

TRAFFIC CIRCULATION ELEMENT

2.0 PURPOSE AND FORMAT

The purpose of the Traffic Circulation Element is to plan for future motorized and non-motorized traffic circulation systems. An essential basis for planning traffic circulation systems is the Future Land Use Element, specifically the Future Land Use Map. Clearly, the Future Land Use Map will direct where roadway facilities must be improved and where new roadway facilities may be needed. The criteria for determining the extent of facilities needed are the adopted level of service (LOS) standards.

Before a local government can responsibly plan for its future, it must assess the capability of its existing traffic circulation system to serve current demand. It is, therefore, necessary to determine existing levels of service and to identify existing roadway deficiencies within the traffic circulation system.

The content of this element includes: (1) an introduction; (2) an inventory of the existing traffic circulation system, including the existing traffic circulation map; (3) an analysis of existing roadway deficiencies within the traffic circulation system; (4) an analysis of projected needs; (5) Future Traffic Circulation Maps for 1995 and 2000; (6) identification of issues and opportunities; and (7) a listing of goals, objectives, and policies.

2.1 INTRODUCTION

Vero Beach has a current (1987) permanent population of 17,418 with a peak season increase of 2,717 persons. The City is located in Indian River County on the east coast in South Central Florida.

The principal arterials in Vero Beach are US 1, serving north-south traffic, and State Road (SR) 60, which serves east-west traffic. I-95 bypasses the City to the west; however, the I-95/SR 60 interchange provides a direct link between Vero Beach and the Interstate. I-95 provides regional access to Ft. Pierce and West Palm Beach to the south and Melbourne and Titusville to the north. Other major transportation links are US A1A, which serves north-south traffic on the barrier island between the Atlantic Ocean and the Indian River, and Indian River Boulevard/Merrill Barber Bridge and the 17th Street Bridge, both of which connect US 1 on the mainland to SR A1A on the barrier island. The bridges and bridge approaches are classified as principal arterials. The other major roadways are classified as minor arterials on the State Highway System.

The traffic circulation system in Vero Beach can be described as a grid system. The major discontinuity is caused by the Indian River located between the mainland and the barrier island. Minor discontinuities to the grid pattern are caused by the Florida East Coast Railway adjacent to US 1 and Dixie Highway and the Main Canal located on the north side of the City.

Bicycle and pedestrian facilities are best described as discontinuous throughout the City. Construction of these facilities has been generally piecemeal due to funding limitations.

2.2 INVENTORY OF EXISTING SYSTEM

An inventory of the existing traffic circulation system was prepared as a basis for examining the existing roadway deficiencies and projected roadway needs of the City's traffic circulation system. Roads located within the City include those which are the responsibility of the Florida Department of Transportation (state highway system), Indian River County (county roads), and the City itself (all roads not privately owned, or included in the above). Extensive data was available for the inventory of the existing system. These data included existing roadway functional classifications, traffic volume counts of average daily traffic (ADT) for the base year, and the laneage for each facility.

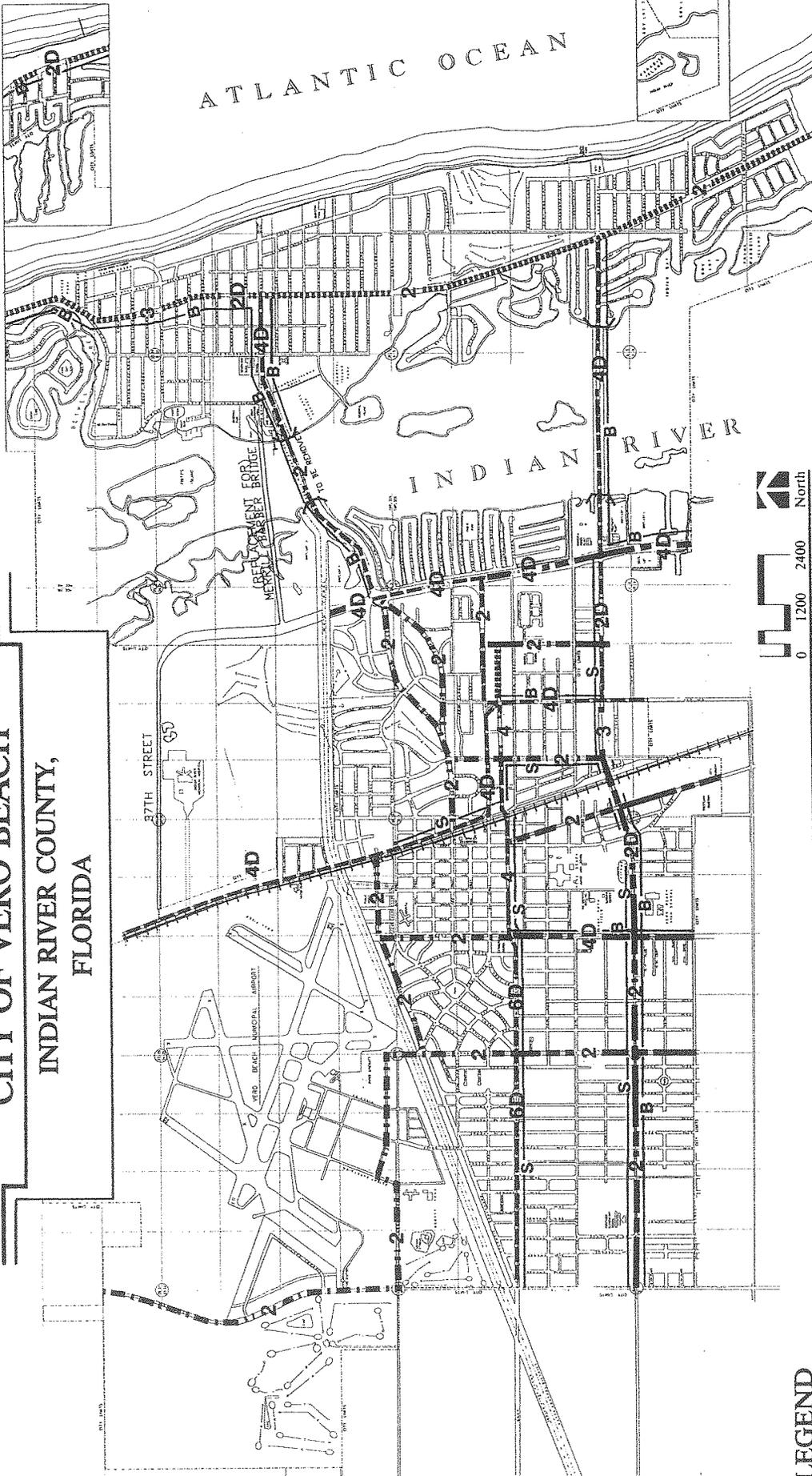
The City's roadways were identified as per the Florida Department of Transportation (FDOT) Roadway Functional Classification System. Principal and minor arterials of the state highway system, as well as minor arterials and several collector roadways are located in Vero Beach, but there are no limited access facilities. The number of through lanes were noted for each roadway type to be utilized later in the capacity analysis for determining the existing levels of service.

The locations of the existing roadway functional types and the number of lanes are identified in Figure 2.1. Also identified are the Florida East Coast Railroad and the Vero Beach Municipal Airport. Seaports, high-speed rail lines or related facilities are not found in the City and were, therefore, not considered.

Levels of service are the accepted measure of facility conditions. The Level of Service of a roadway is defined in the Highway Capacity Manual: Special Report 209 (Transportation Research Board, 1985) as a qualitative measure describing operational conditions within a traffic stream, and their perception by motorists and/or passengers. These conditions are generally described in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. In order to establish a basis for adopting Level of Service standards, the existing Level of Service for roadways was determined. The standardized descriptions of service levels used in transportation planning are as follows:

- o LOS A represents free flow. Individual users are virtually unaffected by the presence of others in the traffic stream. Freedom to select desired speeds and to maneuver within the traffic stream is extremely high. The general level of comfort and convenience provided to the motorist is excellent.
- o LOS B is in the range of stable flow, but the presence of other users in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver within the traffic stream from LOS A. The level of comfort and convenience provided is somewhat less than at LOS A, because the presence of others in the traffic stream begins to affect individual behavior.
- o LOS C is in the range of stable flow, but marks the beginning of the range of flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream. The selection of speed is now affected by the presence of others, and maneuvering within the traffic stream requires substantial vigilance on the part of the user. The general level of comfort and convenience declines noticeably at this level.
- o LOS D represents high-density, but stable, flow. Speed and freedom to maneuver are severely restricted, and the driver experiences a generally poor level of comfort and convenience. Small increases in traffic flow will generally cause operational problems at this level.
- o LOS E represents operating conditions at or near the capacity level. All speeds are reduced to a low, but relatively uniform value. Freedom to maneuver within the traffic stream is extremely difficult, and it is generally accomplished by forcing a vehicle to "give way" to accommodate such maneuvers. Comfort and convenience levels are extremely poor, and driver frustration is generally high. Operations at this level are usually unstable, because small increases in flow or minor perturbations within the traffic stream will cause breakdowns.

CITY OF VERO BEACH
INDIAN RIVER COUNTY,
FLORIDA



EXISTING CONDITIONS
Figure 2.1

LEGEND

	Principal Arterial, SHS*		Two Lanes, Divided or Three-Lane Section		Bicycle Facility
	Minor Arterial, SHS*		Two Lanes Undivided		Sidewalk
	Minor Arterial		Four Lanes Divided		Bridge
	Urban Collectors		Four Lanes Undivided		*SHS
	Florida East Coast Railroad		Six Lanes Divided		State Highway System

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- o LOS F is used to define forced or breakdown flow. This condition exists wherever the amount of traffic approaching a point exceeds the amount which can traverse the point. Queues form behind such locations. Operations within the queue are characterized by stop-and-go waves, and they are extremely unstable. Vehicles may progress at reasonable speeds for several hundred feet or more, then be required to stop in a cyclic fashion. LOS F is used to describe the operating conditions within the queue, as well as the point of the breakdown. It should be noted, however, that in many cases operating conditions of vehicles discharged from the queue may be quite good. Nevertheless, it is the point at which arrival flow exceeds discharge flow which causes the queue to form, and LOS F is an appropriate designation for such points.

Average daily traffic volumes were collected quarterly by the City and Indian River County. Historical traffic counts were available for nearly every segment of the arterial and collector networks. An analysis of the daily counts indicated that peak season volumes occurred during the second quarter of the year. Where available, these were the volumes used for analysis.

The "Generalized Daily Level of Service Maximum Volumes for Florida's Urban/Urbanized (5,000+) Areas" table, developed by the FDOT and published in its Florida Highway System Plan: Level of Service Standards and Guidelines Manual (1988), was used to determine the operating conditions of the City's more significant roadway links. The daily threshold volumes appearing in the generalized table, and duplicated in Table 2.1, were developed from peak hour volumes using field-based data which reflect Florida-typical roadway characteristics. The results of the capacity analysis for determining the existing

Level of Service for all collector and arterial roadways within the City, by segment, are illustrated in Table 2.2.

Accident frequency data was also reviewed. As a result of traffic studies recently completed for A1A and for SR 60 between Indian River Boulevard and Beachland Boulevard, some data was readily available. These studies indicate that the City's accident experience is below the norm when compared to other roadways in Florida of similar classification, laneage, volume and urban area size. The following is a summary of the accident experience along SR A1A during 1987 as assessed by the City.

North City Limits to Beachland Boulevard (SR 60)	1.94/Million Vehicle Miles (MVM) 0.14 Safety Ratio
Beachland Boulevard to Causeway Boulevard (SR 656)	4.71/MVM 0.39 Safety Ratio
East Causeway to South City Limits	3.33/MVM 0.41 Safety Ratio

Such findings indicate that, when establishing the priority for implementing roadway improvements, the City's selection should be based primarily on a project's ability to provide additional capacity to the network. Maintaining the City's current high safety standards will continue as an integral part of the City's design review process.

Table 2.1. Generalized Daily Level of Service Maximum Volumes

Functional Class	Group*	Lanes/ Divided	Left Turn Bays	Level of Service				
				A	B	C	D	E
Arterial	A	2-Undiv.	Yes	13,700	15,000	15,600	16,500	17,400
		2-Div.	Yes	14,400	15,800	16,400	17,300	18,300
		3-Div.	Yes	22,100	23,800	24,700	26,100	27,500
		4-Div.	Yes	29,800	31,900	33,000	34,900	36,700
		6-Div.	Yes	45,400	48,100	49,700	52,400	55,200
B	B	2-Undiv.	Yes	9,000	13,700	14,500	15,300	16,100
		2-Div.	Yes	9,400	14,400	15,200	16,100	16,900
		4-Div.	Yes	20,000	29,700	31,000	32,500	34,000
		6-Div.	Yes	30,600	45,100	46,700	48,900	51,200
C	C	2-Undiv.	Yes	--	10,200	13,500	14,800	15,700
		4-Div.	Yes	--	22,800	29,500	31,700	33,400
		6-Div.	Yes	--	35,100	45,000	47,900	50,300
D	D	2-Undiv.	Yes	--	--	9,200	13,700	15,400
		4-Undiv.	Yes	--	--	19,100	28,700	31,500
		4-Div.	Yes	--	--	20,100	30,800	33,200
		4-1 wy pr.	Yes	--	19,600	29,600	33,800	36,000
		2-Ln each	Yes	--	--	30,700	46,300	50,200
		6-Div.	Yes	--	29,800	45,400	51,200	54,400
Collector	--	6-1 wy pr.	Yes	--	--	--	--	--
		3-Ln each	Yes	--	--	--	--	--
		2	--	--	7,700	11,600	12,900	
		4	--	--	16,200	24,300	26,400	
		6	--	--	24,900	37,200	40,100	

*Group A = 0.0 to 0.75 signalized intersections per mile.
 Group B = 0.76 to 1.5 signalized intersections per mile.
 Group C = 1.6 to 2.5 signalized intersections per mile.
 Group D = 2.6 to 3.5 signalized intersections per mile.

Table 2.2 Analysis of Existing Roadway System

Street	Segment	Functional Class	Group	No. Lanes/ Type*	1987 ADT	v/msv Ratio	Level of Service
A1A	S.C.L. to Cswy. Blvd. (SR 656)	MA	A	2	15,700*	0.952	A
A1A	Cswy. Blvd. to Beachland Blvd. (SR 60)	MA	A	2	16,000*	0.970	A
A1A	Beachland Blvd. to N.C.L.	MA	A	2/Div	16,800*	0.971	A
Indian River Blvd.	S.C.L. to 21st St. (SR 60)	MA	B	4/Div	9,500	0.279	A
Indn Rvr Blvd. (SR 60)	21st St. to Royal Palm Blvd.	PA	B	4/Div	9,500	0.292	A
US 1	S.C.L. to 21st St. (SR 60)	PA	D	4/Div	30,100	0.977	D
US 1 (21st St.)	8th Ave. (US 1 S) to Commerce (US 1 N)	PA	D	4/Div	19,800	0.643	C
US 1	21st St. to N.C.L.	PA	D	4/Div	22,700	0.737	D
SR 60 (20th St.)	W.C.L. to 21st Ave.	PA	B	6/Div	23,700	0.485	A
SR 60 (20th St.)	21st Ave. to US 1	PA	D	4	9,500	0.302	C
SR 60 (21st St.)	Commerce St. (US 1) to Indn Rvr Blvd.	PA	C	2	9,000	0.608	C
SR 60	Merrill Barber Bridge	PA	A	2/Bridge	16,900	1.024	E
SR 60 (Beachland Blvd.)	Merrill Barber Bridge to A1A	PA	B	4/Div	12,000	0.369	A
17th St. (SR 656)	Indian River Bridge	PA	A	4/Bridge	20,100	0.576	A
17th St. (SR 656)	Indian River Bridge to A1A	PA	A	4/Div	22,500	0.645	A

Table 2.2 Analysis of Existing Roadway System (Continued)

Street	Segment	Functional Class	Group	No. Lanes/ Type*	1987 ADT	v/msv Ratio	Level of Service
43rd Ave. (SR 611)	26th St. to 41st St.	Col.	--	2	5,200	0.403	C
27th Ave. (SR 607)	S.C.L. to 20th St. (SR 60)	MA	B	2	8,300	0.516	A
27th Ave. (SR 607)	20th St. to 26th/27th St.	Col.	--	2	7,500	0.581	C
20th Ave. (SR 6015)	S.C.L. to 20th St. (SR 60)	MA	A	4/Div	6,500	0.177	A
20th Ave. (SR 6015)	20th St. to 26th St.	Col.	--	2	6,100	0.473	C
Old Dixie Highway (SR 605)	S.C.L. to 20th St. (SR 60)	MA	C	2	11,200	0.713	B
6th Ave. (SR 6009)	S.C.L. to 21st St.	MA	C	2	8,600	0.548	B
26th/27th St.	43rd Ave. to 27th Ave.	Col.	--	2	4,600	0.357	C
Atlantic Blvd.	27th Ave. to US 1	Col.	--	2	4,100	0.318	C
Royal Palm Blvd. (SR 5798)	US 1 to Indian River Blvd.	Col.	--	2	5,600	0.434	C
Royal Palm Place	Royal Palm Blvd. to Indian River Blvd.	Col.	--	2	7,000	0.543	C
16th St. (SR 656)	43rd Ave. (SR 611) to 27th Ave. (SR 607)	MA	A	2	5,100	0.293	A

Table 2.2 Analysis of Existing Roadway System (Continued)

Street	Segment	Functional Class	Group	No. Lanes/ Type*	1987 ADT	v/msv Ratio	Level of Service
16th St. (SR 656)	27th Ave. to 20th Ave.	MA	A	2	9,300	0.534	A
16th St. (SR 656)	20th Ave. to Old Dixie Highway (SR 605)	MA	A	2/Div	8,900	0.486	A
16th/17th St. (SR 656)	Old Dixie Highway to US 1	MA	A	3/Div	23,500	0.855	A

*Assumed to be undivided unless otherwise indicated.

PA = Principal Arterial.

MA = Minor Arterial.

Col. = Collector

v/msv Ratio = Volume-to-Maximum Service Volume for the Minimum Acceptable Level of Service as set by Policy 1.1.

N.C.L. = North City Limits.

S.C.L. = South City Limits.

W.C.L. = West City Limits.

Source: RS&H, 1990.

2.3 ANALYSIS OF EXISTING DEFICIENCIES

The "Statewide Minimum Acceptable Operating Level of Service Standards for the State Highway System" adopted by the FDOT have been adopted by the City as the **minimum acceptable** standards for peak-season/peak-hour conditions after 1990. At that time, based on 1990-census population figures, the City of Vero Beach and the surrounding portions of Indian River County are expected to be designated as an urbanized area. (This designation requires an "urban area" population of at least 50,000.) The level of service standards for urbanized areas, per FDOT, are LOS D for all principal arterials (US 1 and SR 60) and LOS E for all other facilities including minor arterials and collector roadways. The City has also adopted LOS D as the **preferred** minimum condition. This dual system of Level of Service standards serves two functions: enables the City to maintain better operating conditions on facilities which can be improved; recognizes the fiscal, socioeconomic and environmental constraints built-up areas have on roadway levels of service without severely curtailing potential development opportunities.

As shown in Table 2.2, the SR 60 link at the Merrill Barber Bridge is the only roadway segment currently operating at less than LOS D condition during the peak season.

2.4 ANALYSIS OF PROJECTED NEEDS

Projections were prepared of the future traffic circulation levels of service and system needs based upon the future land uses shown on the Future Land Use Map of this comprehensive plan. These projections served as a basis for determining the need for new roadway facilities and expansions to support planned development and to maintain adopted level of service standards.

The City of Vero Beach is not currently located within an urbanized area, as designated by the US Bureau of the Census. The City is therefore, not, at the present time, within a Metropolitan Planning Organization (MPO) jurisdiction, although this condition should change within the near future as results of the 1990 census become available. In order to project future traffic conditions, without the aid of metropolitan planning transportation studies, it was necessary to develop a "growth factor". The future-year volume resulting from applying this growth factor to existing volumes was then modified to bring projections closer in line to those developed by computer model as part of the Indian River County Comprehensive Plan "Traffic Circulation Element" analysis.

The growth factor was derived from the Future Land Use Map contained within the Future Land Use Element of this plan. Future land use trends were expressed in terms of number of dwelling units and population. For example, for the period of 1987 through 2000, analysis of these data indicated annual growth rates of 0.60 percent for number of dwelling units, and 0.54 percent for population. Trends in traffic volume indicated an annual increase of approximately five percent.

These growth rates are indicative of the generally built-out conditions in Vero Beach. Indian River County, however, is expected to grow at a somewhat faster pace. A review of the projections for Indian River County as shown in the Housing Element, indicates that dwelling units will increase 3.25 percent annually and population three percent annually for the period 1987 - 2000. Since the traffic volumes on the arterial roadway serve through trips and City-County trips, growth on the arterial network can be expected to be more sensitive to growth patterns in Indian River County. For this reason, a modified annual growth rate of 3.5 percent was used for the arterial network for an overall growth factor of 1.56 from the 1987 base year ADT to the horizon year of 2000; a factor of 1.32 was used to obtain 1995 volumes. Collector streets, in general, serve local trips and will not be significantly affected by growth in the County. The collector network was assumed to increase at an annual percentage rate of 2.25 during the 13-year planning period, yielding a 1.17 growth factor for 1995 traffic and 1.32 growth factor for 2000 volumes. There are some collector roadways, however, which are expected to increase at the higher growth rate. These roadways include Royal Palm Place, Royal Palm Boulevard and 43rd Avenue.

The procedure used for analyzing projected system needs was similar to that utilized for analyzing the existing roadway deficiencies. The expected level of service for the roadway segments with forecasted traffic volumes for 1995 and 2000 are shown in Tables 2.3 and 2.4. The improvements needed to address the deficiencies identified by these analyses are presented below.

The base year network indicates an immediate need for additional capacity along US 1 within the City's limits and within the 16th/17th Street (SR 656) corridor between Old Dixie Highway and US 1. Additional capacity improvements are anticipated to meet 1995 demand volumes.

1. A1A from Causeway Boulevard to the north City Limit will require upgrading to four through lanes with a two-way left turn lane.
2. Indian River Boulevard from SR 60 to the north City Limits should be completed in conjunction with the extension north to 53rd Street. Once completed, this facility will serve as a bypass for through traffic and should provide relief to the US 1 corridor.
3. The Merrill Barber Bridge (SR 60) and approaches will be replaced with a four-lane structure. The replacement bridge corridor is depicted on all maps included within the Comprehensive Plan.
4. SR 60 will require an additional through lane for each direction between 21st Avenue and Indian River Boulevard. This improvement is proposed as a one-way pair.

The improvements programmed for SR A1A will anticipate the deficiencies which would arise along that corridor by 1995 as indicated in Table 2.3. The proposed extension to Indian River Boulevard will permit a more effective separation of local and through trips within the US 1 corridor. In addition to providing relief to the **volume** of traffic using US 1, the Indian River Boulevard improvement should permit the traffic remaining on US 1 to move more **efficiently**. Two projects (Nos. 3 and 4 above) are proposed to improve operation of SR 60. The replacement of the Merrill Barber Bridge with a four-lane structure will improve both the operation and safety of that facility. The one-way pair proposed for SR 60 west of Indian River Boulevard will also serve a number of purposes: provide additional capacity for traffic within the SR 60 corridor, provide additional capacity to accommodate accessing the improved SR 60-Merrill Bridge, and, in conjunction with the latter, provide relief to the SR 656/16th Street corridor.

The straight-line projection procedures used for these traffic volume analyses do not reflect the benefits to be derived to the **existing** or **existing-plus-committed (E+C)** roadway network by diversion of trips from **future** facility improvements. For this reason, the Year 2000 analysis on Table 2.4 shows continued failure on US 1 and SR 656 (16th/17th Street), from Old Dixie Highway to SR A1A. In actuality, both of these roadway segments will operate under improved conditions as a result of trips diverted to the Extended Indian River Boulevard and the new Merrill Bridge, both programmed for implementation by 1995.

The following improvements are anticipated to meet Year 2000 demand values.

1. A1A from south City Limits to Causeway Boulevard will require upgrading to four through lanes with a two-way left turn lane.
2. Widening of 16th and 17th Streets from Dixie Highway to US 1 to provide four through lanes with left turn lanes.

A summary of these improvements programmed for implementation by the Year 1995 and planned for the Year 2000 is shown in Table 2.5.

Table 2.3. Analysis of Projected 1995 Roadway Volumes Using E+C Roadway Network

Street	Segment	Functional Class	Group	No. Lanes/ Type*	1995 ADT	v/msv Ratio	Level of Service
A1A	S.C.L. to Cswy Blvd (SR 656)	MA	A	2	12,144	0.698	A
A1A	Cswy Blvd to Beachland Blvd (SR 60)	MA	A	4/Div**	17,424	0.512	A
A1A	Beachland Blvd to N.C.K.	MA	A	4/Div**	18,480	0.544	A
Indian River Blvd	S.C.L. to 21st St (SR 60)	MA	B	4/Div	12,540	0.369	A
Indn Rvr Blvd (SR 60)	21st St to Royal Palm Blvd	PA	B	4/Div	12,540	0.386	A
Indn Rvr Blvd	Royal Palm Blvd to replacement for the Merrill Barber Bridge	PA	B	4/Div	16,730	0.514	A
US 1	S.C.L. to 21st St (SR 60)	PA	D	4/Div	39,732	1.290	F
US 1 (21st St)	8th Ave (US 1 S) to Commerce (US 1 N)	PA	D	4/Div	26,136	0.849	D
US 1	21st St to N.C.L.	PA	D	4/Div	29,964	0.973	D
Sr 60 (20th St)	W.C.L. to 21st Ave	PA	B	6/Div	31,284	0.640	A
SR 60 (20th St)	21st St to US 1	PA	D	6/1wy pr**	12,540	0.245	B
SR 60 (21st St)	Commerce St (US 1 N) to Indian River Blvd	PA	C	4/1wy pr**	11,880	0.351	B
SR 60	Merrill Barber Bridge	PA	A	4/Bridge**	22,308	0.639	A
SR 60 (Beachland Blvd)	Merrill Barber Bridge to A1A	PA	B	4/Div	15,840	0.487	A

Table 2.3. Analysis of Projected 1995 Roadway Volumes Using E+C Roadway Network (Continued)

Street	Segment	Functional Class	Group	No. Lanes/ Type*	1995 ADT	v/msv Ratio	Level of Service
17th St (SR 656)	Indian River Bridge	PA	A	4/Bridge	26,532	0.760	B
17th St (SR 656)	Indian Rvr Bridge to A1A	PA	A	4/Div	29,700	0.851	B
43rd Ave (SR 611)	26th St to 41st St	Col.	--	2	6,864	0.532	C
27th Ave (SR 607)	S.C.L. to 20th St (SR 60)	MA	B	2	10,956	0.680	A
27th Ave (SR 607)	20th St to 26th/27th St	Col.	--	2	8,775	0.680	D
20th Ave (SR 6015)	S.C.L. to 20th St (SR 60)	MA	A	4/Div	8,580	0.234	A
20th Ave (SR 6015)	20th St to 26th St	Col.	--	2	7,137	0.553	C
Old Dixie Hwy (SR 605)	S.C.L. to 20th St (SR 60)	MA	C	2	14,784	0.942	D
6th Ave (SR 6009)	S.C.L. to 21st St	MA	C	2	11,352	0.723	C
26th/27th St	43rd Ave to 27th Ave	Col.	--	2	5,382	0.417	C
Atlantic Blvd	27th Ave to US 1	Col.	--	2	4,797	0.372	C
Royal Palm Blvd (SR 5798)	US 1 to Indian River Blvd	Col.	--	2	7,392	0.573	C
Royal Palm Place	Royal Palm Blvd to Indian River Blvd	Col.	--	2	9,240	0.716	D
16th St (SR 656)	43rd Ave (SR 611) to 27th Ave (SR 607)	MA	A	2	6,732	0.387	A

Table 2.3. Analysis of Projected 1995 Roadway Volumes Using E+C Roadway Network (Continued)

Street	Segment	Functional Class	Group	No. Lanes/ Type*	1995 ADT	v/msv Ratio	Level of Service
16th St (SR 656)	27th Ave to 20th Ave	MA	A	2	12,276	0.706	A
16th St (SR 656)	20th Ave to Old Dixie Hwy (SR 605)	MA	A	2/Div	11,748	0.642	A
16th/17th St (SR 656)	Old Dixie Hwy to US 1	MA	A	3/Div	31,020	1.128	F

*Assumed to be undivided unless otherwise indicated.

**Improvement programmed for implementation FY 90-95.

PA = Principal Arterial
 MA = Minor Arterial
 Col. = Collector
 v/msv Ratio = Volume-to-Maximum Service Volume for the Minimum Acceptable Level of service as set by Policy 1.1
 N.C.L. = North City Limits
 S.C.L. = South City Limits
 W.C.L. = West City Limits

Source: RS&H, 1990.

Table 2.4. Analysis of Projected 2000 Roadway Volumes Using E+C Roadway Network

Street	Segment	Functional Class	Group	No. Lanes/ Type*	1995 ADT	v/msv Ratio	Level of Service
A1A	S.C.L. to Cswy Blvd (SR 656)	MA	A	2	14,352	0.825	B
A1A	Cswy Blvd to Beachland Blvd (SR 60)	MA	A	4/Div**	20,592	0.606	A
A1A	Beachland Blvd to N.C.K.	MA	A	4/Div**	21,840	0.642	A
Indian River Blvd	S.C.L. to 21st St (SR 60)	MA	B	4/Div	14,820	0.436	A
Indn Rvr Blvd (SR 60)	21st St to Royal Palm Blvd	PA	B	4/Div	14,820	0.456	A
Indn Rvr Blvd	Royal Palm Blvd to replacement for the Merrill Barber Bridge	PA	B	4/Div	19,773	0.581	A
US 1	S.C.L. to 21st St (SR 60)	PA	D	4/Div	46,956	1.525	F
US 1 (21st St)	8th Ave (US 1 S) to Commerce (US 1 N)	PA	D	4/Div	30,888	1.003	E
US 1	21st St to N.C.L.	PA	D	4/Div	35,412	1.150	F
SR 60 (20th St)	W.C.L. to 21st Ave	PA	B	6/Div	36,972	0.756	B
SR 60 (20th St)	21st St to US 1	PA	D	6/1wy pr**	14,820	0.289	B
SR 60 (21st St)	Commerce St (US 1 N) to Indian River Blvd	PA	C	4/1wy pr**	14,040	0.415	B
SR 60	Merrill Barber Bridge	PA	A	4/Bridge**	26,364	0.755	A
SR 60 (Beachland Blvd)	Merrill Barber Bridge to A1A	PA	B	4/Div	18,720	0.576	A

Table 2.4. Analysis of Projected 2000 Roadway Volumes Using E+C Roadway Network (Continued)

Street	Segment	Functional Class	Group	No. Lanes/ Type*	1995 ADT	v/msv Ratio	Level of Service
17th St (SR 656)	Indian River Bridge	PA	A	4/Bridge	31,356	0.898	B
17th St (SR 656)	Indian Rvr Bridge to A1A	PA	A	4/Div	35,100	1.006	E
43rd Ave (SR 611)	26th St to 41st St	Col.	--	2	8,112	0.629	D
27th Ave (SR 607)	S.C.L. to 20th St (SR 60)	MA	B	2	12,948	0.804	B
27th Ave (SR 607)	20th St to 26th/27th St	Col.	--	2	9,675	0.750	D
20th Ave (SR 6015)	S.C.L. to 20th St (SR 60)	MA	A	4/Div	10,140	0.276	A
20th Ave (SR 6015)	20th St to 26th St	Col.	--	2	7,869	0.610	D
Old Dixie Hwy (SR 605)	S.C.L. to 20th St (SR 60)	MA	C	2	17,472	1.113	F
6th Ave (SR 6009)	S.C.L. to 21st St	MA	C	2	13,416	0.855	C
26th/27th St	43rd Ave to 27th Ave	Col.	--	2	5,934	0.460	C
Atlantic Blvd	27th Ave to US 1	Col.	--	2	5,289	0.410	C
Royal Palm Blvd (SR 5798)	US 1 to Indian River Blvd	Col.	--	2	8,736	0.677	D
Royal Palm Place	Royal Palm Blvd to Indian River Blvd	Col.	--	2	10,920	0.847	D
16th St (SR 656)	43rd Ave (SR 611) to 27th Ave (SR 607)	MA	A	2	7,956	0.457	A

Table 2.4. Analysis of Projected 2000 Roadway Volumes Using E+C Roadway Network (Continued)

Street	Segment	Functional Class	Group	No. Lanes/Type*	1995 ADT	v/msv Ratio	Level of Service
16th St (SR 656)	27th Ave to 20th Ave	MA	A	2	14,508	0.834	B
16th St (SR 656)	20th Ave to Old Dixie Hwy (SR 605)	MA	A	2/Div	13,884	0.759	A
16th/17th St (SR 656)	Old Dixie Hwy to US 1	MA	A	3/Div	36,660	1.333	F

*Assumed to be undivided unless otherwise indicated.

**Improvement programmed for implementation FY 90-95.

PA = Principal Arterial
MA = Minor Arterial
Col. = Collector
v/msv Ratio = Volume-to-Maximum Service Volume for the Minimum Acceptable Level of service as set by Policy 1.1
N.C.L. = North City Limits
S.C.L. = South City Limits
W.C.L. = West City Limits

Source: RS&H, 1990.

The Florida Department of Transportation (FDOT) has included the construction of SR 60 as twin one-way pairs between 21st Avenue and Indian River Boulevard in the Tentative Five-Year Transportation Plan for construction by 1995. This improvement will further serve to enhance traffic circulation in the downtown core and relieve a portion of US 1.

Table 2.5. Summary of Anticipated Improvements

Segment	Termini	Length (Mi)	Type Improvement	Responsible Agency
(1995)				
A1A	Cswy. Blvd.- N.C.L.	3.0	Widen to 5 Lanes	FDOT
Ind. River Blvd. Ext.	SR60-N.C.L.	0.6	0-4 Art IRC	
Replacement for the Merrill Barber Br. and Approaches	IR Blvd-Mocking- bird Drive	1.17	Br. Repl.	FDOT
SR 60	21st Ave.-Ind. Riv. Blvd.	2.3	4-6 (One-Way Pair)	FDOT
(2000)				
A1A	S.C.L.-Cswy. Blvd.	1.5	2-5	FDOT
16th/17th St.	Dixie Hwy. to US 1	0.5	3-4	VB

FDOT - Florida Department of Transportation
 IRC - Indian River County
 VB - City of Vero Beach.

Sources: FDOT
 RS&H, 1989.

The FDOT has also included in their Five-Year Plan, the replacement of the Merrill Barber Bridge on SR 60 over the Intracoastal Waterway. The existing bridge has deteriorated structurally to the point where replacement provides the most feasible long-term solution. The replacement structure is proposed as a four-lane high-level structure.

A corridor improvement study for US 1 in Indian River County has also been included in FDOT's Plan. Despite the significant volumes expected to be diverted to Indian River Boulevard from US 1, deficiencies will remain in the US 1 corridor. This is because US 1 is too constrained and has no available right-of-way for expansion.

The improvements proposed in the City's Five-Year Improvement Program and the Recommended Long-Range Major Street and Highway Program for Indian River County have been included in the above

listing. In addition, supplemental improvements have been added which have not been included in the Capital Improvement Program or the Recommended Long-Range Program.

Neither the City of Vero Beach nor the larger area of Indian River County has the population density to make mass transit an economically viable alternative mode of transportation. However, the City, in conjunction with its future role as a participant in the Metropolitan Planning Organization process, will continue to periodically review the viability of mass transit implementation.

Also through the MPO process, the City shall support the implementation of a ride-sharing/carpooling/vanpooling program for the urban area's major employers, both public sector and private sector. The program would be administered by the staff of the MPO since it would need to cross jurisdictional lines (City of Vero Beach, Indian River County, etc.) to be effective.

The City also recognizes the need to improve opportunities for use of non-motorized transportation modes. Specifically, through its Objectives and Policies, the City will support Indian River County in the enforcement and implementation of its Comprehensive Bikeway and Sidewalk Plan within its City limits. Areas within the City identified for improvement are shown on the Future Traffic Circulation Map (Figure 2.2).

The Future Traffic Circulation Map is shown in Figure 2.2. The roadway network portrayed on that map shows the existing-plus-committed (E+C) network and improvements through the year 1995. The City will gain a number of benefits from implementation of these improvements. Average trip lengths will be shorter, average travel time will be less as a result of reductions in congestion-associated delays, and a decline in the amount of delay will provide related reductions in auto emissions, fuel consumption, accident frequency and emergency vehicle response times. In simple terms, the City's roadway network will become more efficient.

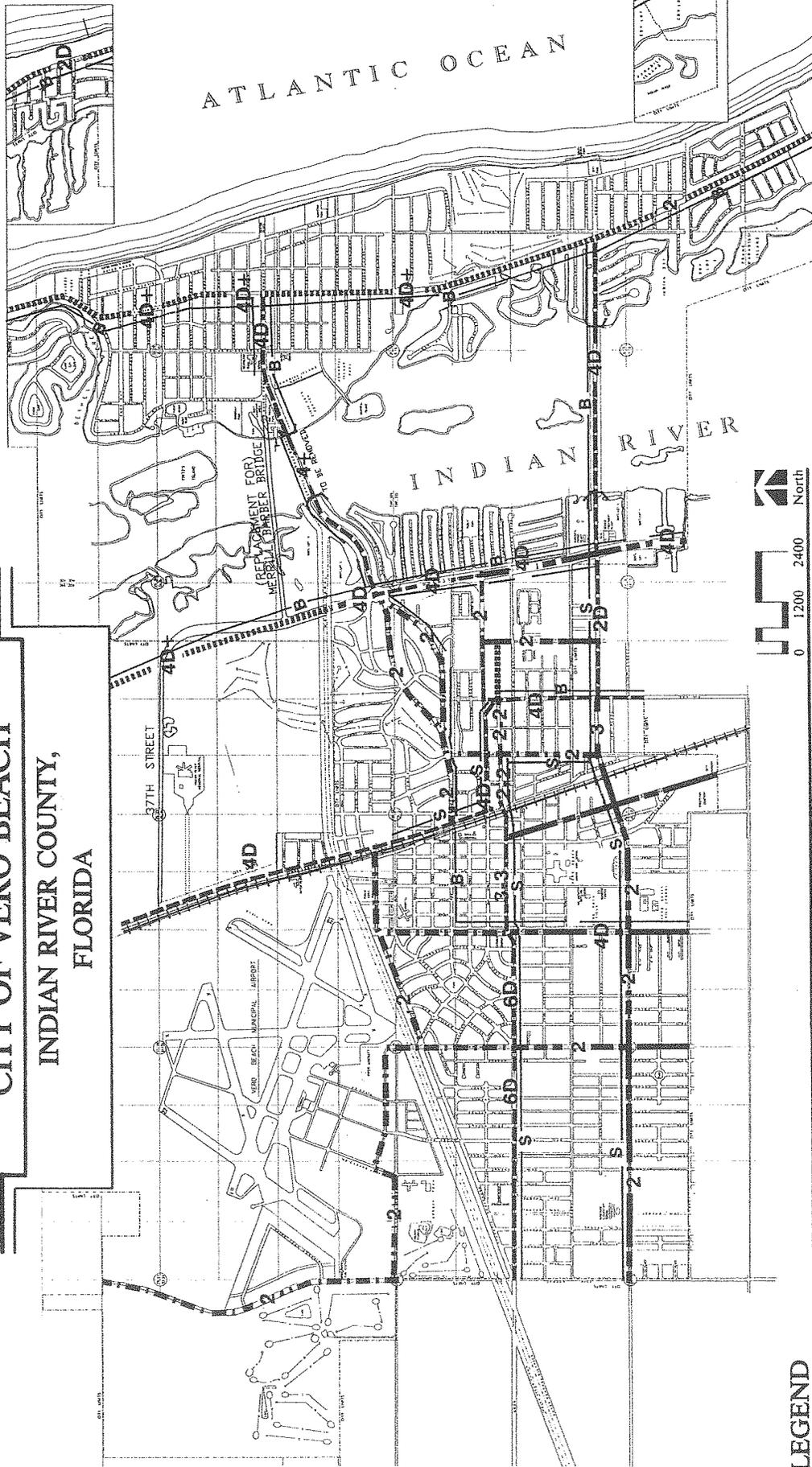
2.5 ISSUES AND OPPORTUNITIES

Intergovernmental coordination is essential for the most cost-effective provision of traffic circulation system improvements. Clearly, the City of Vero Beach does not possess the resources nor is it fiscally responsible for addressing all of the traffic circulation system needs identified in this element. For example, both Indian River County and FDOT have financial responsibility for county roads and state highway system roads, respectively, which are located within the City of Vero Beach. Therefore, it is necessary for the City to review the transportation improvement plans and programs prepared by the County and FDOT. In this way, the effort and dollars expended by the City to improve its traffic circulation system may be complemented and perhaps enhanced by the activities of the County and FDOT.

One area of coordination should include the preservation and protection of rights-of-way for identified future roadway improvements and construction. With the escalating value of land and costs entailed in right-of-way acquisition, it is essential that the City continue to protect roadway corridors, in advance, from building encroachment. Increased right-of-way costs reduce the funds available for actual construction. FDOT has indicated in the Florida Transportation Plan that it will consider, as a part of its project priority analysis, availability and protection measures which have been implemented. Therefore, it would be advantageous for the City to utilize such techniques as setback requirements, zoning restrictions, right-of-way protection regulations and official trafficway maps to preserve and protect existing and future rights-of-way.

Directly related to right-of-way preservation and protection is the issue of "constrained facilities." This is a situation in which additional roadway or intersection improvements cannot be implemented due to a lack of available rights-of-way. This problem may be attributed to existing development intensities, very high land values, or environmental concerns.

CITY OF VERO BEACH
INDIAN RIVER COUNTY,
FLORIDA



SUPPLEMENT 93-02 (2/93)

LEGEND

	Principal Arterial, SHS*		Two Lanes Divided or Three-Lane Section		One-Way Pair, Three Lanes Each
	Minor Arterial, SHS*		Two Lanes Undivided		One-Way Pair, Two Lanes Each
	Minor Arterial		Four Lanes Divided		Sidewalk
	Urban Collectors		Four Lanes Undivided		Bicycle Facility
	Florida East Coast Railroad		Six Lanes Divided		Bridge

+ Programmed Improvement
 *SHS - State Highway System

1995 E + C Netw
 Figure 2.2

IRSH / PLANTEC

SEPTEMBER 1989

Supplement 7; Adopted August 16, 2011; Ordinance #11-12.

The major widening or reconstruction of the facilities within the core redevelopment area of Vero Beach would cause extensive economic and relocation impacts. It is, therefore, recommended that improvements be made to alternative roadways, such as Indian River Boulevard. Other less costly improvements which relieve congestion should also be implemented: designation of one-way pairs; improved traffic signalization, including turning movements, synchronization, and channelization; and the addition of turn lanes at congested intersections.

The identified roadway widenings and improvements will better the circulation of traffic within Vero Beach. This will effectively increase the accessibility of health care facilities to the public, including the elderly and indigent. The City will also work through the MPO process, once it has been established, to coordinate provision of transportation services to medical facilities for qualifying elderly and indigent persons.

2.6 GOALS, OBJECTIVES AND POLICIES

2.6.0 Goal: To maintain and promote a safe, efficient, accessible, financially feasible, and attractive transportation system which provides for mobility of all residents and visitors, encourages freedom of choice among alternative modes of travel, while maintaining the historic, residential, cultural and environmental quality and characteristics unique to the City.

2.6.0.0 Adequate Roadway Transportation System

Objective 1:

The traffic circulation system, and improvements thereto, shall be coordinated with new development as depicted on the Future Land Use Map in order to retain the appropriate level of service or otherwise provide for adequate and safe access concurrent with such new development or redevelopment.

Policies:

- 1.1 The operating level of service standards for roadways within the City shall be Level of Service "D" (Peak Hour/Peak Season/Peak Direction) or better on all arterial and collector roadways, and Level of Service "E" (Peak Hour/Peak Season/Peak Direction) or better for all other roadways, except for the following:
 - 27th Avenue from South City Limits to State Route 60 – "E" plus 20%
 - A1A from State Route 60 to North City Limits – "D" plus 30%
 - State Route A1A from 17th Street to South City Limits – "D" plus 30%
- 1.2 The City shall investigate the feasibility of designating a transportation concurrency exception area in the comprehensive plan for the downtown central business district for the purpose of promoting urban infill, redevelopment, and downtown revitalization, as outlined in Chapter 163.3180, Florida Statutes.
- 1.3 The City shall explore transportation system management strategies for improving roads, intersections, and other related facilities to make the existing transportation system operate more efficiently and to achieve and maintain level of service standards.
- 1.4 The City shall review the existing roadway network to determine whether to consider restricting the widening of roadways that have specific physical and or environmental constraints. SR A1A on the

Supplement 3; Adopted February 5, 2008; Ordinance #08-01.

Barrier Island is an example of such a facility. Criteria to consider as part of the analysis to determine whether a roadway should be considered “constrained” shall include, but not be limited to, the following: historic, cultural or scenic character, right-of-way limitations, high land values and cost of right-of-way acquisition, and environmental or socio-economic impacts on surrounding properties.

- 1.5 As part of the required annual update of Capital Improvements Element (CIE) and the five-year Capital Improvements Schedule (CIS), the City shall include transportation capital improvement projects. The CIS shall be a list of scheduled capital projects to address public facility needs identified in this Comprehensive Plan and to ensure that the adopted level-of-service (LOS) standards are achieved and maintained. The annual update of the CIE and CIS shall be done in conjunction with the City’s annual operating and capital budgeting process to ensure that the CIS is financially feasible.
- 1.6 The City shall adopt transportation capital improvement projects that are coordinated with the Indian River County Metropolitan Planning Organization’s transportation plans and programs. The projects shall be reviewed and updated on an annual basis as part of the annual update of the Capital Improvement Element and the Capital Improvement Schedule referenced in Policy 1.5 above.
- 1.7 No development project shall be approved if the projected impacts of the project would serve to reduce service levels of any roadway on the traffic circulation system below the standards identified in Policy 1.1. Conditions applicable to this policy are as follows:
 - Development project shall be defined as any activity which requires issuance of a development order. This includes: site plan approval, subdivision plat approval, building permit, and any other official action of the City having the effect of permitting the development of land.
 - Projected project traffic shall be based on the application of ITE trip rates (Trip Generation, 7th Edition or subsequent editions), Indian River County trip rates, or applicant derived/county/city approved trip rates for the proposed use(s) to the project.
 - Existing level of service shall be derived by using the peak hour/peak season/peak direction traffic volume ranges. Volume shall be the sum of existing demand plus committed demand. This is described in the concurrency management system component of the Capital Improvements Element.
 - Capacity shall be calculated as specified in the road category of the appropriate table in the most current version of Florida Department of Transportation Level of Service Handbook, using peak hour/peak season/peak direction default table assumptions. As an alternative, capacity may be determined by ART-PLAN analysis, Highway Capacity Manual analysis, or speed delay studies. If, based on the above analysis, the proposed development does not meet approval requirements, the developer may choose to conduct a more detailed traffic impact analysis as described in Policy 1.8.
- 1.8 The City, through its land development regulations, shall require submission of a traffic impact study for all projects projected to generate/attract 100 or more additional average daily trips. The traffic impact study will be the basis for identifying site-related improvements required by a project as well as for assessing consistency with adopted level of service standards. Specific requirements for the traffic impact study shall be pursuant to the procedures and standards of the Indian River County Land Development Regulations, Chapter 910, Concurrency Management System.

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- 1.9 The City, through this policy statement, endorses and subscribes to the Indian River County “Traffic Impact Fee” program.
- 1.10 The City shall review the transportation system based on the county’s evaluation on an annual basis. Traffic count data shall be collected on all thoroughfare roads on an annual basis. This data shall be utilized to develop an annual report by the county on the Level of Service provided on major area roads. These findings shall then be used by the City to identify improvement needs and associated costs required to maintain the Levels of Service identified in Policy 1.1.
- 1.11 The City shall review and update by December 2009, the data and analysis within the Transportation Element as part of the Comprehensive Plan’s next Evaluation and Appraisal Report.
- 1.12 The City shall promote a transportation grid system which does not disrupt established neighborhoods.
- 1.13 The City, in cooperation with the MPO, shall review by December 2009 level of service deficiencies over capacity roadway segments as part of the data and analysis within the Transportation Element of the Comprehensive Plan’s next Evaluation and Appraisal Report. The analysis shall include, but not be limited to, the following: level of service standards and capacities, system and demand management strategies, intersection analysis, congestion management strategies, constrained facility policies and others.

2.6.01 Safety

Objective 2:

The transportation system shall continue to emphasize safety with special attention to decreasing pedestrian, bicycle and vehicular accidents.

Policies:

- 2.1 All facilities will be designed to high standards of visual quality including, but not limited to, strict sign control, buffering, landscaping and lighting.
- 2.2 The City shall review, in conjunction with the Indian River County Metropolitan Planning Organization (MPO), crash records on an annual basis to determine if intersection improvements are necessary to enhance safety and shall program the necessary improvements subject to available funds.
- 2.3 The City shall participate in the Indian River County Metropolitan Planning Organization’s Congestion Management System Plan. The MPO is responsible for conducting an annual congestion management system analysis, and the city commits to programming those safety improvements identified as necessary in the CMS analysis, subject to available funding. Such recommended improvements may include signalization improvements, channelization measures, turn lane restrictions, and other strategies.
- 2.4 The City shall promote safe movement of bicycle and pedestrian traffic as part of the development approval process outlined in the Land Development Regulations.

Supplement 3; Adopted February 5, 2008; Ordinance #08-01.

2.6.0.2 Multi-modal Transportation System

Objective 3:

Provisions shall be made for a safe, convenient and efficient multi-modal transportation system.

Policies:

- 3.1 The City shall support implementation of the Indian River County Metropolitan Planning Organization (MPO) Bicycle/Pedestrian Plan and Greenways Plan. Priority will be given to those bikeways/sidewalks/greenways for which heavy recreational and/or commuter usage is projected and which can be implemented concurrently with other roadway improvements.
- 3.2 The City shall, through its Land Development Regulations, require that all developments fronting on thoroughfare plan roadways provide for construction of bicycle and pedestrian improvements as identified in the MPO Bicycle/Pedestrian Plan.
- 3.3 The City shall, through its Land Development Regulations, require sidewalks along all non-residential development that front roadways and that internal sidewalks are provided in residential subdivisions with densities of three units per acre or higher where pedestrian activity can be expected.
- 3.4 The City shall consider bicycle and pedestrian ways in the planning of transportation facilities.
- 3.5 The City shall continue to support Indian River County in its authorization and provision of public transit services throughout the urban area. Such support shall include the enforcement of the adopted level of service standard, roadway design standards, and effective transportation mode options that enhance efficient person-trip and vehicular movements and reduces accident potential. Support shall also include participation in the intergovernmental coordination activities of the Indian River County Metropolitan Planning Organization (MPO), Florida Department of Transportation, and the Transportation Planning Technical Advisory Committee of Indian River County in the formulation of transportation policy and efforts to maintain adopted level of service standards.
- 3.6 The City shall support the county's transit level of service standard of one-hour headways on all fixed transit routes.
- 3.7 The City shall on an annual basis coordinate with the MPO, through its technical advisory committee, to assess whether transit improvements should be included in the project priorities submitted to FDOT for state and federal funding.
- 3.8 The City shall support the MPO in its role as the designated official planning agency for coordinated transportation disadvantaged services.

2.6.0.3 Traffic Management

Objective 4:

All development projects approved by the City shall provide for adequate traffic control.

Supplement 3; Adopted February 5, 2008; Ordinance #08-01.

Policies:

- 4.1 The City shall maximize utilization of existing roadway capacity and reduce peak period congestion by implementing, to the maximum extent feasible, traffic operation improvements and transportation systems management alternatives including, but not limited to, the following: improved signal timing, intersection signing, markings, channelization, turn lane restrictions, and other strategies.
- 4.2 Accessibility to major thoroughfares shall be limited to adequate, properly designed and safe systems through the City's Land Development Regulations that include design standards and procedures, which at a minimum address: adequate storage and turning bays; spacing and design of median openings and curb cuts; provision and maintenance of service roads; driveway access and spacing; and traffic operations.
- 4.3 The City shall review all proposed land developments in order to ensure consistency with the goals, objectives and policies of this plan, and the City shall require coordination of traffic circulation plans and improvements with land use and infrastructure plans before development approval.
- 4.4 The City shall review all access driveways and new roadway connections associated with redevelopment or new development to ensure safety, preserve roadway capacity, and ensure compatibility with future transportation plans.
- 4.5 The City shall review on-site traffic flow for all proposed development projects to ensure that circulation for motorized and non-motorized vehicles and pedestrians can be accommodated safely.
- 4.6 The City shall, through its land development regulations, provide for the use of shared driveway facilities and interconnected parking facilities.

2.6.0.4 Right-of-Way and Transportation Corridor Needs

Objective 5:

Rights-of-Way and transportation corridor needs for existing and future transportation facilities needs shall be designated and reserved.

Policies:

- 5.1 The City shall continue to maintain and conform, with the minimum right-of-way requirements as established by appropriate agencies and as balanced against the historic, aesthetic, cultural and residential character of the city.
- 5.2 The City shall require the dedication of the appropriate share of the necessary right-of-way from all development at the time of development.
- 5.3 Advanced rights-of-way shall be reviewed or acquired, where necessary, for future transportation improvements identified in the adopted comprehensive plan.
- 5.4 The City recognizes that road right-of-way must accommodate the travel way, roadside recovery areas, bicycle and pedestrian facilities, drainage facilities, and utility lines.

- 5.5 Minimum right-of-way requirements for state and county facilities shall be set by those entities. The City shall adopt minimum right-of-way requirements for city roadways as defined below:
- Principal arterial roadways---120 foot right-of-way;
 - Minor arterial roadways---100 foot right-of-way;
 - Collector roadways---80 foot right-of-way; and
 - Local roads---60 foot right-of-way.
- 5.6 By 2010, the City shall prepare, update and adopt right-of-way reservation maps (ref. Section 336.02, F.S.) for all City arterial and collector roads.

2.6.0.5 Land Use Compatibility

Objective 6:

The transportation system shall be compatible with the Land Use Element and other elements of the Comprehensive Plan.

Policies:

- 6.1 Major roadways (i.e. minor and principal arterials) and intersections shall, to the extent possible, be located and designed such as to not adversely affect existing neighborhoods nor produce excessive traffic on local roads through residential areas. The following are some of the characteristics by which the City will determine whether neighborhoods are adversely impacted: severs existing neighborhoods, more traffic other than local traffic using roadways, widening of roadways which results in roadways constructed closer to residential homes, and other similar characteristics.
- 6.2 In areas where minor and principal arterial roadways and their intersections adversely affect existing neighborhoods, the City may provide landscaped buffers, berms, and other similar buffers alongside the roadway(s). The City shall also review the feasibility of relocating roadways and intersections and limit the number of roadway connections and accesses. Where appropriate, the City will implement traffic calming improvements.
- 6.3 The City shall locate and design roadways to minimize adverse environmental impacts. Where sensitive environmental areas will be impacted by roadway construction, the city shall mitigate those impacts by taking action as provided for in the Conservation Element of the plan.
- 6.4 The City shall only fund transportation improvements within coastal high hazard areas consistent with Policies 2.1, 2.2 and 2.3 of the Capital Improvements Element.
- 6.5 The City shall investigate the possibility of designating applicable historic and /or scenic roadways based on established criteria.
- 6.6 The City shall establish land use guidelines for development in exclusive public transit corridors to assure accessibility to public transit in the event such corridors are established.

- 6.7 The City shall coordinate the mitigation of adverse structural and non-structural impacts from airports, and related facilities, upon natural resources and land uses with the expansion of and development of those facilities consistent with the future land use, coastal management and conservation elements.
- 6.8 The City shall encourage the implementation of Land Use Element policies that restrict urban sprawl, limit strip commercial development, promote infill, encourage traditional neighborhood development projects, promote public transportation, and encourage higher intensity uses in major corridors.
- 6.9 For properties near the Vero Beach Municipal Airport the City shall enforce land use guidelines and development regulations that ensure compatibility with airport operations in terms of noise, accidents, and other potentially adverse impacts.

2.6.0.6 Coordination

Objective 7:

The City shall ensure that transportation system plans and programs are coordinated with applicable federal, state and local governmental entities.

Policies:

- 7.1 The City shall review for compatibility with this element, the transportation plans and programs of the unincorporated county and neighboring municipalities as they are amended in the future.
- 7.2 The City shall coordinate its transportation system with the Indian River County Metropolitan Planning Organization (MPO) plans and programs, including, but not limited to, the MPO Long Range Transportation Plan. This coordination will include staff and council member representation on MPO committees.
- 7.3 The City shall coordinate with the Florida Department of Transportation (FDOT) to review its standards for sidewalk placement, access control, median cuts, signage, drainage, and other related physical roadway development activities. The City's Planning and Public Works Departments will schedule, as needed, regular meetings with appropriate FDOT officials to review and discuss these issues and develop written standards agreeable to both entities.
- 7.4 The City shall participate on the MPO Technical Advisory Committee to promote intergovernmental coordination with the municipalities in the county.
- 7.5 The City, through the MPO, shall establish a mechanism to share information with the municipalities in the county and with adjacent counties regarding proposed projects and their potential transportation system impacts on other jurisdictions.
- 7.6 The City, through the MPO, shall continue to coordinate its plans with the plans and programs of all transportation facility providers, especially FDOT transportation plans.

2.6.0.7 Adequate Intermodal Facilities

Objective 8:

Through 2020, City aviation and intermodal facility demand will be met in a manner consistent with existing and future land use.

Policies:

- 8.1 The City shall continue to implement and enforce its airport zoning regulations that address height, noise, emergency, clear zone and land requirements.
- 8.2 The City shall ensure adequate access to the one public use airport, passenger rail station, transit transfer points, and other intermodal facilities by supporting the roadway and transit improvements identified in this element.
- 8.3 The City shall review airport master plans, transit development plans, and intermodal facility plans to ensure adequate bicycle, pedestrian, transit, and auto access and circulation within airports and related facilities.

2.6.0.8 Protect Community/Neighborhood Integrity

Objective 9:

The traffic circulation system in the City shall protect community and neighborhood integrity.

Policies:

- 9.1 The City shall strive to conserve and protect the character of neighborhoods by preventing the undue intrusion of through vehicles on local and collector streets.
- 9.2 Major thoroughfares and intersections should be located and designed in a manner which do not sever or fragment land which is or could otherwise be developed as well defined neighborhoods.
- 9.3 The City shall discourage through traffic in neighborhoods by use of traffic management techniques, including signage, landscape design, traffic calming and roadway design.

2.6.0.9 Qualitative Factors Surrounding Transportation Planning

Objective 10:

The transportation system shall preserve environmentally sensitive areas, conserve energy and natural resources, and maintain and enhance community aesthetic values.

Policies:

- 10.1 The City shall provide landscaping along roadways to serve as visual and sound buffers and to maintain the quality of the environment within the City.

Supplement 3; Adopted February 5, 2008; Ordinance #08-01.

- 10.2 The City shall avoid transportation improvements that encourage or subsidize development in environmentally sensitive areas identified in the Conservation Element.
- 10.3 New roads shall be designed to prevent and control soil erosion, minimize destructive secondary impacts of clearing and grubbing operations, minimize storm run-off, and avoid unnecessary changes in drainage patterns.
- 10.4 The City shall pursue and support transportation programs that will help to maintain or improve air quality and help conserve energy.
- 10.5 Design of roadways shall be undertaken so as to make them compatible with the surrounding environment, complement adjacent development and provide an aesthetically pleasing visual experience to the user and to the adjacent area.

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