TOWN OF HAVANA

COMPREHENSIVE PLAN

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TOWN OF HAVANA COMPREHENSIVE PLAN

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CHAPTER 1

Future Land Use Element

I. INTRODUCTION

In 1975, the Florida Legislature enacted the Local Government Comprehensive Planning Act (Chapter 163, Part II, Florida Statutes), which required all units of local government to prepare a comprehensive plan by 1980. Pursuant to this mandate, the Town of Havana adopted in 1979 a plan for the area within its limits.

In 1985, the Legislature passed the Local Government Comprehensive Planning and Land Development Regulation Act which substantially revised the requirements for preparation of local government comprehensive plans. This law requires that all plans meet certain minimum criteria (pursuant to Chapter 9J-5, F.A.C.). Havana's Comprehensive Plan was updated in 1987 to meet the new requirements. This 2004 update will account for changes over the last 17 years and extend the plan horizon year to 2015.

The Comprehensive Plan for Havana includes eight separate parts called Elements. These Elements are listed below:

1. Future Land Use
2. Traffic Circulation
3. Housing
4. Open Space and Recreation
5. Conservation
6. Intergovernmental Coordination
7. Sanitary Sewer, Solid Waste, Drainage, Potable Water and Natural Groundwater Aquifer Recharge
8. Capital Improvements
9. Economic Development

The first element, the Future Land Use Plan, is essential in order to accommodate the future needs of the projected population, as identified in each element, while protecting the natural environment.

In order to prepare this element, knowledge of existing patterns of land use and the factors affecting these patterns represents the basic information essential in the development of a Comprehensive Planning Program. Before a blueprint for guiding community growth can be delineated, it is important that the component parts -- the various ways in which the land is presently used and the pertinent influencing factors -- be examined in some detail. This will lend

reality and validity to the subsequent steps in the planning program. The data summary and analysis which is contained in subsequent sections of this document, details existing conditions and future needs within the Town of Havana.

Within the planning process, the Comprehensive Plan is enforced by provisions of the zoning ordinance. Havana has adopted a performance-based zoning ordinance that sets densities/intensities according to specific site conditions. The performance zoning ordinance is incorporated by reference into the Comprehensive Plan.

II. DATA SUMMARY AND ANALYSIS

Population Projections

The previous edition (1987) of The Town of Havana Comprehensive Plan projected a 1990 population of 2,049 and a 2001 population of 2,283 persons. These projections were high when compared to the 1990 census count of 1,717 and the 2000 census count of 1,713. The population estimate for 2004 is 1,754 according to the Bureau of Economic and Business Research at the University of Florida.

The lack of a historic growth trend and the small size of the Town (both in population and area) make projections of future population by typical empirical methods difficult. In addition, few sizeable tracts of undeveloped land remain in the Town. Based on growth history over the past decade, the growth projection would show an insignificant change. However, recent discussions with landowners and developers indicate that Havana may be poised on the edge of a new market opportunity – retirement homes and to some extent as a bedroom community to Tallahassee.

For this reason, population projections based on likely densities applied to vacant land appear to be best. The 2004 Existing Land Use Survey identified approximately 400 acres of vacant land that could be developed as residential. Current residential density is approximately 2.7 dwelling units (du) per acre. Applying this density to the vacant land in the development district yields 1,080 new du at buildout. Applying the average household size of 2.43 reported by the 2000 census yields a projected buildout population of 2,624. This projection assumes that all development outside the Urban Core and Industrial districts will be residential at the average density found today.

A more heuristic approach to population growth is to examine potential development sites for the most likely type of development and base a projection on that. Only three large areas (over two acres) that would be attractive for residential development are found outside the Havana Country Club. Town staff had inquiries about developing all three from various interested parties in August, 2004. Two of these tracts are found fronting on each side of SR 12 (5th Avenue) on the eastern edge of town. The parcel on the north side consists of 48 acres and is likely to be developed as a 101 lot conventional subdivision. Annexation of 150 acres adjacent to the 48 acres is underway and is expected to yield approximately 86 lots developed as a conventional subdivision.

Approximately 24 undeveloped acres are found on the south side of SR 12 (5th Avenue). Recent discussions indicate that this tract is likely to be developed at a somewhat higher density as a performance subdivision to yield approximately 35 dwelling units.

The third large tract is located between US 27 (Main Street) and 5th Street SW and is approximately 15 acres. Frontage on US 27 is little larger than that required for an access roadway so this tract appears to be much more attractive for residential use than commercial. The maximum density factor for this tract developed as a performance subdivision is 22 dwelling units per acre. However, it is unlikely that the market would support the maximum density allowed. As a conventional subdivision the maximum density would be four dwelling units per acre. Therefore the number of units on this site would range from 60 to 330 units. This yields a potential of approximately 200 to 500 additional dwelling units in the Town exclusive of the undeveloped area west of the Country Club.

No interest in developing the area west of the Country Club has yet been expressed by the forest resource company that owns the property. If developed in a way similar to the existing Country Club, between 40 and 60 additional units could be expected.

Totaling the likely number of units to be placed on the three tracts identified above that have definite development interest along with the units potentially to be added at the Country Club yields an additional 240 to 560 dwellings. At the average household size of 2.43 reported by the 2000 census, an additional 583 to 1,360 people would be added to Havana's population.

Projecting when this growth will occur is much more difficult as it depends almost entirely on unpredictable market factors. It is entirely possible that this growth could be quite rapid if significant acreage is developed as quickly as the potential developers have suggested. In any event the Town's Future Land Use Map allocation can accommodate at least this much residential growth since under the Town's land use designations related to the performance based zoning ordinance the Development District can accommodate most land uses except Heavy Industrial.

As an example of the difficulty in projecting population for areas the size of Havana, the history of projections for Havana in the previous two plan updates are presented below:

TABLE I-1
PAST POPULATION PROJECTIONS AND CENSUS COUNTS

Year	Population Projection	Census Count
1990	2,049	1,717
1996	2,177	-
2000	-	1,713
2001	2,283	-

The Town believes that with the construction activity evident at the Country Club and active interest expressed by several developers recently that Havana will grow over the next several years. In order to develop a single population and dwelling unit projection the mid-point (972 persons) of the estimated ranges is used for projections hereafter. The projections are presented in **Table I-2**. The projections are based upon the estimates of the number of dwelling units likely to be constructed as described above. Based upon discussions with developers and community leaders, it was anticipated that approximately 60% of the units will be constructed in the first five years (by 2010).

TABLE I-2
FUTURE POPULATION PROJECTIONS

Year	Population Projection
2010	2,300
2015	2,689

Existing Land Use and Structural Conditions

Existing land use and structural conditions for Havana were recorded during field surveys conducted in the spring of 1978, in the spring of 1987 and subsequently in the spring of 2004. The following land use classifications were used in all of the field surveys:

Residential
- Single Family
- Mobile Home
- Duplex
- Multi-Family

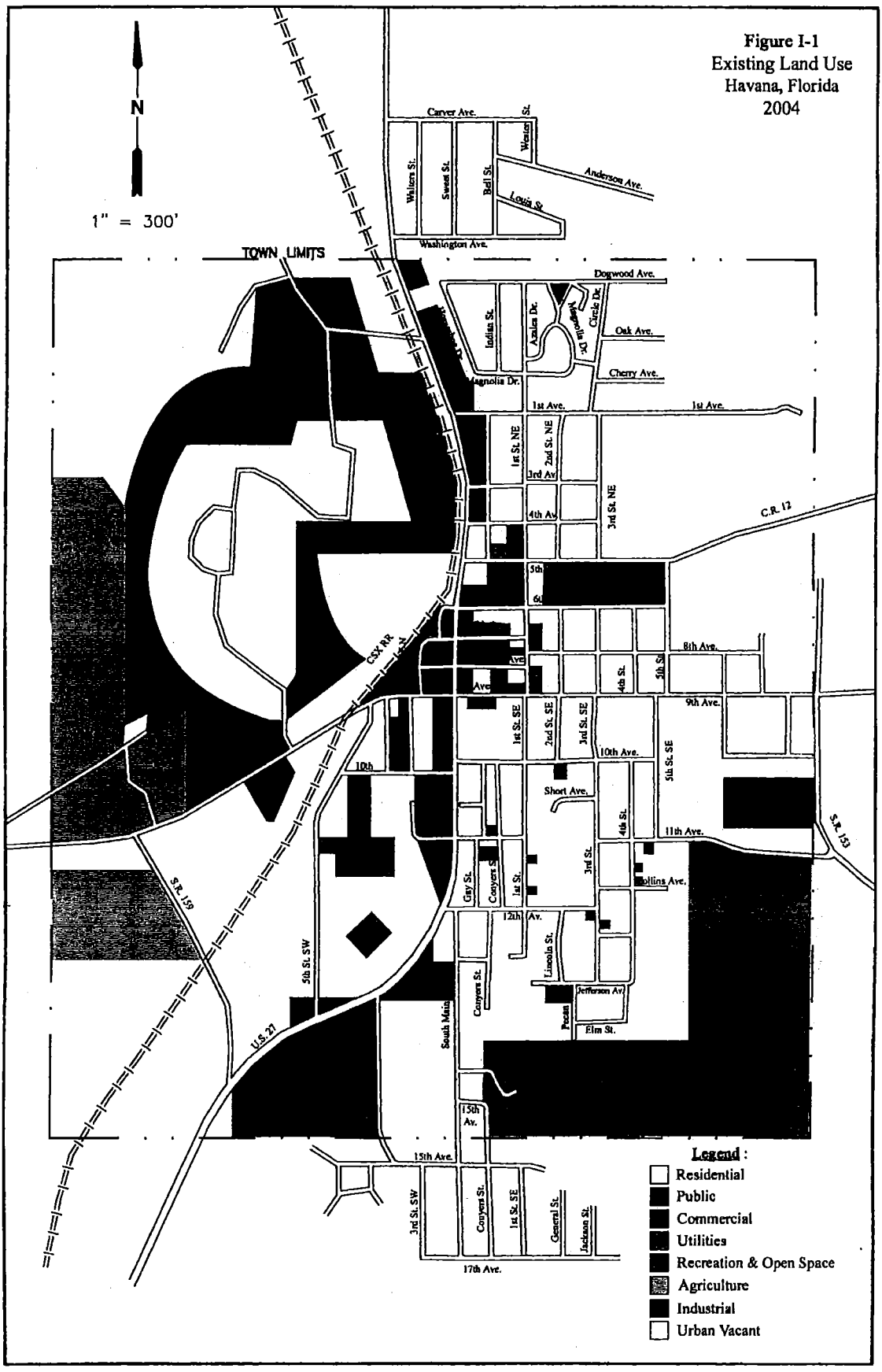
Institutional
- Schools
- Churches and Cemeteries
- Other

Commercial
- Retail
- Wholesale
- Offices

Utilities
Industrial
Agricultural
Recreational
Transportation
Urban Vacant

The Existing Land Use Map, **Figure I-1** shows land contained in each category applicable to Havana in 2004.

Figure I-1
Existing Land Use
Havana, Florida
2004



The amount of land contained in each land use classification in 1987 and 2004 is given in **Table I-3**. The density/intensity of these uses in 1987 and 2004 is estimated in **Table I-4**. As reflected in **Table I-1**, residential land use has increased by 37 acres since 1987. During the same period, commercial land use grew from 34 to 39 acres. Public buildings and grounds show a net decrease primarily due to the change at the former middle school site to recreation.

Data on the structural condition of residential buildings in the Town were also collected in the field surveys. Each building was classified as to its structural condition. That information is presented in Chapter 3, The Housing Element.

TABLE I-3
LAND USE QUANTITIES
HAVANA, FLORIDA

	1987			2004			1987-2004
Use	**Acres**		**% of City**	**Acres**		**% of City**	**% Change**
Total Residential	**256**		21.3	**293**		24.4	**3.1**
Single Family		236			272		
Mobile Home		17			13		
Duplex		2			2		
Multi-Family		1			6		
Total Commercial	**34**		2.8	**39**		3.3	**0.4**
Retail		27			32		
Wholesale		5			5		
Offices		2			2		
Total Public Buildings & Grounds	**52**		4.3	**47**		3.9	**-0.4**
Schools		34			25		
Churches		15			15		
Other		3			7		
Utilities	**5**		0.4	**98**		8.2	**7.8**
Industrial	**6**		0.5	**6**		0.5	**0.0**
Agriculture	**61**		5.1	**65**		5.4	**0.3**
Recreational	**85**		7.1	**90**		7.5	**0.4**
Transportation	**108**		9.0	**110**		9.2	**0.2**
Urban Vacant	**589**		49.1	**448**		37.3	**-11.8**
Lakes	**4**		0.3	**4**		0.3	**0.0**
TOTAL	***1,200***		*100*	***1200***		*100*	

Source: Field survey Barr, Dunlop & Associates, 1987 and Havana staff, 2004

TABLE I-4
EXISTING DENSITY/INTENSITY OF LAND USES
1987 & 2004

Land Use	1987 Density/Intensity	2004 Density/Intensity
Residential	2.6 (Dwelling Units/Acre)	2.7 (Dwelling Units/Acres)
Commercial	0 - 3 (Floor Area Ratio)	0 - 3 (Floor Area Ratio)
Public Buildings & Grounds	.2 - .6 (Floor Area Ratio)	.2 - .6 (Floor Area Ratio)

Suitability of Vacant Land for Development

There were approximately 448 acres of land in the Town of Havana classified as urban vacant in 2004. This land will be developed as necessary to accommodate growth. An additional 150 acres adjacent to the east Town limit is being annexed into Havana and is planned to be developed as a residential subdivision.

All of the urban vacant land within Havana is well-suited for development. Additionally, the performance zoning ordinance requires a detailed analysis, on a parcel-by-parcel basis, of all proposed development sites to determine the maximum intensity of use that will be permitted. This intensity is based on analysis of existing surrounding land uses, location of the site with regard to availability of infrastructure and services, and physical characteristics of the land (i.e. topography, soils, drainage, etc.). The following data analyzes overall factors / constraints within Havana are utilized to determine land suitability for development.

GEOLOGY AND HYDROLOGY: Havana is underlaid by the Hawthorn Formation, which covers the eastern half of Gadsden County. Hawthorn deposits consist of phosphate and other sands, silts, clays, fuller's earth, marl and limestone. Fuller's earth is mined a few miles outside Havana.

The Tampa Limestone which underlies the Hawthorn Formation and is a part of the Floridan Aquifer is one of the most productive zones in the world. The Floridan Aquifer is also one of the State of Florida's most valuable natural resources. The top of the Floridan Aquifer is less than 200 feet below the surface in Havana. The zone of potable water in the aquifer near Havana ranges in thickness from 1,000 to 1,250 feet.

Dissolved solids in water from the upper part of the Floridan Aquifer under Havana are typically less than 250 parts per million (ppm). The U. S. Public Health Service recommends that for drinking water, dissolved solids be held at no more than 500 ppm if other supplies are available. This recommendation is based more on taste requirements than for health reasons, since water with more than 2,000 ppm is furnished by a number of public utilities. The low concentration of dissolved solids in the area's groundwater means that it would be restricted for use in only the most critical high-pressure boiler-feed waters and for processing water in some plastics

manufacturing. The dissolved solids content of the water would cause no problem for domestic water supply, irrigation or stock watering.

The chloride content of water from the upper part of the Floridan Aquifer at Havana is less than 50 ppm. Generally, up to 250 ppm can be tolerated for domestic water supply, 50 ppm for industrial water supply and 100 ppm for irrigation. This water then is free from use restrictions due to chloride content.

The sulfate concentration in water from the potable water zone under Havana is generally less than 50 ppm. This amount is far less than the limiting concentrations, frequently 100 or more ppm, established for most uses.

The "hardness" of groundwater refers to the amount of dissolved minerals contained within them. These minerals are dissolved in groundwater as it passes through the geologic formation in which it is stored. Water from the upper part of the Floridan Aquifer under Havana contains carbonate hardness which is from the underlying limestone formations. Although hardness is not a limiting factor in the suitability of water for drinking or irrigation, it is, however, a critical factor in many commercial and industrial uses. Hard water will cause scale in boilers and hot water systems, prevent soap from cleaning adequately, and make vegetables cooked in it tough. Hardness between 60 and 120 ppm is classified as "moderately hard" and does not prevent the use of such water for most purposes. Hardness between 120 and 180 ppm is classified as "hard" and is unsuitable for many industrial uses. Use of such water in boilers and hot water systems would require treatment to prevent scale formation. Hardness of water in the Havana area is typically around 120 ppm.

LAKES: There are no perennial streams or water bodies in Havana, except for a small complex of lakes and drainageways at the golf course. These lakes together measure four acres and are located within the Havana Country Club. Therefore, no significant development constraints are posed by location of water bodies.

HISTORIC RESOURCES: Currently, there are five residential sites in Havana that are designated as historical resources by the State of Florida. The Planters Exchange complex (12 structures) is listed on the National Register of Historic Places. Six commercial structures have been identified by the Division of Historical Resources within Havana. Additionally, seven archaeological sites in or adjacent to Havana are listed on the State Master Site File.

PLANNED / EXISTING WELLS AND CONES OF INFLUENCE: There are four wells in operation in Havana at the present time. Three are located within the Town limits, one is located outside of the Town limits. Due to the fact that intrusion into the Floridan Aquifer is not a significant concern in Havana since the area contributes virtually no recharge, wellhead protection zones have been designated within Havana based on the Regional Planning Council suggested minimum buffer area standard. This is a 200-foot radius buffer. Therefore, there will be few land development constraints associated with well protection. Proposed land uses which utilize processes which might contaminate the water supply will not be allowed within the buffer area.

FLOODPLAINS: Floodplains in the Havana area are shown in **Figure IV-3** in the Infrastructure Element. A total of ten acres are designated as floodplains. These areas will not be intensely developed in the future due to the requirements of the Performance Zoning Ordinance.

TOPOGRAPHY: Elevations in Havana range from 150 feet above mean sea level (MSL) in the extreme southern part of the City to slightly over 260 feet above MSL east of the Third Street and Third Avenue intersection. **Figure I-2** is a topographic map showing contour lines at ten-foot intervals. There is no development limitations within the Town associated with topography.

DRAINAGE: Havana has only minor scattered problems associated with drainage.

A master drainage system does not exist. There are no private or public retention / detention facilities located within the Town, with the exception of typical roadside swales along some roadways.

Due in part to the topography and low intensity development of the area, drainage is not a significant problem. No future land area will be designated for drainage purposes. As development occurs, on-site drainage associated with the development will be regulated to assure that drainage conditions are not degraded. Provision of stormwater runoff quality and quantity control is a requirement of the existing zoning ordinance.

WETLANDS: Within the current limits of the Town of Havana, no areas have been designated as jurisdictional wetlands (source: National Wetlands Inventory). Therefore, there is no development constraints associated with wetland protection.

SOILS: Soil types found within the Havana limits are shown on **Figure I-3**. The lettering on **Figure I-3** corresponds to **Table I-5**, which describes the various soil types. There is no development limitations associated with soils within Havana, with the possible exception of some areas located within the designated floodplain. An original of this map and the associated soil report may be viewed at the Havana Municipal Building, Town Manager's Office.

Future Land Use Needs

The following data analyzes the amount of land needed to accommodate the future population of Havana. The needs are based on data and analysis contained in each element of the Comprehensive Plan (see elements as applicable).

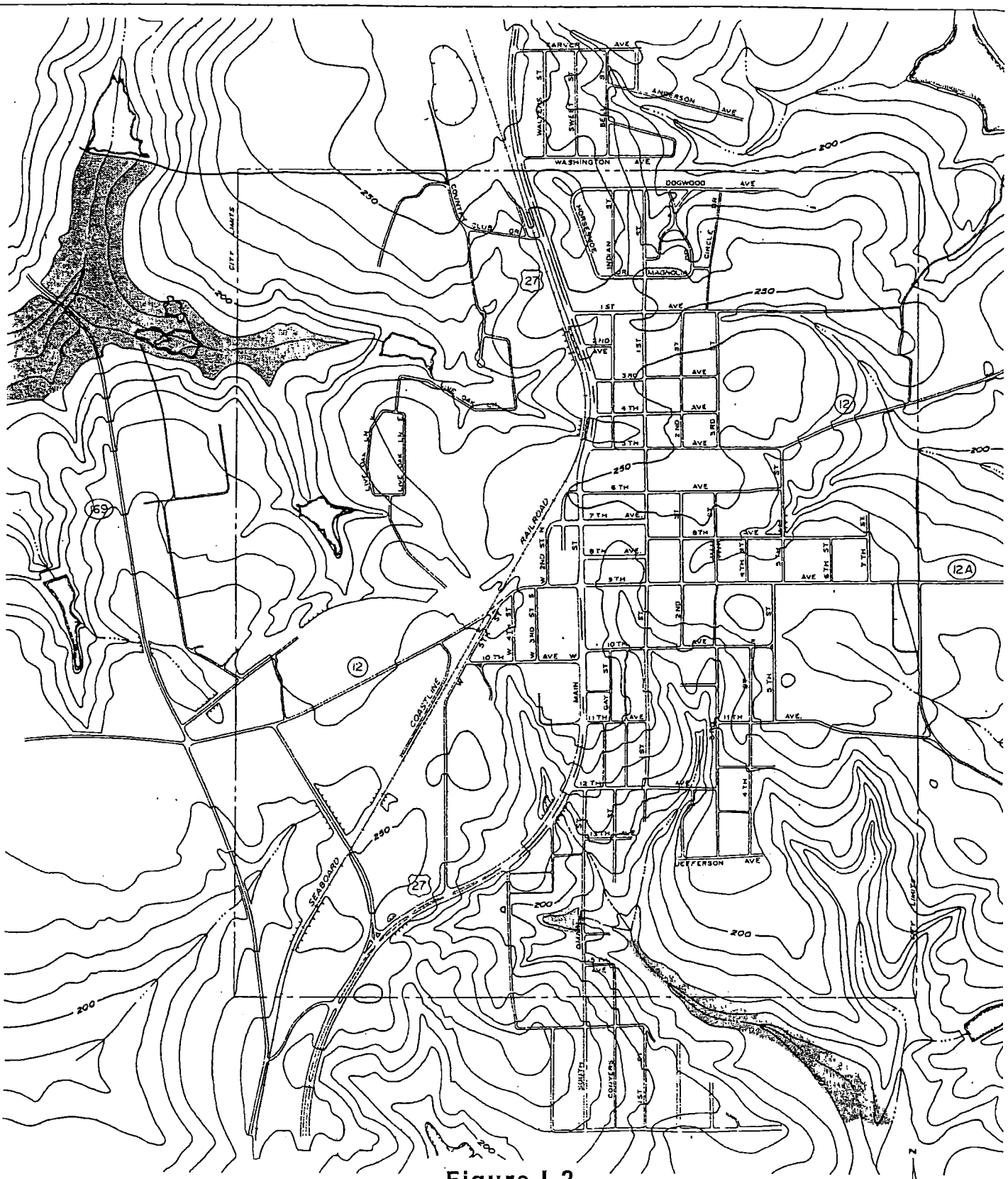


Figure I-2
TOPOGRAPHY
Havana, Florida

TOPOGRAPHY FROM U.S.G.S. 1956 & 1963

BARR, DUNLOP & ASSOCIATES, INC
CONSULTING ENGINEERS & PLANNERS
TALLAHASSEE, FLORIDA

Figure I-3
SOILS MAP

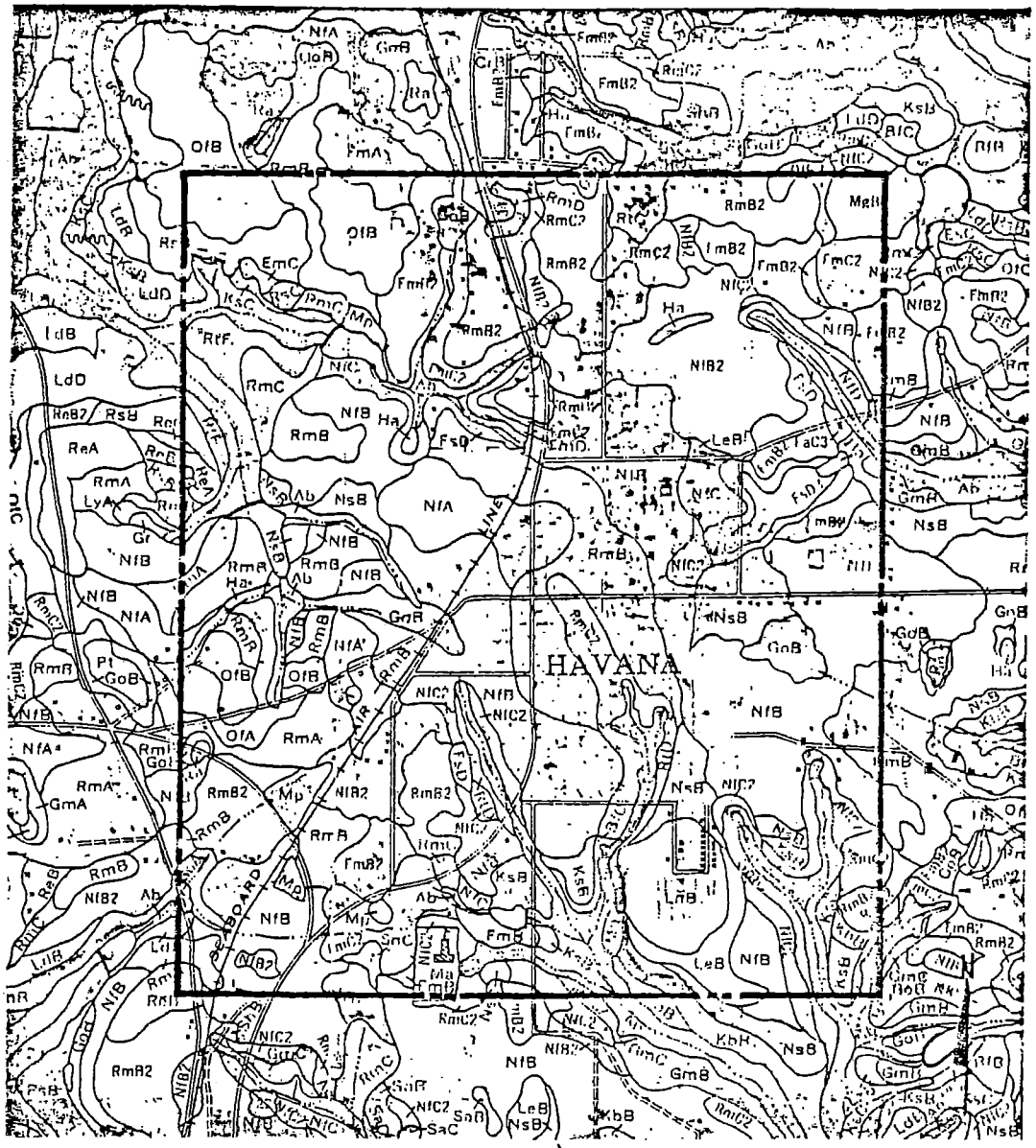


TABLE I-5
SOIL CLASSIFICATIONS

	Suitability of soil material for --		Suitability as source of --		Soil features affecting vertical alignment of highways	
Soils and map symbols[1]	**Road subgrade**	**Road Fill**	**Topsoil**	**Sand**	**Materials**	**Drainage**
Alluvial land (Ab)	Variable	Variable	Variable	Variable	Variable	High water table; frequent flooding
Blanton (BcB, BfB, BfC, BtB)	Good	Good	Fair	Good	Deep sands	Rapid internal drainage; erodible
Goldsboro (GoA, GoB, GmA, GmB, GmC)	Good	Good	Good	Poor	Compactable, well-graded sands with clay	Low position; perched water table
Hannahatchee (Ha)	Fair to good	Fair to good	Good	Poor	Variable, stratified sands	Depressed position; high water table
Klej (KbA, KbB, KcB, KsB, KsC)	Good	Good	Fair	Fair	Deep sands over-lying sandy clay at 3 to 6 feet	Rapid internal drainage
Mines, pits, and dumps (Mp)	(2)____	(2)____	(2)____	(2)____	(2)_____	(2)_____
Norfolk (NfA, NfB, NfB2, NfC, NfC2, NfD, NpA, NpB, NpB2, NsA, NsB, NsC, NsD, NtA, NtB, NtC)	Good	Good	Good	Poor	Compactable, well-graded sands with clay	Erodible; moderately slow internal movement of water
Ruston (RfC3, RmA, RmB, RmB2, RmC, RmC2, RmD, RsA, RsB, RsC, RsD, RtD, RtF).	Good	Good	Good	Poor	Compactable, well-graded sands with clay	Erodible; moderately slow internal drainage

1 *The map symbols in parentheses that follow the name of the soil series or soil type stand for the soils in the respective series or types that are included in the interpretations listed.*

2 *Variable; characteristics related to adjacent soils.*

Source: U. S. Department of Agriculture, Soil Survey: Gadsden County, Florida, 1961.

Housing

There are currently (2004) 789 dwelling units within the Town of Havana. The Town is not expected to see a significant natural population growth based on past trends or forecast economic activity in or adjacent to Havana. Unless a significant new employer moves into the area, the increase in residential demand will be almost entirely driven by exogenous factors, primarily retirement housing and bedroom housing for people who work in the Tallahassee area, but choose to live in Havana. Housing demand will not be from those who "need" housing in Havana because of employment. Rather housing growth will occur because a supply is offered to those who choose to locate in Havana but could just as easily live elsewhere. Based on available land developed at densities suggested by owners of the few tracts still of a size to subdivide, the additional land area required for the new housing units will be approximately 240 acres. Additional information on housing can be found in the Housing Element of this plan.

Housing Renewal (Redevelopment)

Substandard housing in Havana moved from 11% in 1978 to 9% in 1987 and back up to 18% in 2004. Additional land is not required to resolve the substandard housing supply in Havana. Rehabilitation or replacement on the same lot is the key.

Commercial

Commercial uses will be encouraged to locate in the existing vacant buildings downtown while space is still available. Twenty-three additional commercial acres will be required, assuming the existing ratio of population to commercial land remains constant through the planning period (0.023 acres/person). Additional land area is available in the areas designated in the Future Land Use Plan as Development District.

Educational Facilities

The Gadsden County School Board currently operates Havana Elementary School, which is located on U.S. 27 South. This school serves the entire town limits of Havana, as well as portions of eastern Gadsden County. Because of the minimum size requirements for school sites, no additional schools are likely to be located in Havana due to a lack of vacant parcels large enough.

The Town does not operate any public education centers.

Industrial

Presently, six acres are utilized for industrial purposes. However, approximately 37 acres are reserved for industrial land uses. This designated area is located near the railroad for transportation purposes. Allocation of this land is for the purpose of providing potential job opportunities with the location of industrial concerns in the future.

Agricultural

Based on the latest land use survey, existing agricultural land in Havana accounted for 65 acres. This land is associated with a commercial nursery located within the Town and several farms/groves. As future growth occurs in Havana, some of this land is likely to be converted to other uses. Therefore, for the future, this land is contained within the development district (see Future Land Use Map).

Recreation/Open Space

Within the Town limits, there is only one small parcel (less than one acre) which is designated as permanent open space. This parcel is located on Dogwood Avenue in the northeast quadrant of town. The Town presently has 90 acres of recreational land within the Town limits. This includes six acres contained in a community park in the southeastern portion of the Town, a park with playground equipment and parcours on 7 acres at the former site of the Middle School (between 5th and 6th Avenue) and 77 acres contained in a golf course in the northwestern portion of Town (see existing land use map). Based on an analysis of existing recreational facilities and open space in Havana, as presented in the Recreation and Open Space Element, no additional recreation/open space land uses will be required to be designated through the planning period. There will however, be additional recreational/open space land area provided as construction occurs in the development district. This is ensured by policies contained in the performance-based zoning ordinance.

Infrastructure

POTABLE WATER:

The Town of Havana owns and operates the potable water system which serves the area. The system has a design capacity of 3.28 Million Gallons Per Day (MGD) and consists of four wells which pump from the upper level of the Floridan Aquifer. Three of the wells are located within the Town limits, one is located two miles north of Town. Within the Town, two wells are located on 5th Avenue and one is located on 5th Street S.W. Present pumpage is approximately .45 MGD.

The primary land uses served by the water system are residential and related commercial. The service area for the facility includes all land within the Town limits and a portion of the residential area adjacent to the Town. Based on future demand, as presented in the Sanitary Sewer, Solid Waste, Drainage, Potable Water and Natural Groundwater Aquifer Recharge Element (Infrastructure Element) of this plan, the existing water system will have sufficient capacity well beyond the planning period (year 2015). Therefore, no new land area will be required for expansion or improvements.

SOLID WASTE:

The Town of Havana uses a franchise collector, Waste Management, Inc. of Tallahassee, Florida, to collect solid waste within the Town limits. Currently, waste is taken to a transfer station in Quincy. With respect to land use considerations, no future land will be allocated for a landfill site.

SANITARY SEWER SERVICE:

In areas not presently served by sewer (generally west of the railroad) the Town will require the installation of dry sewer lines to serve all lots in residential subdivisions of five or more lots of one acre or less at the expense of the developer. This will allow the moderate cost connection of those lots to the central wastewater collection system when collection lines are extended to serve the subdivision area.

The Town of Havana owns and operates the sewer system which provides service to its residents. The sewage treatment facility is located on 14th Avenue in the southern portion of town (see existing Land Use Map). A very significant change has occurred since 1987 in regards to wastewater treatment. The Havana Wastewater Treatment Plant is now operating under a standard operating permit. Previously, the plant operated under a consent order/temporary permit for a number of years. The plant's capacity suffered due to large inflow surges in times of heavy rain. A combination of new and relined collection pipes reduced inflow and a surge tank was built to even out the flow entering the plant. This major improvement occurred via a change in effluent disposal from discharge to an intermittent stream to a sprayfield located in the southeastern corner of town and extending into unincorporated area. Little, if any, additional land within the Town limits would be needed to expand the treatment facility. Should expansion be required in the future, the plant can expand in the current location, but additional sprayfield area could be added in the unincorporated area.

TRAFFIC CIRCULATION:

As reflected in the Traffic Circulation Element of this plan, there will be no additional rights-of-way needed in the planning period for arterial or collector roadways within the Town limits. All arterial and collector roadways within the Town limits will be at, or better than, the LOS C Service Standard through the planning period. The Town will, however, need approximately two acres of additional land area allocated for rights-of-way associated with the street extension of 11th Avenue between 5th Street SW and U.S. 27. Right of way to accommodate this street extension is owned by the Town and the potential developer of one of the three remaining large undeveloped tracts of urban vacant land. Since a connection to other than US 27 will be required in order to construct a viable subdivision in that area, the needed right-of-way is expected to be dedicated for street purposes by the owner. These roadway improvements are reflected in the Future Land Use Map contained within this element. Land area needed for local streets will vary according to the type of development in new subdivisions, and will be identified in the zoning approval process.

DRAINAGE:

As previously mentioned, and reflected in the Drainage subelement, no land area will need to be specifically reserved for drainage structures in the Town through the planning period. The Town, under the zoning ordinance, will permit development on a parcel-by-parcel basis, examining the physical characteristics of the area and requiring that post-development drainage conditions are equal to, or better than predevelopment conditions.

NATURAL GROUNDWATER AQUIFER RECHARGE:

The Town of Havana has virtually no recharge potential to the Floridan Aquifer. No areas in Havana have been designated by the Northwest Florida Water Management District as prime recharge areas for the Floridan Aquifer. Therefore, no land use restrictions will be necessary for aquifer protection.

Inconsistent Land Uses

Only minor land use inconsistencies exist within Havana. These inconsistencies are located where the commercial areas adjoin the residential areas. Land use inconsistencies are addressed in the Land Development Regulations.

III. FUTURE LAND USE PLAN

Estimated future land use calculations are presented in **Table I-6**. The future land use map is presented as **Figure I-4**. The categories of land uses presented are: Development District, Neighborhood Conservation District, Industrial District and Urban Core District. These categories differ from those presented in the existing Land Use Map due to the fact that Havana is utilizing Performance Zoning, rather than Conventional Zoning, to regulate future development.

Utilization of Performance Zoning gives more flexibility of design, encourages more efficient mixed-use development, provides additional environmental protection, and increases protection of adjacent property values through use of buffering standards. The future land use map must then reflect the broader categories of land uses which may occur in an area. The future land use districts are defined as follows:

Development District – Low to high density residential development, as well as commercial, institutional, and some light industrial uses. The Development District is the area where most new development, versus in-filling, will occur.

Industrial District – Light to medium intensity industrial uses.

INSERT FIGURE I-4, Future Land Use Map

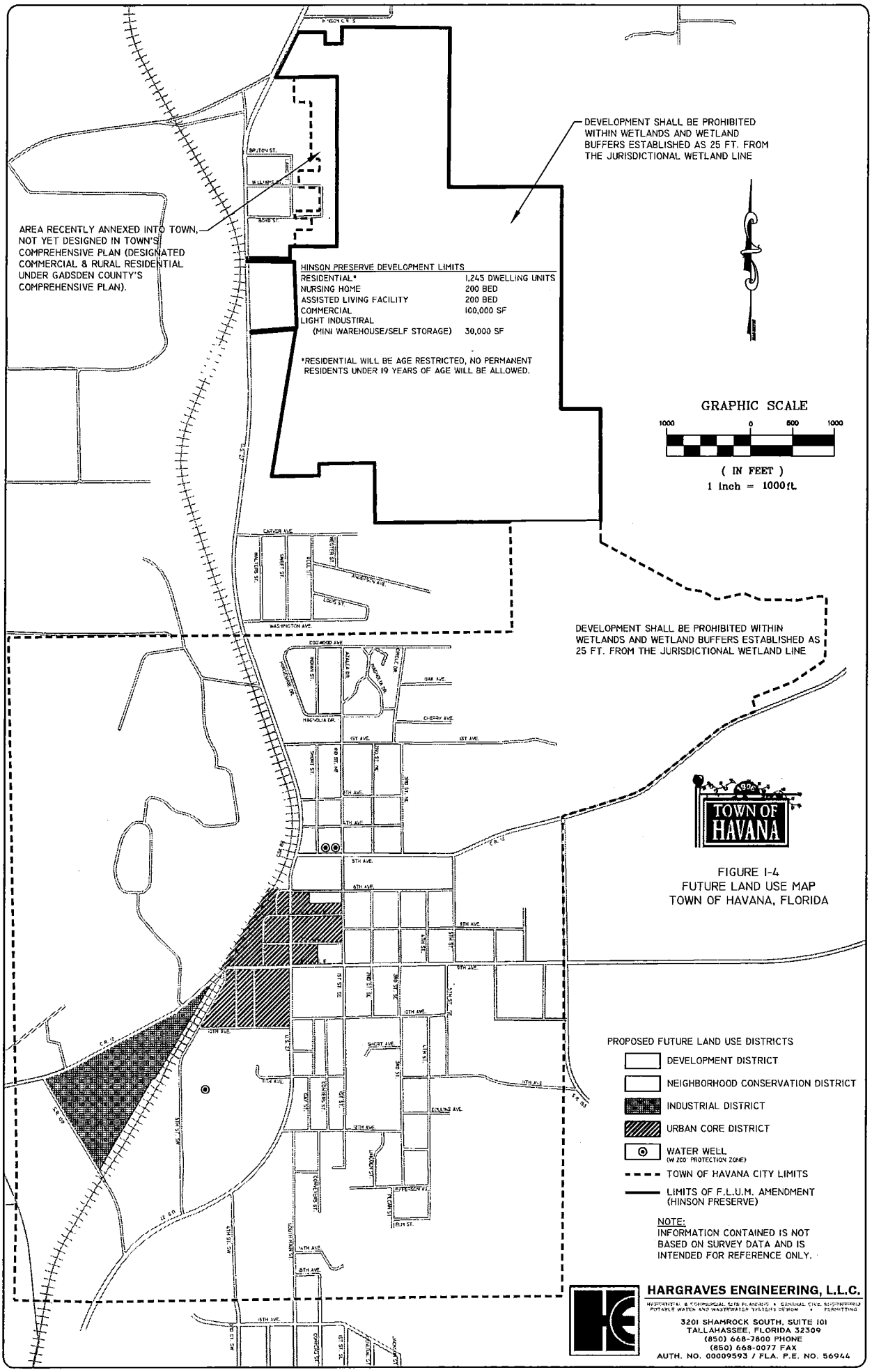


FIGURE I-4
FUTURE LAND USE MAP
TOWN OF HAVANA, FLORIDA

HARGRAVES ENGINEERING, L.L.C.
INDUSTRIAL & COMMERCIAL SITE PLANNING • SEASONAL CYCLE ENGINEERING
POTABLE WATER AND WASTEWATER SYSTEMS DESIGN • PERMITTING
3201 SHAMROCK SOUTH, SUITE 101
TALLAHASSEE, FLORIDA 32309
(850) 668-7800 PHONE
(850) 668-0077 FAX
AUTH. NO. 00009593 / FLA. P.E. NO. 56944

Neighborhood Conservation District - Low or medium density residential development. Density is defined by the existing land use density in the subdivision. This category is primarily utilized to maintain the character of existing residential neighborhoods.

Urban Core District - Commercial uses and/or low to high density residential uses. The urban core district represents the existing commercial downtown area.

Densities of development are defined in the Land Development Regulations, which are made a part of this plan by reference.

TABLE I-6
YEAR 2015 ESTIMATED LAND USE QUANTITIES
HAVANA, FLORIDA

USE	2015	
	Acres	% of City
Total Residential	515	38.2
Total Commercial	62	4.6
Total Public Buildings & Grounds	47	3.5
Utilities	98	7.3
Industrial	37	2.7
Agricultural	65	4.8
Urban Vacant	290	21.5
Recreation/Open Space	90	6.6
Transportation	142	10.5
Lakes	4	.3
TOTAL	*1,350*	*100*

Source: Carlton Fields

ADOPTED PORTION

FUTURE LAND USE
GOALS, OBJECTIVES AND POLICIES

GOAL 1 - TO MANAGE FUTURE DEVELOPMENT IN THE TOWN IN A MANNER CONSISTENT WITH THE ABILITY TO PROVIDE ADEQUATE INFRASTRUCTURE AND PROTECT NATURAL RESOURCES.

Objective 1 - The Town will maintain Land Development Code pursuant to the requirements of Chapter 163.3202, Florida Statutes.

POLICY 1.1 - The adopted Land Development Code will contain specific and detailed provisions to implement the Comprehensive Plan including as a minimum the following:

a. Regulation of subdivision of land;

b. Regulation of the use of land and water consistent with this element;

c. Protection of potable water wellfields;

d. Regulation of areas subject to seasonal and periodic flooding and provision for drainage stormwater management;

e. Protection of environmentally sensitive land as designated in the Comprehensive Plan;

f. Regulation of development to ensure that established Level of Service Standards are maintained;

g. Regulation of on-site traffic flow and parking to ensure safety and convenience;

h. Regulation of connections and access points to roadways;

i. Regulation of bufferyards to ensure protection of value and integrity of land uses;

j. Regulation of signage; and

k. Insure adequate landscaping within new developments and encourage preservation of existing trees and other vegetation.

POLICY 1.2 - The Town will encourage the use of innovative land development regulations.

POLICY 1.3 - The Land Development Code, adopted pursuant to the requirements of Chapter 163.3202, shall specify the land use densities and land use intensities to be allowed within the Town of Havana.

POLICY 1.4 - The performance zoning ordinance of the Town of Havana (Ordinance No. 223 adopted March 15, 1990 as amended by Ordinance ___ and adopted in February 2005 along with the Comprehensive Plan are hereby incorporated by reference and adopted as part of this comprehensive plan) and any other legislation, regulation or document incorporated by reference in any element of the plan shall be deemed to be an integral part of the Comprehensive Plan ordinance, legislation, regulation or other document as it exists on the date of Plan adoption.

Objective 2 - New development will be directed to locate in areas with existing public services and in conformance with specified standards.

POLICY 2.1 - New commercial development will primarily be located on arterial or collector roadways.

Objective 3 - Development orders and permits issued after the adoption of this plan, including any major redevelopment activities, shall be issued only if adequate public facilities and services are available concurrent with the impacts of proposed development.

POLICY 3.1 - Residential and commercial land uses shall be phased in conjunction with public facilities and services.

POLICY 3.2 - Public facilities and services shall be located to minimize cost and impacts on the natural environment and to maximize efficiency.

POLICY 3.3 - No development order/permit shall be issued unless adequate facilities/services are available concurrent with development. Availability will be based on the adopted Level of Service Standard.

POLICY 3.4 - The provisions of the comprehensive plan of the Town of Havana and the Town of Havana Performance Zoning Ordinance adopted by reference as a part of the comprehensive plan establishes the minimum requirements necessary to maintain, through orderly growth and development, the character and stability of the Town of Havana, Florida.

No final development order shall be issued by the Town of Havana unless there is sufficient infrastructure capacity to meet the level of service standards for the following facilities:

- Stormwater Management (drainage)
- Parks and Recreation
- Potable Water
- Sanitary Sewer

- Solid Waste
- Roads

The Town shall maintain a Concurrency Management System (CMS) which will consist of an inventory of facility capacity and a demand accounting system that will reflect the current status of concurrency facilities. Demands caused by existing population, previously permitted development and the development subject to each application for a concurrency certificate must be considered in the inventory.

Based on the results of the concurrency review, the Town of Havana shall issue a Certificate of Concurrency if adequate capacity in concurrency facilities will exist at the time the development is completed, or deny a Certificate of Concurrency if adequate capacity in concurrency facilities will not exist at the time the impacts of the development are to occur.

Notwithstanding the provisions of this Plan to the contrary, the requirements of the Plan shall not apply in any manner to impair vested rights prior to September 24, 1991 established pursuant to Florida Law, to the extent that any development, or portion thereof, is vested as against the requirements of this Plan. All impacts of any vested project shall be accounted for in the CMS inventory of facility capacity.

The latest point in the application process to obtain a certificate of concurrency will be prior to the issuance of the building permit.

The maximum length of time a certificate of concurrency is valid will be two years. During this time, facility capacity will be reserved for the project, and this reserved capacity will not be available for any other project.

Objective 4 - Maintain the Community Redevelopment Area and Community Redevelopment Plan established in accordance with Chapter 163, Part III, Florida Statutes, that includes at a minimum the area encompassed by the urban core district.

POLICY 4.1 - Where infrastructure deficiencies are identified by the above inventory, amend the public facilities elements of the Comprehensive Plan to reflect the needs so identified.

POLICY 4.2 - Pursue grant funding of needed improvements identified above to assist the Town in implementing the needed improvements earlier than would be possible if the Town had to fund the improvements solely with local funding.

Objective 5 Havana shall preserve and protect the archaeological, historic, architectural and cultural resources of the Town.

POLICY 5.1 Prior to issuing a development permit, Havana shall determine if the development site or structure is listed on the Florida Master Site File, List of Havana Historic Resources. If the development contains any resource(s) listed on the Master Site File, a clearance letter is required from the Division of Historic Resources prior to any development proceeding on the site. If, through the clearance letter process the resource is determined to be significant by the Department of State, then every reasonable effort will be made to preserve the resource pursuant to the Department of State's established professional standards. These efforts may include maintaining the structure and assisting in obtaining preservation grants to restore or rehabilitate the structure, or in the alternative documenting the structure consistent with Department of State standards via photos and/or architectural drawings or relocating the structure.

POLICY 5.2 The Town shall support efforts of the Division of Historic Resources or other agency to conduct a survey and assessment of potential archaeological, historic, architectural and cultural resources in the Town.

POLICY 5.3 Residential subdivision of land involving more than two lots and non-residential projects of 10,000 square feet or larger must request a letter of clearance from the Division of Historical Resources to determine the possibility of Paleolithic and other historic sites and the need for additional surveys. Those developments that are determined to potentially contain archaeological or historic sites must perform site surveys to determine if actual resources exist and the potential impact to these resources. If a site survey reveals that significant historic resources are present they shall be subject to preservation pursuant to the Department of State's established professional standards and in consultation with State Historic Preservation Office.

CHAPTER 2

Traffic Circulation Element

I. INTRODUCTION

The purpose of the Traffic Circulation Element is to analyze existing traffic circulation conditions and prepare a plan for the future which will accommodate land use needs, and maintain established Level Of Service (LOS) standards, while also being economically feasible. The future plan will address both motorized and unmotorized traffic circulation, pursuant to Chapter 163, Florida Statutes and Chapter 9J-5, Florida Administrative Code.

This element presents an existing traffic circulation inventory and map; analysis of existing roadway deficiencies; projected needs analysis; goals, objectives and policies; and a future traffic circulation plan and supporting map.

II. DATA SUMMARY AND ANALYSIS

Existing Transportation System

The Town of Havana is located in the eastern portion of Gadsden County, approximately 12 miles north of Tallahassee. U.S. Highway 27 is the major north-south transportation route through the Town. State and County Highways 12 and 12A serve as the primary east-west routes. These roadways link Havana to the City of Tallahassee to the south, the City of Quincy to the west, and various Georgia cities to the north and east.

Havana's traffic circulation system design can best be described as a grid pattern. Within the downtown area the traffic pattern is most influenced by U.S. Highway 27.

In order to prepare a future plan for traffic circulation, an assessment of the adequacy of the existing traffic circulation system must be accomplished. This analysis includes a functional classification of roadways, determination of existing Levels of Service throughout the system and identification of existing deficiencies. In order to accomplish this task, roadways within the Town must first be classified on the basis of the functions they serve. As specified by Chapter 9J-5, Florida Administrative Code, Havana's roadways were categorized utilizing the Florida Department of Transportation's (FDOT) Roadway Functional Classification System. Within this system, roadways are classified as urban principal arterials, urban minor arterials, urban collectors, urban local roads, rural principal arterials, rural minor arterials, rural major collectors, rural minor collectors, or rural local roads. Havana is considered a rural area for purposes of roadway functional classification. The following is a list of definitions for rural roadway classes.

PRINCIPAL ARTERIAL

A principal arterial is defined as the most direct route or routes between two urban areas. This classification also applies to roadways serving as a bypass around an urban area, beginning and ending at a principal arterial.

MINOR ARTERIAL

A roadway can be designated as a minor arterial based on several criteria. The roadway may be the second most direct route between two urban areas or the most direct link between smaller cities. It may be a circumferential around an urban area beginning at a minor arterial and ending at either a minor or principal arterial. It may connect a municipality within an urbanized area to an interstate or principal arterial. Minor arterials may also link the county seat in a county with less than 25,000 people to an interstate, an arterial, an adjacent county seat, or to a major city.

MAJOR COLLECTOR

Roadways of this classification are the most direct route between a small town and another town or a larger city. A major collector can also be a route beginning and ending at arterial intersections and not serving more than one town or city.

MINOR COLLECTOR

Roads which link a rural area to an urban area without providing a connection between two arterials are classified as minor collectors. This category also includes routes beginning at a collector intersection and ending at a collector or arterial intersection, but not serving a city or town. In addition, if a road begins and ends intersecting with the same arterial, does not serve as a bypass, and does not intersect with other arterials or collectors, it is a minor collector.

LOCAL

Local roads are those routes not providing service between arterials or collectors and not serving any cities or towns. Roads contained entirely within the boundaries of a town with a population of less than 5,000 are classified as rural local roads, as well. Within Havana major/minor arterials, major collectors and minor collectors were identified for planning purposes. Other roadways are classified as local roads. No limited access facility directly serves the area. **Figure II-1** depicts the existing transportation system including the roadway functional classifications, number of lanes and the location of rail lines throughout the area. As no ports, airports, high speed rail lines or other related facilities are located in Havana, these transportation planning issues were not considered.

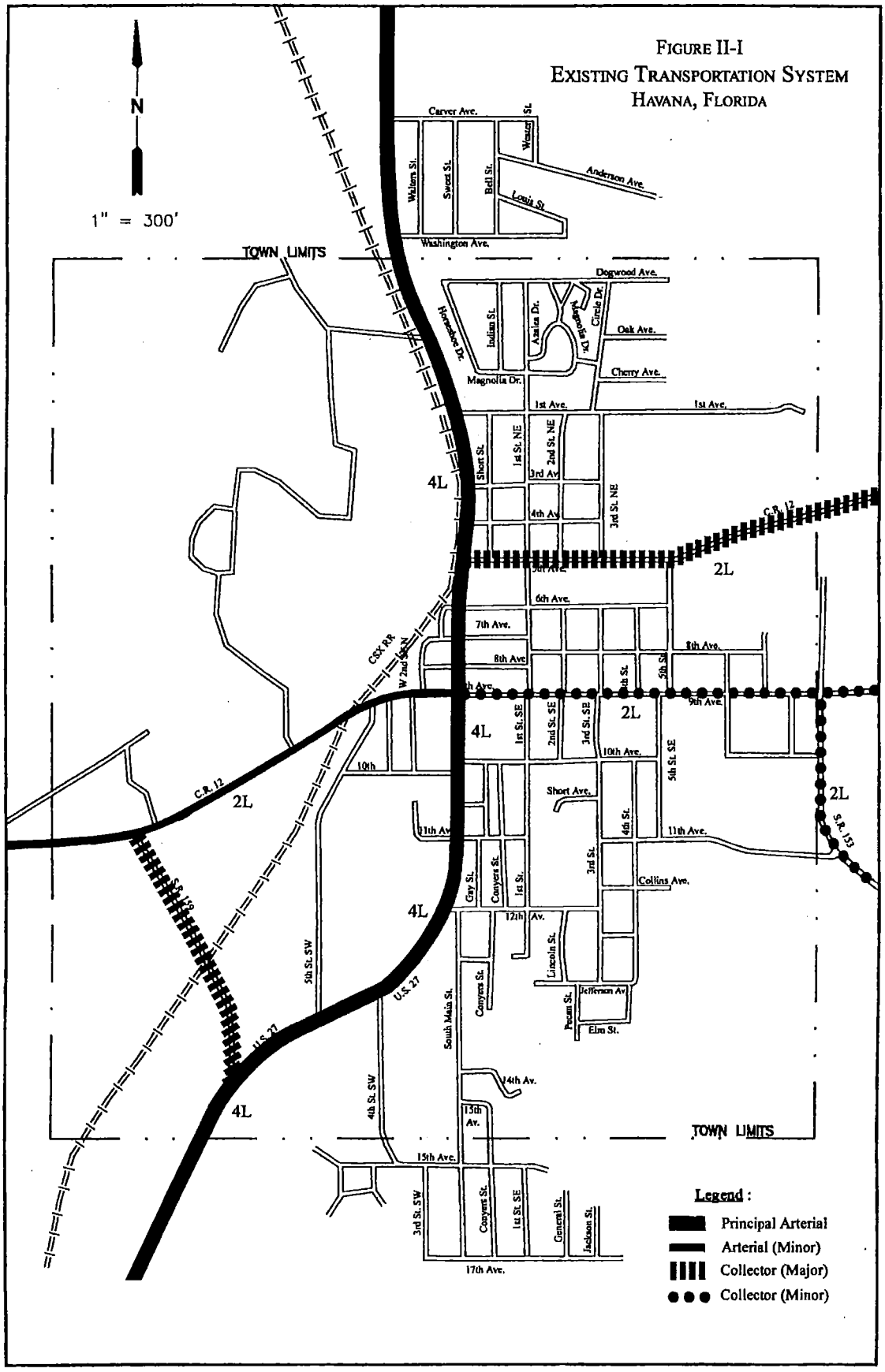


FIGURE II-I
EXISTING TRANSPORTATION SYSTEM
HAVANA, FLORIDA
N
1" = 300'
TOWN LIMITS
Carver Ave.
Walters St.
Sweet St.
Bell St.
Wester St.
Anderson Ave.
Louis St.
Washington Ave.
Dogwood Ave.
Hornestone Dr.
Indian St.
Azalea Dr.
Magnolia Dr.
Circle Dr.
Oak Ave.
Cherry Ave.
1st Ave.
Short St.
1st St. NE
2nd St. NE
3rd Av
3rd St. NE
4th Av.
5th Ave.
6th Ave.
7th Ave.
8th Ave.
9th Ave.
10th Ave.
11th Ave.
C.R. 12
CSX RR
W 2nd St. N
1st St. SE
2nd St. SE
3rd St. SE
4th St.
5th St. SE
Short Ave.
Collins Ave.
Gay St.
Conyers St.
12th Av.
Lincoln St.
Jefferson Av
Pecan St.
Elm St.
South Main St.
14th Av.
13th Av.
15th Ave.
17th Ave.
3rd St. SW
4th St. SW
5th St. SW
U.S. 27
S.R. 159
S.R. 153
4L
2L
Legend :
Principal Arterial
Arterial (Minor)
Collector (Major)
Collector (Minor)

Levels of Service (LOS) Standards will be utilized as a measure of existing facility conditions. Roadway LOS is defined by the Florida Department of Transportation 2002 Quality/Level of Service Handbook as:

> "A quantitative stratification of the *quality of service* of a service or facility into six letter grade levels with 'A' describing the highest quality and 'F' describing the lowest quality; a discrete stratification of a *quality of service* continuum."

The FDOT, Generalized Daily and Peak Hour two-way Level of Service Maximum Volumes for rural areas are presented in the following tables. It is important to note that these service volumes are to be utilized, as specified by FDOT, for general planning applications. For more specific planning applications, (i.e., to determine impact of a development, etc.), the computer models from which the tables were derived may be utilized. Therefore, service volumes developed in order to represent the characteristics of specific roadways within Havana, or revised FDOT generalized tables, will supersede the service volumes utilized herein. Again, these tables are provided for analysis only, and are not made a part of this plan.

Table II-1 presents the existing traffic volumes on roadways in Havana.

TABLE II-1
2003 AVERAGE DAILY TRAFFIC (ADT)
HAVANA, FLORIDA

Segment No.	Location	2003 AADT (2-Way Volume)
1	U.S. 27: South Havana City Limits to S.R. 12 (9th Avenue)	13,900
2	U.S. 27: S.R. 12 to North City Limits	13,100
3	C.R. 12: East of U.S. 27	1,800
4	C.R. 12A: U.S. 27 to C.R. 157	700
5	S.R. 12: Havana City Limits to U.S. 27	4,300
6	S.R. 159: U.S. 27 to S.R. 12	2,500

Source: FDOT Statistics Office (2004)

Table II-2 presents existing Levels of Service for roadways within Havana.

TABLE II-2
CAPACITY ANALYSIS OF EXISTING ROADWAY SYSTEM (2003 VOLUMES)

						EXISTING	
	Street Segment	**LOS Standard**	**No. of Lanes**	**Type**	**Annual Average Volume (V)**	**Service Volume @ LOS Standard**	**Level of Service**
1	U.S. 27: South Havana City Limits to SR 12	C	4	D	13,900	25,500	C
2	U.S. 27: S.R. 12 to North City Limits	C	4	D	13,100	25,000	C
3	C.R. 12: East of U.S. 27	C	2	U	1,800	8,600	A
4	C.R. 12A: East City Limits	C	2	U	700	8,600	A
5	S.R. 12: Havana City Limits to U.S. 27	C	2	U	4,300	8,800	B
6	S.R. 159: U.S. 27 to S.R. 12	C	2	U	2,500	11,000	C

NOTE: D = Divided; U = Undivided
Sources: FDOT counts for Gadsden County
2002 FDOT LOS Handbook – Table 4-3

Analysis of Existing Deficiencies

As reflected in **Table II-2**, all roadways identified have sufficient current capacity to provide a Level of Service C or above. Level of Service C is considered acceptable by the Town of Havana for all arterial and collector roadways within the Town limits.

Accident Frequency

Based on accident records maintained by the Town of Havana, 39 accidents were reported for 2003. None of the accidents were due to deficiencies in the roadway system.

Future Needs

As required by Chapter 9J-5, FAC, projections were prepared for future levels of service and system needs, based on the land use configuration designated by the future land use plan and by the design capacities and traffic projections. Based on the Future Land Use configuration, it can be seen that the location and extent of future land uses will not be such that they warrant any new arterials or collectors within the Town limits.

The Town of Havana became a member of the Capital Region Transportation Planning Agency in 2004. The Capital Region Transportation Planning Agency is an expansion of the former Tallahassee-Leon County Metropolitan Planning Organization (MPO). Federal law requires that "Urbanized Areas" as determined by the Census must have a MPO in order to receive Federal transportation funds. The MPO prepares plans that lead to project funding. Growth in the

Capital Region documented by the 2000 Census required an expansion of the MPO boundary into parts of Wakulla and Gadsden Counties. The Town of Havana, (along with Midway, Quincy and Gadsden and Wakulla) now has representation on the MPO board. The first project that included the new areas to be undertaken will be the 2025 Long Range Transportation Plan. This project is expected to be finished early in 2006. The Town will participate in the work of the Agency and provide as much information to the process as possible. Being a part of this planning agency will provide better planning information in the future.

TABLE II-3
FUTURE TRAFFIC VOLUMES

Segment Number	Location	2010		2013	
		Volume	LOS	Volume	LOS
1	U.S. 27: South Havana City Limits to SR 12	17,200	C	18,600	C
2	U.S. 27: S.R. 12 to North City Limits	15,200	C	16,100	C
3	C.R. 12: East of U.S. 27	1,900	A	1,900	A
4	C.R. 12A: East City Limits	700	A	700	A
5	S.R. 12: Havana City Limits to U.S. 27	4,600	B	4,800	B
6	S.R. 159: U.S. 27 to S.R. 12	3,400	C	3,800	C

Note: According to the FDOT Transportation Statistics Office, the "future year AADT estimates are straight-line projections between 1991-1993 average and the 2001-2003 average." 2013 is the last forecast year provided by FDOT.

Source: County and Roadway Segment identification and traffic projections taken from the FDOT Florida Traffic Information 2003 CD.

III. FUTURE TRAFFIC CIRCULATION PLAN

Anticipated growth in Havana is discussed in Chapter 1 as a basis for the Future Land Use Plan.

The arterial and collector street system will remain constant (through 2015), as identified in the existing system section. Now that the Town is in the Tallahassee-Leon County MPO, the area within Havana will become part of the MPO's transportation planning model and ongoing planning activities will identify future problem links so that improvement projects can be programmed and priorities established well in advance of Level of Service degradation. **Figure II-2** depicts the Future Traffic Circulation plan.

Havana's focus on government services (Town Hall) and retail business continues to be in the center of Town. Although commercial activities are expected to extend throughout the Town along U.S. 27, future plans call for a continued emphasis on people activities downtown in the Urban Core District.

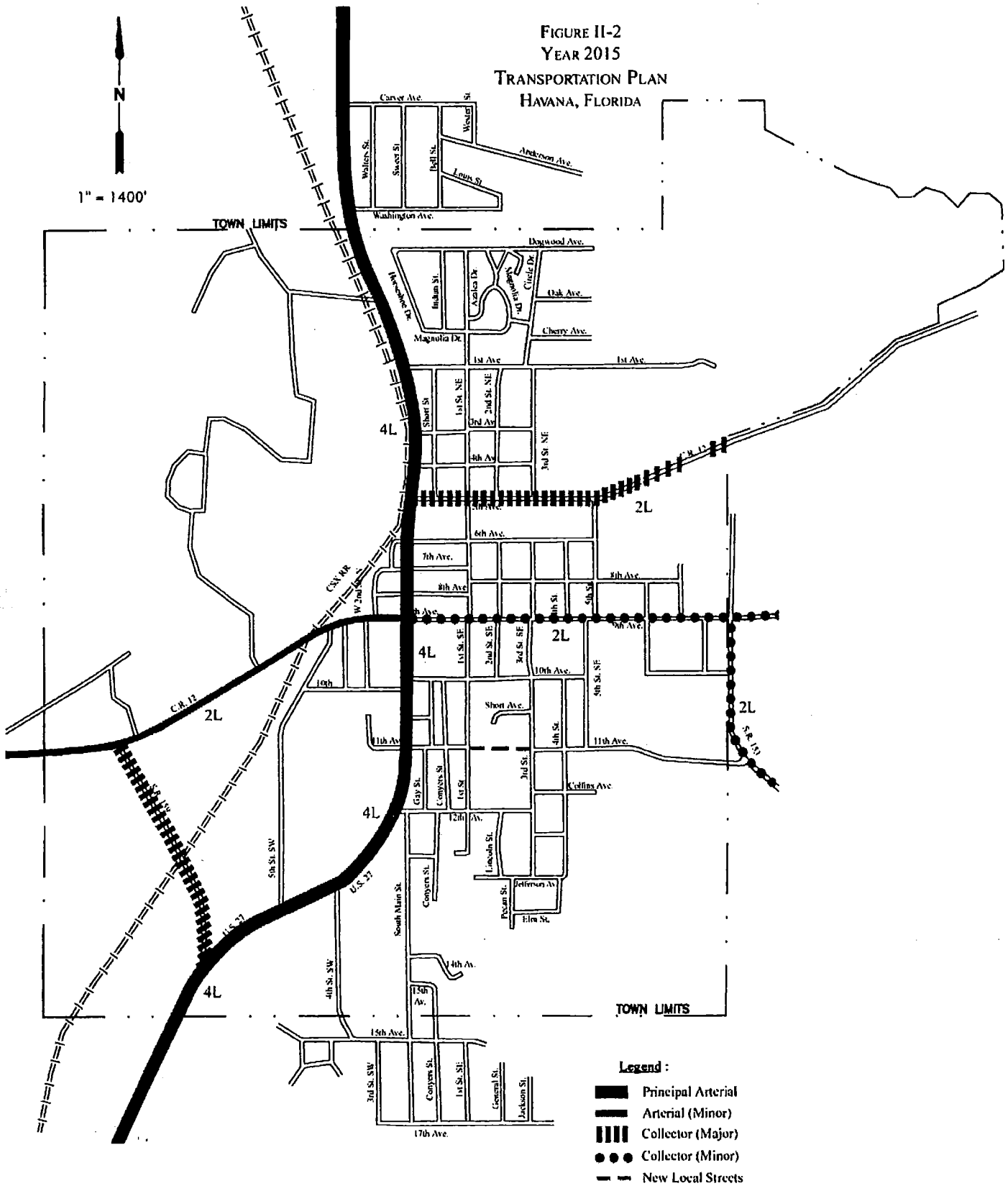


FIGURE II-2
YEAR 2015
TRANSPORTATION PLAN
HAVANA, FLORIDA
N
1" = 1400'
TOWN LIMITS
Carver Ave.
Walters St.
Sweet St.
Bell St.
Lewis St.
Washington Ave.
Jackson Ave.
Dogwood Ave.
Hawthorne Dr.
Indian St.
Azalea Dr.
Magnolia Dr.
Oak Ave.
Cherry Ave.
1st Ave.
Short St.
1st St. NE
2nd St. NE
3rd St. NE
4th Ave.
6th Ave.
7th Ave.
8th Ave.
9th Ave.
10th Ave.
11th Ave.
12th Av.
14th Av.
15th Av.
14th Ave.
17th Ave.
CSX RR.
W 2nd St.
1st St. SE
2nd St. SE
3rd St. SE
4th St.
5th St.
5th St. SE
4th St. SW
5th St. SW
3rd St. SW
Short Ave.
Gay St.
Conyers St.
1st St.
3rd St.
Collins Ave
Lincoln St.
Jefferson Av
Pecan St.
Elm St.
South Main St.
General St.
Jackson St.
C.R. 12
S.R. 10
U.S. 27
4L
2L
Legend :
Principal Arterial
Arterial (Minor)
Collector (Major)
Collector (Minor)
New Local Streets

Future Right-of-Way Needs consist of an estimated three acres, which will be required to extend subdivision streets.

Sidewalks are often provided along the major streets (arterial and collectors); however, with limited rights-of-way available, it may be more realistic to provide sidewalks along some of the local streets.

Parking - Parking within the Town is not a problem at the present time; however, parking is an issue of continuing importance to the Town. With the resurgence of the commercial downtown area, the Town provided a public parking lot in the Urban Core to maintain adequate parking to support the continued success of downtown businesses.

FDOT Five-Year Plan - There are no roadway improvements planned for the Town of Havana on the most recent (FY 2004-2009) FDOT Five-Year Plan.

ADOPTED PORTION

TRAFFIC CIRCULATION
GOALS, OBJECTIVES AND POLICIES

GOAL - TO PROVIDE A SAFE, EFFICIENT, AND COST-EFFECTIVE MOTORIZED AND NON-MOTORIZED TRAFFIC CIRCULATION SYSTEM FOR THE RESIDENTS OF THE TOWN.

Objective 1 - The Town of Havana adopts the peak hour Level of Service Standards described in Policies 1.1, 1.2 and 1.3.

POLICY 1.1 - The Town adopts a peak hour Level of Service Standard of C for all collector roadways within its limits.

POLICY 1.2 - Cooperation with the Florida Department of Transportation (FDOT) will be accomplished to ensure that Level of Service Standards established for State of Florida roadways are maintained. The present Level of Service Standard is C.

POLICY 1.3 - Cooperation with Gadsden County will be accomplished to ensure that Level of Service Standards established for County roadways are maintained. The present Level of Service Standard is C.

POLICY 1.4 - All development proposals will be reviewed to ensure that development along arterial and collector roadways does not degrade roadway conditions below the acceptable minimum Level of Service Standards set by FDOT and the Town of Havana.

POLICY 1.5 - The Town will coordinate its needs along with regional transportation needs with the Capital Region Metropolitan Planning Organization.

Objective 2 - The Town will coordinate all traffic circulation planning with the Future Land Use Element, the FDOT 5-Year Transportation Plan, and the plans of neighboring jurisdictions.

POLICY 2.1 - Regulation of on-site traffic flow and parking, as well as regulation of connection and access points to roadways will be accomplished as designated in the Land Development Code.

POLICY 2.2 - Traffic circulation plans and programs of Gadsden County and neighboring municipalities will be reviewed to insure consistency.

Objective 3 - The Town will maintain an ongoing effort to control the connections and access points of driveways and roadways.

POLICY 3.1 - Through its zoning ordinance, the Town has set standards for the number and location of access points (driveways and roads) to local and state roadways. These standards will be maintained.

CHAPTER 3

Housing Element

I. INTRODUCTION

The purpose of the Housing Element is to present an inventory of existing housing stock, including housing characteristics, to analyze existing and future housing needs and, based on these needs, develop a plan and program to fulfill these needs through joint public and private participation. This element is designed to meet the housing needs of the Town of Havana while, at the same time, meeting the requirements of Chapter 163, F.S. and Rule 9J-5, F.A.C.

In the Town of Havana, as in most areas within the State and throughout the Country, the private sector is primarily responsible for the operation and maintenance of the housing stock. Numerous jurisdictions have regulations regarding housing conditions (building codes, health codes) and locations (zoning ordinances), and some even regulate the maximum rents that may be charged. However, few local governments actually build and maintain housing. Due to the limited tax base within the Town, it is unrealistic to consider Town construction or maintenance of housing stock. However, the Town will keep abreast of all grant funding options available to improve housing supply and condition, and to ensure that institutional impediments to the provision of economical housing do not exist.

Unfortunately, in numerous areas, land development regulations, although well-intentioned, work against the provision of housing for low- and moderate-income families. This is most often due to the restriction of the amount of land available for higher density development and/or arbitrarily excessive standards in subdivision regulations. Havana, through its adopted performance zoning ordinance, has provided a very substantial amount of land area where higher density housing may be provided subject to the requirement that such density does not negatively impact nearby areas. In addition, the design standards in the ordinance vary with the intensity of potential impacts, rather than being over designed to accommodate worst-case conditions in every situation.

II. EXISTING HOUSING DATA

Existing development patterns reflect Havana's early history as a transportation hub. Until abandonment, a branch line of the Georgia, Florida and Alabama Railroad (GF&A) ran west from the GF&A mainline along what is now State Road 12 to Quincy, Florida. The junction was located immediately west of the present downtown area at the western end of Seventh Avenue where the depot was located. In addition to the junction "wye" and depot, the railroad also had a small yard and water tank for servicing steam locomotives in the vicinity. These railroad activities provided a barrier to westward expansion, so development tended to move eastward. Although the branchline, wye, water tank and depot no longer exist, this development pattern can

still be seen with the CBD being located just east of the old depot site, and residential development being located in an area around the CBD east of the railroad track.

Except for the country club area, the great majority of residential development is still located east of the railroad. Residential uses are likely to remain concentrated east of the railroad, since much of the land in Havana west of the railroad is in an intensive land use (plant nurseries). If however, the ornamental plant nurseries go the way of the shade tobacco industry, this area could become available for residential use. Successful development of the area as residential would require a significant expansion of the employment base in or around the Town of Havana or the market would have to support Havana becoming much more of a retirement center or a "bedroom community" to Tallahassee.

One benefit of the existing development patterns is that the number of roadway/railroad crossings has been minimized. This, of course, reduces noise due to less horn blowing required by trains, as well as providing a greater level of safety, due to a reduction of potential train/auto conflict points.

The following sections present housing characteristics data for the Town of Havana. It should be noted that the 2000 Census boundaries for the Town of Havana apparently included not only the incorporated area, but also some adjacent developed land. Since there is no way to extract only the data within the actual Town limits, 2000 Census information is provided to fulfill Rule 9J-5 requirements only, and should not be compared to actual housing survey data presented in **Tables III-1** and **III-7**. Furthermore, in 2004 new data on housing structures was collected.

Housing Units By Type

Latest available information for housing units by type in Havana is taken from the 2004 inventory and not from the Census. These data are presented in **Table III-1** below.

TABLE III-1
HOUSING UNITS BY TYPE - 2004

Type	Number of Units
Single Family	640
Duplex	26
Mobile Home	55
Multi-Family	68
Total Units	789

Source: 2004 Survey by Town Staff.

Housing By Tenure

Latest available data for housing tenure in the Havana area is contained in the 2000 Census.

TABLE III-2
HOUSING BY TENURE - 2000

Tenure	Number of Units	Percent
Owner Occupied	498	71.1
Renter Occupied	202	28.9
Total Occupied Units	700	100.0

Source: 2000 U.S. Census

Housing By Age

Latest available information for the age of housing stock in the Havana area is taken from the 2000 Census. **Table III-3** reflects this information.

TABLE III-3
HOUSING UNITS BY AGE - 2000

Year Built	Owner-occupied Housing Units	Renter-occupied Housing Units	All Housing Types
1999 - March 2000	5	0	5
1995 - 1998	57	3	60
1990 - 1994	48	3	51
1980 - 1989	58	23	81
1970 - 1979	54	30	84
1960 - 1969	78	47	125
1950 - 1959	83	24	107
1940 - 1949	62	43	105
1939 or earlier	66	27	93
Totals	**511**	**200**	**711**

Source: 2000 U.S. Census

http://factfinder.census.gov/servlet/QTTable?_bm=y&-geo_id=16000US1229150&-qr_name=DEC_2000_SF3_U_QTH7&-ds_name=DEC_2000_SF3_U&-_lang=en&-redoLog=false&-_sse=on

Accessed on August 6, 2004

Housing Ownership

Latest available information for ownership of housing within the Havana area is presented in the 2000 Census. According to the Census, 71.9 percent of households in the Havana area are owner-occupied.

Cost of Housing

Median monthly rent represented by Census data was $388, the median mortgage payment was $837 and median value of homes was $69,900. The latest information on cost to rent units within Havana and value and monthly cost of owner-occupied units is taken from the 2000 Census and presented in **Table III-4.**

TABLE III-4
MONTHLY GROSS RENT OF RENTER-OCCUPIED UNITS

Gross Rent	Number of Units	Percent
Less than $100	3	1.5%
$100 - $149	16	8.0%
$150 - $199	20	10.0%
$200 - $249	8	4.0%
$250 - $299	4	2.0%
$300 - $349	20	10.0%
$350 - $399	20	10.0%
$400 - $449	9	4.5%
$450 - $499	8	4.0%
$500 - $549	7	3.5%
$550 - $599	31	15.5%
$600 - $649	3	1.5%
$650 - $699	4	2.0%
$700 - $749	4	2.0%
$750 - $799	7	3.5%
$800 - $899	4	2.0%
$900 - $999	4	2.0%
NO CASH RENT	28	14.0%
TOTALS	**200**	**100%**

Source: 2000 U.S. Census

http://factfinder.census.gov/servlet/QTTable?geo_id=16000US1229150&ds_name=DEC_2000_SF3_U&qr_name=DEC_2000_SF3_U_QTH12&_lang=en&_sse=on

Accessed on August 8, 2004

Table III-5 presents the value of owner-occupied housing within the Havana area, based on 2000 Census data.

TABLE III-5
VALUE OF OWNER-OCCUPIED HOUSING

Value (2000 percentage)	Number	Value (2000 percentage)	Number
Less than $10,000	5	$125,000 - $149,999	5
$10,000 - $19,999	0	$150,000 - $174,999	31
$20,000 - $29,999	43	$175,000 - $199,999	13
$30,000 - $39,999	28	$200,000 - $249,000	4
$40,000 - 49,999	53	$250,000 - 299,999	0
$50,000 - $59,999	16	$300,000 - $399,000	11
$60,000 - $69,999	73	$400,000 - $499,999	0
$70,000 - $79,999	31	$500,000 - $749,999	0
$80,000 - $89,999	46	$750,000 - $999,999	0
$90,000 - $99,999	8	$1,000,000 or more	4
$100,000 - $124,999	63		

Source: 2000 U.S. Census

Table III-6 presents the monthly costs of owner-occupied housing in the Havana area based on statistics from the 2000 Census. The first part of the table reflects monthly costs associated with owner-occupied housing with a mortgage while the second part reflects costs associated with owner-occupied housing without a mortgage.

TABLE III-6
MONTHLY COSTS OF OWNER-OCCUPIED HOUSING

Monthly Cost	No. of Units
Units With a Mortgage:	***228***
Less than $200	5
$200 - $299	3
$300 -$399	6
$400 - $499	11
$500 - $599	25
$600 - $699	25
$700 - $799	21
$800 - $899	49
$900 - $999	37
$1000 - $1499	34
$1500 - $1599	4
$2000 - $2499	0
$2500 - $2999	8
$3000 or more	0
Units Without a Mortgage	***206***
Less than $100	5
$100 - $149	3
$150 - $199	6
$200 - $249	11
$250 - $299	25
$300 - $399	25
$400 - $499	21
$500 - $699	49
$700 or more	37

Source: 2000 U.S. Census

According to the Census, the median household income for households living in owner-occupied housing units was $41,690 and for households living in renter-occupied housing units was $16,429. **Table III-7** below summarizes median monthly costs for owner-occupied and renter-occupied housing units as well as the corresponding rent-to-income ratios.

TABLE III-7

MEDIAN MONTHLY COSTS FOR DWELLING UNIT

Owner-Occupied Dwelling Unit		
Mortgage Status	**Median Monthly Owner Costs**	**Percent of Household Income**
With Mortgage	$837	21.70%
Without Mortgage	$290	13.70%

Renter-Occupied Dwelling Unit	
Gross Rent	**Percent of Household Income**
$388	25.50%

Comparison of Municipal Housing Characteristics to County Characteristics

According to the draft of the Gadsden County Housing Element, 18% of the County housing stock was substandard. Ten percent was deteriorated and eight percent was dilapidated. For the area within the Town of Havana limits, those percentages are 8% and 10%, respectively. The County also reports that 37% of the County housing stock is mobile homes, with the proportion of mobile homes expected to increase. In Havana, the proportion of mobile homes is 7%. The expectation for the future is that the percentage of mobile homes will decrease slowly over time.

Due to a lack of information from the census or other sources broken down to allow data to be separated into the area specifically within the Town boundaries, rather than just within the Havana planning district or Census Tract/Enumeration District, no further comparison is reasonably possible.

Structural Conditions Inventory

Existing land use and structural conditions for Havana were recorded during a field survey conducted in the spring of 1978, the spring of 1987 and again in the spring of 2004. The following residential land use classifications were used in all field surveys:

- Single Family
- Mobile Home
- Duplex
- Multi-Family

Each structure was classified as to its structural condition. Listed below are the criteria (methodology) for determining housing conditions.

SOUND: A dwelling which has no defects or only slight defects which normally are corrected during the course of regular maintenance. Examples of slight defects are: lack of paint, slight damage to porch or steps; slight wearing away of mortar between bricks or other masonry; small cracks in wall, plaster or chimney; cracked windows and broken gutters or downspouts.

DETERIORATING: A dwelling which needs more repair than would be provided in the course of regular maintenance. Such dwellings would have two or more intermediate defects that must be corrected if the house is to continue to provide safe and adequate housing. Examples of intermediate defects are: holes, open cracks; rotted, loose or missing materials over a small area of the foundation, walls and roof -- unsafe porch, steps or railings, several broken or missing windowpanes, missing bricks or cracks in the chimney which are not serious enough to be a fire hazard, and broken siding. These defects are signs of neglect which lead to serious structural deterioration if not corrected.

DILAPIDATED: A dwelling which does not provide safe and adequate shelter and in its present condition endangers the health, safety or well-being of the occupant. Such dwellings have one or more critical defects or a combination of intermediate defects in sufficient numbers or inadequate original construction. The defects are either so critical or so widespread that the dwelling should be extensively rebuilt or torn down. Examples of critical defects are holes, open cracks or rotted, loose or missing material over a large area of the foundation, outside walls or roof, and extensive damage by storm or fire.

For comparison purposes, the category of sound is defined as standard housing and the categories of deteriorating and dilapidated are defined as substandard. **Table III-8** is a summary of the structural conditions for residential units, with a comparison between 2004, 1987 and 1978 survey figures.

During the 2004 field survey a total of 918 structures (residential, commercial, public facilities, etc.) were observed. In 2004, 86% of the structures in the Town are residential units (residential units are made up of single-family, duplex, multi-family and manufactured homes). Eighty-four of these residential units are judged to be dilapidated and 61 are judged to be deteriorated. In 1987 there were only 16 dilapidated residential structures, however, showing a steep increase in dilapidated structures over the intervening 16 years. The most dramatic shift in residential structural conditions was in mobile homes. In 1987 there were three deteriorated and one dilapidated mobile homes, but in 2004 no deteriorated but 27 dilapidated mobile homes (out of a total of 55) were counted. In 1987 there were 69 mobile homes but that number decreased to 55 in 2004.

TABLE III-8
SUMMARY OF RESIDENTIAL STRUCTURAL CONDITIONS
HAVANA, FLORIDA

2004

Type Structure	Sound		Deteriorated		Dilapidated		Total	
	Number	% City	Number	% City	Number	% City	Number	% City
Single Family Residential	555	70%	59	7%	26	3%	640	81%
Duplex	24	3%	2	<1%	-	-	26	3%
Mobile Home	28	4%	-	-	27	3%	55	7%
Multi-Family	37	5%	-	-	31	4%	68	9%
TOTAL	*644*	*82%*	*61*	*8%*	*84*	*10%*	*789*	*100%*

Source: Field surveys by Town Staff - 2004

1987

Type Structure	Sound		Deteriorated		Dilapidated		Total	
	Number	% City	Number	% City	Number	% City	Number	% City
Single Family Residential	512	78%	41	6%	15	2%	568	87%
Duplex	14	2%	-	-	-	-	14	2%
Mobile Home	65	10%	3	<1%	1	<1%	69	11%
Multi-Family	-	-	4	<1%	-	-	4	<1%
TOTAL	591	90%	48	7%	16	2%	655	100%

Source: Field surveys by Barr, Dunlop & Associates - 1987

1978

Type Structure	Sound		Deteriorated		Dilapidated		Total	
	Number	% City	Number	% City	Number	% City	Number	% City
Single Family Residential	450	76%	43	7%	33	6%	526	89%
Duplex	14	2%	-	-	-	-	14	2%
Mobile Home	47	7%	-	-	-	-	47	8%
Multi-Family	6	<1%	-	-	-	-	6	1%
TOTAL	*517*	*89%*	*43*	*6%*	*33*	*5%*	*593*	*100%*

Source: Field surveys by Barr, Dunlop & Associates - 1978

Based on 2000 Census data for the Havana area, the following information was available regarding housing conditions.

TABLE III-9
2000 CENSUS - HOUSING CHARACTERISTICS

Service	Dwelling Units with Service	Dwelling Units without Service
Complete plumbing facilities	707	4
Telephone Service	682	29
Complete kitchen facilities	704	7

Source: 2000 U.S. Census

Based on a definition of overcrowded as over 1.51 persons per room, the Havana area had no overcrowded dwelling units in 2000.

Historically Significant Housing

At the present time, there are five historically significant dwellings recorded on the Florida Master Site File in the Town of Havana. The house name, location and date built are:

W. J. Boynton House	403 E. 9th Avenue	circa 1918
Emma Fletcher House	105 S. Main Street	1907
Porter House	110 S Main Street	circa 1925
Lee-Dawkins House	109 W 9th Avenue	circa 1940
SW 5th Street	S.W. 5th Street	circa 1942

None of the above structures are listed on the National Register of Historic Places, however.

Growth in Number of Housing Units

The Town of Havana has conducted housing surveys in 1978, 1987 and 2004. The number of dwelling units increased from 593 to 655 (62 units) in the first period and from 655 to 789 (134 units) in the second period. According to Census data (which uses slightly different geography from true Havana Town Limits), there were 762 housing units, 62 of which were vacant. Homeowner vacancy rate was observed to be 2 percent and rental vacancy rate 5.6 percent.

Mobile Home/Group Home Inventory

There are no licensed Mobile Home Parks, condominiums, cooperatives, subdivisions or RV parks within the limits of the Town of Havana. A 36-unit apartment complex called Dogwood Manor for the elderly and handicapped was constructed by a private developer with Farmers Home Administration funds. The facility is located at 707 3rd Avenue Northeast and is in standard condition. A group home with a capacity of eight persons is also located in Havana. One other multi-family structure is located in the Town. This structure is a 30-unit complex at the corner of East 5th Avenue and North Main and is dilapidated.

III. NEEDS ANALYSIS

Future Housing Needs By Type

Between 1990 and 2000 the Census shows that Havana's population remained stable with virtually no growth. No significant increases in commercial/industrial activity within or near the Town that would add jobs thus increasing the population base are known of at this time. However, there appears to be a growing interest in Havana for retirement homes. Therefore, population projections were prepared using increases in dwelling units that have been identified as likely to meet the increasing demand for retiree housing. (See Chapter 1, **Future Land Use Element** for more detail.)

Future housing need is based on population projections and Havana's population growth would be virtually flat based on historical trends or known economic activity increases in the area. However there appears to be a growing demand for housing for retirees and potentially as residences for people employed in Tallahassee. Therefore population projections were made on the basis of expressed demand from potential developers of vacant parcels in Havana. Virtually all of the interest for future housing is for single family units.

Because the projected increase in housing demand is based exclusively on exogenous factors unrelated to natural growth or economic activity, the typical multiplier factor (typically 25% or more in high growth areas) applied to projected need to account for vacant units between sales and to provide choice has not been applied in Havana's housing need projection. It is assumed that because almost all housing growth in Havana will be discretionary, the market will dictate construction. **Table III-10** presents housing projections for 2010 and 2015. **Table III-11** presents the additional demand in each housing type for each year.

TABLE III-10
PROJECTED TOTAL HOUSING DEMAND BY TYPE

	2004	2010	2015
Single-Family	640	831	958
Duplex	26	26	26
Mobile Home	55	55	55
Multi-Family	68	68	68
Total	*789*	*980*	*1107*

TABLE III-11
PROJECTED ADDITIONAL HOUSING DEMAND BY TYPE

	2010	2015
Single-Family	191	318
Duplex	0	0
Mobile Home	0	0
Multi-Family	0	0
Total	191	318

Housing Needs for Additional Units by Size and Income Range

As discussed in Chapter 1 (Future Land Use), population growth in Havana is expected to be almost entirely driven by factors external to any organic growth in the Town. Therefore, additional units are expected to be provided to meet the demand expressed by the market. Discussions with potential developers on the last three vacant areas suitable for development in Havana suggest that virtually all new units will be single family. Most new units will be at the moderate income range and above.

Currently, the plan for one of the three available areas is to provide a conventional subdivision of typical detached units on lots ranging from 0.25 acre to approximately one acre. An additional area is being considered for development as a performance subdivision using the Village House concept. (The Village House is a fully detached single family unit distinguished by small front and side yards. A number of design standards are required to prevent a feeling of overcrowding.) The Village House is expected to cost significantly less than the typical single family house of equal floor area due to the much more efficient use of infrastructure and smaller lot required.

Plans for the third potential residential subdivision area are uncertain at this time, but the area is ideal for development as a performance subdivision.

Special Housing Needs

There are no special housing needs, such as rural or farmworker housing, within the Town of Havana.

Housing Rehabilitation Needs

The largest identified need within the community is rehabilitation or removal of substandard housing. The 1987 land use survey reflected 64 substandard (deteriorated or dilapidated) residential structures within Town limits and in 2004 this figure has climbed to 145. It appears, however, that the previous surveys counted the multi-family structure as a unit. In the 2004 survey, each discrete dwelling unit was counted as a unit. This would account for the large growth shown for multi-family dwelling units between 1987 and 2004.

Since the 1987 structural conditions survey was conducted, 33 deteriorated dwelling units have been rehabilitated, and eight dwelling units have been replaced with the assistance of a CDBG program which has just been completed.

The area east of U.S. 27 and south of Ninth Avenue has contained the largest concentration of substandard structures according to the previous surveys and this continues to be true per the 2004 survey. As such this area of Town is the target area for the next housing improvement program.

IV. FUTURE HOUSING PLAN

The future housing plan consists of several components:

1. Public and private coordination for provision of housing. This includes providing efficient review of proposed developments by local government. The Performance Based Zoning Ordinance provides for a decision on development proposals far more quickly than is possible in most communities. Turn around time is typically less than two weeks after submission of a complete site plan.

2. Local government utilization of all funding sources available for housing improvement. These could include among others:

    - HUD subsidy programs like the Public Housing Program
    - USDA programs
    - Community Development Block Grants

3. Enforcement of the adopted Performance Zoning Ordinance for provision of a wide range of housing types; including group/foster home facilities and low-to-moderate cost housing, and a wide range of housing densities; allowing zero lot line and clustered housing, within residential areas. In the Development District, which encompasses a substantial area of the Town, group and foster homes and low-to-moderate income housing are allowed everywhere that physical site conditions permit.

4. Promotion of protection of historically significant housing through application for State grants for identification and protection of historic resources.

ADOPTED PORTION

HOUSING
GOALS, OBJECTIVES AND POLICIES

GOAL - PROVIDE SAFE AND AFFORDABLE HOUSING IN SUITABLE NEIGHBORHOODS TO MEET THE NEEDS OF THE PRESENT AND FUTURE RESIDENTS OF THE TOWN.

Objective 1 - Assist the private sector (including non-profit organizations) to provide for future housing needs within the Town of Havana.

POLICY 1.1 - Provide information and technical assistance to the private sector to maintain a housing production capacity sufficient to meet the required need.

POLICY 1.2 - Maintain the flexibility of the Town's performance zoning ordinance to allow housing of all types at densities adequate to encourage low/ moderate income housing in a large area of the Town.

Objective 2 - By the year 2015, all substandard housing shall be eliminated, with half of the substandard units eliminated by 2010.

POLICY 2.1 - The Town Manager's office will coordinate all housing rehabilitation, demolition and conservation of housing.

POLICY 2.2 - Seek Federal, State and private funding for the demolition or rehabilitation of substandard housing.

POLICY 2.3 - Assist neighborhood upgrading projects by providing code enforcement assistance, removing blighting influences, and concentrating capital and/or operating budget improvements in such neighborhoods.

POLICY 2.4 - Assist, where possible, the instituting of "urban homesteading" and "sweat equity" programs.

Objective 3 - Insure that local regulations do not unduly burden the provision of housing (through either new construction or rehabilitation) to meet the needs of very low, low- and moderate-income persons.

POLICY 3.1 - Maintain the existing performance-based zoning ordinance which ensures that adequate sites for housing low and moderate-income persons are available.

POLICY 3.2 - Maintain the performance zoning ordinance that allows for mobile home parks and mobile home subdivisions sufficient to meet the future land requirements for mobile homes.

POLICY 3.3 - Provide supporting infrastructure to mobile home subdivisions and parks.

Objective 4 - Sites for group homes will be available at suitable locations to ensure that the needs of persons requiring such housing may be met.

POLICY 4.1 - The Town will coordinate with the Department of Community Affairs and the U.S. Department of Housing and Urban Development for funding for housing rehabilitation and housing for the elderly and handicapped.

POLICY 4.2 - The Town, through its performance zoning ordinance, has established and maintains non-discriminatory standards and criteria addressing the location of group homes and foster care facilities.

Objective 5 - Uniform and equitable treatment for persons and businesses displaced by state and local government programs will be provided consistent with Section 421.55, F.S.

POLICY 5.1 - Assure that reasonably located, standard housing at affordable costs is available to persons displaced through public action prior to their displacement.

CHAPTER 4

Infrastructure Element

I. INTRODUCTION

The purpose of the Infrastructure Element is to identify sanitary sewer, potable water, drainage and solid waste improvements needed to accommodate future development of the area. This Element, and the plan as a whole, is based on population estimates provided in the Future Land Use Element. Population projections estimate 2010 and 2015 populations for the Town of 2,300 and 2,689, respectively.

II. SANITARY SEWER

The Town of Havana owns and operates the sewer system which provides service to its residents. The design capacity of the system is currently rated at 400,000 gallons per day (gpd). The Town is currently generating roughly 200,000 gpd. Currently the Town's sewer service area is restricted to the area within the Town limits east of the railroad with an extension north to the old Havana Northside High School (now closed) and a small residential area adjacent to the Town boundary at the intersection of 4th Street and 16th Avenue.

Treated effluent is disposed of by spray irrigation at the 174 acre disposal field located in the southeastern corner of Havana and additional sprayfield in pine plantation in the adjacent unincorporated area. The sprayfield is mostly planted pines which benefit from the application of effluent and assist in effluent disposal via increased evapotranspiration. The sewage treatment facility is located on 14th Avenue in the southern portion of Town (see Existing Land Use Map). Primary land uses served are residential, retail commercial and light industrial.

Table IV-1 presents projections of future wastewater treatment demand for Havana. Future demand was calculated based on a Level of Service (LOS) of 140 gpd per capita and assuming 100 percent of the population is sewered by 2015. Assuming 100% connection to sewer provides a margin of safety since retrofitting the area west of the railroad is unlikely at the low densities found there. In addition, connection to the sewer system will not be required for subdivisions where lots are one acre or more. Also, the 140 gpd per capita LOS standard contains an allowance of 40 gpd per capita for commercial uses. If additional capacity is needed, it can be accommodated within the existing site; therefore, no additional land will be allocated for expansion of the treatment facility through 2015.

TABLE IV-1
PROJECTED WASTEWATER DEMAND
(Gallons Per Day)

Year	Projected Population	Projected Demand	Available Treatment Capacity (deficit)
2010	2,300	322,000	78,000
2015	2,689	376,460	23,540

There have been no significant operational problems experienced by this facility. The system is operating at an acceptable level of service.

A generalized soil map is contained in the drainage section of this element. Havana is located in Soil Association 2 (Norfolk-Ruston-Orangeburg), which does have limitations for septic tank absorption fields within some of the components of the association. The Town is, however, relatively densely developed, and septic tanks will generally not be expanded into areas of the Town where they are not presently located. There are no existing soil data available to determine on an individual parcel basis where existing septic tanks may pose a problem. However, the development review process will ensure that no future septic tanks are allowed unless soils are suitable at the specific drainfield site.

ADOPTED PORTION

SANITARY SEWER
GOALS, OBJECTIVES AND POLICIES

GOAL - THE PROVISION OF AN ENVIRONMENTALLY SAFE AND EFFICIENT WASTEWATER TREATMENT AND DISPOSAL SYSTEM.

Objective 1 The Town will minimize the potential for adverse impacts associated with inadequate wastewater treatment.

POLICY 1.1 - The Town will prohibit package treatment plants.

POLICY 1.2 - Through the zoning ordinance, require new subdivisions to connect to the central sewer system. An exception will be made for lots of more than one acre where it is demonstrated that the soil is capable of supporting a typical septic tank and drainfield system.

Objective 2 - Continue to monitor development to ensure that future development is consistent with Level of Service Standards.

POLICY 2.1 - The City adopts as the Level of Service Standard for sanitary sewer service:

(a) to provide the capacity to collect a minimum of 140 gallons per capita per day (maximum daily demand),
(b) to maintain an infiltration/inflow maximum rate of 20 percent of average daily demand,
(c) to provide the capacity to treat a minimum of 140 gallons per capita per day.

POLICY 2.2 - The Town will monitor future development to ensure that adequate sanitary sewer service, as defined by the Level of Service Standards, is available concurrent with the impact of proposed development.

POLICY 2.3 - All improvements or expansions made to the sewer system shall be consistent with Level of Service Standards.

POLICY 2.4 - The Town will develop and implement procedures for updating facility demand and capacity information as development orders are issued.

Objective 3 - The Town will maintain a five-year schedule of sewer improvement needs to be updated annually in conformance with the review process of the Capital Improvement Element of this plan.

POLICY 3.1 - A Capital Improvement Coordinating Committee is hereby created, composed of the Mayor, Town Manager, and an appointed Town Council member for the purpose of evaluating and ranking capital improvement needs.

IV. SOLID WASTE DISPOSAL

The Town of Havana uses a franchise collector, Waste Management, Inc. of Tallahassee, Florida, to collect solid waste within the Town limits. The waste is then taken to a transfer station in the City of Quincy then to Waste Managements Springhill landfill for disposal.

No land will be allocated for a landfill site within Havana through the planning period.

ADOPTED PORTION

SOLID WASTE
GOALS, OBJECTIVES AND POLICIES

GOAL - PROVISION OF AN ENVIRONMENTALLY SAFE AND EFFICIENT SYSTEM FOR SOLID WASTE DISPOSAL.

Objective 1 - Continue to monitor the disposal capacity of the Town's solid waste management provider and future Town development potential to ensure that future development is consistent with Level of Service Standards.

POLICY 1.1 - Havana adopts a Level of Service Standard of 3.5 lbs. per capita daily.

VI. DRAINAGE

Havana has only minor drainage problems associated with periods of heavy rain. A master drainage system does not exist. Therefore, no analysis of the efficiency or effectiveness of programs / regulations is presented.

As development occurs, on-site drainage associated with the development will be regulated via the performance zoning ordinance to assure that drainage conditions are not degraded. **Figure IV-1** represents the Natural Drainage Pattern in Havana. As indicated, natural drainage is from the ridgeline boundary outward to topographically lower areas.

Figure IV-2 is the Generalized Soil Map for Gadsden County. As can be seen, the Town of Havana is located within designated Type 2, Norfolk-Ruston-Orangeburg Association. This association is characterized as nearly level to sloping, well-drained, sandy and loamy soils with loamy subsoil, not subject to flooding (see Future Land Use Element for more details on soils).

Figure IV-3 represents the Flood Insurance Rate Map for the Town of Havana. It can be seen that only two small areas are designated as Zone A. Zone A is defined as "Areas of 100-year flood, base elevations and flood hazard factors not determined."

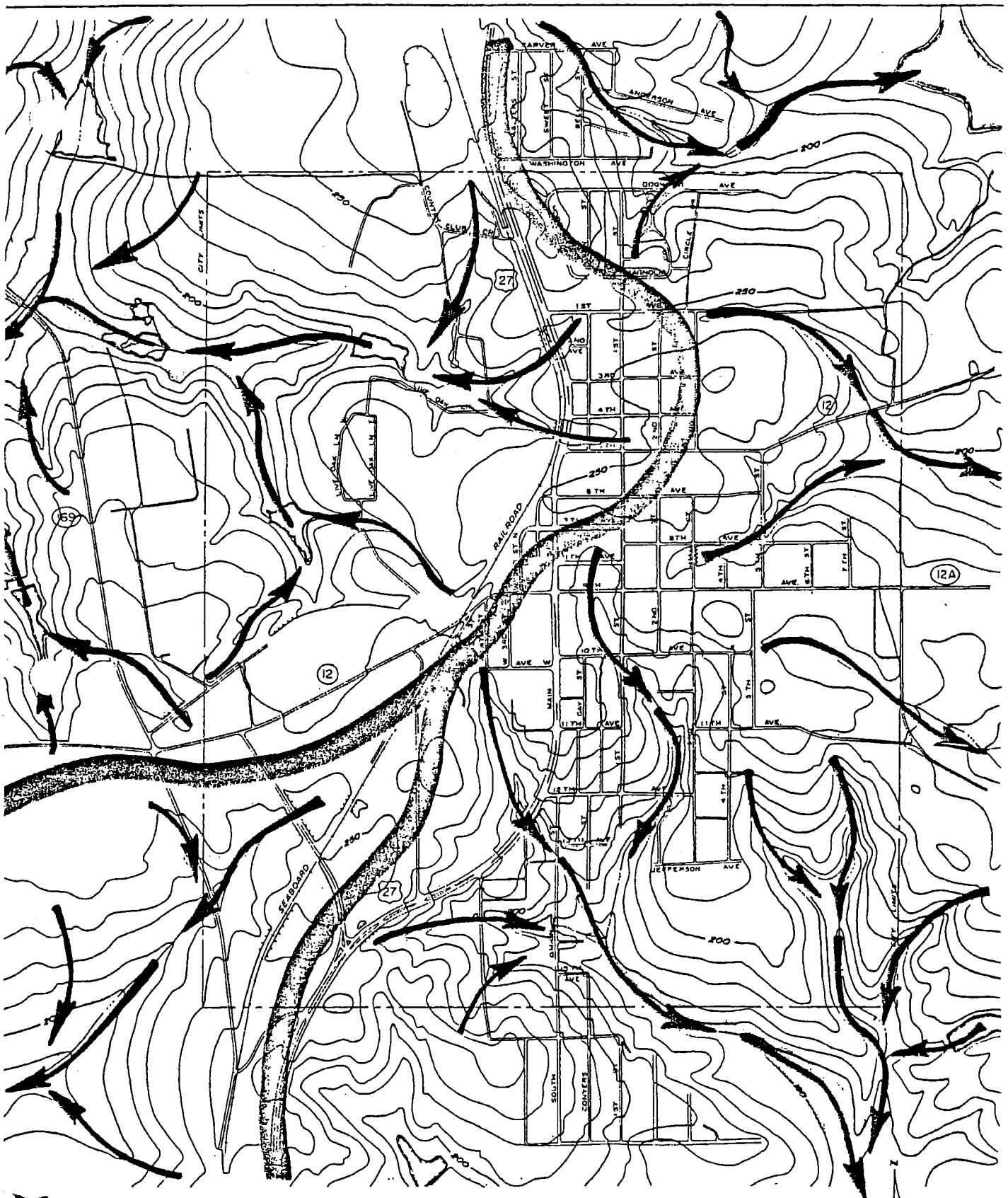


Figure IV-1

NATURAL DRAINAGE PATTERN

HAVANA, FLORIDA

BARR, DUNLOP & ASSOCIATES, INC

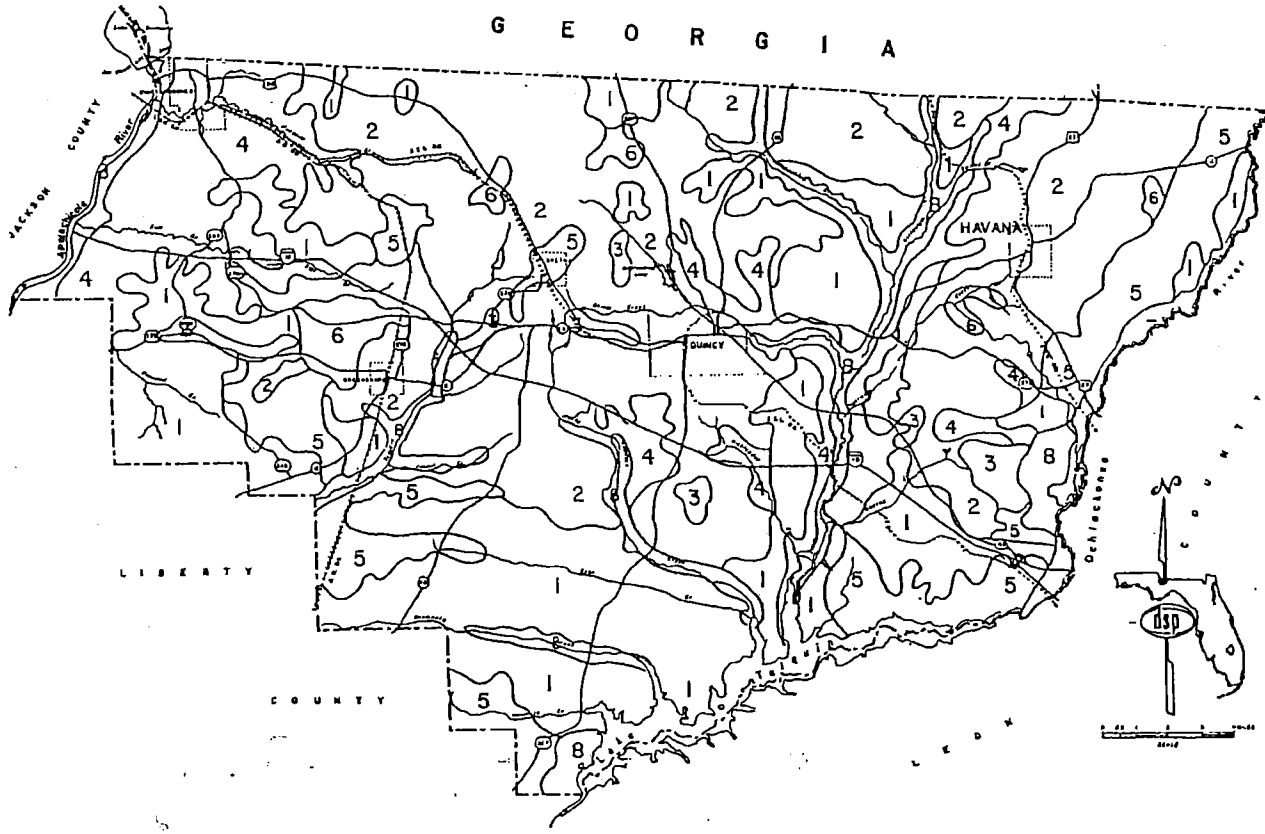


Figure IV-2

GENERALIZED SOILS MAP OF GADSDEN COUNTY, FLORIDA

Source: The Bureau of Comprehensive Planning, Florida Department of Administration

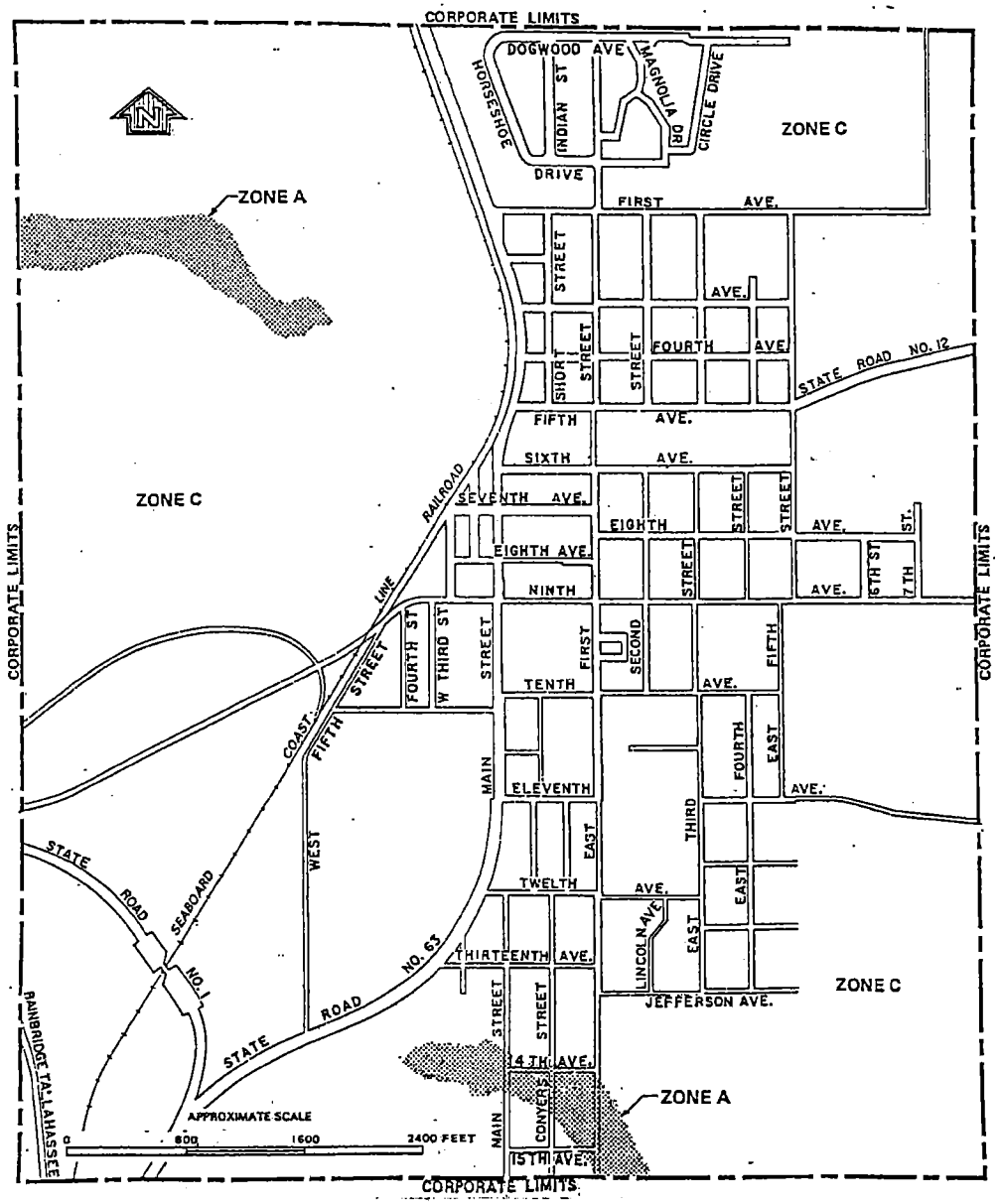


Figure IV-3
FLOOD INSURANCE RATE MAP

Source: FEMA

Effective date: June 17, 1986

KEY TO MAP

ZONE C

Zone Designations* — ZONE A

ZONE C

Base Flood Elevation Line With Elevation in Feet**	513
Base Flood Elevation in Feet Where Uniform Within Zone**	(EL 987)
Elevation Reference Mark	RM7×
Zone D Boundary	
River Mile	•M1.5

**Referenced to the National Geodetic Vertical Datum of 1929

*EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
AO	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

NOTES TO USER

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

This map is for flood insurance purposes only; it does not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.

FEDERAL EMERGENCY MANAGEMENT AGENCY

FIRM

FLOOD INSURANCE RATE MAP
MAP INDEX
TOWN OF HAVANA, FL
GADSDEN COUNTY
COMMUNITY NUMBER 120411 A

ADOPTED PORTION

DRAINAGE
GOALS, OBJECTIVES AND POLICIES

GOAL - PROVISION OF AN ENVIRONMENTALLY SAFE AND EFFICIENT DRAINAGE SYSTEM.

Objective 1 - The Town will correct existing deficiencies and maintain the following Level of Service Standards for drainage:

Water Quality: Ensure design of stormwater discharge facilities so as not to degrade the receiving water body below the minimum conditions necessary to assure the suitability of water for the designated use of its classification as established in Chapter 17-302, F.A.C.

Water Quantity: Elimination of stormwater from public street rights-of-way within 24 hours of all but rainfalls exceeding a 100-year storm event.

Rate of Runoff: No development shall cause downstream property owners, water courses, channels, or conduits to receive stormwater runoff from proposed developments at a higher peak flow rate than would have resulted from the same storm event occurring in its current condition.

POLICY 1.1 - The Town will continue to monitor compliance with Department of Environmental Regulation requirements for stormwater management.

POLICY 1.2 - The Town, through provisions of the Land Development Regulations, will ensure that post-development run-off rates do not exceed pre-development runoff rates.

POLICY 1.3 - The Town will, through provisions of the Land Development Regulations, review individual proposed developments to ensure that the function of natural drainage features is protected.

VIII. POTABLE WATER

Water Consumption

The Town of Havana owns and operates the potable water system which serves the area. The system has a design capacity of 3.2 Million Gallons Per Day (MGD), and consists of four wells which pump from the upper level of the Floridan Aquifer. Three of the wells are located within the Town limits, one is located two miles north of Town. Within the Town, one well is located on 5th Street SW, and two wells are located on 5th Avenue. The system has a Consumptive Use Permit of 0.670 MGD average day and 1.34 MGD maximum day. Present pumpage is approximately 0.45 MGD. The primary land uses served by the water system are residential and related commercial. The water system is in very good condition and is operating at an acceptable level of service. The minimum pressure for Havana potable water facilities is 40 pounds per square inch.

Water quality and quantity is not a problem in Havana. The system utilizes aerators to remove hydrogen sulfide before the water enters the reservoir. Retention time in the reservoir is sufficient to allow for settling of minerals, which are, from time to time, removed from the reservoir. The system has three ground level storage tanks with capacities of 50,000, 100,000 and 120,000 gallons, and elevated facilities of 300,000 gallons and 450,000 gallons, for a total storage capacity of 1.02 million gallons. The system presently serves the area within the Town limits, as well as several subdivisions in the surrounding area.

Currently there are 1,486 connections to the Havana water system. Although some of these connections are for commercial uses, the majority are residential. It is reasonable to develop a synthetic per capita consumption rate for planning purposes assuming that the ratio of residential to commercial use remains roughly constant over time. Using the 2000, census persons per household of 2.43 results in a water service population of 3,611 people. With an average daily consumption of 450,000 gpd, the per capita rate is 125 gpd. Of the total 1,486 connections, 885 are within the Town. Using the BEBR estimate for 2004 Havana population of 1,754 the population projections indicate an increase of 546 people in 2010 and 935 by 2015. This results in an increase in consumption of 68,250 gpd by 2010 and 116,876 gpd by 2015. Added to the current consumption of 450,000 gpd this yields projected use of 518,250 gpd in 2010 and 566,876 by 2015. The potable water LOS has been set at 140 gpd per- capita in order to provide a safety margin. At 140 gpd per capita the 2010 consumption would be 526,440 gpd and a 2015 consumption of 580,900 gpd. This is far below the design standard and still below the consumptive use permit of 670,000 gpd. Therefore no expansion of the potable water system is anticipated within the planning period.

Since there will be no additional potable water facility needs through the planning period, no additional land area will be required for system expansion.

Water Conservation/Protection

Although water quantity is not a problem in Havana now, the inexpensive high quality groundwater is a resource that is increasingly under pressure. This resource should not be squandered. In addition, reduction in water consumption can result in reduction in the amount of wastewater produced in households. Therefore, the Town has amended the building code to require low-flow shower heads in all future construction. The Town is addressing water quality protection through enforcement of a wellhead protection program. This program designates a 200-foot protective buffer around municipal wells in order to ensure that land uses which might contaminate the potable water supply are not allowed.

ADOPTED PORTION

POTABLE WATER
GOALS, OBJECTIVES AND POLICIES

GOAL - TO PROVIDE POTABLE WATER OF HIGH QUALITY AND SUFFICIENT QUANTITY.

Objective 1 - Continue to monitor development to ensure that future development is consistent with established Level of Service Standards.

POLICY 1.1 - The Town implements Level of Service Standards to determine improvements and additions to the existing system. Level of Service Standards for potable water are defined as follows:

(a) to provide water system customers with a minimum of 140 gallons per capita per day.

(b) to maintain at least 40 pounds per square inch pressure.

POLICY 1.2 - The Town, within the provisions of the zoning ordinance, will maintain procedures to determine available system capacity and demand of a proposed development upon the system.

POLICY 1.3 - The Town will make improvements or expansions to the existing facility, as required by growth to maintain Level of Service Standards.

POLICY 1.4 - The Town will maintain procedures to ensure that at the time a development permit is issued, adequate water system capacity is available to meet the needs of the proposed development.

Objective 2 - The Town will maintain a five-year schedule of capital improvement needs for water system facilities, to be updated annually in conformance with the review process for the Capital Improvement Element of this plan.

POLICY 2.1 - The Town Council will act as the Capital Improvement Coordinating Committee for the purpose of evaluating and ranking capital improvement projects proposed for inclusion in the five-year schedule of capital improvement needs.

Objective 3 - The Town will continue potable water conservation strategies.

POLICY 3.1 - The Town Manager's Office will be responsible for administration of water conservation programs.

POLICY 3.2 - The Town will from time to time utilize the back of utility bills for provision of information to residents pertaining to water conservation.

Objective 4 - The Town will protect the quality of potable water through establishment of wellhead protection areas.

Policy 4.1 - The Town shall maintain ownership of land currently owned by Havana within a 200-foot radius Primary Protection Zone of existing municipal potable water supply wells. For any new municipal potable water supply well, the Town shall acquire ownership of all land within a 200-foot radius of the well if possible. A Secondary Protection Zone is hereby established around all municipal potable water supply wells. Within a 500-feet radius of any municipal potable water supply well, the following uses shall be prohibited:

1. Sanitary landfills
2. Industrial landfills or other surface impoundments
3. Wastewater treatment facilities such as plants, treatment ponds, and RIBs. However, sanitary collection systems and force mains, and distribution lines for reclaimed water meeting FDEP treatment requirements may be allowed as long as they meet the setback distances required by FDEP. Irrigation areas using reclaimed water meeting FDEP treatment requirements are exempt.
4. Facilities that produce, use or store hazardous materials at or above established threshold amounts listed in Title III of the Superfund Amendments and Reauthorization Act of 1986, 42 U.S.C. s. 11001, et. seq. (SARA) and the Florida Hazardous Materials Emergency Response and Community Right-to-Know Act of 1988, Chap. 252, Part II, F.S.
5. Petroleum storage and dispensing facilities
6. Junkyards or salvage operations
7. Mines
8. Airport refueling facilities
9. Railroads and pipelines that may be used to transport pollutants or contaminants
10. Excavation of waterways or drainage facilities that intersect the water table.
11. Proposed, existing or potential sanitary hazards (as defined in 62-550.200 FAC), or other conditions which may adversely impact the ambient groundwater quality of the existing and proposed wells.

X. NATURAL GROUNDWATER AQUIFER RECHARGE

Groundwater is the principal source of potable water in Havana, and northwest Florida as a whole. The Floridan Aquifer is the primary hydrogeologic sequence which is developed for water supply. Rainfall serves as replenishment for the aquifer system in the form of recharge. Recharge is accomplished directly or indirectly, depending on the location of the aquifer in relationship to the land surface. Direct recharge is when the aquifer is at or near the surface and indirect being when rainfall must filter through overlying sediments in the form of leakage. Recharge potential is dependent upon soil type, thickness of confining beds, the character of the sediment sequence and occurrence of solution features. High recharge potential exists where the aquifer lies at or near the surface, where soils are sandy, and therefore, allow for high infiltration, and confining beds are generally thin, absent and/or discontinuous. The Town of Havana is located within the area of virtually no recharge potential. These areas are characterized as generally having a regionally extensive confining unit, 50 feet or greater in thickness, and no solution features present. Prime recharge areas to the Floridan Aquifer in northwest Florida are located in Wakulla, Leon, Jefferson and Jackson Counties (source Northwest Florida Water Management District, 1989).

No areas in Havana have been designated by the Northwest Florida Water Management District as prime recharge areas for the Floridan Aquifer. Therefore, there are no existing regulations or programs pertaining to protection of recharge areas and no goals, objectives or policies are presented.

ADOPTED PORTION

NATURAL GROUNDWATER AQUIFER RECHARGE GOALS, OBJECTIVES AND POLICIES

No Goals, Objectives or Policies related to groundwater recharge of aquifers are appropriate for the Town of Havana, since it is not in a prime recharge area as designated by the Northwest Florida Water Management District.