

TRANSPORTATION MOBILITY ELEMENT DATA AND ANALYSIS

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INTRODUCTION

The Transportation Mobility Element addresses long range planning for the provision of acceptable mobility for residents of unincorporated Alachua County. One goal of the Transportation Mobility Element is to “establish a multi-modal transportation system that provides for the needs of pedestrians, bicyclists, transit users, motorized-vehicle users, users of rail and aviation facilities, and is sensitive to the cultural and environmental amenities of Alachua County.” In the past more attention has been concentrated on automotive travel. The intent of the Transportation Mobility Element is to provide support for all modes of transportation.

Some major additions to the Transportation Mobility Element are the policies supporting Transportation Concurrency Exception Areas (TCEA), Transportation Concurrency Exception for Projects that Promote Public Transportation (PPPT), and Multi-Modal Transportation Districts (MMTD). A TCEA and a MMTD would both require a comprehensive plan amendment to designate specific areas, while a PPPT would not require a comprehensive plan amendment, but would be applied to specific projects meeting certain special standards. The comprehensive plan amendments would include data and analysis demonstrating that the proposed locations for a TCEA or MMTD are appropriate and meet the necessary statutory criteria. A brief synopsis of each of these alternative methods to transportation concurrency are identified below.

Transportation Concurrency Exception Area (TCEA):

- promote land use goals for redevelopment or infill in particular areas;
- require a specific transportation plan with pedestrian, transit and bicycle friendly design standards, and use of traffic calming techniques;
- development would have to mitigate transportation impacts;
- the Plan provides for consideration of a TCEA with the City of Gainesville to implement the recommendations of the SW 20th Avenue Charrette for the purpose of creating a pedestrian and bicycle-oriented student village.

Transportation Concurrency Exceptions for Projects that Promote Public Transportation (PPPT):

- allows exceptions from road level of service requirements for projects meeting requirements for access to public transit and design requirements that promote use of transit;
- located within 1/4 mile of an existing public transit line, or a planned public transit line, with 15 minute peak hour frequencies or equivalent alternatives that are funded and assured to be operational within the first phase of the development;
- have a main transit station in a commercial center, so that 80% of the residents/workers have walking access (i.e. within a 1/4 mile) of the station or a feeder system;
- contain a mix of uses and densities;
- meet standards for Traditional Neighborhood Developments, including pedestrian-friendly street design and building orientations;
- provide connections to adjacent and nearby uses;
- be located in the Archer Road/Tower Road Activity Center and the Springhills Activity Center designated on the Future Land Use Map.

Multi-Modal Transportation Districts (MMTD):

- give priority to pedestrians and connections to transit through adoption of an overlay zone incorporating a complementary mix and range of land uses of a density and intensity appropriate to support transit within walking distance;
- be designed to provide connectivity to minimize use of major thoroughfares;
- provide a neighborhood center;
- transportation modifications needed to support all transportation modes would have to be identified, and included in the Capital Improvements Program. The SW 20th Avenue Charette area is specifically noted as an area that could be considered for an MMTD.

The intent of each of the above concurrency management tools is to increase the use of non-automotive transportation methods by utilizing pedestrian and bicycle friendly design to increase accessibility and providing increased opportunity to bicycle, walk, or take the bus.

Bicycling is one of the transportation options that would be supported by the concurrency management tools. The recently completed Alachua Countywide Bicycle Master Plan identifies some of the reasons that bicycling is important to Alachua County. Some of these reasons include that:

- “Bicycling, along with walking and transit, provides residents and visitors with multiple transportation choices that increase their mobility and reduces traffic congestion.”
- “Bicycling is a necessary part of Alachua County’s transportation system.”
- “Bicycle facilities are needed to form important connections among the City of Gainesville, the University of Florida, and adjacent jurisdictions.”
- “Many people in Alachua County need an alternative method of travel.... Bicycling is an affordable option when compared to the expense of owning and operating an automobile (\$120/year compared to over \$5,000/year).”
- “Many trips made in Alachua County, and in particular the City of Gainesville, are short enough to be made by bicycle.”
- “Providing adequate and safe bicycle connections from the surrounding community to the University can increase the considerable number of bicyclists that ride to the campus and help to relieve traffic congestion on the major corridors into campus.”

The provision of acceptable mobility involves several aspects. Annual upkeep of existing facilities is vital to a well-functioning system. Paving, the replacement of deteriorating facilities such as bridges, drainage-improvement projects, and landscaping are but several examples of annual upkeep required to maintain existing conditions. Adding new facilities to improve pedestrian, bicycle, transit, and automobile mobility is yet another aspect of providing an acceptable transportation network. One method of tracking bicycle and pedestrian conditions and monitoring roadway conditions is through evaluation of the **level of service**. For bicycles, the Alachua Countywide Bicycle Master Plan provides qualitative measures describing the conditions impacting bicycle travel. These conditions are described with factors such as lateral separation between bicyclists and adjacent motor vehicle traffic, volume and speed of motor vehicle traffic, percentage of trucks, number of travel lanes, presence of a paved shoulder/bike lane, and pavement conditions. For automobiles, level of service is a qualitative measure describing operational conditions within a traffic stream, and the perception by motorists and/or passengers of those conditions. These conditions are generally described in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety.

Alachua County must set level of service standards for automobiles for all arterial and collector roadways,

including county roads within municipalities. It must also set level of service standards for facilities within unincorporated Alachua County which are maintained by entities other than Alachua County (such as state-maintained facilities).

This Transportation Mobility Element is part of the Comprehensive Plan for unincorporated Alachua County. It is intended that this Element be applied in conjunction with the other elements of the Plan as an entirety, not as an individual, separate Element.

BACKGROUND INFORMATION

This section provides definitions and explanations of key components required in the analysis of the traffic circulation network.

ROADWAY NETWORKS

The network of roadways may be divided into the State Highway System, the County Road System, and the City Street System.

The State Highway System consists of the following:

- a. the Interstate System;
- b. the Intrastate Highway System.
- c. all rural arterial routes and their extensions into and through urban areas;
- d. all urban principal arterial routes;
- E. those urban minor arterial routes on the existing primary road system as of July 1, 1977, with the addition of segments of such routes which lie between and connect those parts of the routes previously included in the primary system and which are necessary to provide continuity to the system; except that no segment in excess of 2 miles shall be so added; and

The County Road System of each county consists of all collector roads in the unincorporated areas and all extensions of such collector roads into and through any incorporated areas, local roads specifically accepted for maintenance in the unincorporated areas, and all urban minor arterial roads not in the State Highway system.

The City Street System of each municipality consists of all local roads within that municipality, and all collector roads inside that municipality, which are not in the County Road system.

TRANSPORTATION CORRIDORS

The public purpose of establishing transportation corridors is to protect State and local government's ability to provide transportation infrastructure in the future. The identified need for corridors should be sufficient to acquire land. If the opportunity is lost to acquire sufficient right-of-way to establish needed transportation infrastructure, then economic development and growth management are weakened and the

cost to the taxpayers is increased.

Florida Transportation Plan

In order for transportation corridors to be established, the state adopted enabling legislation providing for transportation planning agencies to prepare and adopt a plan. Some of the transportation issues identified in the State Comprehensive Plan lend themselves to the transportation corridors approach. Within the Florida Transportation Plan, a selective focus on statewide and regional corridors is taken, rather than a comprehensive approach.

The statewide corridors address inter-regional corridor demand and are not specific to local traffic or heavy congestion. These corridors consider multi-modal alternatives to transportation; therefore, the corridor systems include the following: Statewide Highway Corridor, Statewide Aviation Corridor, Statewide Rail Corridor, and Statewide Water-Borne Corridor.

Unless designated otherwise, all section and half-section lines are generally designated Transportation Corridors.

FLORIDA INTRASTATE HIGHWAY SYSTEM PLAN

The Florida Intrastate Highway System Plan is a part of the Florida Transportation Plan addressing intrastate highway needs.

Roadway facilities established as part of the Intrastate Highway System Plan include: SR 26 from Gilchrist County to I-75, I-75 south to SR 331, SR 331 north to SR 20, SR 20 east to Putnam County and US 301 from Marion County to Bradford County.

FUNCTIONAL (AND OPERATIONAL) CLASSIFICATION

Functional classification is defined in Chapter 334.03 (11) F.S. as the assignment of roads into systems according to the character of service they provide in relation to the total road network. Basic functional categories include arterial roads, collector roads, and local roads which may be subdivided into principal, major, or minor levels. Those levels may be additionally divided into urban and rural categories.

Roadway functional classification is defined in Rule 9J-5 F.A.C. as "...the assignment of roads into categories according to the character of service they provide in relation to the total road network. Basic functional categories include limited access facilities, arterial roads, and collector roads, which may be subcategorized into principal, major or minor levels. These levels may be further grouped into urban and rural categories".

Chapter 334 F.S. provides definitions of roadway types such as interstates, arterials, principal arterials, minor arterials, and collectors. Rule 9J-5 F.A.C. in some cases provides slightly different definitions than those of Chapter 334 F.S. Both definitions are provided.

Interstate highways are also referred to as **limited access highways** and **freeways**. According to Chapter 334.03 (13) F.S., **limited access highways** are defined as a street or highway especially designed for through traffic, and over, from, or to which owners or occupants of abutting land or other persons

have no right or easement of access, light, air, or view by reason of the fact that their property abuts upon such limited access facility or for any other reason. Such highways or streets may be facilities from which trucks, buses, and other commercial vehicles are excluded; or they may be facilities open to use by all customary forms of street and highway traffic.

Limited access highways are defined in Rule 9J-5 F.A.C. as roadways especially designed for through traffic, and over, from or to which owners or occupants of abutting land or other persons have no greater than a limited right or easement of access.

Arterial roads are defined in Rule 9J-5 F.A.C. as roadways providing service which is relatively continuous and of relatively high traffic volume, long trip length, and high operating speed. In addition, every United States numbered highway is an arterial road.

Arterial roads are defined in Chapter 334.03(1) as a route providing service which is relatively continuous and of relatively high traffic volume, long average trip length, high operating speed, and high mobility importance. In addition, every United States numbered highway is an arterial road.

Urban principal arterial roads are defined in Chapter 334.03(35) as a route that generally serves the major centers of activity of an urban area, the highest traffic volume corridors, and the longest trip purpose and carries a high proportion of the total urban area travel on a minimum of mileage. Such roads are integrated, both internally and between major rural connections.

Collector roads are defined in Chapter 334.03 (4), F.S. as routes providing service which is of relatively moderate average traffic volume, moderate average trip length, and moderate average operating speed. Such a route also collects and distributes traffic between local roads or arterial roads and serves as a linkage between land access and mobility needs.

Collector roads are defined in Rule 9J-5 F.A.C. as roadways providing service which is of relatively moderate traffic volume, moderate trip length, and moderate operating speed. Collector roads collect and distribute traffic between local roads or arterial roads.

Local roads are defined in Chapter 334.03 (15), F.S. as routes providing service which is of relatively low average traffic volume, short average trip length or minimal through-traffic movements, and high land access for abutting property.

Local roads are defined in Rule 9J-5 F.A.C. as roadways providing service which is of relatively low traffic volume, short average trip length or minimal through-traffic movements, and high volume land access for abutting property.

LEVEL OF SERVICE

Level of service as defined by the 2000 Highway Capacity Manual is "a qualitative measure describing operational conditions within a traffic stream. Level of Service (LOS) is a quality measure describing operational conditions within a traffic stream, generally in terms of such service factor measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience."

Six LOS are defined for each type of facility that has analysis procedures available. Letters designate each level, from A to F, with LOS A representing the best operating conditions and the driver's perception of those conditions. Safety is not included in the measures that establish service levels. As noted above, each type of facility has a specific set performance measures by which LOS is determined. For example, measures may include speed, density and flow or volume, and the amount of control delay incurred at signalized intersections. The following definitions given below characterize LOS conditions for multilane highways but are general enough to convey the concept without becoming analytically complex.

Level of service A describes completely free flow conditions. The operation of other vehicles is virtually unaffected by the presence of other vehicles, and operations are constrained only by the geometric features of the highway and by driver preferences. Maneuverability within the traffic stream is good. Minor disruptions to flow are easily absorbed without a change in travel speed.

Level of service B also indicates free flow, although the presence of other vehicles becomes noticeable. Average travel speeds are the same as in LOS A, but drivers have slightly less freedom to maneuver. Minor disruptions are still easily absorbed, although local deterioration in LOS will be more obvious.

Level of service C, the influence of traffic density on operations becomes marked. The ability to maneuver within the traffic stream is clearly affected by other vehicles. Minor disruptions can cause serious local deterioration in service, and queues will form behind any significant traffic disruption.

Level of service D, the ability to maneuver is severely restricted due to traffic congestion. Travel speed is reduced by the increasing volume. Only minor disruptions can be absorbed without extensive queues forming and service deteriorating.

Level of service E represents operations at or near capacity, an unstable level. The densities vary and vehicles are operating with a minimum spacing for maintaining flow. Disruption cannot be dissipated readily, often causing queues to form and service to deteriorate to LOS F.

Level of service F represents forced or breakdown flow. It occurs either when vehicles arrive at a rate greater than the rate at which they are discharged or when the forecast demand exceeds the computed capacity of a planned facility. Although operations at these points-and on sections immediately downstream-appear to be at capacity, queues form behind these breakdowns. Operations within queues are highly unstable, with vehicles experiencing brief periods of movement followed by stoppages. Note that the term LOS F may be used to characterize both the point of the breakdown and the operating condition within the queue. Although the point of breakdown causes the queue to form, operations within the queue generally are not related to deficiencies along the highway segment.

The authority and requirement to establish level of service standards for limited access, arterials, and

collector roads is set in Florida Statute and by Administrative Rule.

Level of service can be analyzed using several methods ranging from detailed, individual analysis using the 2000 Highway Capacity Manual (HCM), to ARTPLAN, a computer spreadsheet developed by the FDOT based upon characteristics from the HCM, to generalized tables developed by the FDOT based upon the HCM.

Basic information required for purposes of determining levels of service based upon these generalized tables include: urban/rural classification, number of lanes, average daily traffic (ADT) count, length (in miles), number of signalized intersections per mile, and the functional classification. In addition, level of service can be affected by other factors such as presence or absence of left turn bays or an adjustment for a roadway that is undivided or divided.

Once the roadway type, number of lanes, the number of signals per mile, and any necessary adjustments are determined for a road segment, the ADT can be checked against the FDOT "Generalized Daily Level of Service Maximum Volumes for Florida's Urbanized (and Rural) Areas" table to determine the level of service at peak hour. (This table factors ADT to peak hour volumes using a "K" factor of approximately 9% of ADT. Site specific analysis of particular segments may result in indication of a different level of service that should be considered for specific project programming.)

DATA AND ANALYSIS

I. Existing Transportation System Levels of Service and Needs

A. Existing Level of Service Standards, Design and Operating Capacity

Policy 1.1.1 in the Comprehensive Plan lists the adopted Level of Service (LOS) standard for the various types of roads in Unincorporated Alachua County.

In this most recent version of the Comprehensive Plan (2002) Alachua County revised the LOS standard for state roads in the unincorporated area by raising the standard from LOS D to LOS C for two-lane state rural roads, except for three specified segments, which remain at LOS D. The LOS Standard for county-maintained rural collectors was revised from LOS D to LOS B, except for one segment which was raised to LOS C.

The attached Alachua County Level of Service Tables (Appendix) list the road segments with the adopted LOS standard and the maximum service volume for each segment.

The Future Traffic Circulation Map Series (FTCMS) consists of eight maps which include the roads functional classification and number of lanes for the years 2006 and 2020, with separate maps for the entire unincorporated county and the urban area for each category. These maps provide information regarding future changes in the road network.

B. Most Recent Estimates for Average Daily and Peak Hour Trips

The attached Alachua County Level of Service Tables identify the Existing Volume for roadways, basically the number of automobiles counted on a specific segment of road (Annual Average Daily Trips (AADT)) plus the reserved trips, which is the number of automobiles from approved development that has not yet been completed. The AADT are based on the traffic counts in the year 2000. The attached tables also include the remaining trips available on the road segments for automobile travel.

C. Existing Modal Split and Vehicle Occupancy Rates

The modal split for the area within the MTPO area is approximately three percent based on information from the MTPO.

D. Existing Public Transit Facilities

Table 1, below, provides a fiscal year comparison for the city routes, campus routes, and the total system for the past five years. The RTS table in the Appendix provides information for each of the Regional Transit System (RTS) routes for September, 2001 and for FY2001.

**TABLE 1
RTS RIDERSHIP FOR FY1997 TO FY2001**

Fiscal Year Comparisons	City	%Change from Previous Year	Campus	%Change from Previous Year	Total	%Change from Previous Year
FY1997	1,221,597	NA	947,676	NA	2,175,278	NA
FY1998	1,923,168	57.4%	985,049	3.9%	2,949,724	35.6%
FY1999	3,147,883	63.7%	1,184,643	20.3%	4,412,773	49.6%
FY2000	3,793,270	20.5%	1,281,250	8.2%	5,203,221	17.9%
FY2001	4,526,616	19.3%	1,620,287	26.5%	6,302,953	21.1%

RTS is in the process of completing a Comprehensive Operational Plan which will provide additional information about the future transit routes, service goals, trip generators, and attractors.

E. Population Characteristics, including Transportation Disadvantaged

As stated in the City of Gainesville Transportation Element Data and Analysis (Draft, January 25, 2001) - "The estimated walking distance (1/4-mile from routes) transit area population for the year 2000 is approximately 107, 300. For the year 2020, it is approximately 130,000."

The following table provides estimates of people “with transit-related disabilities for the city and the unincorporated portion of the urban area.”

**TABLE 2
PERSONS WITH TRANSIT-RELATED DISABILITIES**

Group	1980	1996	2001	2005	96-01 Change	Total Change
City* 16-64	843	993	1,050	1,098	57	207
City* 65+	1,040	1,314	1,419	1,509	105	379
Unincorp. 16-64	336	585	647	701	62	311
Unincorp. 65+	330	1,200	1,391	1,565	191	1,061
Total	2,549	4,092	4,507	4,873	415	1,958

City* is the City of Gainesville

Source: City of Gainesville, Transportation Element Data and Analysis, Draft January 25, 2001

Source cited by the City of Gainesville: Bureau of the Census, July 1983; Department of Community Development staff calculations, April 2000.

Numbers do not always total due to the use of samples and rounding error. Data for 2005 are extrapolated forward from 1996-2001 annual percentage increases for each age group. 2000 Census data are not available at this time.

F. Existing Characteristics of Major Trip Generators and Attractors

The major trip generators and attractors in Alachua County are predominantly educational institutions such as the University of Florida and Santa Fe Community College, hospitals and medical complexes, and designated activity centers. It is also anticipated that some of the smaller municipalities within Alachua County will begin to experience greater growth than they have ever experienced in the past.

II. Availability of Transportation Facilities and Services to Serve Existing Land Uses

As of February, 2002 there is one County maintained road segment and two State maintained road segments that exceed 100% of the adopted LOS capacity. There are six road segments that are County facilities and four road segments that are State facilities that are operating at over 85% of the adopted LOS capacity. All of these roadway segments are subject to additional analysis.

The County facility exceeding 100% of the adopted LOS capacity is:

- SW 20th Ave. from SW 62nd Blvd. To SR 121/W 34th St.

The six County facilities exceeding 85% of operating capacity include:

- SW 75th St. from SR 24/Archer Rd. to SW 8th Ave.
- SW 40th Blvd./SW 42nd/43rd St. from SR 24/Archer Rd. to SW 20th Ave.
- SW 20th Ave. from SW 75th St. to SW 62nd Blvd.
- NW 23rd Ave. from NW 98th St. to NW 55th St.
- NW 83rd St. from NW 23rd Ave. to SR 222/N 39th Ave.
- NW 43rd St. from SR 26/Newberry Rd. to NW 53rd Ave.

The first two of these segments each have less than 500 trips available before the capacity is exceeded.

The two State facilities exceeding 100% of the adopted LOS capacity are:

- SR 222/NW 39th Ave. from NW 98th St. to NW 43rd St.
- SR 26/Newberry Rd. from I-75 (east ramp) to NW 8th Ave.

The four State facilities exceeding 85% of operating capacity include:

- SR 24/Archer Rd. from I-75 to SR 226/SW 16th Ave.
- SR 121/SW 34th St. from SR 24/Archer Rd. to SR 26/Newberry Rd.
- SR 26/Newberry Rd. from SW 154th St. to NW 98th St.
- SR 24 from East City Limit of Archer to SW 91st Street (MTPO Boundary)

The two State facilities exceeding 100% of capacity are identified as constrained facilities in the Plan, SR 26 (Newberry Rd.), a principal arterial from Interstate 75 (east ramp) to NW 8th Avenue and SR 222 (NW 39th Ave.), a principal arterial from NW 51st St. to NW 43rd St. The designation as constrained facilities is based on the most recent available data (February, 2002). SR 26, as a six-lane facility, may not have additional lanes added. NW 39th Ave. is impacted by trips authorized within the City of Gainesville TCEA and would be a difficult facility to widen, due to the building setback along portions of the northern side of the segment. Policies are included which address future strategies for these facilities.

The road segments which exceed 85% of their capacity are located in the northwest and southwest portions of the urban area.. Conditions on some of these segments will be improved by other roadway projects that are proposed in the area and listed in the Capital Improvements Program. Other roadway segments are exceeding 85% of capacity due to large numbers of trip reservations granted for future development, including segments adjacent to or within the City of Gainesville and affected by the City's TCEA.. Most of the adjacent land on some of these roadway segments has little land available for development and additional traffic is expected to level off on these segments. The County will continue to implement TSM and TDM strategies on these segments and monitor them to determined if inclusion in the CIP is needed.

The Alachua Countywide Bicycle Master Plan addresses projects to increase the number of bicycle facilities in the county. The Bicycle/Pedestrian Advisory Board will prioritize both on-street and off-street bicycle facilities based on the information in the Alachua Countywide Bicycle Plan.

III. Adequacy of Existing and Projected Transportation System to Evacuate Coastal Populations

Prior to an Impending Natural Disaster

Alachua County is generally a place that people evacuate to or through when natural disasters necessitate evacuation. Over the past several years, there have been several evacuations in Florida for natural disasters including hurricanes and wildfires. There has not been a problem with the transportation system in Alachua County during any of these evacuations.

IV. Growth Trends, Travel Patterns, and the Interactions between Land Use and Transportation

As noted in the data regarding current LOS above, Alachua County is increasingly facing road related concurrency problems. There are numerous ways to respond to approaching and exceeding the road capacity for automobiles including reducing the LOS standard, increasing people's mobility by improving transportation options such as mass transit, bicycle and pedestrian options, amending the manner in which concurrency is regulated, and building additional lanes. There has been an increasing desire in Alachua County for alternatives to building additional lanes for automobiles, in part because pedestrian and bicycle comfort is reduced as the number of lanes is increased. Additionally, there is a lack of funds for construction of additional roads.

Another lesson that has been learned from concurrency management is that development is limited or, at times, shut down, on the roads surrounding the major trip attractors, but it continues further away from the core where capacity has not yet been reached. The development which is further out still generates more trips going to the major attractors, the LOS is exceeded, and development ends up occurring even further from the major attractors.

The concurrency management tools discussed below provide an alternative to the potential problem of development being pushed to the urban fringe due to concurrency constraints or the inability to proceed with redevelopment projects.

V. Existing and Projected Intermodal Deficiencies and Needs

The Livable Community Reinvestment Plan (LCRP) Needs Plan identified eight intermodal centers at the following locations - Airport, Butler Plaza, Oaks Mall, Royal Park, SFCC-Downtown, Shands, Springhills, and Tower Square. The Needs Plan identified 5 Park-n-Ride lots with express bus service at the following locations - Alachua, Archer, Hawthorne, Newberry, and Waldo.

The LCRP Cost Feasible Plan funded the Butler Plaza (Archer Rd. and I-75) intermodal center and the park-n-ride lots with express bus service in Alachua and Archer.

VI. Projected Transportation Levels of Service and System Needs based upon the Future Land Use Categories

A. Need for New Facilities

Current Status

There are currently (February, 2002) three County and State maintained facilities that exceed 100% of their capacity and 10 County and State maintained facilities that exceed 85% of their capacity with less than 500 trips available on two of these segments. There are several levels of increasingly segment specific analysis that can be utilized to determine the operating capacity of a road. Frequently, although not always, further analysis finds additional capacity on a road segment. Additional analysis has already been performed on seven of these 13 segments. One of the two segments with less than 500 remaining trips has had additional analysis performed.

Future Projections

The MTPO's Livable Community Reinvestment Plan (adopted December, 2000) forecasts traffic volumes for the year 2020 based on a computer model, FSUTMS. The Livable Community Reinvestment Plan (LCRP) provides future traffic volumes for three different scenarios, the Existing and Committed network (E + C), the Needs network, and the Cost Feasible network (CF). The E + C network consists of the current facilities and any facilities for which funding is committed within the next 5 years. Any projects which occur after 2006 would not be part of the E+ C network, because at this time, they are not funded. The Needs network consists of the projects identified which are necessary to maintain transportation mobility for the next 20 years. The Cost Feasible network consists of the projects from the Needs network that are financially feasible. The segments projected to exceed 85% of capacity or 100%of capacity are listed below for the E + C and the CF.

Alachua County calculates LOS for concurrency using AADT. The Alachua County Level of Service Tables (Appendix), which are used to determine available trips, identify the maximum service volume for each road and the current existing trip volume. For the Tables, several of the roads in the County have been analyzed with Art-Plan in order to more precisely determine their capacity. The Projected Peak Hour LOS Map is based on a straight-line projection of AADT, rather than a model, and provides just generalized LOS information.

The following table lists the roads which are currently or projected to exceed 85% or 100% capacity based on modeling done in connection with the Livable Community Reinvestment Plan developed by the MTPO.

TABLE 3**COMPARISON OF CURRENT AND PROJECTED FACILITIES EXCEEDING 85% OR 100% OF CAPACITY**

x - facilities exceeding 85% of capacity

XX - facilities exceeding 100% of capacity

	Current County Maintained Facilities above 85% or 100% of Capacity	Projected 2020 Existing & Committed Network (LCRP)	Projected 2020 Cost Feasible Network (LCRP)
County Maintained Facilities			
SW 75 th St. from SR 24/Archer Rd. to SW 8 th Ave.	x		
SW 20 th Ave. from SW 62 nd Blvd. To SR 121/W 34 th St.	XX		
SW 40 th Blvd./SW 42 nd /43 rd St. from SR 24/Archer Rd. to SW 20 th Ave.	x		
SW 20 th Ave. from SW 75 th St. to SW 62 nd Blvd.	x		
NW 23 rd Ave. from NW 98 th St. to NW 55 th St.	x		
NW 83 rd St. from NW 23 rd Ave. to SR 222/N 39 th Ave.	x	x	XX
NW 53 rd Ave. from NW 52 nd Terr. To US 441/W. 13 th St.		x	
NW 43 rd St. from SR 26/Newberry Rd. to NW 53 rd Ave.	x	XX	XX
NW 75 th St./Tower Rd. from W. University Ave. to SR 26/Newberry Rd.		x	
State Maintained Facilities			
SR 24/Archer Rd. from I-75 to SR 226/SW 16 th Ave.	x	x	
SR 26/Newberry Rd. from NW 98 th St. to I-75 (east ramp)		x	
SR 26/Newberry Rd. from I-75 (east ramp) to NW 8 th Ave.	XX	XX	XX
SR 121/SW 34 th St. from SR 24/Archer Rd. to SR 26/University Ave.	x	x	
SR 222/N 39 th Ave. from NW 98 th St. to NW 43 rd St.	XX		

SR 331/SR 121 from I-75 (south) to US 441/SW 13 th St.		x	x
I-75 from SR 222/NW 39 th Ave. to GMA Boundary			x
SR 121 from SW 85 th Ave. to I-75 (south)		x	x
SR 26/Newberry Rd. from SW 154 th St. to NW 98 th St.	x		x
SR 20/Hawthorne Rd. from CR 329B to GMA Boundary		x	XX
NW 39 th Ave. from NW 110 th St. to NW 98 th St.		XX	
NW 39 th Ave. from CR 241 to NW 110 th Terr.		XX	
SR 24 from East City Limits Archer to SW 91 st St. (MTPO Boundary)*	x	–	--

*This segment is outside of the MTPO boundary therefore it was not included in the LCRP 2020 model.

There are 10 County and State maintained facilities that are currently exceeding 85% and three that are currently exceeding 100% of their capacity. Based on the LCRP, there are projected to be four facilities which exceed 100% of capacity and nine facilities which exceed 85% of capacity in the year 2020 using the existing and committed scenario. There are projected to be four facilities exceeding 100% of capacity and four facilities exceeding 85% of capacity using the Cost Feasible scenario from the LCRP. Two of the six County maintained facilities that are currently exceeding 85% of capacity are projected to exceed 100% of capacity in 2020 (CFN), while the one County facility currently exceeding capacity is not projected to exceed capacity in 2020. Although, SW 75th Street is above 85% of capacity, a parallel route, SW 91st Street, was recently completed which provides an alternative route, likely reducing the automobile trips on SW 75th Street.

One of the three State maintained facilities within the MTPO boundaries that is currently exceeding 85% of capacity is projected to exceed 85% capacity in 2020 (CFN). One of the two State maintained facilities which is currently exceeding 100% of capacity is projected to exceed 100% capacity in 2020 (CFN).

In order to promote non-automotive transportation choices and make full use of roadway capacities, the Plan identifies a variety of concurrency management tools. These tools could include a variety of options such as Transportation Concurrency Exception Areas, Multi-Modal Transit Districts, Transportation Concurrency Management Areas, and Transportation Concurrency Exception Projects Promoting Public Transportation. These tools have specific requirements which, if met, allow development to proceed where the road capacity may have been exceeded under the concurrency management ordinance. These tools all require strong emphasis on the provision of pedestrian, bicycle, and transit facilities along with relatively specific design requirements.

A major revision to land use designations is not part of this update of the comprehensive plan.

The Urban Services Line added to the Future Land Use Map series will limit new residential developments in the western portions of the urban cluster. (See the Future Land Use Element for more details on the Urban Services Line).

The Activity Center plans are to be updated to provide better community design including improved pedestrian and bicycle access. One possible result of this could be to increase the residential land use and density within the activity centers and to increase the residential density adjacent to the activity centers to help achieve densities that are more supportive of transit.

B. Expansions of Non-Automotive Transportation Modes and Integration Among Various Transportation Modes

The Alachua Countywide Bicycle Master Plan was recently completed using a Bicycle Level of Service Model, based upon a Latent Demand Method, providing a detailed analysis of bicycle facilities and future options for modifications. This document, which was adopted by the County, will be used to assist with the prioritization of future bicycle facilities.

Several of the concurrency management tools require expansions of the opportunities for non-automotive transportation as part of their requirements. Additionally, there are design requirements included in the Comprehensive Plan, in both the Future Land Use Element and in the Transportation Mobility Element (as requirements under the concurrency management tools) that provide for improved bicycle and pedestrian design and connectivity and for improved integration among the various modes of transportation.

The Regional Transit System is currently completing a Comprehensive Operational Plan. This plan will be used to help establish future transit routes and transit level of service in conjunction with the City of Gainesville.

C. Impact of Transportation Concurrency Management Areas and Transportation Concurrency Exceptions

There are not currently any Transportation Concurrency Management Areas (TCMA) or Transportation Concurrency Exceptions in unincorporated Alachua County. Policies support the creation of Transportation Concurrency Exception Areas (TCEA) and Transportation Exception for Projects that Promote Public Transit (PPPT). The Archer Road/Tower Road Activity Center and the Springhills Activity Center are specified as possible locations for a PPPT.

A comprehensive plan amendment is required for the designation of a TCEA and would need to include appropriate data and analysis to show that the area meets the statutory criteria.

VII. Analysis of the FDOT Adopted Work Program and the MTPO Long Range Transportation Plan and Transportation Improvement Program

Major construction projects in Unincorporated Alachua County include widening NW 39th Ave from 2 lanes to 4 lanes at the I-75/NW 39th Ave. interchange, widening SR 20 from 2 lanes to 4 lanes from CR 325 to US 301, widening SR 26 from SR 45 to CR 241 (South), and extending SW

62nd Blvd. from SW 20th Ave. to SW 34th St.

The LCRP Cost Feasible Plan, in the Appendix identifies the SW 20th Charette projects as the top priority, followed by an extension of SW 24th Ave. from SW 34th St. to Archer Rd. The tenth prioritized item is projects related to the Bicycle Master Plan.

VIII. Level of Service Standards

A. Modifications Needed to Maintain the Adopted Level of Service

The Adopted Year 2020 Liveable Communities Reinvestment Needs Plan (Needs Plan), (see Appendix), indicates the modifications that are needed to maintain the LOS standard. There are still several segments, as indicated in Table 3, that will exceed 100% capacity even with completion of all of the projects included in the Needs Plan.

The Year 2020 Liveable Community Reinvestment Cost Feasible Plan (Cost Feasible Plan) in the Appendix, indicates the projects from the Needs Plan that have top priority and are financially feasible. There are four segments that are still projected to exceed the LOS standard in 2020, including NW 83rd St., NW 43rd St., SR 26, and SR 20.

SW 20th Ave. is paralleled by SW 24th Ave., which is scheduled for construction from SW 43rd St. to SW 34th St. in FY 02/03. It will connect with SW 62nd Blvd. which will be constructed from SW 43rd St. to SW 20th Ave. in FY 03/04. These new 2-lane roads will improve the grid network in the SW 20th Ave. area, providing additional alternative routes for non-automotive and automotive travel. Additionally, the comprehensive plan accepts the map and guidelines for the SW 20th Ave. Charette, and the SW 20th Ave. area is recognized as an area that might be appropriate for a TCEA or a MMTD. The intent of these concurrency management tools would be to create a pedestrian, transit, and bicycle oriented area supporting non-automotive trips. The SW 20th Ave. Charette projects are the first priority of the Cost Feasible Plan.

In order to address the remainder of the roads currently exceeding 85% of capacity TCEAs and MMTDs may be considered in appropriate areas along with options such as additional improvements for transit, reducing the LOS standard in appropriate areas, and continued efforts to provide bike lanes and sidewalks for non-automotive transportation.

The Plan update designates SR26 from I-75 to NW 8th Ave as a constrained facility because is already six lanes. The Plan also designates NW 39th Ave. from NW 43rd St. to NW 51st Street, which is adjacent to the City of Gainesville's TCEA as a constrained facility.

B. Relationship between Level of Service and Goals, Objectives, and Policies of the Comprehensive Plan

The purpose of the transportation element, based on 9J-5.019, “shall be to plan for a multi-modal transportation system that places emphasis on public transportation systems.”

The comprehensive plan would allow a variety of concurrency management tools which permit alternatives to the LOS standards. The TCEA allows a development to be excepted from roadway concurrency requirements, although the development must mitigate its transportation impacts, if it promotes urban redevelopment, urban infill, or the use of alternatives to the single-occupancy vehicle. A development which qualifies as a PPPT may also be excepted from roadway concurrency requirements if it meets the development standards which include locating within 1/4 mile of a transit line with 15 minute peak hour headways and a number of design standards to improve pedestrian and bicycle access to the bus stops. A development which meets the requirements of an MMTD, if designed as a TND, may also be excepted from roadway concurrency requirement. Some of these concurrency management tools allow options for developments to be excepted from the concurrency requirements by providing a performance based standard as opposed to a capacity based standard in order to improve the opportunity for people to use mass transit or other forms of non-automotive travel. This supports the purpose of 9J-5 for multi-modal transportation systems and especially for an increase in use of mass transit. Many of the requirements of these concurrency management tools are also consistent with the policies in other parts of the plan for improved neighborhood design, improved pedestrian access, etc.

IX. Internal Consistency of the Comprehensive Plan Relative to Transportation, Land Use, and Availability of Facilities and Services

One of the major revisions to the Transportation Mobility Element involves the support for the concurrency management tools, TCEA, PPPT, and MMTD. Each of these require specific standards for pedestrian, bicycle, transit and automotive facility design, such as TME policies 1.2.4, 1.2.12, 1.3.3, 1.3.7, and 1.3.9. The FLUE also supports design standards for facilities with requirements addressing the needs of pedestrian, bicycle, transit, and automotive users with policies including FLU policies 1.4.2, 1.6.6, 1.6.9, 2.1.8, 2.1.11

A similarity between TME policies relating to concurrency management tools and revisions to the FLUE include the support for Traditional Neighborhood Developments, including similar, consistent design requirements. Additionally, in the case of the PPPTs, TNDs are specifically referred to as part of the design requirements.

Each of the concurrency management tools requires adoption of connectivity index standards to ensure appropriate levels of internal and external connections for bicycles, pedestrians, transit, and motorized vehicles. This is consistent with FLUE Policy 1.6.4 and Policy 1.6.9 regarding village center development.

The Intergovernmental Coordination Element (ICE) supports Alachua County and the municipalities engaging in joint planning. TME Policy 1.2.2 specifies that a joint Special Area

Study to identify a TCEA with the City of Gainesville will be conducted. TME Policy 1.2.7 includes both the FDOT and the City of Gainesville, and any other municipalities as organizations to coordinate for a TCEA. This is consistent with policies in the ICE.

TME Policy 1.1.8 specifies that developments which qualify under one of the concurrency management tools (TCEA, PPPT, MMTD) do not have to meet the concurrency requirements except as indicated in the appropriate policies. This is consistent with CIE Policy 1.3.2-C which allows the exceptions to the basic road concurrency requirements specified in TME Policy 1.1.8.

X. Land Use and Transportation Management Programs Needed to Promote and Support Public Transportation Systems in Designated Public Transportation Corridors

One of the concurrency management tools included in the Plan is the Transportation concurrency Exception for Projects that Promote Public Transportation (PPPT). The policies allow the use of a PPPT in the Archer Rd./Tower Rd. Activity Center and the Springhills Activity Center. The LCRP discussed Archer Rd. as a radial transit-oriented corridor and the CFN includes a bus service enhancement along Archer Rd.

XI. Analysis of Community Design Elements for Specified Multimodal Transportation Districts and Impact on Vehicle Miles Traveled and Multimodal Transportation System

Alachua County proposes to include policies that would support the creation of Multi-Modal Transportation Districts (MMTD), as allowed by Ch. 163.3180 F.S.. The MMTD allows “primary priority to assuring a safe, comfortable, and attractive pedestrian environment, with convenient interconnection to transit” with “secondary priority to vehicle mobility”. An analysis based on multimodal level of service methodologies is required by state law that demonstrates that there will be an adequate level of mobility within the district. A comprehensive plan amendment would be required to designate an overlay zone delineating the MMTD. A MMTD is required to include a mix of land uses with a density and intensity to support transit, which must be located within walking distance. Basic design elements in the policies include connectivity standards, bicycle, pedestrian, and roadway connections within the district to the maximum extent possible, developments orienting pedestrian access to transit centers, pedestrian accessibility to building entrances from the street (not requiring the pedestrian to cross the parking area to get to an entrance), and required sidewalk connections.

The policies in the comprehensive plan provide specific design elements for a Traditional Neighborhood Development (TND) in a MMTD. The TND design standards include mixed uses, a walking distance of approximately 1/4 mile, streets, alleys, sidewalks, street furniture, public greens, a neighborhood center as a focal point, a bicycle and pedestrian circulation system, traffic calming, direct pedestrian access to buildings from the street, etc. A development that meets all of the TND requirements that is located within a MMTD is excepted from roadway concurrency requirements.

The guidelines and map for the SW 20th Avenue Charrette and the standards and recommendations for the Tower Rd. Charrette were both accepted by the County in the Transportation Mobility Element. One intent of both of these charrettes is to provide bicycle, pedestrian, and transit friendly design to increase the use of non-automotive transportation.

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