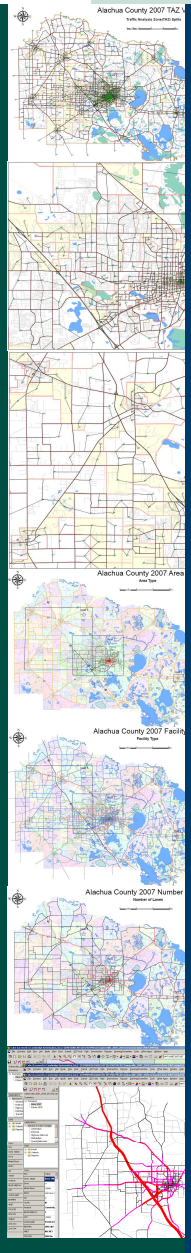
CAMBRIDGE SYSTEMATICS

Gainesville Urbanized Area Year 2035 Long Range Transportation Plan Update

Technical Report No. 3



final data development and review

prepared for

Metropolitan Transportation Planning Organization for the Gainesville Urbanized Area

prepared by

Cambridge Systematics, Inc.

under subcontract to

Renaissance Planning Group

January 2011

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final report

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1.0 Introduction

Technical Report No. 3 (TR 3) documents the data development and review process for updating the Alachua County base year 2007 model. This was done as part of the 2035 Long-Range Transportation Plan (LRTP) Update for the Metropolitan Transportation Planning Organization (MTPO) for the Gainesville Urbanized Area. The 2007 model is an update of the previously validated 2000 Alachua County model for the Metropolitan Transportation Planning Organization for the Gainesville Urbanized Area completed in 2005.[1] Like the Alachua County 2000 model, the 2007 model study area covers the entirety of Alachua County, including all nine municipalities within the county. Figure 1.1 shows the Alachua County model study area.

The 2035 LRTP Update was initiated in early 2009, with the selection of a consultant team led by Renaissance Planning Group with Cambridge Systematics, Inc. (CS) as subconsultants responsible for conducting the model validation and developing the 2035 existing-plus-committed (E+C) model. The primary objectives of the Alachua County 2007 model update were to evaluate the previous Alachua County 2000 model structure, compile base year 2007 data, review and update data and parameter assumptions, validate a new base year 2007 model, and implement the latest Florida Standard Urban Transportation Model (FSUTMS) standards and file formats using Cube-Voyager software.

Technical Report No. 3 describes the process of collecting data and updating the socioeconomic data, traffic analysis zones (TAZ), the highway and transit networks, traffic count data, and screenlines. Section 2.0 describes preparation of the base year 2007 TAZ and socioeconomic data, while Section 3.0 describes the development of the highway and transit network data. The primary sources of data were the Florida Department of Transportation (FDOT) District 2, Metropolitan Transportation Planning Organization for the Gainesville Urbanized Area staff, the Gainesville Regional Transit System (RTS), and University of Florida (UF) staff. Data were gathered for both the Gainesville 2007 base year model and the future horizon year 2035 E+C model.

[1] Corradino Group, Gainesville Urbanized Area Year 2025 Long-Range Transportation Plan Update Technical Report 4: Gainesville Urbanized Area Model Update. Prepared for Metropolitan Transportation Planning Organization for the Gainesville Urbanized Area, December 2005.

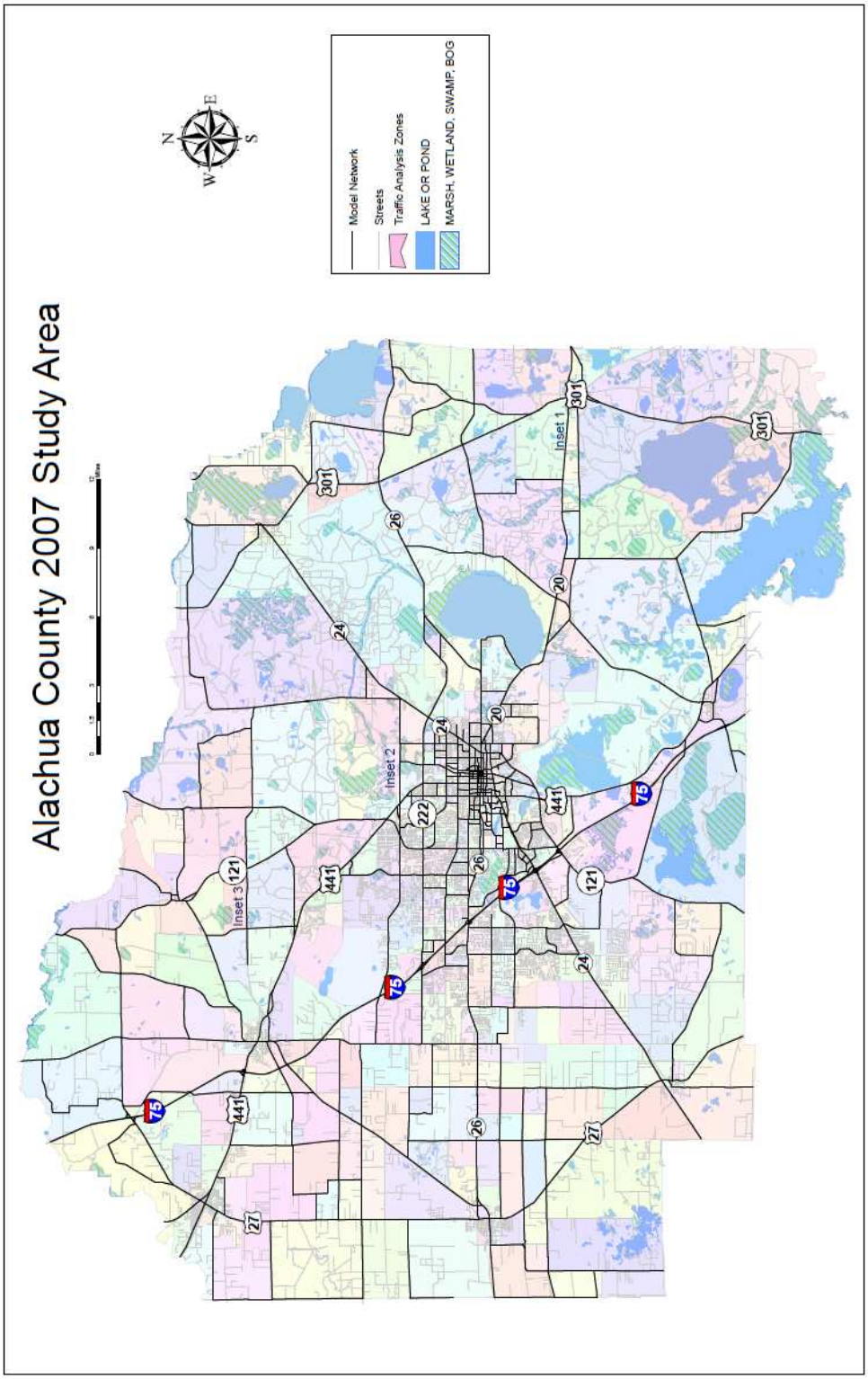

Figure 1.1 Alachua County-Gainesville 2007 Study Area

2.0 Socioeconomic Data and TAZs

The 2000 Alachua County model was a newly developed model that used a new set of zonal data files created by the Metropolitan Transportation Planning Organization (MTPO) for the Gainesville Urbanized Area staff to support the Northeast Florida Regional Planning Model (NERPM) trip generation program developed by FDOT District 2.[2] As part of the Alachua County 2007 model validation effort, the MTPO provided updated socioeconomic data files for the new base year, which were reviewed and modified by the consultant team. Special generator and external trip files were updated by the consultant team. A review of the Traffic Analysis Zone (TAZ) shape file also led to zonal modifications described in this section.

2.1 Traffic Analysis Zones

TAZ shape files from the Alachua County 2000 model were reviewed for consistency with recent recommendations on TAZ delineation for the State of Florida[3] and recommendations for zone splits were made by the Consultant team. Consultant staff reviewed the Alachua County-Gainesville MTPO 2000 (2025 LRTP) TAZ map for the following considerations:

TAZ splits to reflect existing roadways and physical features;

TAZ splits to reflect proposed developments of regional impact (DRI);

TAZ splits to eliminate elongated zone shapes;

TAZ splits to reflect proposed future roadway corridors;

TAZ boundary shifts to reflect major corridors; and

Locations where TAZs could be combined.

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[2] Cambridge Systematics, Inc., in Association with The Corradino Group and Advanced Planning, Inc., *Northeast Florida Regional Planning Model Technical Report No. 2, 2000 Model Validation*. Prepared for Florida Department of Transportation, December 2003.

[3] Cambridge Systematics, Inc. in Association with AECOM. *A Recommended Approach to Delineating Traffic Analysis Zones in Florida.* Prepared for Florida Department of Transportation September 2007.

A paper copy of the TAZ map was marked up with potential zone boundary changes and provided to MTPO and UF staff for review and concurrence. Of the zone splits recommended by the Consultant team, most of these were approved for implementation. The TAZ file modifications are described below.

Early during the 2007 model update, a decision was made to combine zones 148 and 191 into a single zone designated as 148. Prior to the Alachua County 2000 model, zones 148 and 191 were separate zones. Zone 148 runs along the north border of Payne's Prairie Preserve State Park, just south of Williston Rd; and zone 191 is just south of 148, running along the west border of Payne's Prairie and east of U.S. 441. The consultant determined that the zones should have remained split as the resulting combined zone resulted in a "figure 8"shape and thus the zones were again separated in the 2007 model.

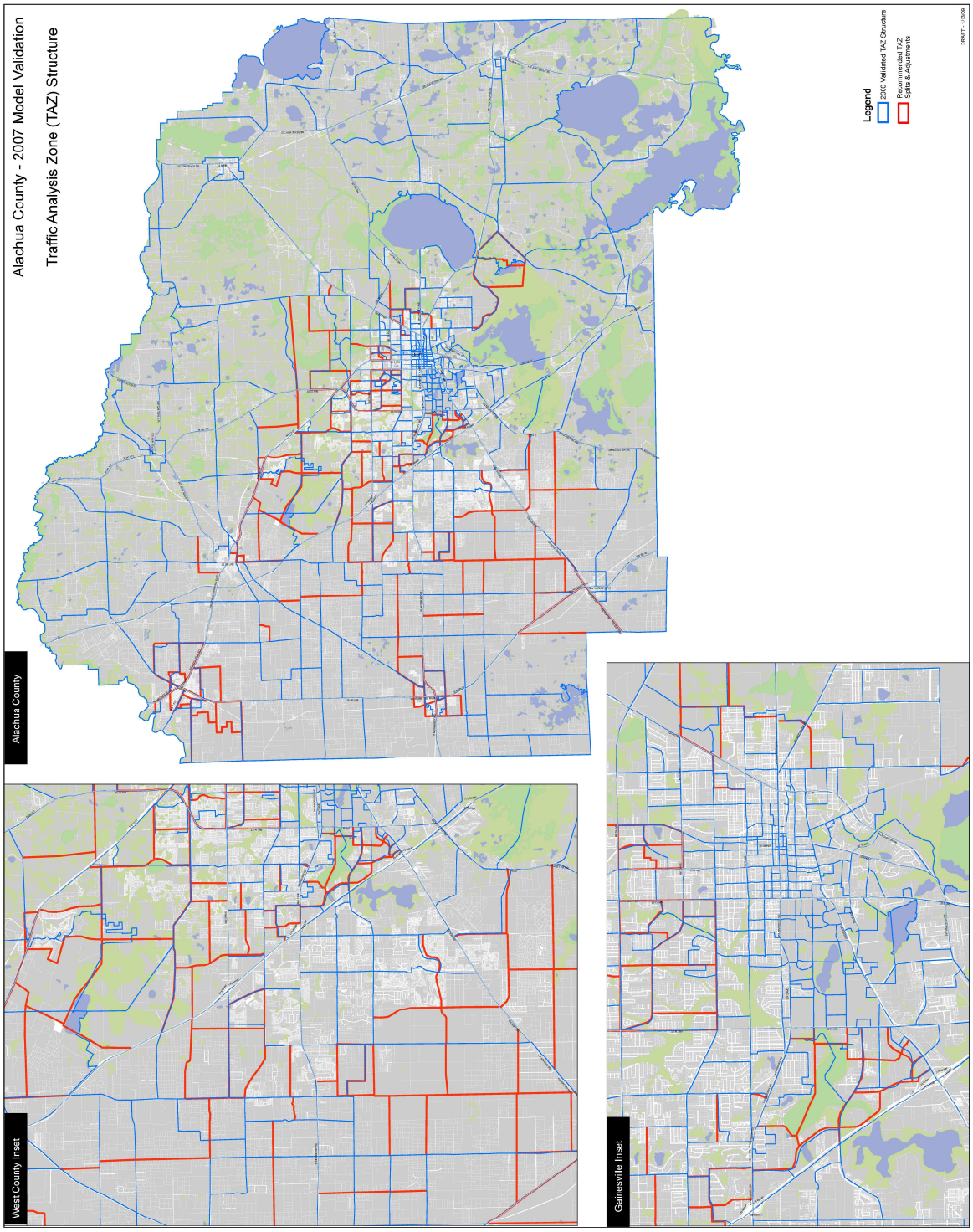
Located east of I-75 in the City of Alachua, zone 311 was adjacent to zone 337 in the 2000 network. In early phases of the 2007 model update, zone 337 was split into two zones. The west portion became zone 515 and the east portion was merged into zone 311, completely removing zone 337. The Consultant decided that the eastern portion of 337 should be separated from zone 311 and returned to zone 337, again due to a resulting "figure 8" shaped zone. For the zone splits listed above, socioeconomic data were divided up proportionately to accommodate the zone splits, consistent with previously split data from base year 2000.

Additionally, socioeconomic data for zones 232 and 237 were modified to account for the existing land use of each zone. This area likewise had been combined into a single elongated zone. Zone 237 includes The Oaks Mall and zone 232 contains only apartment complexes. The socioeconomic data was subsequently modified, placing all the employment in zone 237 and all the residential in zone 232. Figure 2.1 highlights the zone splits made at the beginning of the 2007 validation effort.

2.2 Base Year Socioeconomic Data

One key difference between the 2000 and 2007 Alachua County models was implementation of Cube-Voyager scripting and new FSUTMS file formats and naming conventions. The previous base year Alachua County 2000 model used the NERGEN FORTRAN program for trip generation and relied on a number of ASCII text file formats for input data. Conversely, the base year 2007 model uses Cube-Voyager scripting in place of NERGEN FORTRAN routines and uses input files in a database, rather than text, format. New FSUTMS file naming standards have eliminated the old file naming conventions of ZDATA1-4 in favor of file names that better relate to the use and function of the files.

Figure 2.1 Alachua County-Alachua County 2007 model Zone Splits



2.2.1 ZONEDATA File – Production, Attraction, and UF Zonal Data

Base year trip production and attraction data were created by MTPO staff to reflect the 2007 base year and the 2035 E+C future horizon year scenario. Also, school enrollment data were updated by MTPO staff using information provided by the Alachua County School Board. Data previously included in a separate UFZDATA file in the Alachua County 2000 model are now included in the single ZONEDATA file that also combines what was previously known as ZDATA1 and ZDATA2. Santa Fe College enrollment is included but also as a special generator in the SPECGEN file.

In addition to merging ZDATA1, ZDATA2, and UFZDATA into a single file, industrial employment was disaggregated into two separate components for better consistency with the NERGEN process for truck trip generation using trip rates from the Quick Response Freight Manual.[4] Therefore, industrial employment was disaggregated into manufacturing and other industrial, similar to categories used in the original NERGEN.

GIS mapping was used as part of the data review process. Regular meetings were held with the Metropolitan Transportation Planning Organization for the Gainesville Urbanized Area Long Range Transportation Plan Technical Advisory Committee Subcommittee in order to facilitate additional feedback on data inputs. In particular, UF staff played a significant role in providing input and refining the UF-related socioeconomic variables. Figures 2.2 and 2.3 show the Alachua County single- and multifamily population densities by TAZ. Appendix A is a listing of ZONEDATA attributes along with notations for the UF data that are unique to this model.

2.2.2 SPECGEN File – Special Generators by Zone

It is best practice in travel demand forecasting to minimize the use of special generators. Special generators should only be used where validation discrepancies exist that cannot be corrected with edits to other model files and parameters. Consistent with this philosophy, validation of the 2007 Alachua County model began without special generators. Once model validation was complete, the only record added to the SPECGEN file was for Santa Fe College, added in order to correct for trip assignments in the vicinity of its campus. While the treatment of UF in the model bears some resemblance to special generators, these data are instead contained in the UFDATA section of the ZONEDATA file.

Administrative staff at Santa Fe College were contacted for future year growth forecasts. In response, the Consultant was provided with Florida Department of Education (FDOE) future enrollment projections for 2015, and an annual longer-term growth rate between 1 and 2 percent. Additional enrollment figures were also gathered from the Santa Fe

[4] Cambridge Systematics, Inc., COMSIS Corporation, and University of Wisconsin, Milwaukee. *Quick Response Freight Manual*. Prepared for Federal Highway Administration, 1996.

College web site. To extrapolate the future enrollment, the Consultant decided that a 1.5 percent growth rate would be used, as this best represented the 1 to 2 percent provided by the Santa Fe administrative staff. The Consultant extrapolated a 2035 enrollment projection using the enrollment figures from each source. The number extrapolated from the Santa Fe College web site was determined to best represent the expected 2035 enrollment, consistent with the 1.5 percent growth rate, and was used to determine the 2035 special generator trips for Santa Fe College in the SPECGEN file.

2.2.3 INTEXT File – External Trip Data

There are 26 external zones in the Alachua County 2007 model, depicted in Figure 2.4 and numbered as zones 600 to 625. Due to the number of zone splits in the 2007 model, external zones were renumbered from the 2000 sequence of 500 to 525 by simply adding 100 to the former external zone/station number. The 2007 base year external trip files were updated using data from the *2007 Florida Traffic Data* CD, provided by FDOT. External trip adjustments and corrections made to the previous model as part of the I-75 Master Plan project[5] also were used as a starting point for the 2007 model update.

No recent external origin-destination intercept survey data were collected at Alachua County external stations so the existing splits between internal-external (IE) and external-external (EE) trips were generally assumed to be valid for the 2007 base year model. Some adjustments to the previous external splits, made during the I-75 Master Plan based on a combination of logic and local knowledge, were maintained for the 2007 model.

Future year external trips were generated by extrapolating figures from three sources: the I-75 2035 Master Plan; the 2025 Alachua County model; and count trend extrapolations generated using the *2007 Florida Traffic Data* CD. The 2035 values were generated from each source and the best fit numbers for each of the external count stations were used. External forecasts for the I-75 corridor were based on projections from the Florida Statewide Model[6], consistent with the I-75 Master Plan. Table 2.1 depicts the resulting 2007 and 2035 external trips. Appendix B includes tables depicting alternate external forecasting methodologies considered and the resulting trip numbers from each alternative forecasting approach.

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[5] Cambridge Systematics, Inc., in Association with RS&H. *I-75 Master Plan Alachua County to State Line No Build Traffic Technical Memorandum*. Prepared for Florida Department of Transportation. December 2007.

[6] Cambridge Systematics, Inc. *Florida Statewide Model 2000 Validation Report*. Prepared for Florida Department of Transportation. June 2007.

Table 2.1 Resulting 2007 and 2035 External Trips

Total 2007 External Trips		2007 EE and IE Number of Trips		EE and IE Percent of Trips		2035 Model Input Targets		
Ext Zone	Two-Way Vols	EE	IE	EE	IE	2035 EE Total	2035 IE	2035 Target
600	50,534	38,464	12,070	76%	24%	50,833	15,908	66,741
601	1,219	388	831	32%	68%	887	1,882	2,769
602	4,747	1472	3,275	31%	69%	2,864	6,311	9,175
603	187	26	161	14%	86%	101	621	722
604	3,618	344	3,274	10%	90%	451	4,291	4,742
605	481	142	339	30%	70%	245	580	825
606	24,658	14,964	9,694	61%	39%	21,164	13,732	34,896
607	1,124	350	774	31%	69%	691	1,512	2,203
608	8,562	4,302	4,260	50%	50%	5,495	5,433	10,928
609	388	138	250	36%	64%	251	452	703
610	9,625	4,860	4,765	50%	50%	8,546	8,288	16,834
611	11,982	10,640	1,342	89%	11%	15,354	1,938	17,292
612	346	56	290	16%	84%	107	548	655
613	7,733	826	6,907	11%	89%	918	7,682	8,600
614	65,271	42,456	22,815	65%	35%	63,129	33,967	97,096
615	3,657	1266	2,391	35%	65%	2,451	4,585	7,036
616	7,785	1890	5,895	24%	76%	2,598	8,102	10,700
617	4,332	1262	3,070	29%	71%	2,208	5,318	7,526
618	1,383	320	1,063	23%	77%	1,051	3,460	4,511
619	8,043	2,298	5,745	29%	71%	3,975	9,839	13,814
620	1,323	370	953	28%	72%	714	1,818	2,532
621	9,598	2,266	7,332	24%	76%	4,381	14,176	18,557
622	2,194	610	1,584	28%	72%	1,469	3,775	5,244
623	4,293	1216	3,077	28%	72%	1,899	4,756	6,655
624	9,896	2,800	7,096	28%	72%	4,316	10,942	15,258
625	6,802	2,000	4,802	29%	71%	2,868	6,822	9,691
Totals	**249,781**	**135,726**	**114,055**			**198,966**	**176,737**	**375,704**
			249,781					

Figure 2.2 Alachua County 2007 Single-Family Population Density by TAZ

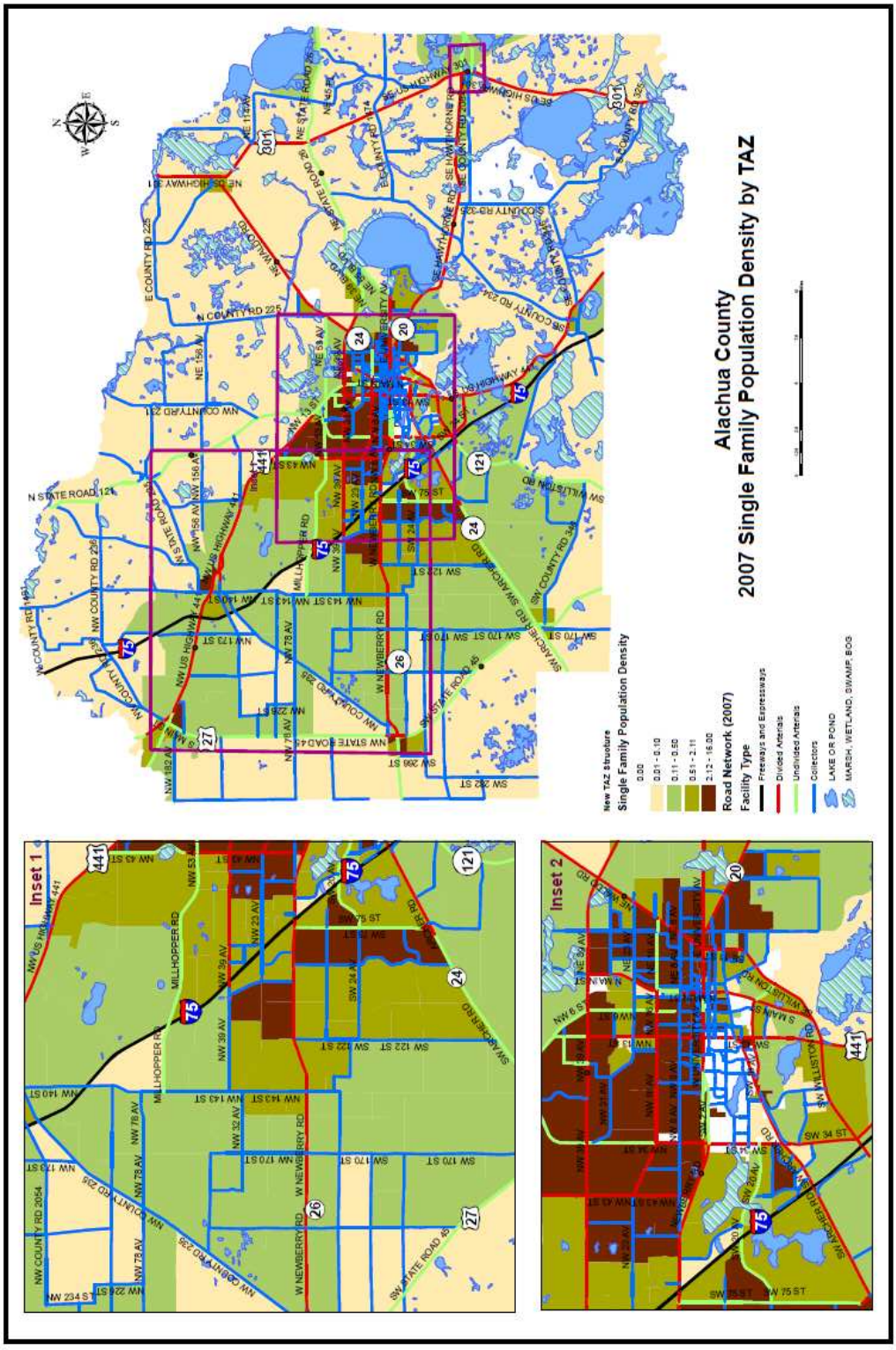


Figure 2.3 Alachua County 2007 Multifamily Population Density by TAZ

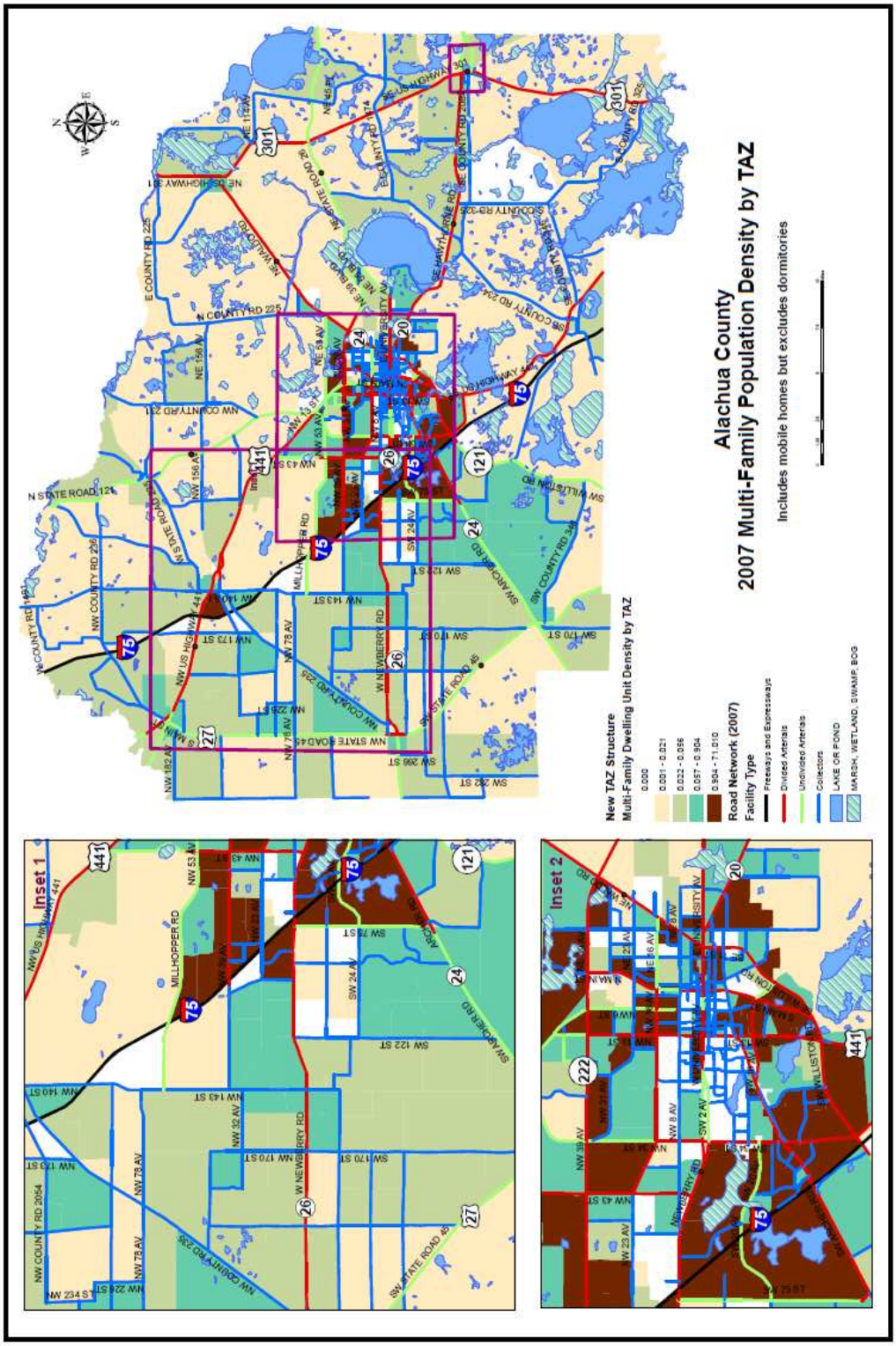
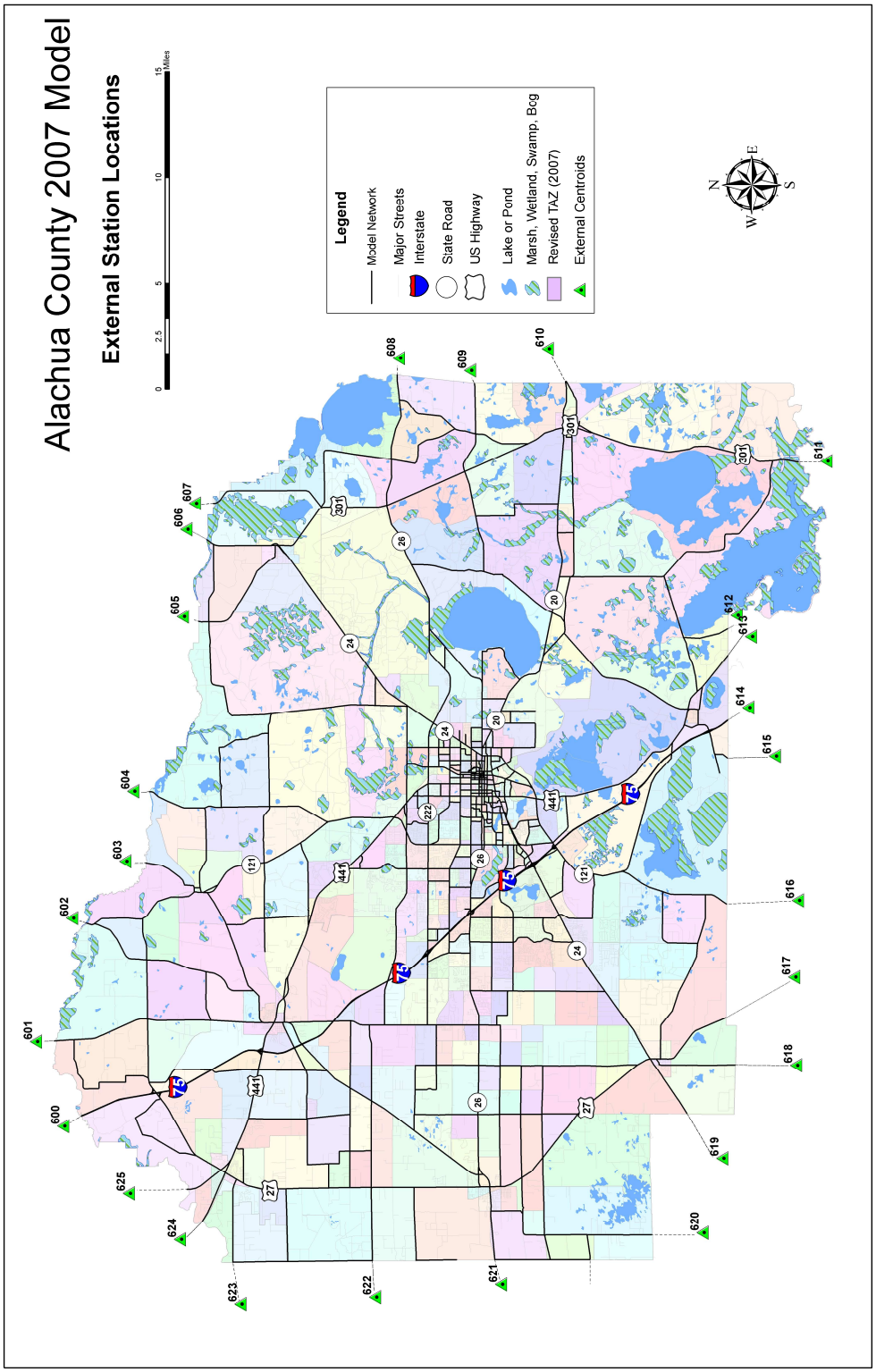


Figure 2.4 Alachua County 2007 Model – External Station Locations



3.0 Highway and Transit Networks

As part of the Alachua County 2007 model validation effort, the base year highway and transit networks were updated starting with the Alachua County 2000 base year networks. Data needed for the validation process were gathered from FDOT, the MTPO, the RTS, and UF staff. The data were used to make roadway edits, including centroid connectors, facility types, area types, number of lanes, and traffic counts throughout Alachua County as well as route edits to fares, headways, and stop locations in Gainesville. The following section provides details on data collection and modifications made to the highway and transit networks.

3.1 Updating Highway Network Data

The highway network was reviewed for accuracy and reasonableness through use of field visits, maps, aerial photographs, standard coding practices, network-zone compatibility considerations, local knowledge, and staff recommendations to the consultant from the MTPO, FDOT, RTS, and UF. This combination of resources resulted in extensive edits to the highway network. Updates to the Alachua County 2007 highway network were made primarily by editing the 2000 base year network to represent 2007 network conditions. Many of the modifications made to the highway network included updating the area types, facility types, and number of lanes to represent 2007 conditions.

The 2000 base year model only included the following area types: central business district (CBD), CBD fringe, residential, and rural area types. This means that in the 2000 network all outlying business district (OBD) area types were left out of the model. OBD includes all retail and commercial development located outside the CBD and CBD fringe areas. A major effort was made to locate all OBD development and appropriately code these areas into the network. This included coding most of UF as high-density OBD, typified by development with multistory buildings and a greater focus on pedestrian travel. An additional area type was included for undeveloped portions of the urbanized area to account for undevelopable areas within and around Gainesville such as parks, preserves, and wetlands. Also, all existing area types were checked and updated where needed to represent expanding residential areas within Alachua County.

Facility types and number of lanes were adjusted to reflect any construction that occurred between the 2000 and 2007 base years. Network editing also included adjusting the location of numerous centroids and centroid connectors to provide for proper access to each TAZ. In addition, several intersections were recoded to reflect current access. Examples included the NW 13th Street (U.S. 441) flyover at NW 8th Avenue, the

intersection of NW 8th Avenue with Newberry Road (SR 26), the grade separation at SR 20 and U.S. 301, and the loop ramp from westbound SR 222 to southbound I-75 (the latter corrected previously during the I-75 Master Plan). Also, directionality of one-way streets in and around the Gainesville CBD were corrected based on driving each corridor in the field and taking notes on findings as aerials failed to provide enough confirmation.

Additional changes and corrections were requested by UF staff and other members of the LRTP Steering Committee by way of marked up maps identifying the changes to be made by the Consultant. These changes included updating campus network coding, adding and removing campus streets, and relocating centroid connectors. Recent developments such as the Wal-Mart shopping center near Waldo Road (SR 24) in east Gainesville also were noted such that internal circulator streets could be included in the highway network. Tables 3.1 and 3.2 below illustrate the adopted area type and facility type designations. Figure 3.1 shows the highway network by area type, Figure 3.2 shows the highway network by facility type, and Figure 3.3 shows the highway network by number of lanes.

The 2035 E+C future year highway network edits were made using a project list provided by the MTPO identifying recently completed projects. Many of the projects were minor changes to the network, only requiring changes to the number of lanes and facility types of existing roadways. There were two new roadways that were added, each were expansions of existing roads, connecting two or more roadways. The first network modification extended SW 8th Avenue to SW 61st Street, ultimately connecting SW 8th Avenue with SW 20th Avenue. Then NE 19th Street/NE 19th Terrace was extended from E University Avenue to NE 8th Avenue and NE 8th Avenue to NE 12th Avenue, creating a single north-south corridor between NE 12th Avenue and E University Avenue. Appendix C includes a set of screen shots depicting these edits. Other modifications included reducing Main Street from four to two lanes with turn bays through downtown, and coding bicycle lanes into the network.

Table 3.1 Adopted 2-Digit Area Type Codes for Gainesville/ Alachua County

AT 1	CBD Areas
AT 11	Urbanized Area (over 500,000) Primary City Central Business District
AT 12	Urbanized Area (under 500,000) Primary City Central Business District
AT 13	Other Urbanized Area Central Business District & Small City Downtown
AT 14	Non-Urbanized Area Small City Downtown
AT 2	CBD Fringe Areas
AT 21	All Central Business District (CBD) Fringe Areas
AT 3	Residential Area
AT 31	Residential Area of Urbanized Areas
AT 32	Undeveloped Portions of Urbanized Areas
AT 33	Transitioning Areas/Urban Areas over 5,000 Population
AT 34	Beach Residential (not used)
AT 35	Residential Divided Arterial with a speed limit of 35 mph (BROWARD only case)
AT 4	OBD Areas
AT 41	High Density Outlying Business District
AT 42	Other Outlying Business District
AT 43	Beach OBD (not used)
AT 44	Low Density Industrial Area
AT 45	OBD Divided Arterial with a speed limit of 35 mph
AT 5	Rural Areas
AT 51	Developed Rural Areas/Small Cities under 5,000 Population
AT 52	Undeveloped Rural Areas

Table 3.2 Adopted 2-Digit Area Type Codes for Gainesville/ Alachua County

FT 1	Freeways and Expressways
FT 11	Freeway Group 1 (City of 500,000+)
FT 12	Other Freeway (Group 2)
FT 15	Collector/Distributor Lanes
FT 16	Controlled-Access Expressway
FT 17	Controlled-Access Parkway
FT 2	Divided
FT 21	Divided Arterial 55 mph
FT 22	Divided Arterial 45 mph
FT 23	Divided Arterial Class Ia
FT 24	Divided Arterial Class Ib
FT 25	Divided Arterial Class II/III
FT 26	Low Speed Divided Arterial
FT 3	Undivided
FT 31	Undivided Arterial 45 mph (TB)
FT 32	Undivided Arterial Class Ia (TB)
FT 33	Undivided Arterial Class Ib (TB)
FT 34	Undivided Arterial Class II/III (TB)
FT 35	Undivided Arterial 45 mph (NTB)
FT 36	Undivided Arterial Class Ia (NTB)
FT 37	Undivided Arterial Class Ib (NTB)
FT 38	Undivided Arterial Class II/III (NTB)
FT 4	Collector
FT 41	Major Divided Collector
FT 42	Major Undivided Collector (TB)
FT 43	Major Undivided Collector (NTB)
FT 44	Other Divided Collector
FT 45	Other Undivided Collector (TB)
FT 46	Other Undivided Collector (NTB)
FT 47	Low Speed Collector
FT 48	Very Low Speed Collector
FT 5	Centroid
FT 51	Centroid Connector
FT 52	External Centroid Connector
FT 53	Used as DUMMIES
FT 6	One Way
FT 61	One-Way Street 45 mph
FT 62	One-Way Street Class Ia

FT6	One Way
FT 63	One-Way Street Class Ib
FT 64	One-Way Street Class II/III
FT 65	Frontage Roads 45 mph
FT 66	Frontage Roads Class Ia
FT 67	Frontage Roads Class Ib
FT 68	Frontage Roads Class II/III
FT 7	Ramps
FT 71	Freeway On-Ramp
FT 72	Freeway Loop On-Ramp
FT 73	Other On-Ramp
FT 74	Other Loop On-Ramp
FT 75	Freeway Off-Ramp
FT 76	Freeway Loop Off-Ramp
FT 77	Other Off-Ramp
FT 78	Other Loop Off-Ramp
FT 79	Freeway – Freeway Ramp
FT 8	Exclusive HOV
FT 81	HOV Lane Grp. 1 (Separated)
FT 82	HOV Lane Grp. 2 (Separated)
FT 83	HOV Lane Grp. 1 (Non-Separated)
FT 84	HOV Lane Grp. 2 (Non-Separated)
FT 85	Non-Freeway HOV Lane
FT 86	AM & PM Peak HOV Ramp
FT 87	AM Peak Only HOV Ramp
FT 88	PM Peak Only HOV Ramp
FT 89	All Day HOV Ramp
FT 9	Toll
FT 91	Toll Freeway Group 1
FT 92	Other Toll Freeway
FT 93	Toll Expressway/Parkway
FT 94	Toll Divided Arterial
FT 95	Toll Undivided Arterial
FT 97	Toll On-Ramp
FT 98	Toll Off-Ramp
FT 99	Toll Plaza

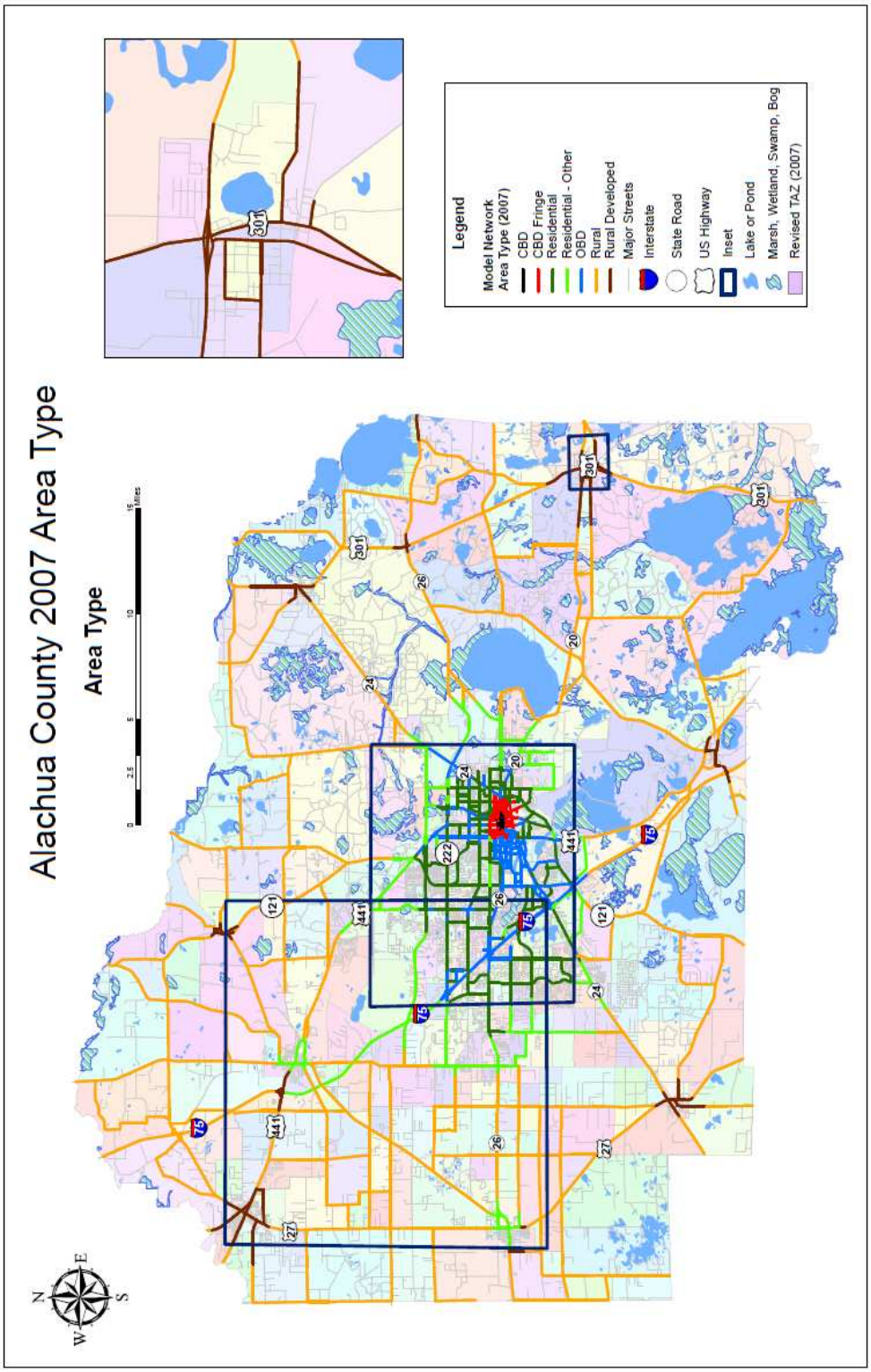
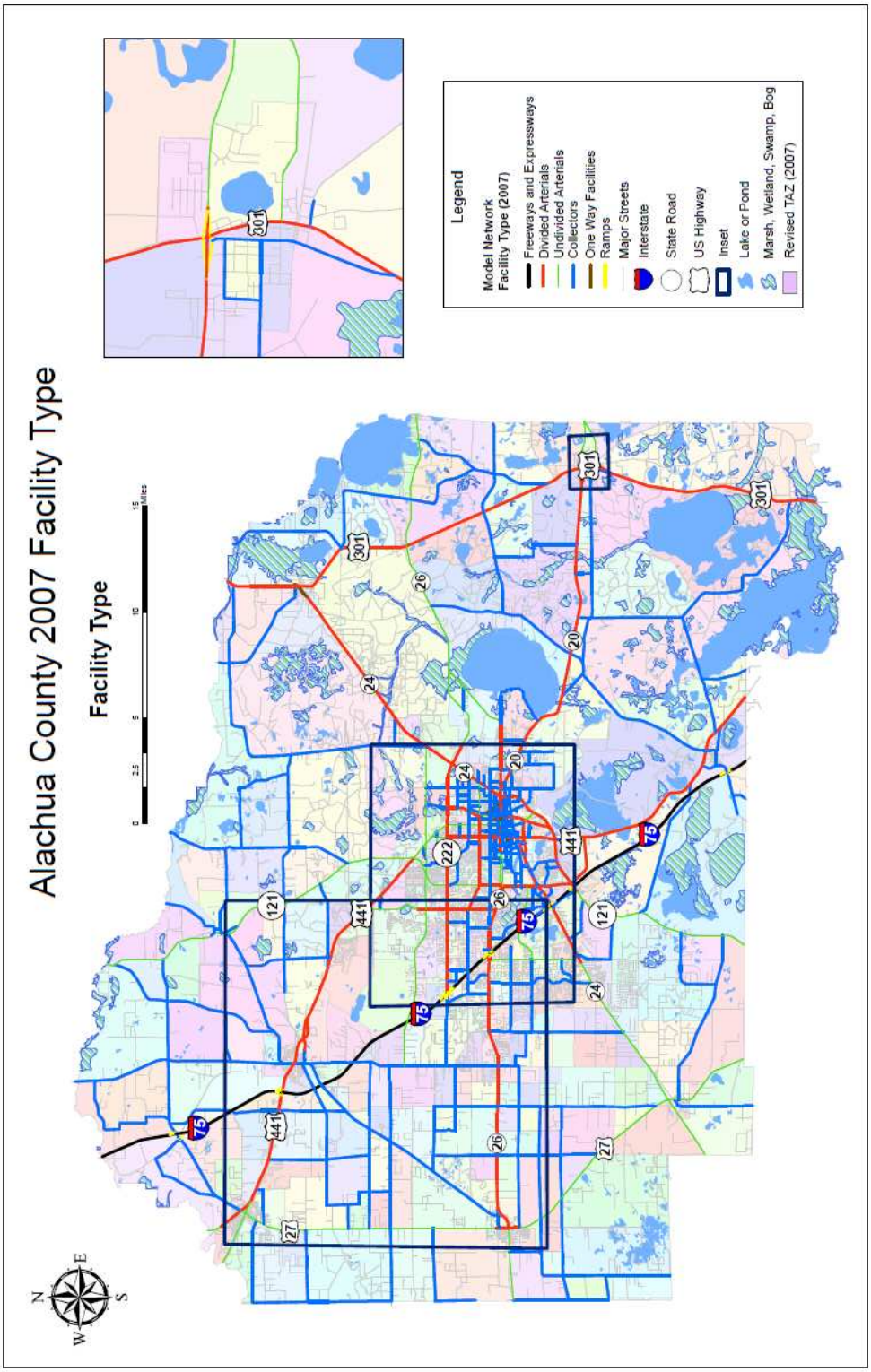


Figure 3.1 Alachua County 2007 Highway Network by Area Type

Figure 3.2 Alachua County 2007 Highway Network by Facility Type



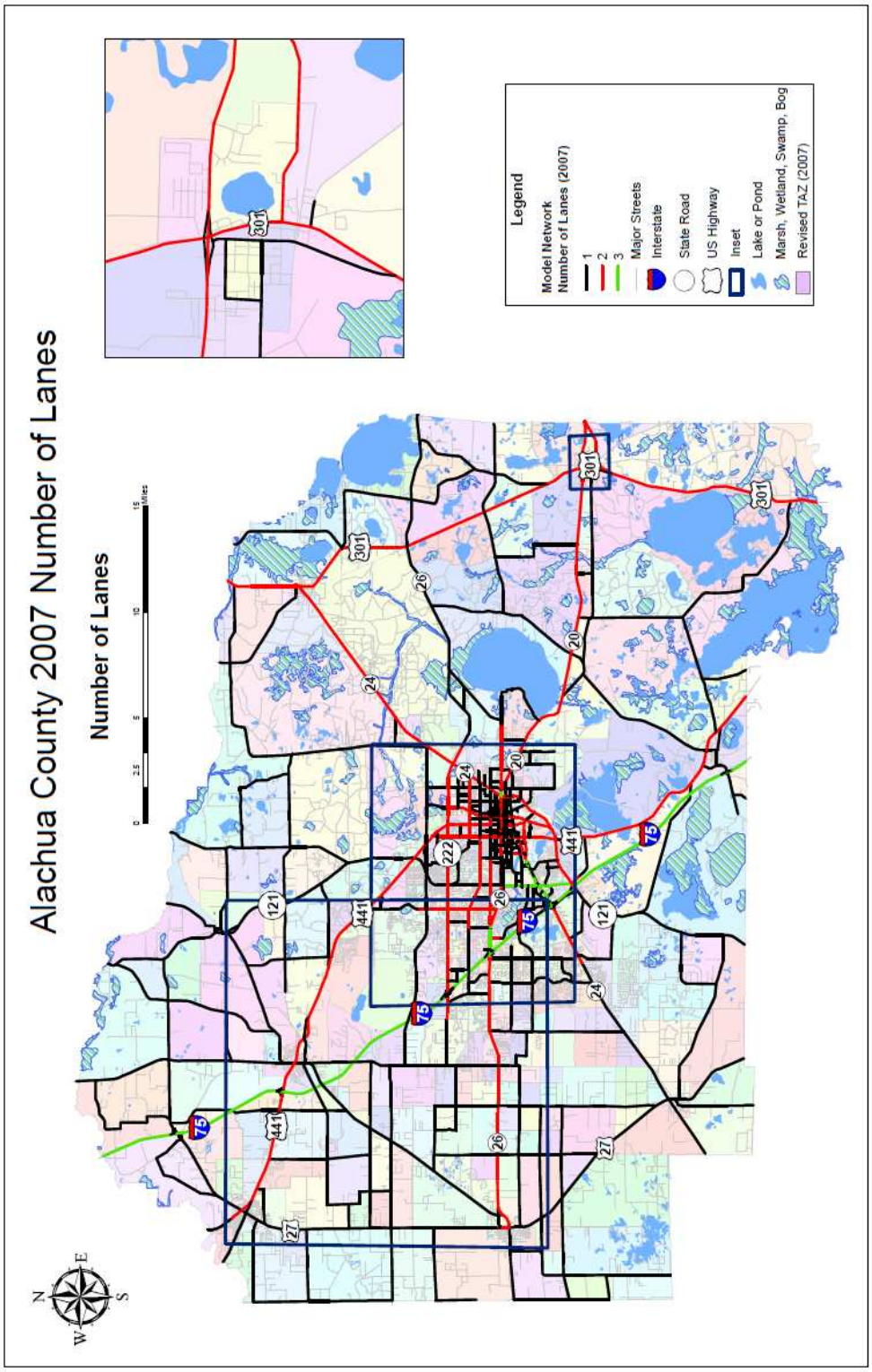


Figure 3.3 Alachua County 2007 Highway Network by Number of Lanes

3.2 Updating Transit Network Data

Data for each transit route in the Alachua County 2007 model are stored in transit line files. Each route was coded into the previous 2000 transit line file, including mode, operator, and peak and off-peak headway attributes. To ensure that each of the routes was updated properly to 2007 conditions, transit line data were requested from RTS staff. The data provided by RTS staff included 2007 ridership estimates, an on-board survey, park-and-ride and transfer locations, route and stop location shape files, fare data, and headway data. Data for future year E+C conditions also were provided by the RTS. These data included updates to existing routes, new headways, and the addition of four new routes (17, 22, 29, and 38) that did not exist in the base year.

Park-and-ride lot and transfer station data were added to the STATDAT.txt file. In the Alachua County 2000 model there were only two stations coded, both were park-and-ride lots located on the UF campus. The Rosa Parks Downtown Transfer Station was added to the 2007 transit network, bringing the total number of "stations" to three. Based on data provided for the UF park-and-ride locations, 300 parking spaces were assigned to the UF Hilton Convention Center parking area and 500 were assigned to the UF park-and-ride located in the UF Museum District. The Rosa Parks Downtown Station is not a park-and-ride facility; therefore, only 10 parking spaces were assigned to account for some limited on-street parking available downtown.

Transit fare data can be found within the Cube/Voyager script file. According to the bus fare data provided by RTS, the year 2007 bus fare was $1.00, while the 2009 bus fare was $1.50. While the full 2007 bus fare amount was applied to transit trips for the home-based other (HBO) trip purposes, discounted bus fare amounts were assumed for the home-based work (HBW) and home-based university/dormitory (HBU/HBDORM) trip purposes. Based on employee pass program information provided by the RTS, 25 percent of the full fare was assumed for the HBW trip purpose. University students are charged with bus fare as part of class registration fees which generally help increase bus ridership for students (i.e., it is prepaid whether used or not and does not require students to pay upon boarding the bus). Therefore, 10 percent of full fare was assumed for HBU/HBDORM trip purposes, based on discussions with RTS staff. During preparation of the 2035 future year E+C scenario, the 2009 bus fare of $1.50 was used and the same discounts were applied.

3.3 Traffic Count Data

Validation of any travel demand model relies on the existence of a comprehensive set of base year traffic count data. Volume-over-count ratios generated by the model are used to measure the ability of a travel demand highway assignment model to simulate observed

traffic conditions. Traffic counts are needed for a variety of different roadway categories distributed throughout the study area in order to validate highway assignment performance among screenlines, and by each facility type, area type, and lane category.

Like most FSUTMS models, the Alachua County 2007 model assigns trips to the highway network in terms of peak-season weekday average daily traffic (PSWADT). Traffic count data from most reliable sources are reported in average annual daily traffic (AADT). Where PSWADT values already were not provided, AADT figures were then converted to PSWADT using the inverse of the model output conversion factor (MOCF), as provided by FDOT on the CD entitled *2007 Florida Traffic Information*. Along with MOCFs, this CD contains geographically related data on traffic count location and AADTs.

Traffic count data for the study area came from three primary sources. First, the *2007 Florida Traffic Information* CD from FDOT presents traffic count data mostly along state highways. The FDOT count database is far more robust than any other in Florida, enabling the highest level of confidence such that whenever possible, traffic count data from FDOT were the preferred source. When data were not available from FDOT, count data from the Metropolitan Transportation Planning Organization for the Gainesville Urbanized Area Multimodal Level of Service Report were used. Finally, for roads located on UF's campus, supplemental traffic counts were supplied by UF staff.

If particular locations existed without counts for the year 2007 but were necessary in order to preserve screenlines and external stations, count volumes were estimated by using past count data at the location or other locations nearby to establish a rate of growth. If no count data existed for a given location for either the base year or any other given year, then no count were entered for that location. The 2035 LRTP Update did not include any special traffic count field data collection effort. Resulting traffic count data were stored as the COUNT07 attribute in the FSUTMS highway network.

3.4 Designation of Screenlines

Screenlines are imaginary lines drawn across the model network throughout the study area for summary of traffic volumes in subareas and along major corridors. Screenlines are used to report an aggregate volume-over-count ratio for all of the links that comprise any given screenline. This allows for measurement of travel flows between subareas within the overall study area. Screenlines typically follow natural features, major transportation facilities, or political boundaries. Also, screenlines can be used to cordon off certain portions of the study area in order to measure the flows into and out of those areas (such as measuring the flow of travel demand into and out of CBDs or the external model boundary).

The starting point in developing screenlines for the Alachua County 2007 model was to review the screenlines that already were present in the Alachua County 2000 model. These screenlines were checked to ensure that their orientation coincided with traffic count locations. Every effort was made to maintain consistency between screenline

locations and traffic count locations. When a count was missing, either the count would be identified from an exhaustive review of count data sources or the screenline was moved to a nearby count location that was a reasonable substitute for the missing count.

After securing the orientation of current screenlines, it was necessary to determine where new screenlines were needed and where old screenlines were obsolete or redundant. There were 14 screenlines in the Alachua County 2000 model. These were maintained, where possible, but were sometimes modified in order to minimize "double counting" of the same travel movements. A few screenlines were added, removed, or reconfigured to better reflect available traffic count locations. The final screenlines are depicted below in Figure 3.4.

3.5 Highway Paths and Turn Prohibitors

CS staff used Cube/FSUTMS to build minimum travel time and distance paths between a variety of zone pairs within the model network. This effort was conducted to identify breaks in the network coding (i.e., unintended "dead end" links), compare model estimates of travel time and distance against other sources, verify the logic of model pathing between zones, and to identify the implications of turn prohibitors already coded into the Alachua County 2000 model network. All turn prohibitors coded in the model were checked for relevance and impact to ensure that these movements in fact should be prohibited.

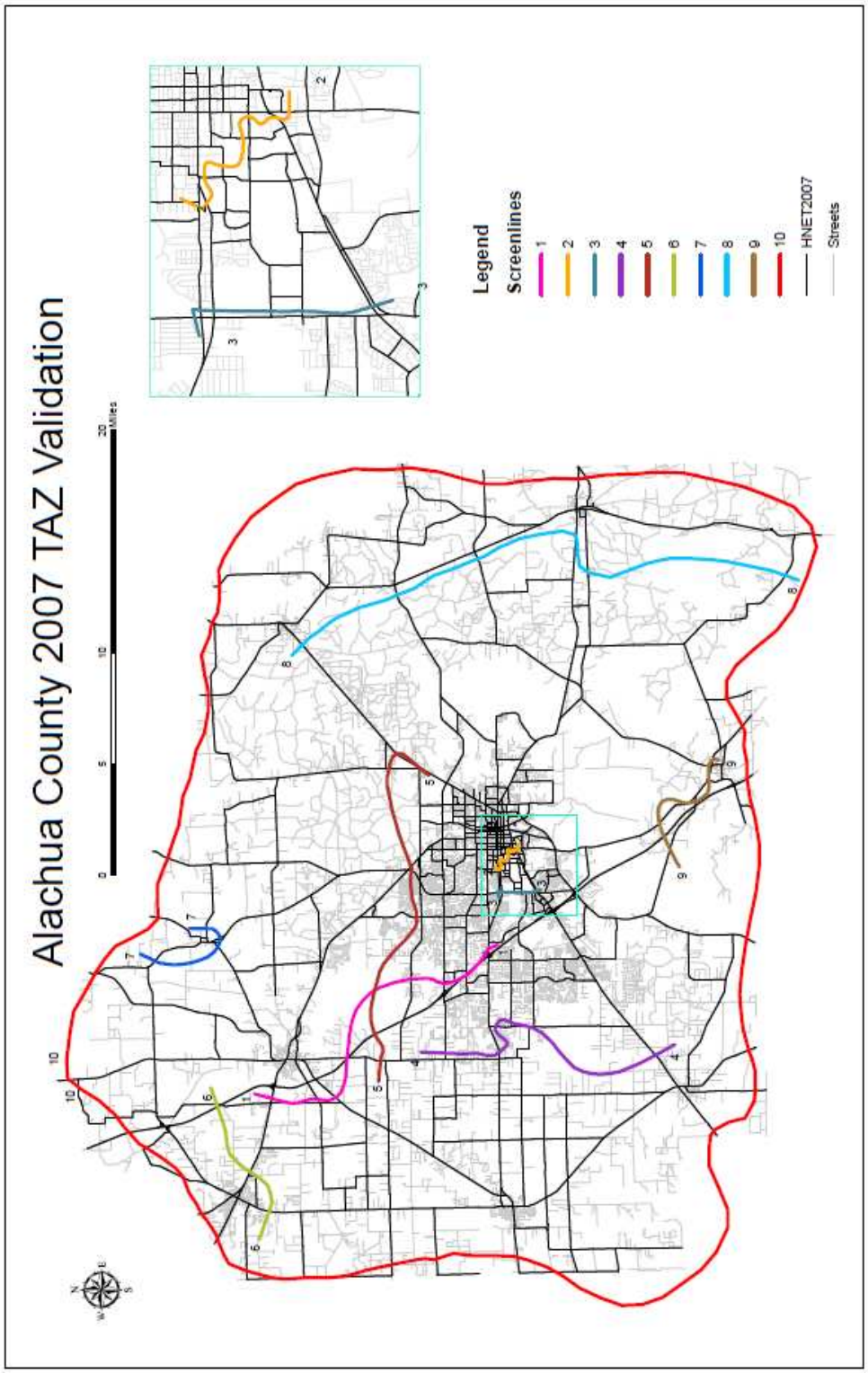


Figure 3.4 Alachua County 2007 Highway Network by Screenline

4.0 Conclusions/Summary

The Alachua County 2007 base year model update included an extensive data and review effort focused on socioeconomic data and other zonal data as well as highway and transit network data. Zone data files were updated to reflect 2007 conditions and estimate reasonable growth for the future horizon year 2035 E+C scenario.

Highway network data updates included extensive checks and modifications of the facility types, area types, and number of lanes. Traffic counts also were updated and where possible added to count locations that were not included in the previous Alachua County 2000 model. Screenlines were evaluated and modified relative to prior locations, major travel corridors, obvious subareas, and count locations.

Transit network updates included verifying and modifying all transit routes to reflect 2007 and 2035 future year conditions, adjusting headways, updating all stop locations and station information, and adjusting fare files to reflect special fare conditions.

The level of detail achieved during data development and review paid off in identifying and correcting preexisting coding errors remaining from the 2000 base year model as evidenced by a greatly improved simulation of observed travel patterns on major transportation corridors throughout the County. As discussed in Technical Report No. 4, highway validation statistics looked reasonable from the time of the first base year 2007 model run, thus allowing for additional time to focus on validating the considerably more complex transit model components.

Testing also was performed via a separate contract[7] to convert the Alachua County highway network to a master network database and subsequently to a Cube Geodatabase format, the latter anticipated as the future format of all FSUTMS networks. The master network database concept involves storing alternative network scenarios all within a single network database such that edits completed on one network (e.g., base year) could simultaneously be made to another network scenario (e.g., Cost Feasible Plan) without duplicative efforts usually associated with editing multiple network scenarios. The Geodatabase takes this concept one step further by better linking network information to ESRI-based GIS platforms for additional editing, display, and analysis.

Additionally, there are a number of model input parameter files required in FSUTMS, and these are discussed as part of the model validation process in Technical Report No. 4.

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[7] Florida International University in Association with Cambridge Systematics, Inc., Corradino Group, and AECOM. *Draft Final Report, Development of a Data Framework for FSUTMS.* Prepared for Florida Department of Transportation. May 2010.

Appendix A

2007 University of Florida Zonal Data

Table A.1 2007 University of Florida Zonal Data

		2007							2035					
TAZ2000	TAZ2007	Employee Commuter O/B/DAR	Student Commuter G/AD	Commuter Parking Spaces	Visitor Parking Spaces	Residents	Employees	Student Seats	New Employees	Total Employees	New Residents	Total Residents	Notes	
59	312		0	0	0	0	0	0		0		0	Sorority Woods Parking lot	same as 2000 zone
74	305	268	0	268	0		363	1,736		363		0		same as 2000 zone
79	306		0	0	0	572	0	0		0		572		same as 2000 zone
83	378	507	0	507	0	0	1,912	5,292	50	1,962		0	NE corner	same as 2000 zone
85	380	33	0	33	0	0	288	3,434		288		0		
86	239	21	0	21	0	0	12	284		12		0		same as 2000 zone
90	294		0	0	0	0	108	0		108		0	PKY – 1,150 K-12 Students	same as 2000 zone
91	380	679	86	765	9	1,573	76	877		76		1,573		
97	379	107	0	107	0	0	771	3,619	50	821		0	Chemistry	
101	389	53	0	53	0	0	10,012	6,128	100	10,112		0	HSC & Shands	same as 2000 zone
104	385		0	0	0	0	51	92		51		0	Emerson Hall	same as 2000 zone
110	379	273	61	334	0	1,019	1,140	1,906	50	1,190		1,019	Stadium	
112	381	148	0	148	271	0	2,031	6,456		2,031		0		same as 2000 zone
122	474	673	335	1,008	0	0	1,079	2,391	100	1,179		0	New Engineering	same as 2000 zone
125	480	697	749	1,446	0	0	99	236		99		0		same as 2000 zone
126	478	90	32	122	0	2,153	8	0		8		2,153		same as 2000 zone
130	521	0	40	40	1	0	39	9		39		0		same as 2000 zone
141	552	0	0	0	0	442	0	0		0		442	Frat Row	same as 2000 zone
146	374	100	794	894	12	530	323	1,455		323	40	570	Law School	
149	392	190	389	579	1	0	544	482	300	844		0	Lake Alice & Fifield	same as 2000 zone
160	470		0	0	0	0	2	0		2		0	Bee Unit/SW 23 Terr	same as 2000 zone
166	393	108	435	543	0	0	259	0	50	309	670	670	PPD	same as 2000 zone
178	391	84	1,455	1,539	42	0	549	312	100	649		0	Cultural Plaza to Mehrhof	same as 2000 zone
433	240	262	564	826	35	0	765	776		765		0		same as 2000 zone
435	468		0	0	0	0	134	0		134		0		same as 2000 zone
437	242		0	0	0	0	0	0		0		0	VA	same as 2000 zone
440	394	0	0	0	6	607	0	0		0		607	Maguire & UV South	same as 2000 zone
441	395	0	206	206	0	528	40	0		40	200	728	Lakeside	same as 2000 zone
442	183	0	699	699	102	0	154	2	100	254		0	Ortho & Shands Surgical	same as 2000 zone
443	374	14	114	128	0	367	3	0		3	200	567	Corry Village	
444	369		0	0	0	0	0	0		0		0	Pres Res	same as 2000 zone
445	479	234	0	234	0	0	133	163		133		0		same as 2000 zone
446	471	19	49	68	14	0	397	202	300	697		0	SW Research Circle	same as 2000 zone
447	396	0	25	25	0	0	23	0		23		0	Energy Park	same as 2000 zone
449	472	0	1,166	1,166	0	608	5	80		5		608	Hume & Commuter Lot	same as 2000 zone
450	473	980	0	980	887	0	336	0		336		0	Shands Med Plaza	same as 2000 zone
451	523	1,412	330	1,742	0	0	3	0		3		0	Archer Garage	same as 2000 zone
452	522	521	79	600	0	0	452	15		452		0	Shands Admin	same as 2000 zone
453	475	158	0	158	0	0	504	650	100	604		0	Frazier Rogers	same as 2000 zone
454	477	177	0	177	2	1,642	136	0		136		1,642		same as 2000 zone
455	476	613	0	613	670	0	0	0		0		0	Garages 1 & 10	same as 2000 zone
456	372		0	0	0	0	20	0		20		0	Golf Course	same as 2000 zone
460	461		0	0	0	379	0	0		0		379	Tanglewood	same as 2000 zone
466	384	20	0	20	0	0	108	0		108		0	Foundation	same as 2000 zone
Total		**8,441**	**7,608**	**16,049**	**2,052**	**10,420**	**22,879**	**36,597**	**1,300**	**24,179**	**1,110**	**1,110**		

The 2035 projection is low compared to the total employment figures being report for the CMP, but those figures include grad assistants, OPS, part-time, etc. This total should be more of an FTE without double-counting students.
TAZ2007 #112 had an error as previously submitted and did not account for the shift from commuter to visitor spaces when Garage 12 opened. The number should be 148 commuter spaces, not 350 as previously reported.

Appendix B

2035 Alachua County
External Model Growth

Table B.1 Alachua County External Traffic Counts by Location

		Gainesville 2007 CUBE								2035 I-75 MP										Previous Alachua Model 2025					Count Projection						
		ZDATA 4	eeTarget 2007			2007 Input	2007 Run 22	2007 Count (2-Way PSWADT)	2007 Volume-Over-Count	2035				2035 Input	2035 I-75 MP																	
Location	TAZ	Int-Ext	EEO	EED	Total EE Trips	Total	Loaded	Count	V-O-C Ratio	Int-Ext	EEO	EED	Total EE Trips	Total	Int-Ext	EEO	EED	Total EE Trips	Loaded	Int-Ext	EEO	EED	Total EE Trips	Loaded	Int-Ext	EEO	EED	Total EE Trips	Projection	Absolute Change (2035 proj and 2007 count)	Percent Change (2035 proj and 2007 count)
I- 75 (North) @ Columbia Co Line	600	12,037	19,232	19,232	38,464	50,501	50,533	50,526	1.00	23,093	21,809	21,809	43,618	66,711	15,908	25,417	25,417	50,833	66,741	-	-	-	-	59,523	-	-	-	-	87,053	36,526	72.29%
CR 241 (North) @ Union Co Line	601	823	194	194	388	1,211	1,219	1,221	1.00	2,275	578	578	1,156	3,431	-	-	-	-	3,453	1,849	451	451	2,751	2,769	-	-	-	-	1,237	16	1.35%
SR 121 (North) @ Union Co Line	602	3,243	736	736	1,472	4,715	4,747	4,742	1.00	4,814	1,199	1,199	2,398	7,212	-	-	-	-	7,260	-	-	-	-	6,175	6,124	1,525	1,525	3,051	9,175	4,433	93.48%
CR 237 (North) @ Bradford Co Line	603	160	13	13	26	186	187	187	1.00	963	26	26	52	1,015	-	-	-	-	1,026	-	-	-	-	136	685	18	18	37	722	535	286.74%
SR 235 (North) @ Bradford Co Line	604	3,274	172	172	344	3,618	3,619	3,608	1.00	8,065	302	302	604	8,669	-	-	-	-	8,668	-	-	-	-	4,108	4,412	165	165	330	4,742	1,134	31.43%
CR 1475 (North) @ Bradford Co Line	605	336	71	71	142	478	481	480	1.00	703	102	102	204	907	-	-	-	-	913	-	-	-	-	546	639	93	93	185	825	344	71.67%
U.S. 301 (North) @ Bradford Co Line	606	9,709	7,482	7,482	14,964	24,673	24,676	24,664	1.00	10,525	11,904	11,904	23,808	34,333	-	-	-	-	34,336	-	-	-	-	18,633	10,698	12,099	12,099	24,198	34,896	10,232	41.49%
CR 325 (North) @ Bradford Co Line	607	766	175	175	350	1,116	1,123	1,125	1.00	1,404	393	393	786	2,190	1,412	395	395	791	2,203	-	-	-	-	1,974	-	-	-	-	1,134	9	0.82%
SR 26 (East) @ Putnam Co Line	608	4,254	2,151	2,151	4,302	8,556	8,607	8,557	1.01	6,912	3,450	3,450	6,900	13,812	-	-	-	-	13,743	-	-	-	-	12,275	5,469	2,730	2,730	5,459	10,928	2,371	27.71%
CR 1474 (East) @ Putnam Co Line	609	248	69	69	138	386	388			500	99	99	198	698	504	100	100	199	703	-	-	-	-	546	-	-	-	-			
SR 20 (East) @ Putnam Co Line	610	4,713	2,430	2,430	4,860	9,573	9,770	9,381	1.04	6,679	5,045	5,045	10,090	16,769	6,705	5,065	5,065	10,129	16,834	-	-	-	-	15,884	-	-	-	-	10,928	1,546	16.48%
U.S. 301 (North) @ Marion Co Line	611	1,343	5,320	5,320	10,640	11,983	11,982	11,979	1.00	1,114	6,062	6,062	12,124	13,238	-	-	-	-	13,236	-	-	-	-	13,171	1,455	7,918	7,918	15,837	17,292	5,313	44.35%
CR 225 (South) @ Marion Co Line	612	287	28	28	56	343	345			616	17	17	34	650	621	17	17	34	655	-	-	-	-	108	-	-	-	-			
U.S. 441 (South) @ Marion Co Line	613	6,908	413	413	826	7,734	7,733	7,732	1.00	5,508	423	423	846	6,354	-	-	-	-	6,354	5,593	1,502	1,502	8,597	8,600	-	-	-	-	6,289	(1,443)	-18.67%
I- 75 (South) @ Marion Co Line	614	22,844	21,228	21,228	42,456	65,300	65,267	65,263	1.00	43,392	26,871	26,871	53,742	97,134	33,967	31,564	31,564	63,129	97,096	-	-	-	-	72,255	-	-	-	-	99,789	34,526	52.90%
CR 234 (South) @ Marion Co Line	615	2,368	633	633	1,266	3,634	3,657	3,658	1.00	4,909	1,040	1,040	2,080	6,989	4,942	1,047	1,047	2,094	7,036	-	-	-	-	5,478	-	-	-	-	4,021	363	9.92%
SR 121 (South) @ Levy Co Line	616	5,895	945	945	1,890	7,785	7,785	7,784	1.00	16,749	2,404	2,404	4,808	21,557	-	-	-	-	21,555	-	-	-	-	17,284	8,314	1,193	1,193	2,386	10,700	2,916	37.47%
SR 45 (South) @ Levy Co Line	617	3,039	631	631	1,262	4,301	4,332	4,330	1.00	5,107	853	853	1,706	6,813	-	-	-	-	6,864	-	-	-	-	4,638	5,641	942	942	1,884	7,526	3,196	73.81%
CR 241 (South) @ Levy Co Line	618	1,053	160	160	320	1,373	1,383	1,382	1.00	4,109	362	362	724	4,833	3,835	338	338	676	4,511	-	-	-	-	1,692	-	-	-	-	5,876	4,494	325.06%
SR 24 (Southwest) @ Levy Co Line	619	5,688	1,149	1,149	2,298	7,986	8,043	8,041	1.00	9,094	2,912	2,912	5,824	14,918	-	-	-	-	15,010	-	-	-	-	14,122	8,421	2,697	2,697	5,393	13,814	5,773	71.79%
CR 337 (South) @ Levy Co Line	620	943	185	185	370	1,313	1,322			2,023	244	244	488	2,511	2,040	246	246	492	2,532	-	-	-	-	1,342	-	-	-	-			
SR 26 (West) @ Gilchrist Co Line	621	7,333	1,133	1,133	2,266	9,599	9,688	9,588	1.01	15,987	3,047	3,047	6,094	22,081	-	-	-	-	22,082	-	-	-	-	18,995	13,435	2,561	2,561	5,121	18,557	8,969	93.55%
CR 232 (West) @ Gilchrist Co Line	622	1,568	305	305	610	2,178	2,194	2,186	1.00	6,693	1,043	1,043	2,086	8,779	-	-	-	-	8,847	3,515	847	847	5,209	5,244	-	-	-	-			
NW 182 (West) @ Gilchrist Co Line	623	3,046	608	608	1,216	4,262	4,265	4,265	1.00	3,980	1,317	1,317	2,634	6,614	4,005	1,325	1,325	2,650	6,655	-	-	-	-	6,600	-	-	-	-	7,423	3,158	74.04%
U.S. 27 (Northwest) @ Gilchrist Co Line	624	7,098	1,400	1,400	2,800	9,898	9,895	9,897	1.00	11,507	3,455	3,455	6,910	18,417	-	-	-	-	18,410	-	-	-	-	17,503	9,533	2,862	2,862	5,725	15,258	5,361	54.17%
U.S. 441 (Northwest) @ Columbia Co Line	625	4,757	1,000	1,000	2,000	6,757	6,806	6,804	1.00	6,283	1,909	1,909	3,818	10,101	-	-	-	-	10,164	-	-	-	-	9,927	6,028	1,831	1,831	3,663	9,691	2,887	42.42%

Table B.2 Alachua County AADT by Location

Location	TAZ	FDOT 2007 Traffic Library CD								Corradino 2000 External Counts				Alachua County AADT				MOCF
		1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2007
I- 75 (North) @ Columbia County Line	600	29,000	33,000	33,000	33,000	29,500	32,000	38,500	37,000	37,000	38,500	42,000	43,500	43,500	47,000	48,000		0.95
CR 241 (North) @ Union County Line	601								1,201					1,162	1,173	1,184	1,173	0.97
SR 121 (North) @ Union County Line	602	3,400	3,600	4,100	4,500	4,300	4,300	3,900	4,500	4,900	4,600	4,700	5,800	5,100	5,900	4,600		0.97
CR 237 (North) @ Bradford County Line	603								100						185	181	176	0.97
SR 235 (North) @ Bradford County Line	604	2,800	3,200	3,100	3,000	3,200	3,200	3,400	3,300	3,300	3,700	3,500	3,500	3,400	3,300	3,500		0.97
CR 1475 (North) @ Bradford County Line	605								400						483	466	448	0.97
U.S. 301 (North) @ Bradford County Line	606	19,431	19,484	20,000	19,615	20,956	21,840	21,702	21,319	21,727	22,410	22,859	23,276	23,509	23,731	23,677		0.96
CR 325 (North) @ Bradford County Line	607								1,100					1,106		1,091		0.97
SR 26 (East) @ Putnam County Line	608	4,500	5,000	4,800	5,500	5,600	5,400	6,200	6,000	6,400	6,100	6,300	7,000	7,100	6,200	5,900		0.97
CR 1474 (East) @ Putnam County Line	609								401									0.97
SR 20 (East) @ Putnam County Line	610	7,300	7,700	8,300	8,100	8,900	7,700	8,700	8,500	8,400	8,300	9,500	8,200	8,700	7,800	9,100		0.97
U.S. 301 (North) @ Marion County Line	611	9,300	10,400	10,000	10,500	9,800	11,100	11,400	10,000	9,300	11,400	12,000	12,200	11,400	12,400	11,500		0.96
CR 225 (South) @ Marion County Line	612								100									0.97
U.S. 441 (South) @ Marion County Line	613			8,400	8,500	7,900	7,400	7,700	7,300	7,800	7,700	7,600	8,100	7,700	7,500	7,500		0.97
I- 75 (South) @ Marion County Line	614	46,000	46,000	47,000	44,000	41,500	41,000	43,500	43,000	48,500	50,500	51,000	60,000	62,000	59,000	62,000		0.95
CR 234 (South) @ Marion County Line	615								3,401					3,405		3,548		0.97
SR 121 (South) @ Levy County Line[a]	616	6,000	5,650	6,800	5,900	5,950	6,050	6,350	6,300	6,700	6,800	7,050	7,400	7,250	7,000	7,550		0.97
SR 45 (South) @ Levy County Line	617	2,500	3,000	2,400	2,500	2,500	2,500	2,600	2,600	2,800	2,900	2,900	4,300	3,500	4,200	4,200		0.97
CR 241 (South) @ Levy County Line	618								1,300					2,049		2,120		0.97
SR 24 (Southwest) @ Levy County Line	619	4,700	4,900	5,300	5,500	5,800	6,400	6,600	6,100	6,500	7,200	6,700	7,500	7,000	7,200	7,800		0.97
CR 337 (South) @ Levy County Line	620								1,001									0.97
SR 26 (West) @ Gilchrist County Line	621	5,300	7,000	8,400	7,900	8,400	7,900	8,900	9,500	9,600	9,300	9,100	12,000	10,000	9,600	9,300		0.97
CR 232 (West) @ Gilchrist County Line	622								2,701					2,049		2,120		0.97
NW 182 (West) @ Gilchrist County Line	623								3,400					4,106		4,173	4,153	0.97
U.S. 27 (Northwest) @ Gilchrist County Line	624	6,100	6,500	6,500	6,800	7,000	7,200	7,500	8,100	7,900	8,300	8,600	8,300	8,600	7,900	9,600		0.97
U.S. 441 (Northwest) @ Columbia County Line	625	5,000	4,900	5,300	4,800	4,700	4,900	5,300	5,100	5,600	5,400	5,600	6,100	6,100	6,100	6,600		0.97

[a] SR 121 counts are an average of two count stations, 260128 and 340226.

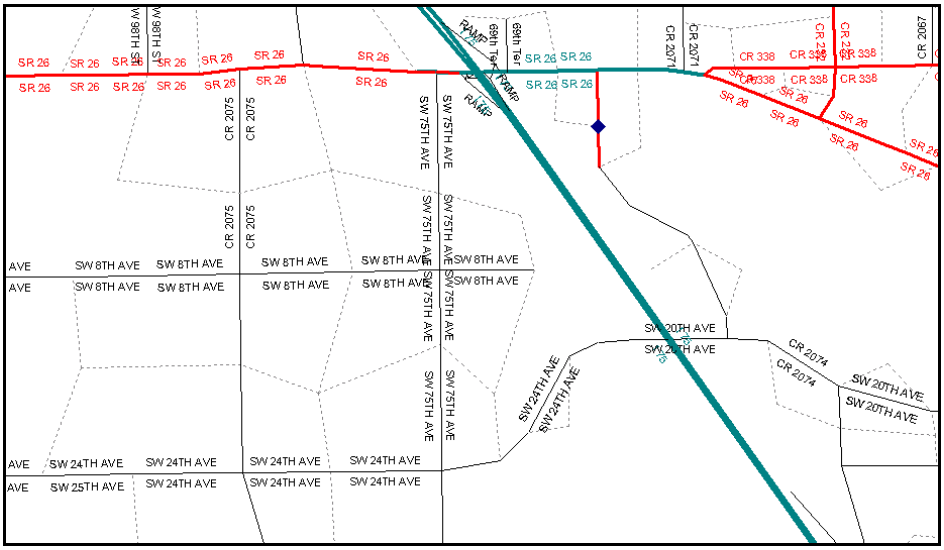
Table B.3 Alachua County Peak Season Weekday Average Daily Traffic Volumes by Location

		FDOT 2007 Traffic Library CD								Corradino 2000 External Counts				Alachua County AADT			
Location	**TAZ**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**
I- 75 (North) @ Columbia County Line	600	15,263	17,368	17,368	17,368	15,526	16,842	20,263	19,474	19,474	20,263	22,105	22,895	22,895	24,737	25,263	
CR 241 (North) @ Union County Line	601								619					599		610	
SR 121 (North) @ Union County Line	602	1,753	1,856	2,113	2,320	2,216	2,216	2,010	2,320	2,526	2,371	2,423	2,990	2,629	3,041	2,371	
CR 237 (North) @ Bradford County Line	603								52						95	93	91
SR 235 (North) @ Bradford County Line	604	1,443	1,649	1,598	1,546	1,649	1,649	1,753	1,701	1,701	1,907	1,804	1,804	1,753	1,701	1,804	
CR 1475 (North) @ Bradford County Line	605								206						249	240	231
U.S. 301 (North) @ Bradford County Line	606	10,016	10,043	10,309	10,111	10,802	11,258	11,187	10,989	11,199	11,552	11,783	11,998	12,118	12,232	12,205	
CR 325 (North) @ Bradford County Line	607								567					570		562	
SR 26 (East) @ Putnam County Line	608	2,320	2,577	2,474	2,835	2,887	2,784	3,196	3,093	3,299	3,144	3,247	3,608	3,660	3,196	3,041	
CR 1474 (East) @ Putnam County Line	609								207								
SR 20 (East) @ Putnam County Line	610	3,763	3,969	4,278	4,175	4,588	3,969	4,485	4,381	4,330	4,278	4,897	4,227	4,485	4,021	4,691	
U.S. 301 (North) @ Marion County Line	611	4,794	5,361	5,155	5,412	5,052	5,722	5,876	5,155	4,794	5,876	6,186	6,289	5,876	6,392	5,928	
CR 225 (South) @ Marion County Line	612								52								
U.S. 441 (South) @ Marion County Line	613			4,330	4,381	4,072	3,814	3,969	3,763	4,021	3,969	3,918	4,175	3,969	3,866	3,866	
I- 75 (South) @ Marion County Line	614	23,711	23,711	24,227	22,680	21,392	21,134	22,423	22,165	25,000	26,031	26,289	30,928	31,959	30,412	31,959	
CR 234 (South) @ Marion County Line	615								1,753					1,755		1,829	
SR 121 (South) @ Levy County Line	616	3,093	2,912	3,505	3,041	3,067	3,119	3,273	3,247	3,454	3,505	3,634	3,814	3,737	3,608	3,892	
SR 45 (South) @ Levy County Line	617	1,289	1,546	1,237	1,289	1,289	1,289	1,340	1,340	1,443	1,495	1,495	2,216	1,804	2,165	2,165	
CR 241 (South) @ Levy County Line	618								670					665		691	
SR 24 (Southwest) @ Levy County Line	619	2,423	2,526	2,732	2,835	2,990	3,299	3,402	3,144	3,351	3,711	3,454	3,866	3,608	3,711	4,021	
CR 337 (South) @ Levy County Line	620								516								
SR 26 (West) @ Gilchrist County Line	621	2,732	3,608	4,330	4,072	4,330	4,072	4,588	4,897	4,948	4,794	4,691	6,186	5,155	4,948	4,794	
CR 232 (West) @ Gilchrist County Line	622								1,392					1,056		1,093	
NW 182 (West) @ Gilchrist County Line	623								1,753					2,116		2,151	2,141
U.S. 27 (Northwest) @ Gilchrist County Line	624	3,144	3,351	3,351	3,505	3,608	3,711	3,866	4,175	4,072	4,278	4,433	4,278	4,433	4,072	4,948	
U.S. 441 (Northwest) @ Columbia County Line	625	2,577	2,526	2,732	2,474	2,423	2,526	2,732	2,629	2,887	2,784	2,887	3,144	3,144	3,144	3,402	

Appendix C

E+C Network Screen Captures

Edit 1 Before



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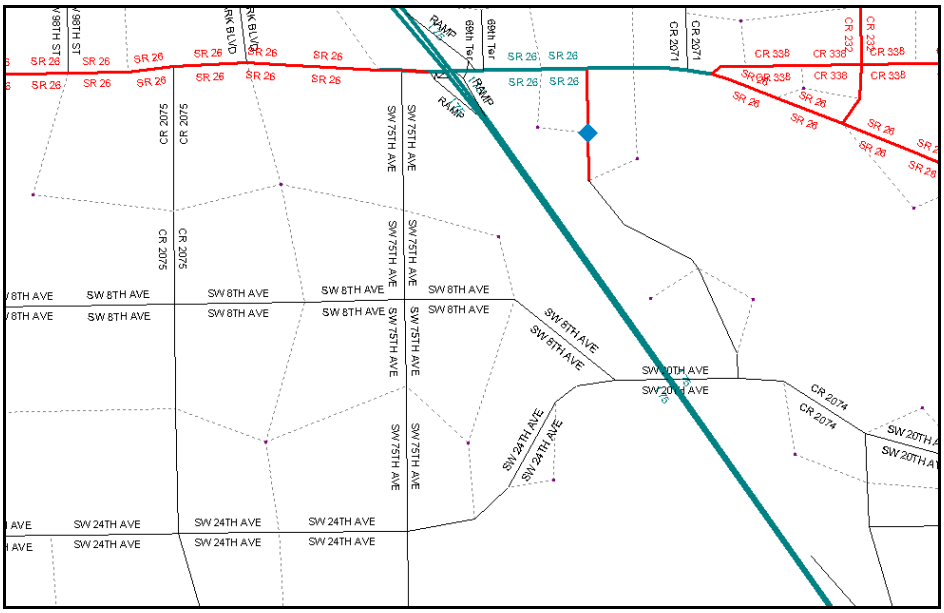
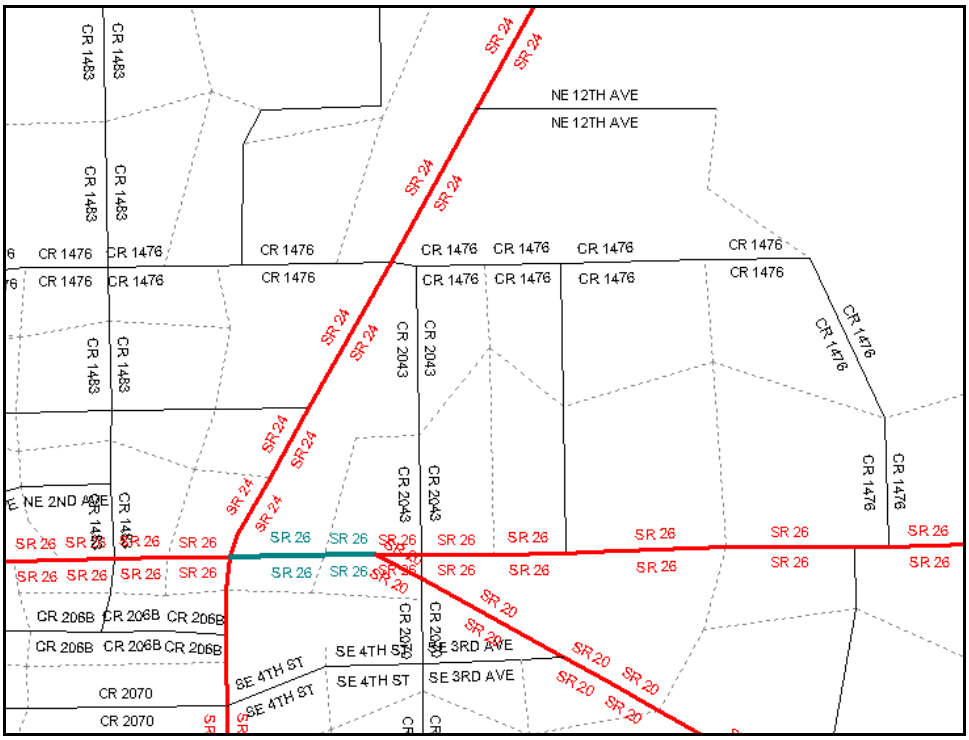


Edit 2 Before



Edit 2 After