adopted Work Program

Dania Beach is in the jurisdiction of the FDOT’s District 4; therefore, the FDOT District 4’s Work Program for Fiscal Year 2007 through 2011 contains Dania Beach’s projects.

Priorities in the 5-year Adopted Work Program are determined by the MPO and are the direct result of the long range planning process. Projects on a priority list submitted to FDOT for inclusion in the Work Program must appear in the Long Range Plan. The Long Range Plan, in turn, is formulated with the goals and objectives consistent with the Transportation Element and ISTEA’s 15 suggested planning factors. The Work Program, once adopted, forms the basis of the new TIP.

6. Transportation Improvement Program (TIP)

The TIP is a comprehensive listing of transportation projects in Broward County scheduled for funding in the next five years. It represents the cooperative integration of plans by municipalities, the FDOT, the MPO and implementing agencies. Projects are initially identified as part of the Long Range Planning Process. This is a prerequisite for inclusion on an MPO priority list. Priority Lists are then submitted to FDO. Each year in the Annual Work Program, FDOT funds these priorities identified by the MPO to the extent possible. The

Annual Work Program in turn forms the state and federal component of the TIP. The priority list is then updated to reflect these funding actions and a new list is submitted each year to FDOT.

7. Port Everglades Master Plan

The Master Plan provided the data and analysis included herein on Port Everglades as well as the objectives and policies included in the TE.

8. Tri-County Rail Transit Development Plan

This Plan provided the data and analysis included herein on Tri-Rail as well as the objectives and policies included in the TE.

9. Broward County Bicycle Facilities Network Plan ("BFNP")

The data and analysis included herein, and the TE objectives and policies are based on the BFNP. This assures consistency between the plans.

10. Broward County Five-Year Pedestrian Facilities Development Program

The data and analysis included herein, and the TE objectives and policies are based on the PFDP. This assures consistency between the plans.

11. Fort Lauderdale/Hollywood International Airport

Consistency between the Future Land Use Element and Transportation Element, consistency between the airport facilities development and the Future Land Use Plan, and compatibility between airport development and existing residential neighborhood are addressed in Objective VI and Policies 6.1 through 6.11 of the Transportation Element.

IV. GOAL, OBJECTIVES, AND POLICIES

The goal of the Transportation Element is to protect, maintain, and where financially feasible, improve the multi-modal transportation system in a manner that enhances safety, convenience and efficiency, providing for the needs of present and future populations while supporting the City's orderly growth, development, redevelopment and sustainability of the environment.

Objective I

On an annual basis, through planning and land use regulation, the City shall continue to protect, maintain and improve the functional relationship between the multi-modal transportation system and the future land use map to ensure that the transportation system is convenient and meets the needs of existing and future residents and land use patterns. 9J-5.019(4)(b)2; BC 12.00.00.

- Policy 1.1 Continue to require that all properties being platted have direct roadway access and that they provide for the dedication of necessary right of way pursuant to the Broward County Trafficways Plan.
- Policy 1.2 Continue to provide for a functional hierarchy of roadways.
- Policy 1.3 The City of Dania Beach, in conjunction with other local, State and County agencies will continue to implement transportation system management strategies designed to make the existing transportation system operate more efficiently such as improving road conditions, intersection improvements and access management. 9J-5.019(4)(c) 7.
- Policy 1.4 Pursue coordination and improvement of transit services to better provide for convenient travel within, through and from the City, by working with the MPO, Technical Coordinating Committee to the MPO, the Broward County Transportation Planning Division, and the Broward County Division of Mass Transit.

- Policy 1.5 Work directly with Broward County Transit in developing local supplemental transit systems that are coordinated with the County's public transit system by connecting un-served or under-served areas to the existing system.
- Policy 1.6 Continue to support County strategies making transit a convenient alternative to the Strategic Intermodal System (SIS)/Florida Intrastate Highway System (FIHS) in order to protect its interregional and intrastate functions. 9J-5.019(4) (c) 13.
- Policy 1.7 Continue to support County strategies relating to public transit service that help maintain the LOS identified in policy 1.21.
- Policy 1.8 Support Broward County efforts to provide door-to-door public transit service to the transportation disadvantaged.
- Policy 1.9 Assist Broward County Transit in the provision of bus shelters, benches and stops at appropriate locations, as new development occurs.
- Policy 1.10 Support Broward County Transit's efforts to provide increased bus service connecting the Tri-Rail Station with the rest of the City, the Port and the Airport.
- Policy 1.11 Support Broward County Transit's efforts to encourage improved access to public transit through the provision of bicycle facilities, such as storage lockers, at appropriate locations, as new development occurs.
- Policy 1.12 Continue to maintain and, where feasible, improve the functional area coverage of the bicycle facility network through inclusion of bikeways and or greenways in road construction projects and as new development occurs.
- Policy 1.13 Working with the Florida Department of Transportation, the Broward County Metropolitan Planning Organization, the Broward County Transportation Planning Division, and the City will

address missing path links and/or other facility deficiencies within the City's current and proposed bicycle networks, including potential funding sources and coordination with Broward County plans for such facilities.

Policy 1.14 Working with the Florida Department of Transportation, the Broward County Metropolitan Planning Organization, the Broward County Transportation Planning Division, and the City will encourage and support the development of a bikeway network serving significant commercial, employment and recreational centers.

Policy 1.15 Working with the Florida Department of Transportation, the Broward County Metropolitan Planning Organization, the Broward County Transportation Planning Division, and adjacent cities, the City will address deficiencies within the City's existing and proposed bicycle network, including potential funding sources and coordination with Broward County MPO plans for such facilities.

Policy 1.16 The City's bicycle network priorities shall include the following:

- 1) By 2008, determine the feasibility (in terms of both design and funding) of constructing a functional, safe, and usable bicycle path along Dania Beach Boulevard. In the alternative, identify funding sources or assistance to reconstruct the existing non-functional bicycle lane to meet minimum FDOT requirements with respect to size (width), location, construction materials, and quality of pavement surface. Continue to pursue FDOT support and financing to reconstruct existing bike paths in this area pursuant to FDOT and city standards.

- 2) Identify constrained rights-of-way where bicycle lanes are the most feasible alternative (in terms of both design and availability of funds) to bicycle paths.

3) Require participation by new development.

Policy 1.17 At a minimum, maintain the current access to water related recreational facilities by maintaining adequate access roads, parking facilities and boat ramps.

Policy 1.18 Through the City's LDR, encourage and support the location of water dependent uses at appropriate locations.

Policy 1.19 Through the City's LDR, encourage and support private sector initiatives in developing water related facilities and services for the use and enjoyment of the community such as marinas, boat ramps, restaurants, water taxi stops, and marine retail.

Policy 1.20 The City of Dania Beach shall adopt the following LOS standards for roadways on the SIS, including connectors, and roadway facilities funded in accordance with Section 339.2819 F.S., the Transportation Regional Incentive Program (TRIP), shall be set forth in Rule 14-94, FAC, summarized below. These standards shall apply for the purpose of issuing development orders and permits.

1. SIS Facilities

DANIA BEACH SIS FACILITIES			
	Roadway	Roadway Segment	LOS Standard*
SIS CORRIDORS	I-95	Miami-Dade County Line to Palm Beach County Line	E
	I-595	I-75 to US1	D
SIS CONNECTORS	Port Everglades	I-595 east straight into entrance (Eller Drive)	
	Ft. Lauderdale-Hollywood International Airport Tri-Rail	I-95 to Griffin Road to Ravenswood Road to Gulfstream Way to entrance.	D

DANIA BEACH SIS FACILITIES			
	Roadway	Roadway Segment	LOS Standard*
	Station		
TRIP-FUNDED FACILITIES**	None	None	D
* The level of service letter designations are defined in FDOT's 2002 Quality/Level of Service Handbook unless an alternate (as refined through identified mobility strategies) standard is agreed to in writing by FDOT.			
** Broward County should coordinate with FDOT on the setting of the level of service standard for facilities that receive TRIP funding. The presumption is that LOS D will apply as soon as the improvement is programmed for implementation; however, an alternate standard may be adopted in TCMAs if agreed to in writing by FDOT.			

- a. When LOS standards are developed for SIS connectors, the City will evaluate adoption of the standards.
- b. To assist in maintaining SIS levels of service standards in the future, the City shall also consider strategies such as improvements to or the creation of parallel facilities, encouraging use of alternate modes of travel, and supporting travel demand management techniques.

2. Non-SIS/FIHS Roadways and Roadways Functionally Classified as Collector Roads or Higher: "D".

Policy 1.21 The City incorporates the Transportation Concurrency Management Areas (TCMAs) as per the Broward County Transportation Element. Development and redevelopment within TCMA (includes the entire City of Dania Beach) shall comply with the concurrency regulations as defined in Policies 1.20 and 1.21 of the City's Transportation Element and the City's Zoning and Land Development Regulations.

Policy 1.21.1 The City's Plan shall establish the following transportation level of service (LOS) standards:

The County is divided into Concurrency Districts. Each District shall be one of the following:

1. **A Transportation Concurrency Management Area (TCMA)** District shall be a compact geographic area with an existing network of roads where multiple, viable alternative travel paths or modes are available for common trips. An area-wide level of service standard shall be established for this District, for the purpose of issuing development orders and permits, based on how mobility will be accomplished within the Area.

The City of Dania Beach lies within the following Transportation Concurrency Management Area (TCMA) Concurrency Districts. Within Transportation Concurrency Management Areas, the transportation LOS standards, for the purpose of issuing development orders and permits, are to achieve and maintain the following by FY 2013:

- a. Southeast District (includes area larger than Dania Beach) – Achieve/maintain headways of 30 minutes or less on 80% of routes. Establish and maintain service at least one neighborhood transit center. Increase peak-hour weekday fixed-route ridership by 24 percent from FY2009-FY2013.
- b. Central District (includes area larger than Dania Beach) – Maintain headways of 30 minutes or less on 80% of routes. Establish and maintain service at one or more neighborhood transit centers. Reduce traffic signal communication failures by 50% by FY 2013. Increase hour weekday fixed-route transit ridership by 19% from FY 2009 to FY 2013. Maintain the current number of community bus routes (24) through 2013.
- c. Port/Airport District (includes area larger than Dania Beach) – Increase peak-hour weekday fixed-route transit ridership by 20% from FY 2009 - FY 2013. Continue to pursue the ongoing Project Development and Environment study to define alternatives that facilitate direct

movement of people and goods between Port Everglades and Fort Lauderdale International Airport. This study also includes an intermodal center to facilitate this connectivity along with connections to local and regional transit services including county transit routes, Tri-rail and potential passenger transit services on the Florida East Coast rail corridor. Implementation of these improvements would serve to ensure efficient operations within the port and airport while addressing traffic congestion on Strategic Intermodal System facilities and other roadways. The results of this study will be incorporated into the Master Plans for the Port and Airport by FY 2013. Funding for this project has not yet been identified. Also continue to pursue, as a potential condition of proposed amendments to the Northport DRI, a by-pass roadway for Port Everglades, that would provide a connection between U.S.1 and S.E.17th Street. Notwithstanding the above, County had no affirmative obligation to find or construct this by-pass roadway.

- d. Overall - Increase number of bus stop shelters by 25 percent from FY2009 to FY2013. Traffic volumes on arterial roadways in each District shall remain less than the maximum service volumes as displayed below. These volumes do not apply to Strategic Intermodal System (SIS) and Transportation Regional Incentive Program-funded roadway facilities and can not be used in a manner that would result in interference with mainline operations on SIS roadway corridors.

Peak Hour Two Way Maximum Service Volumes	
Two-lane arterials	2555
Four-lane arterials	5442
Six-lane arterials	8190
Eight-lane arterials	10605

The Maximum Service Volumes are calculated

from "Generalized Peak Hour Two-Way Volumes for Florida's Urbanized Areas", published by the Florida Department of Transportation, as 75% above the volumes for Class IV State Two-Way Arterials, for Level of Service E, for the Eastern Core District; and as 75% above the volumes for Class II State Two-Way Arterials, for Level of Service D, for all other Districts.

Based on recommendations by the MPO, the Broward County Commission shall adopt a five-year County Transit Program (CTP) that is projected to achieve the level of service standards for each District listed in Policies 1.20 and 1.21 of the City's Transportation Element. The County Commission shall ensure that the CTP is a financially feasible plan. The CTP shall be updated annually. Any change in the level of service standards requires an amendment to the Transportation Element of the Broward County and City Comprehensive Plans.

2. A **Standard Concurrency District** shall be an area where roadway improvements are anticipated to be the dominant form of transportation enhancement. A roadway level of service standard shall be established for each such District, based on the peak-hour standard volumes contained in the Florida Department of Transportation Level of Service Manual.

There are no Standard Concurrency Districts lying within the City of Dania Beach.

- Policy 1.21.2 Prior to application for a building permit, the applicant shall obtain a Transportation Concurrency Satisfaction Certificate from Broward County. No building permit will be issued unless the corresponding Transportation Concurrency Satisfaction Certificate has been presented. The City Commission may adopt land development regulations which exempt from this requirement

categories of building permits that clearly do not create additional transportation impacts.

Policy 1.21.3 The City and Broward County shall issue a Transportation Concurrency Satisfaction Certificate, relative to a building permit application, under any of the following circumstances:

1. If the building permit application is on property within a recorded plat that was approved by the County Commission on or after March 20, 1979, and the building permit application is consistent with the level of development under which the plat is currently approved by the County Commission; and the County Commission's finding of satisfaction of transportation concurrency for the plat has not expired; and the plat is not in violation of an agreement with Broward County with respect to transportation concurrency.
2. If the building permit application is on property for which Broward County has made a finding of vested rights with respect to transportation concurrency; and the building permit application is consistent with the level of development under which the plat was approved by the County Commission; and the plat is not in violation of an agreement with Broward County with respect to transportation concurrency.
3. If the building permit application is for property within, and for development in accordance with and as authorized by, an approved Development of Regional Impact (DRI) or a Florida Quality Development (FQD) development order which development order was either issued prior to the adoption of the 1989 Broward County Comprehensive Plan or was issued after being reviewed for, and satisfying, Broward County's transportation concurrency requirements.
4. If the building permit application is for property within a transit oriented concurrency district; and the applicant has paid to Broward County a Transit

Concurrency Assessment for the development proposed in the building permit application.

5. If the building permit application is for property within a transit oriented concurrency district; and the application is for an addition to, replacement of, or renovation to a residential building, and does not increase the number of dwelling units within that building nor change the type of units.
6. If the building permit application is for property within a transit oriented concurrency district; and the application is for an addition to, replacement of, or renovation to a non-residential building, and does not increase the number of peak-hour trips generated by the building.
7. If the building permit application is for development that promotes public transportation, which means development that directly affects the provision of public transit, including transit terminals, transit lines and routes, separate lanes for the exclusive use of public transit services, transit stops (shelters and stations), and office buildings or projects that include fixed-rail or transit terminals as part of the building.

Policy 1.21.4 The Transit Concurrency Assessment shall be calculated as the total peak-hour trip generation of the proposed development, multiplied by a constant (for each year) dollar figure for each District, that represents the cost per trip of all the TDP enhancements in that District. The City and County Commission may adopt land development regulations which enable exemption from the assessment calculation of high-cost transit projects, such as fixed-guideway facilities.

Policy 1.21.5 The City and Broward County Commission shall adopt land development regulations which provide for credits against the Transit Concurrency Assessment for approved site plans which contain features intended to significantly encourage transit usage.

Policy 1.21.6 The City and Broward County Commission may adopt land development regulations which provide for a waiver of the Transit Concurrency Assessment for affordable housing projects, and for applications by a government agency for the construction of public buildings which will directly serve the health and/or safety needs of the public, provided that all such waived Assessments are paid from a designated source.

Policy 1.21.7 The City may adopt land development regulations which provide for a waiver of the Transit Concurrency Assessment for a class of development on property within that municipality, provided that all such waived Assessments are paid to Broward County by the municipality, or by a source designated by the municipality.

Policy 1.21.8 The revenues from the Transit Concurrency Assessments shall be used solely to fund the enhancements within the County Transit Program (CTP) which are in the District corresponding to the location of the proposed development. However, the Broward County Commission may adopt land development regulations, which set aside up to five percent of such revenues for the following purposes:

1. to serve as the designated funding source for waivers granted; and/or
2. to fund costs of administering the concurrency management system and developing the CTP

Policy 1.21.9 Prior to the approval of any application for a plat, an amendment to the restrictive note on the plat, or the placement of a restrictive note on the plat, for property within a Transit Oriented Concurrency District, the City and County Commission shall make a finding that the appropriate District satisfies at least one of the following standards:

1. The District does not contain two parallel and adjacent arterial roadways, both of which have a volume/capacity ratio in excess of 1.30, which

ratio is derived by comparing existing p.m. peak hour traffic volumes to LOS D peak hour capacities (LOS E for the Eastern Core District).

2. The ridership within the District on fixed route transit services has increased at least 2.5 percent over the previous year.

Policy 1.21.10 A building permit application that is subject to a Transit Concurrency Assessment by Broward County shall not be subject to impact fees for regional transportation facilities by Broward County or by a municipality.

Policy 1.22 The City of Dania Beach shall adopt a transit level of service per Policy 1.21 for the purpose of issuing development permits. Said levels of service shall include County and local transit service.

Policy 1.23 The City of Dania Beach will participate with Broward County Planning Council, Broward County MPO, FDOT and other municipalities within designated public transportation corridors to develop land development guidelines that promote transit accessibility in the designated corridors service 9J-5.019(4) (c)(9).

Policy 1.24 The City shall participate with the Florida East Coast Railroad, Tri-Rail, Broward County Transit, and the MPO to support the establishment of multi-modal transportation facility (commuter rail, county bus, and community bus) in the Local Activity Center within a five minute walk of U.S. 1 (Federal Highway), City Hall, Public Safety Headquarters, Chamber of Commerce, and U.S. Post Office 9J-5.019(4) (c) (9).

Policy 1.25 Through intergovernmental planning efforts, Dania Beach shall address overcapacity roadways segments and roadway segments approaching capacity through the following actions:

1. Utilize the results of the County Traffic Circulation Analysis, including level of service determinations,

to support County and State road improvements for road segments operating below, or projected to operate below, the adopted peak-hour LOS "D" standard.

2. Support necessary amendments to the MPO's adopted Transportation Improvement Program (TIP) to include the programming of available federal aid and matching funds for improvements to state roads in Dania Beach shown in the adopted Long Range Transportation Plan network where the LOS is projected to remain below the LOS "D" standard.

Policy 1.26

Dania Beach shall coordinate land uses with the transportation system through implementation of the following:

1. Assess the cumulative and individual traffic circulation impacts of land use plan amendments that propose to increase traffic on the existing roadway network, the projected 5-year roadway network, and the long range roadway network. BC 12.01.04.
2. Residential densities in the Low (1 du/ac) to Low-Medium (10 du/ac) density should be located with access to collector streets.
3. Residential densities of Medium (10 - 16 du/ac) density or greater should be located with adequate access to major and minor arterial roadways, expressways, and public transit routes.
4. Industrial uses shall be located with access to major transportation facilities.
5. Participate in the area wide coordination necessary to implement the provisions of this Element through participation in, or membership on the South Florida Regional Planning Council, the Broward County Planning Council, the League of Cities Technical Advisory Committee, and the

Metropolitan Planning Organization. 9J-5.019(4)
(c) 11.

Policy 1.27 The City's Land Development Regulations shall require adequate on-site parking for all land uses. 9J-5.019(4) (c) 3.

Policy 1.28 The City of Dania Beach will participate with Broward County, the MPO, the FDOT and other appropriate municipalities in implementing strategies to facilitate traffic to use alternatives to the Strategic Intermodal System (SIS)/Florida Interstate Highway System (FIHS) as a means of protecting its interregional and intrastate functions including the following:

1. Identify appropriate public transportation corridors for the purpose of implementing an overlay zoning district to promote public transit along designated corridors and amend the City's Comprehensive Plan and land development regulations accordingly.
2. Support efforts to improve and enhance Tri-Rail service including double tracking and station enhancements.
3. Support efforts to introduce commuter rail service on the Florida East Coast Railway
4. Request Broward County Transit and the MPO fund transit service improvements along constrained roadways where transit service is operating at capacity, including increasing transit capacity, increasing hours of operation, and decreasing headways during peak periods.
5. Support the widening of Florida's Turnpike to an eight-lane facility.
6. Support interchange improvements, where appropriate, on I-95, I-595, I-75 and Florida's Turnpike.
7. Support the Central Transit Corridor to alleviate

- traffic pressure on I-595.
8. Support Intelligent Transportation System (ITS) programs on SIS/FIHS facilities, including Electronic Toll Collection (SunPass) and Advanced Traveler Information Systems (ATIS).
 9. Support improvements to the HOV system on I-95.
 10. Maintain and, where feasible, improve the level of service on City and County roads that are parallel to SIS/FIHS roads.
 11. Implement the Congestion Management Plan recommendations, with an emphasis on those City and County roads that are parallel to SIS/FIHS roads.
 12. Coordinate and synchronize the signalization system along City and County roads that are parallel to SIS/FIHS roads.
 13. Support coordination of intelligent transportation systems (ITS) efforts between the City, FDOT and Broward County.
 14. Program public transit route headways and span of service enhancements and the provision of information kiosks along County roads that are parallel to FIHS roads.
 15. Enhance regular route service to Tri-Rail stations.
 16. Enhance community bus systems to expand transit coverage in areas parallel to SIS/FIHS facilities.
 17. Improve pedestrian access to transit by ensuring that all phases of road planning, design, and construction include the necessary walkways on all arterial and collectors under the responsibility of the State and County.

18. Provide public education through marketing strategies about public transit desirability and availability.
19. Promote transit oriented design along City and County roads that are parallel to SIS/FIHS roads.
20. On a tri-annual basis, monitor SIS/FIHS level of service and work with the FDOT and the MPO to identify additional strategies.

Policy 1.29 By 2010, the City shall amend the Land Development Code to reflect the Concurrency Management System outlined in the Transportation Element.

Objective II

Enhance the safety, convenience, and efficiency of the multi-modal transportation system serving the City of Dania Beach by participating through the MPO with the Florida Department of Transportation, the Broward County Metropolitan Planning Organization, Broward County Transit, and the Broward County Transportation Planning Division towards:

1. Reducing the annual rate or ratio of traffic related crash indicators,
2. Improving the functional coverage or access to transportation facilities, and
3. Improving energy efficiency through an increase in mode split and vehicle occupancy rates.

Policy 2.1 Continue to support the County's efforts in the installation and maintenance of a fully computerized signal system throughout the County.

Policy 2.2 Support the Florida Department of Transportation ("FDOT") and Broward County efforts in the development of the Intelligent Transportation System to maximize the use of existing capacity in all modes of travel by completing a freeway

operations center for I-95 by 2001 and a variable message center for I-595 by 2005.

- Policy 2.3 Continue to evaluate roadway and intersection safety and efficiency conditions by requesting FDOT funding for to improvements to roadway segments and intersections that are operating below or projected to operate below the adopted peak-hour Level of Service "D" standard.
- Policy 2.4 Encourage joint use of driveways and parking areas, and encourage the use of cross access easements among adjoining property owners to allow circulation between sites and reduce the number of vehicular access points along roadways. 9J-5.019(4) (c)7.
- Policy 2.5 Traffic-calming applications shall be submitted to the Police, Fire-Rescue, and Public Services Departments for recommendation prior to City Commission review.
- Policy 2.6 The City of Dania Beach shall continue to participate in cooperative intergovernmental plans and programs to identify appropriate TDM strategies to reduce the peak hour demand and reduce the total number of miles traveled in the region. 9J-5.019(4) (c) 6.
- Policy 2.7 By 2007 the City shall evaluate and implement appropriate TDM strategies as identified in the data and analysis through the City's LDR.9J-5.019(4)(c)6.

Objective III

On an annual basis, through participation with the MPO, FDOT, Broward County, and other entities, support and encourage multi-jurisdictional efforts that help ensure that the multi-modal transportation system is properly designed to support the development and redevelopment of the City while it experiences orderly growth and sustains the environment.

- Policy 3.1 The City shall continue to work with the State and the County to insure that the Florida Department of Transportation Five-Year work programs and long-

range transportation plans meet the needs of Dania Beach.

- Policy 3.2 Continue to construct local roadways and local roadway improvements that meet or exceed safe design standards and encourage and support the construction of State and County roads that meet or exceed safe design standards.
- Policy 3.3 Future industrial development shall be located with access to major transportation facilities including highways, airports, railroads and seaports.
- Policy 3.4 The City shall support and encourage Broward County's access management efforts during the platting process to protect the regional roadway network as identified in the Broward County Trafficways Plan. 9J-5.019(4) (c) 7.
- Policy 3.5 The City shall consider and analyze the individual and cumulative impacts of land use plan amendments that add traffic on existing and planned transportation facilities.
- Policy 3.6 The City shall coordinate transportation and land use-planning activities with Broward County to ensure compliance with the regional roadway network levels of service standards established by the Broward County Comprehensive Plan.
- Policy 3.7 The City shall participate with the Florida Department of Transportation, the Broward County MPO, Broward County, and the City of Hollywood to ensure that Sheridan Street is improved from U.S. 1 to Dixie Highway from four lanes to six lanes to enhance the level of service.
- Policy 3.8 Review all land use amendments in designated public transportation corridors and encourage proposed uses that are compatible with and support public transportation. 9J-5.019(4) (c) 12.
- Policy 3.9 Adjacent to the Tri-Rail Station and to principal arterials providing BCT service within the Community

Redevelopment Area ("CRA"), encourage mixed-use and low-medium to medium-high density home-ownership residential (10 – 25 units per acre) when designed and located to be compatible with existing residential development.

- Policy 3.10 Adjacent to principal arterials providing BCt service within the Local Activity Center ("LAC"), encourage mixed-use and high density home-ownership residential (as per LAC intensity/density criteria) when designed and located to be compatible with existing residential development.

Objective IV

On an annual basis, continue to coordinate the plans, protections and provisions for transportation systems within the Transportation Element with the plans and programs of other entities. i.e. the MPO, FDOT, and Broward County.

- Policy 4.1 Support the Broward County Transportation Planning Division (who in coordination with FDOT and the municipalities) in its efforts to conduct a study on constrained roadway facilities. It is the intent of this policy to help assure that the study, which shall:

1. Identify constrained facilities,
2. Propose adequate LOS standards for those identified constrained facilities, and
3. Recommend that appropriate actions to improve mobility on the constrained roadways be completed by December 2007.

- Policy 4.2 Coordinate with the efforts of the MPO in preparing the Year 2035 Cost Feasible Plan and amendments thereto as well as the Transportation Improvement Program and amendments thereto.

- Policy 4.3 Coordinate, monitor and comment on the preparation and amendment of the Florida Department of Transportation's Adopted Work Program.

- Policy 4.4 Monitor and coordinate with the County regarding preparation of the Hollywood/Fort Lauderdale International Airport Master Plan including recommending amendments that reflect the needs and concerns of the City.
- Policy 4.5 Maintain communications with airport officials regarding airport development activities.
- Policy 4.6 All applications for development submitted to the City within the boundaries of Port Everglades shall be provided to the Port for their review and comment.
- Policy 4.7 Throughout the City work with FDOT, the Broward County MPO, and the Broward County Transportation Planning Division to obtain funding to create a pedestrian-friendly streetscape through the use of landscaping, decorative street paving, lighting, street furnishings as well as by extending walking paths and bicycle routes/greenways.
- Policy 4.9 Work with the Florida Department of Transportation, the Broward County Metropolitan Planning Organization, the Army Corp of Engineers, the South Florida Water Management District, and other related county, state and federal agencies towards improving and expanding the boat carrying capacity (height, width, and safety) of the Dania Cut-off Canal through the F.E.C. and U.S.1/Federal Highway Bridges.
- Policy 4.10 Dania Beach shall coordinate the Transportation Element with the plans and programs of the Broward County Metropolitan Planning Organization and the Florida Department of Transportation, District IV, the port, the airport and Tri-Rail. 9J-5.019(4)(c) 8.
- Policy 4.11 Through the Broward League of Cities Technical Coordinating Committee of the MPO, participate in the development review process for applicable transportation plans, in order to ensure compatibility regarding the establishment of locally desired level of service standards.

Objective V

The City shall assure, through planning, land use regulation, intergovernmental coordination, or land acquisition, that transportation improvements are located so as to not disrupt or adversely impact the City's residential communities or adjacent environmentally sensitive lands. 9J-5.019(4) (b) 3.

Policy 5.1 The City shall maintain SE 5th Avenue as a local street, utilizing abutting vacant properties to meet the recreation and drainage needs of adjoining residential communities, including the acquisition of excess right-of-way as a passive linear park and storm water retention area. The City shall investigate the availability of grant funds (to acquire properties) or the use of zoning and land use regulations to implement this policy.

Policy 5.2 The City shall work with the South Florida Water Management District, the Broward County Department of Planning and Environmental Protection, and the Florida Department of Environmental Protection to preserve and protect vacant lands located between SE 5th Avenue and the adjacent West Lake Park Ecosystem.

Policy 5.3 The City shall coordinate transportation planning with the Future Land Use Plan by planning and locating transportation facilities in a manner which minimizes the potential impacts on adjacent land uses and protects established low (5 du/acre) and low-medium (10 du/acre) density residential communities.

Objective VI

The City of Dania Beach shall ensure that any projected port, airport, and aviation development and facilities are compatible with existing and future land uses surrounding the airport in the City of Dania Beach.

Policy 6.1 The City of Dania Beach shall review and evaluate all port and airport related development activities to ensure they are consistent with the goals, objectives and policies of the Land Use Element and

- Transportation Element of the Comprehensive Plan, as well as any neighborhood plans.
- Policy 6.2 The City of Dania Beach shall oppose all port and airport related development activities that may result in a loss of City tax base.
- Policy 6.3 The City of Dania Beach shall oppose all port and airport related development activities that may result in a negative environmental impact upon city residential neighborhoods.
- Policy 6.4 The City of Dania Beach shall oppose any efforts to de-annex city properties to accommodate airport expansion or airport facilities.
- Policy 6.5 The City of Dania Beach shall work with applicable governmental agencies to ensure that the expansion of any port or airport facilities is consistent with the Future Land Use, Transportation, Coastal Management, and Conservation Elements of the Dania Beach Comprehensive Plan.
- Policy 6.6 The City of Dania Beach shall review all transportation related development plans (port, airport, trafficways, mass transit, and fixed rail) and proposals to ensure they are consistent with the goals, objectives, and policies of the Future Land Use, Coastal Management, and Conservation Elements.
- Policy 6.5 The City of Dania Beach shall continue to evaluate development proposals related to the Port Everglades and Fort Lauderdale-Hollywood International Airport, including the monitoring and evaluation of the existing Development of Regional Impact agreement.
- Policy 6.6 The City of Dania Beach shall coordinate the surface transportation access to ports, airports, and related facilities with the traffic circulation system shown on the traffic circulation maps or map series.

- Policy 6.7 The City of Dania Beach shall coordinate port and airport related development with the applicable port and airport agencies, as well as with the United States Army Corps of Engineers, Federal Aviation Administration, Metropolitan Planning Organization, and Environmental Protection Agency.
- Policy 6.8 The City of Dania Beach shall ensure mitigation of adverse structural and non-structural impacts from port, airport, and related facility development upon adjacent natural resources and land uses.
- Policy 6.9 The City of Dania Beach shall ensure the protection and conservation of natural resources within and adjacent to ports, airports and related facilities that impact or adjoin the City.
- Policy 6.10 The City of Dania Beach shall ensure that all transportation projects affecting the citizens of the City take into consideration the character, integrity, and quality of life in the City's residential neighborhoods.
- Policy 6.11 The City of Dania Beach shall protect properties adjacent to the airport from incompatible uses on airport property by public notice and through representation on the Dania Beach Airport Advisory Board.

Objective VII

The City of Dania Beach shall continue to take action at the local level and participate in cooperative intergovernmental plans and programs that will increase the availability, efficiency and convenience of transportation facilities including public transportation. 9J-5.019(4) (b)1.; 9J-5.019(4)(b)4.

- Policy 7.1 Dania Beach shall coordinate with Broward County to improve public transit service in the City in particular to the existing and proposed major trip generators.
- Policy 7.2 Coordinate with Broward County to adjust local and regional bus and shuttle service to better meet the

transit needs of residents, employees and shoppers in Dania Beach.

- Policy 7.3 Continue to coordinate with BCt to meet the bus stop and transit terminal needs of City residents and visitors including adequate provisions for disabled transit riders.
- Policy 7.4 Coordinate with Broward County to examine and implement ways to make the transit system more accessible to the City's elderly and transportation disadvantaged population.
- Policy 7.5 The City of Dania Beach shall continue to coordinate with FDOT, MPO and BCt regarding the provision of convenient intermodal terminals and improved access to intermodal facilities including the port, the airport and Tri-Rail facilities. 9J-5.019(4)(c)14.
- Policy 7.6 Continue to utilize the City and Broward County plat approval process as a means to acquire right-of-way for existing and future public transit improvements. 9J-5.019(4) (c) 16.

Objective VIII

The City of Dania Beach shall implement land development regulations to ensure development does not encroach upon existing rights-of-way or future rights-of-way as provided in the Broward County Trafficways Plan. 9J-5.019(4) (b)5.; BC 12.02.00.

- Policy 8.1 Dania Beach shall continue its current practice of preserving existing and future transportation rights-of-way by requiring necessary land dedication through platting and site plan review and annexation approval processes in accordance with the Broward County Trafficways Plan and Dania Beach Land Development Code. 9J-5.019(4)(c)4.; BC 12.02.03.

- Policy 8.2 In order to protect the transportation corridors identified on the Broward County Trafficways Plan, Dania Beach shall not issue building permits or development orders for construction in identified rights-of-way. 9J-5.019(4)(c)4.; BC 12.02.0.

Objective IX

The City of Dania Beach, pursuant to the Community Redevelopment Agency (CRA) and Local Activity Center (LAC) land use plan designation, shall promote transit oriented development.

- Policy 9.1 The City shall encourage and support private development in the CRA and LAC that include the following:
- a. Mixed land uses including both residential and commercial uses.
 - b. Construction of sidewalks and installation of pedestrian improvements such as benches, interconnected walkways, and lighting.
 - c. Construction of transit stop improvements and convenient walkways that connect development to transit stops.
- Policy 9.2 Provide Community Bus routes that serve the CRA and LAC.
- Policy 9.3 Apply for funding to construct improvements in the CRA and LAC that promote a pedestrian oriented development, especially along the U.S. 1 corridor.
- Policy 9.4 Work with FDOT to assure that access management criteria is not applied in such a way as to discourage mixed use development in the CRA and LAC
- Policy 9.5 Include provisions in the City Land Development Regulations to encourage mixed use developments in the CRA and LAC.
- Policy 9.6 Request Broward County Transit and the MPO fund transit service improvements along constrained roadways where transit service is operating at

capacity, including increasing transit capacity, increasing hours of operation, and decreasing headways during peak periods.

V. DEFINITIONS, ACRONYMS AND ABBREVIATIONS

A. Definitions

For the purposes of this Element, the following terms shall be defined as shown below unless the context dictates otherwise. This listing is fairly comprehensive and was developed by Broward County as a part of their Transportation Element. It may be that there are terms that are not necessarily utilized within the text of the element. Due to the comprehensive nature of the listing it was utilized intact. Sources of the definitions, where available, are given in parentheses.

Action Plan. A program of transportation improvements designed to maintain and improve the capacity or reduce demand of roadway links in heavily congested areas (Guidelines for the Development of Action Plans, Broward County, 1992).

Airport clear zone. This means a designated area of land which is subject to peak aircraft noise and on which there is the highest potential of danger from aircraft operations (Rule 9J-5, FAC).

Airport facility. Any area of land or water improved, maintained or operated by a governmental agency for the arrival and departure of aircraft, or privately owned paved runway of 4,000 or more feet in length, and any appurtenant area which is used for airport facilities or right-of-way (Rule, 9J-5 FAC).

Airport obstruction. Any structure, object of natural growth, existing condition or use of land which obstructs the airspace required for the flight of aircraft in arrivals or departures at an airport or which otherwise increases the risk of danger to aircraft operations (Rule 9J-5 FAC).

Annual average daily traffic (AADT). The volume passing a point or segment of a highway in both directions for one year divided by the number of days in the year (Level of Service Manual, Florida DOT, 1995).

Backlogged roadways. Those roads that are operating at a level of service below the minimum level of service standards, not programmed for construction in the first three years of FDOT's adopted work program or the five-year schedule of improvements contained in a local government's capital improvement element, and not constrained (Level of Service Manual, Florida DOT, 1995).

Bicycle and pedestrian ways. Any road, path or way which is open to bicycle travel and traffic afoot and from which motor vehicles are excluded (Rule 9J-5 FAC).

Bicycle lane. A portion of a roadway that has been designed by striping, signage, and pavement markings for the preferential or exclusive use of bicyclists (Transportation Expressions, U.S. DOT, 1996).

Bicycle path. A bikeway physically separated from motorized vehicular traffic by an open space or barrier and located either within the highway right-of-way or within an independent right-of-way (Transportation Expressions, U.S. DOT, 1996).

Bicycle route. A segment of a system of bikeways designated by the jurisdiction having authority with appropriate directional and information markers, with or without a specific bicycle route number (Broward County Bicycle Facilities Network Plan, 1996).

Blueway. A waterway which has been designated for conservation, recreation, or both and which may be connected with greenway hubs, sites, and linkages. (CNPD)

Broward County Trafficways Plan. The plan promulgated by the Broward County Planning Council pursuant to Chapter 59-1154, Laws of Florida, as amended, and the Broward County Charter, which depicts a network of trafficways for Broward County (Land Development Code). The Broward County Trafficways Plan is a roadway right-of-way preservation plan. To accommodate the impacts of new development, right-of-way is required of developing parcels to provide for an adequate regional roadway network (Documentation of the Broward County Trafficways Plan, Broward County Planning Council).

Carpool and vanpool. Carpool is an arrangement where two or more people share the use and cost of privately owned

automobiles in traveling to and from pre-arranged destinations together, and vanpool is an arrangement in which a group of passengers share the use and cost of a van in traveling to and from pre-arranged destinations together (Transportation Expressions, U.S. DOT, 1996).

Capacity. The maximum rate of flow at which persons or vehicles can be reasonably expected to traverse a point or uniform segment of a lane or roadway during a specified period under prevailing roadway, traffic, and control conditions; usually expressed as vehicles per hour or persons per hour. (Highway Capacity Manual, Special Report 209, Transportation Research Board, 1994).

Committed trip. A trip generated within the Traffic Review and Impact Planning System (TRIPS) model from an approved but not built development (Land Development Code, Broward County, 1997).

Compact Deferral Area. The geographic area which is a two (2) mile band having a centerline, which is coincident with the centerline of the congested link, extends parallel to the congested link for a distance of one-half ($\frac{1}{2}$) mile beyond each end point of the congested link (Land Development Code, Broward County, 1977).

Concurrency. The provision of insuring that the necessary public facilities and services to maintain the adopted public transit level of service standards are available when the impacts of development occur. Transportation, sanitary sewer, solid waste, drainage, potable water, parks and recreation, and public education are the only public facilities and services subject to the Broward County concurrency requirement. The necessary public facilities and services to maintain the adopted level of service standards are available when the impacts of development occur.

Concurrency management system. The procedures or process that the local government will utilize to assure that development orders and permits are not issued unless the necessary facilities and services are available concurrent with the impacts of development (Rule 9J-5 FAC).

Constrained roadways. Roads that cannot be expanded by the addition of two or more through-lanes because of physical,

environmental or policy constraints (Level of Service Manual, Florida DOT, 1995).

Demand flow rate. The traffic flow rate that now wants or at some future time is expected to want to travel over a point on or section of a highway for a 15-minute period, expressed in vehicles per hour (Level of Service Manual, Florida DOT, 1995).

Demand Response Transit Service. Non-fixed-route service utilizing vans or buses with passengers boarding and alighting at pre-arranged times at any location within the systems service area (Transit Fact Book, American Public Transit Association, 1996).

Facility availability. Whether or not a facility is available in a manner to satisfy the concurrency management system (Rule 9J-5 FAC).

Feeder route. A transit route which has the characteristics of traveling on local streets, utilized for shorter trip lengths and transfer connections (Transportation Expressions, U.S. DOT, 1996).

Fixed-route service. Transit service provided on a repetitive, fixed-scheduled basis along a specific route, with vehicles stopping to pick-up and deliver passengers to specific locations; each fixed-route trip serves the same origins and designations, unlike demand response and taxicabs (Transportation Expressions, U.S. DOT, 1996).

Florida Intrastate Highway System. A statewide network of limited-access and controlled-access highways designed with general-use and exclusive-use lanes to accommodate Florida's high speed and high volume highway traffic (Level of Service Manual, Florida DOT, 1995).

Functional area coverage. A ½ mile corridor surrounding a bus route, ¼ mile in each direction.

Greenway. A corridor of protected open space established for conservation, recreation or both which may contain a pedestrian path or bikeway. (A Community Resource Guide for Greenway Projects, Florida Department of Environmental Protection, Office of Greenways and Trails).

Headway. The time interval between transit revenue vehicles passing a specific location (Transportation Expressions, U.S. DOT, 1996).

Intelligent Transportation System (ITS). Use of computer and communications technology to facilitate the flow of information between travelers and system operators to improve mobility and transportation productivity, enhance safety, maximize the use of existing transportation facilities, conserve energy resources and reduce adverse environmental effects; including concepts such as "freeway management systems," "automated fare corrections" and "transit information kiosks" (Atlanta ITS, Georgia DOT, 1997).

Intermodal facility. An intermodal facility is a single or closely related transportation facility used by two or more modes of transportation. Intermodal system is one providing connections between different modes, such as adequate highways to ports or bus feeder services to rail transit; individual modes working together to provide the user with the best choices of services (Corridor Management Procedure, FDOT, 1996).

Level of service. An indicator of the extent or degree of service provided by, or proposed to be provided by a facility based on and related to the operational characteristics of the facility. Level of service shall indicate the capacity per unit of demand for each public facility (Rule 9J-5 FAC).

Limited access facility. A roadway especially designed for through traffic, and over, from, or to which owners or occupants of abutting land or other persons have no greater than a limited right or easement of access (Rule 9J-5 FAC).

Linked trip. A trip from origin to destination on the transit system. Even if a passenger must make several transfers during a journey, the trip is counted as one linked trip on the system (Transportation Expressions, U.S. DOT, 1996).

Major public transit trip generators or attractors. Major trip generators or attractors are concentrated areas of intense land use or activity that produces or attracts a significant number of local trip ends (Rule 9J-5 FAC). For public transit, a site which attracts a substantial number of person trips per day.

Defined here as meeting or exceeding the following thresholds: Office parks - 100,000 sq. ft. GLA; shopping centers - 500,000 sq. ft.; schools - 1000 students; major employers - 1000 employees; health facilities - 100 beds (Broward County Comprehensive Plan 1989).

Modal split. The proportion of total person trips that use each of various specified modes of transportation (Transportation Expressions, U.S. DOT, 1996).

Multimodal system. A transportation system consisting of more than one mode of travel to serve transportation needs in a given area (Corridor Management Procedure, FDOT, 1996).

Operating revenue. For public transit, revenue from various sources including the farebox, pass sales, contracted service, advertising revenue, and other revenue generated through the activity of operating the transit system; and the amount of money which a carrier receives from transportation operations (Transportation Expressions, U.S. DOT, 1996).

Paratransit. Transit services which are characterized by their nonscheduled, non-fixed route nature such as ride sharing, car or van pools, demand responsive buses, and other public transit services (Rule 9J-5 FAC).

Planning analysis hour factors (K_{100}). The ratio of a highway section's volume in the year's 100th highest volume hour to its annual average traffic volume. In developed areas the year's 100th highest volume hour represents a typical weekday peak traffic hour during the area's peak travel season, i.e., that area's peak season "rush" hour, usually in the late afternoon. The K_{100} factor refers to a demand volume, not necessarily a measured volume.

Public transit. Passenger services provided by public, private or non-profit entities such as the following surface transit modes: commuter rail; rail rapid transit; light rail transit; light guideway transit; express bus; and local fixed route bus (Rule 9J-5 FAC).

Recreational trip. A trip for leisure, relaxation, or enjoyment purposes, as opposed to utilitarian purposes. (1989 Broward

County Comprehensive Plan, Broward County Comprehensive and Neighborhood Planning Division).

Regional Activity Center. A compact, high intensity, high density multi-use area designated as appropriate for intensive growth by the local governments, which may include: retail; office; cultural, recreational and entertainment facilities; hotels and motels; or appropriate industrial activities (Strategic Regional Policy Plan For South Florida, South Florida Regional Planning Council, 1995).

Right-of-way. Land in which the state, a county, or a municipality owns the fee simple title or has an easement dedicated or required for a transportation or utility use (Rule 9J-5 FAC).

Roadway functional classification. The assignment of roads into categories according to the character of service they provide in relation to the total road network. Basic functional categories include limited access facilities, arterial roads, and collector roads, which may be subcategorized into principal, major or minor levels. Those levels may be further grouped into urban and rural categories.

Arterial road. A roadway providing service which is relatively continuous and of relatively high traffic volume, long trip length, and high operating speed. In addition, every United States numbered highway is an arterial road (Rule 9J-5 FAC).

Principal arterial. A roadway which serves the major centers of activity of urbanized areas, the highest traffic volume corridors. It carries most of the trips entering and leaving the urban area, as well as most of the through movements bypassing the central city.

It could be stratified as follows: (1) interstate; (2) other freeways and expressways; and, (3) other principal arterials (A Policy on Geometric Design of Highways and Streets, 1990, American Association of State Highway and Transportation Officials).

Minor arterial. A roadway which interconnects with and augments the urban principal arterial system (A Policy on

Geometric Design of Highways and Streets, 1990, American Association of State Highway and Transportation Officials).

Collector road. A roadway providing service which is of relatively moderate traffic volume, moderate trip length, and moderate operating speed. Collector roads collect and distribute traffic between local roads or arterial roads (Rule 9J-5 FAC).

Local road. A roadway providing service which is of relatively low traffic volume, short average trip length or minimal through traffic movements, and high volume land access for abutting property (Rule 9J-5 FAC).

Strategic Intermodal System (SIS) - The Florida transportation system composed of transportation corridors and facilities of statewide and interregional significance that play an important role in the movement of people and goods (The Strategic Intermodal System, Florida Department of Transportation, 2005).

Terminal. Any location where passenger or freight either originates, terminates, or is handled in the transportation process; or where commercial motor carriers maintain operating facilities (Transportation Expressions, U.S. DOT, 1996).

Timed-transfer. Transit system design whereby buses are scheduled to meet at designated locations to facilitate transferring (Transportation Expressions, U.S. DOT, 1996).

Traffic Review and Impact Planning System (TRIPS) Model. A computer model maintained in the Broward County Development Management Division which accounts for the traffic from approved but not built development. See Committed Trip (Land Development Code, Broward County, 1997).

Transfer station. A fixed location where passengers interchange from one route or vehicle to another (Transportation Expressions, 1996).

Transitway. A dedicated right-of-way, most commonly in a mall, that is used by transit units, usually mixed with pedestrian traffic (Transportation Expressions, U.S. DOT, 1996).

Transit Oriented Development (TOD). Development reflecting a design philosophy that encourages development from the ground up with transit in mind; emphasizing securing a high density level, combining a mix of uses, utilizing a hierarchy of streets and designing at a human scale to maximum the potential for transit use within a community (Strategic Regional Policy Plan for South Florida, SFRPC, 1995).

Transportation Concurrency Exception Area (TCEA). A specific geographic area, or areas, delineated in the local government comprehensive plan for urban infill development, for urban redevelopment, and for downtown revitalization within the designated central business district that could be excepted from the traffic circulation concurrency requirements (Rule 9J- 5.0055 FAC).

Transportation Concurrency Management Area (TCMA). A compact geographic area with existing or proposed multiple, viable alternative travel paths or modes for common trips. The purpose of this optional alternative transportation concurrency approach is to promote infill development or redevelopment within selected portions of urban areas in a manner that supports the provision of more efficient mobility alternatives, including public transit (Rule 9J-5 FAC).

Transportation corridors. Major routes used for moving people and goods by one or more transportation option (Strategic Regional Policy Plan for South Florida, SFRPC, 1995).

Transportation Demand Management (TDM). Strategies and techniques that can be used to increase the efficiency of the transportation system. TDM focuses on ways of influencing the amount and demand for transportation by encouraging alternatives to the single-occupant automobile and by altering local peak hour travel demand. These strategies and techniques may, among others, include: ridesharing programs; flexible work hours; telecommuting; shuttle services; and, parking management (Rule 9J-5 FAC).

Transportation disadvantaged. Those individuals who because of physical or mental disability, income status, or age are unable to transport themselves to or purchase transportation and are, therefore, dependent upon others to obtain access to

health care, employment, education, shopping, social activities, or other life-sustaining activities (Rule 9J-5 FAC).

Transportation System Management (TSM). A range of improvement strategies that are non-facility and low-capital oriented to make the existing transportation system operate more efficiently. TSM techniques include demand management strategies, incident management strategies, and other actions that increase the operating efficiency of the existing system in the short range (Rule 9J-5 FAC).

Trunk line. A transit route which travels longer distances, primarily along arterial roads, with few deviations (Transportation Expressions, U.S. DOT, 1996).

Unlinked trip. The number of passengers who board public transportation vehicles. Transit trip taken by both initial boarding and transfer passengers (Transportation Expressions, U.S. DOT, 1996).

Urban infill. For roadway concurrency purposes, development of vacant parcels in otherwise built-up areas where public facilities such as sewer systems, roads, schools, and recreation areas are already in place and the average residential density is at least five dwelling units per acre, the average nonresidential intensity is at least a floor area ratio of 1.0 and vacant, developable land does not constitute more than 10 percent of the area (Section 163.3164, F.S.).

Utilitarian trip. A trip for work or errand purposes, as opposed to recreational purposes. (1989 Broward County Comprehensive Plan, Broward County Comprehensive and Neighborhood Planning Division).

Volume-to-capacity (V/C) ratio. The ratio of demand flow to capacity for a highway (Level of Service Manual, Florida DOT, 1995).

Wide curb lane. The outermost lane of a roadway, for vehicle travel, which is expanded from the standard 12 feet width to at least 14 feet in order to accommodate bicycle travel. Wide curb lanes are not designated by striping or pavement markings. (1989 Broward County Comprehensive Plan, Broward County Comprehensive and Neighborhood Planning Division).

110% Maintain. It shall mean that the number of trips on a road segment shall not exceed 110% of the number of actual trips in the road segment plus the number of committed trips in the TRIPS model approved as of October 1, 1996.

B. Acronyms and Abbreviations

The following acronyms and abbreviations are found within this Transportation Element. As is the case with the definitions, this is a very comprehensive listing developed by Broward County in the preparation of their Transportation Element. It is used within this report intact.

AADT	Annual Average Daily Traffic
ADA	Americans with Disabilities Act
ADT	Average Daily Traffic
ASV	Annual Service Volume
BCLDC	Broward County Land Development Code
BCT	Broward County Transit
CDA	Compact Deferral Area
CMP	Congestion Management Plan
CMS	Concurrency Management System
COE	United States Army Corps of Engineers
COFC	Container-on-flatcar
CPTED	Crime Prevention through Environmental Design
CSX	Coastal Seaboard Railroad
DCA	Florida Department of Community Affairs
DMT	Broward County Division of Mass Transit
DPC/CME	Deepwater Port Component of the Coastal Management Element
DRI	Development of Regional Impact
EIS	Environmental Impact Statement
FAA	Federal Aviation Administration
FAC	Florida Administrative Code
FAR	Federal Aviation Regulation
FBO	Fixed Base Operator
FCTD	Florida Commission for the Transportation Disadvantaged
FDOT	Florida Department of Transportation
FEC	Florida East Coast Railroad
FIHS	Florida Intrastate Highway System
FLL	Fort Lauderdale/Hollywood International Airport
FOX	Florida Overland Express

FRA	Federal Railroad Administration
FS	Florida Statutes
FSUTMS	Florida Standard Urban Transportation Model Structure
FTP	Florida Turnpike
FXE	Fort Lauderdale Executive Airport
HOV	High Occupancy Vehicle
ICW	Intracoastal Waterway
ITS	Intelligent Transportation System
LOS	Level of Service
MIS	Major Investment Study
MLW	Mean Low Water
mph	Miles per hour
MPO	Metropolitan Planning Organization
NFNR	North Fork New River
PAL	Planning Activity Level (airport)
PJA	Port Jurisdictional Area
SFNR	South Fork New River
SFRC	South Florida Rail Corridor
SFRPC	South Florida Regional Planning Council
SIS	Strategic Intermodal System
SSPP	Safety System Program Plan
TAZ	Traffic Analysis Zone
TCC	Broward County Metropolitan Planning Organization's Technical Coordinating Committee
TCEA	Transportation Concurrency Exception Area
TCMA	Transportation Concurrency Management Area
TCRA	Tri-County Commuter Rail Authority
TDM	Transportation Demand Management
TE	Transportation Element
TEU	Trailer Equivalency Unit
TIP	Transportation Improvement Programs
TOD	Transit Oriented Development
TOPS	Transportation Options Program
TOFC	Trailer-on-flatcar
TRIPS	Traffic Review and Impact Planning System
TSM	Transportation System Management
USDOT	United States Department of Transportation
V/C	Volume to Capacity ratio