Northeast Plant City Area Master Plan

Prepared by:
Carter Burgess

June 2008

Prepared for:
The City of Plant City and its partners;
The Hillsborough County City-County Planning Commission and
The Hillsborough County Metropolitan Planning Organization

FINAL

Northeast Plant City Area Master Plan

Master Plan Report

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The City of Plant City
The Hillsborough Metropolitan Planning Organization

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This project was made possible through the cooperation of the following:

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Executive Summary

Since 1995, the land area of Plant City has increased by 12 percent with a majority of this growth occurring since the year 2000 in the northeastern area (see Figure 1) as a result of over 30 voluntary annexations that account for more than 1,600 acres. The anticipated trend is for the City's expansion to continue into this northeastern area over the next twenty years. The Northeast Plant City Area Master Plan was undertaken to address this anticipated growth and to ensure that adequate public services and facilities will be provided and that continuity of the City's development pattern is maintained. One of the key elements of this plan is the development of a transportation network that reduces future impacts to I-4 by providing alternative means of east-west connectivity in the area.

An analysis of existing conditions within the Study Area was completed to identify opportunities and constraints for development. Using Geographic Information Systems (GIS), the information was compiled into a development suitability map (Figure 17) that identified areas where development may be more appropriate. Working with members of the community, landowners in the Study Area, the Technical Working Group (comprised of representatives from the City, Hillsborough and Polk Counties, FDOT, and the School District) and the City Commission, a set of Guiding Principles were developed that were used to guide the creation of alternative future land use scenarios for the Study Area.

The development of alternative future land use scenarios was separated into four distinct phases: preliminary alternatives, refined alternatives, long range vision and the initial phase. Two preliminary alternative land use scenarios were created, known as Scenarios A and B (see Figures 18 and 19). Scenario A was more uniform in its pattern and spread development across the study area. Scenario B employed a village or community center where the highest intensity of use occurs with commercial/office/residential mixed use. Along with these future land use alternatives, roadway improvements were identified (referred to as the Preliminary Build Network) and tested to evaluate both preliminary land use scenarios A and B (see Figure 23).

Following the initial transportation model runs, a significant difference in the impact to I-4 was not identified between the two land use scenarios. The greatest difference between the two scenarios was evidenced instead on the local and county roadway networks within the Study Area. Because the transportation analysis did not show a clear distinction between the land use scenarios, a different approach was taken. The two land use scenarios were compared to the Guiding Principles and the scenario that more closely matched these principles, Scenario B, was recommended for further refinement. Scenario B was revised based on comments from the Technical Working Group and consideration of proposed development within the Study Area. The result of these refinements is the Preferred Land Use Vision shown in Figure 21.

Improvements to the transportation network were also considered at this time and similar to the land use scenario development, the development of future transportation alternatives for the master plan were separated into three distinct phases: No-Build, Preliminary Build, and Preferred Build Networks. The Preferred Build Network includes improvements identified in the Preliminary Build Network along with other roadway extensions and capacity improvements (widening). Additional analysis of several specific roadway network links was completed to determine if the proposed roadway improvements were alleviating congestion on I-4. The analysis results indicated that the Preferred Build Network (see Figure 27) in combination with the Preferred Land Use Scenario (the master plan) would reassign 5,000 to 17,000 daily vehicle trips from I-4 and State Road 39 and improve the Level of Service on Knights Griffin Road, Midway Road, and Sam Allen Road.

The Master Plan, represented by the Preferred Land Use Scenario and Preferred Build Network, is the maximum build out of the Study Area. Given current market conditions and historical growth rates, it is unlikely that the land uses contemplated in the Master Plan will be fully developed by the planning horizon of 2035, which was used for the transportation analysis. Therefore, an initial implementation phase of the Master Plan has been established that prioritizes the transportation improvements and modifies the land uses to allow greater market sensitivity. The planning horizon for this initial phase is 2025 and the key master plan transportation improvements included in this phase are the extension of Lampp Road, the extension of Sam Allen Road to Swindell Road, the extension of County Line Road to Knights Griffin Road, and the widening of Knights Griffin Road from two to four lanes.

Other implementation strategies for the Master Plan include:

- Establishment of a Joint Planning Agreement (JPA) between the City and Hillsborough County to ensure that development permitted within the Study Area is consistent with the Master Plan
- Amendments to both the City's and the County's comprehensive plans to implement the JPA and Master Plan
- Further evaluation and consideration of a transportation assessment zone for the Study Area
- Completion of an infrastructure and public facilities needs assessment
- Identification of the Phase 1 roadway improvements in the Long Range Transportation Plan and the County's Corridor Preservation Plan
- Completion of feasibility studies for the Phase 1 roadway improvements
- Completion of a market analysis and concept plan for the proposed Village Center

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1. Introduction

The City of Plant City is located in northeastern Hillsborough County, adjacent to the County's boundary with Polk County. Incorporated in 1885, Plant City was named for Henry B. Plant, a railroad builder. From its beginnings as an agricultural community, Plant City has grown in both population and land area. From 1995 to 2005, the City experienced a 28.5 percent increase in population, reaching an estimated 33,000 people in 2005. The land area of Plant City has increased by 12 percent, growing from 14,502 acres in 1995 to 16,254 acres in 2005. The majority of this growth in land area occurred since 2000 in the northeastern area (see Figure 1), with over 30 voluntary annexations that account for more than 1,600 acres. The anticipated trend is for the City's expansion to continue into this northeastern area over the next twenty years. Therefore, the City decided to complete a master plan for this area as a means to ensure (1) that provisions are made for the anticipated growth, (2) that adequate public services and facilities are provided, and (3) continuity in the development pattern.

The Northeast Plant City Area Master Plan Study Area as shown in Figure 1 is approximately 20 square miles and extends east from State Road (SR) 39/Paul Buchman Highway to the Hillsborough/Polk County line, and north from US-92 (between Park Road and the County Line) and I-4 (between SR 39 and Park Road) to Knights Griffin Road. West of Wilder Road, the Study Area boundary extends north beyond Knights Griffin Road to include the northernmost annexed portion of Plant City. The major north-south roadways within the Study Area are SR 39/ Paul Buchman Highway, and Wilder Road. Major east-west roads include US Highway 92 (US-92), I-4, and Sam Allen Road. The CSX railroad is located in the western portion of the Study Area, and the Amtrak railroad parallels the southern Study Area boundary between Park Road and the County Line.

The majority of the existing land uses are rural/agriculture (see Figure 2). Low density residential is scattered throughout the area, and limited areas of commercial use are located adjacent to SR 39, I-4 and US-92. The adopted future land use designations (see Figure 3) anticipate the expansion of low density residential development throughout the

Study Area, with only the northeastern portion remaining in rural/agricultural use. The adopted future land use map also shows the expansion of the nonresidential areas adjacent to SR 39, I-4 and US-92.

The City's efforts to approve development proposals for properties in the Study Area have been hampered by the degraded level of service on Interstate 4 (I-4), which provides the only major, continuous east-west access to other areas of Hillsborough County and points east. The Department of Community Affairs objected to comprehensive plan amendments (Round 05-2 – FLUM Amendments CPA-2005B-M14, CPA-2005B-M15, and CPA-2005B-M17) for several properties recently annexed into the City. The basis for the objection was the lack of cumulative transportation data and analysis demonstrating the coordination of land use and transportation planning, particularly for I-4, SR 39, and US Highway 92. Therefore, one of the key elements of this master plan is developing a future land use pattern that will minimize additional impacts to I-4 and coordinated roadway improvements that can provide alternate means of east-west connectivity.

The process for completing this master plan included:

- identifying opportunities and constraints within the Study Area,
- coordinating with stakeholders,
- cooperating with a Technical Working Group comprised of representatives from agencies in both Hillsborough and Polk Counties,
- creating alternative future land use visions coordinated with future transportation scenarios,
- hosting a public workshop, and
- presenting the study's findings to key local agencies.

This report details the different steps of this process and concludes with recommended actions to implement the vision contained within.

Figure 1: Northeast Plant City Area Master Plan Study Area

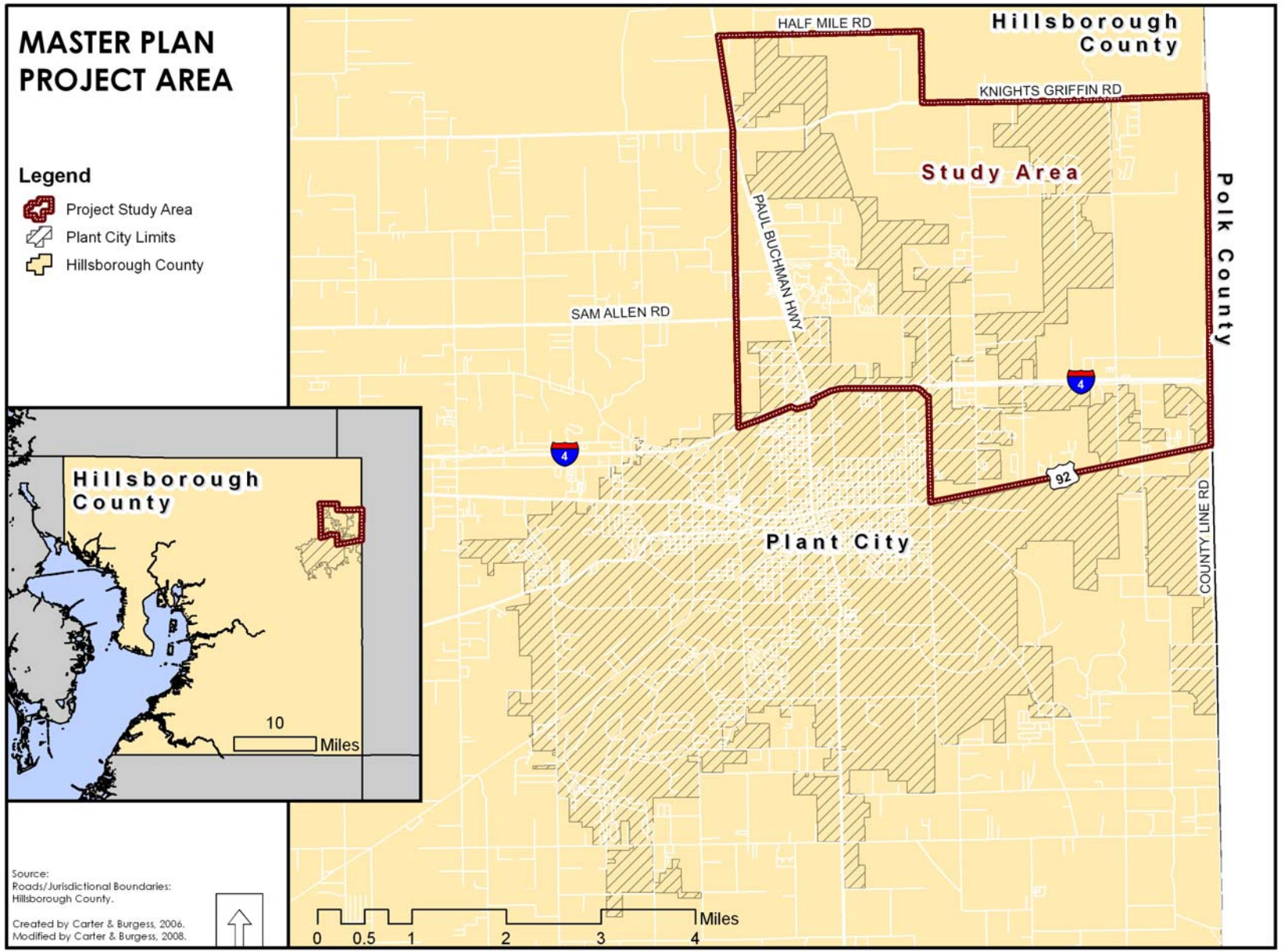


Figure 2: Northeast Plant City Area Existing Land Uses

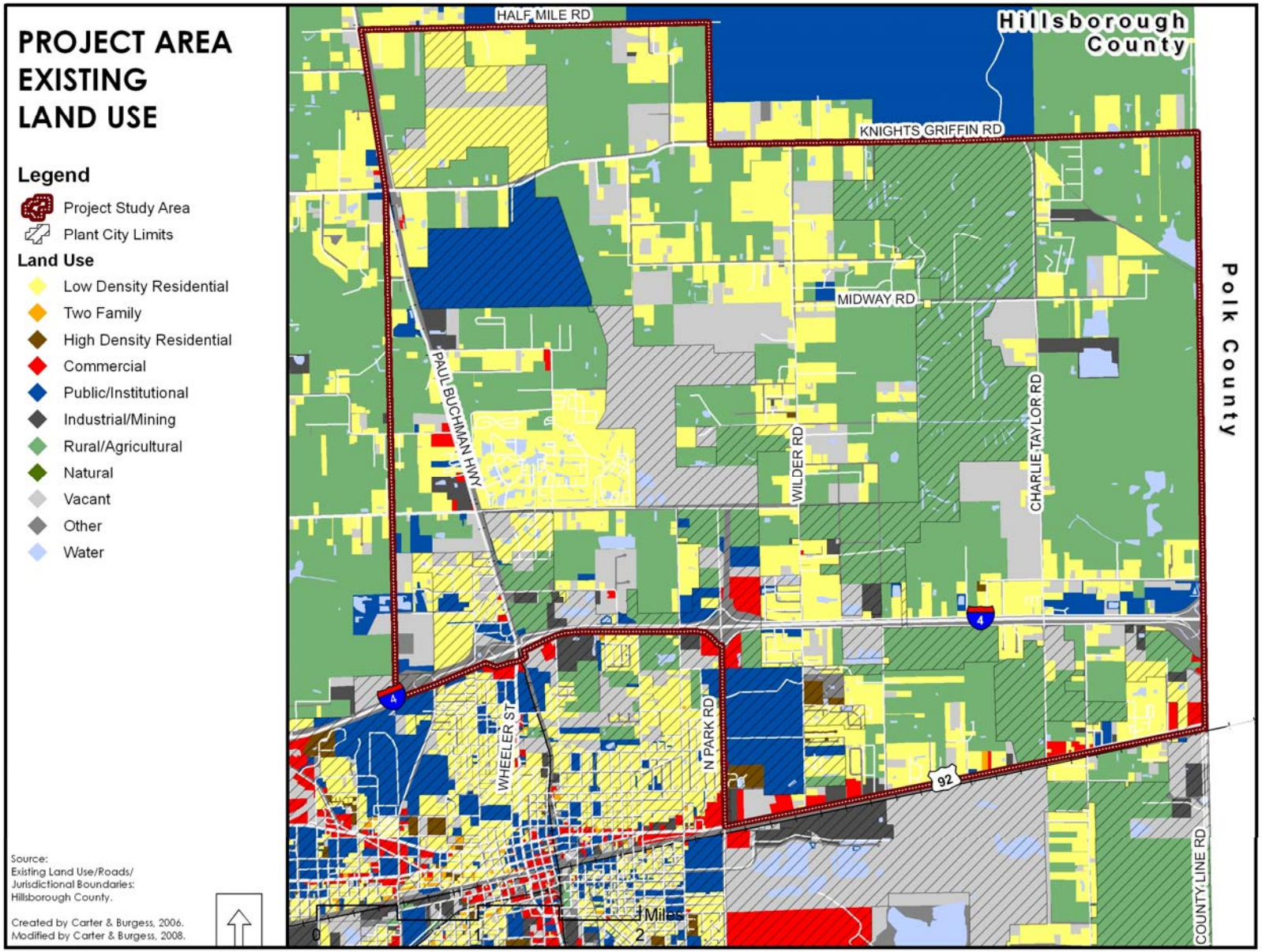
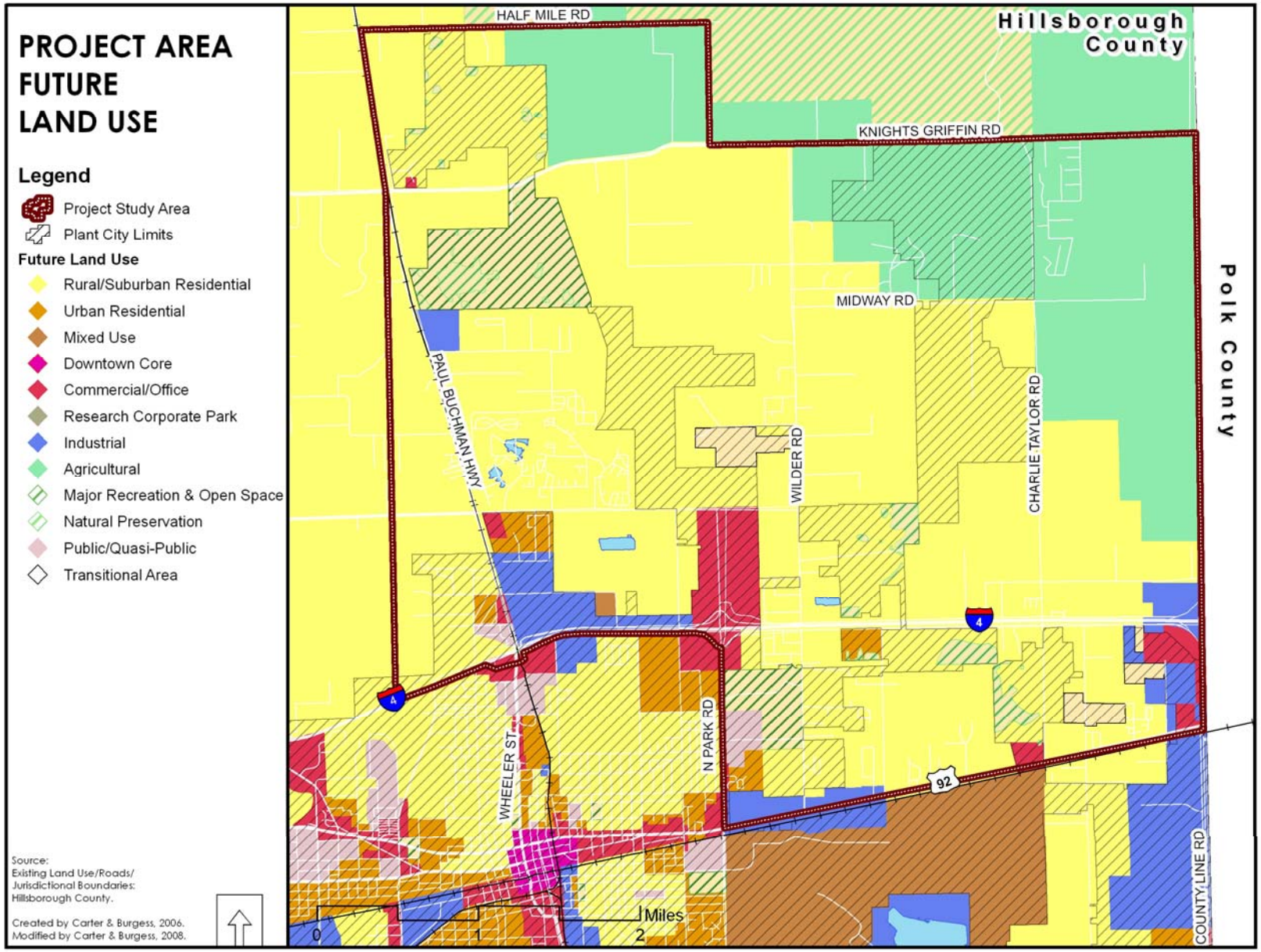


Figure 3: Northeast Plant City Area Future Land Uses



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2. Public Outreach and Coordination

Plans cannot be successful without the support of community leaders and the public. The public outreach and coordination undertaken for the Northeast Plant City Area Master Plan included property owners from the Study Area, staff members from local government agencies and elected and appointed officials from both the City and Hillsborough County. In addition to formal public meetings and working sessions, two newsletters providing information about the study were distributed to interested persons in the Study Area and the City made these documents available on its website. This section of the report briefly reviews each of the key public outreach and coordination events.

2.1. Technical Working Group

The scope of the study required the collaboration of individuals from various disciplines and government agencies. To ensure that effective coordination among these groups was achieved, the City established a Technical Working Group (TWG). Members of this group included representatives from Hillsborough County Metropolitan Planning Organization (Planning Commission), Polk TPO, the School District, the Florida Department of Transportation (Districts 1 and 7), the City of Lakeland, Polk County, and the Engineering and Public Works Departments of Plant City. This group met periodically throughout the process to review documents and provide insight and comments on these materials prior to sharing the information with the public. The following are brief summaries of the content covered during each of these meetings.

- Kick-off Meeting, September 15, 2006: At this meeting the group was introduced to the project and its purpose. Items discussed included the draft Existing Conditions Report, the proposed methodology for the transportation component of the project, the sample interview questions for stakeholders, and the proposed project schedule.

- TWG #2, January 9, 2007: The purpose of this meeting was to review the draft Guiding Principles developed as a result of the stakeholder interviews and to provide the group an update on the transportation methodology development.
- TWG #3, April 20, 2007: The draft alternative future land use visions were presented to the group for discussion at this meeting. Significant discussion centered on the transportation network supporting the proposed land use visions and the location of future school sites.
- TWG #4, July 25, 2007: The results of the initial transportation analysis were shared with the group at this meeting. Prior to the meeting, the City realized that additional information was going to be required and this was discussed with the group members. As a result of this meeting, a preferred future land use vision was recommended for further consideration in the study.

Full meeting summaries from each of the Technical Working Group meetings are included in Appendix A of this report.

2.2. Stakeholder Meetings

As a means to ensure the community's needs and desires were incorporated in the master plan process, the City identified several stakeholders that were interviewed early in the study. The results of these interviews were combined with information from existing planning documents to create a set of Guiding Principles that were ultimately used in the creation of the alternative future land use visions. The interviews were conducted by the City's consultant and representatives from City staff were not involved as a way to foster the free exchange of ideas.

In March 2007 the members of the City Commission changed. Major John Dicks retired, Vice Mayor Rick Lott became the City's Mayor, and Dan Raulerson was elected to the Commission. Commissioner Raulerson was interviewed in August 2007 as a way to acquaint him with the project and allow him to provide comment on the issues. The following is a list of the individuals interviewed and the date of the interviews.

Alvin Futch, Property Owner	October 24, 2006
Plant City Commissioner William Dodson	October 24, 2006
Danny Coton, Plant City Chamber of Commerce	October 24, 2006
Johnny Dean Page, Property Owner	October 24, 2006
Bea Bare, Greater Tampa Chamber of Commerce	October 25, 2006
State Representative Rich Glorioso	October 25, 2006
Robert Chadwell, Property Owner	October 25, 2006
Ron Weaver et. al., Property Owner	October 25, 2006
Plant City Commissioner Robert Brown	October 31, 2006
Ed Verner, Property Owner	October 31, 2006
Plant City Mayor John Dicks	October 31, 2006
Phil Waldron, Property Owner Representative	October 31, 2006
Plant City Vice Mayor Rick Lott	October 31, 2006
Growth & Planning Committee, Plant City Chamber of Commerce	November 7, 2006
Barbara Franques, Hillsborough School District	November 10, 2006
Commissioner Dan Raulerson	August 23, 2007

Appendix B includes the sample interview questions developed in coordination with the Technical Working Group and a summary of the comments gathered during the interviews. During an interim progress report on the study, the City Commission requested a summary of the comments made by fellow Commissioners during the stakeholder interviews. In response to this request, a revised interview summary was generated that included only the comments provided by the Plant City Commissioners. This revised summary is also included in Appendix B.

2.3. Newsletters and Website

Two newsletters were created for the study and distributed to interested persons within the Study Area and the City. The first edition of the newsletter was published in March 2007 and provided information about the study and its goals, the Guiding Principles, and a summary of the Existing Conditions Report. The second edition of the newsletter was published in October 2007 and was used as a means to advertise the public workshop and present information about the preferred land use and transportation vision. Copies of both of these newsletters are included in Appendix C.

The City included copies of both newsletters and information about the study on its website: www.plantcitygov.com. Following the public workshop a copy of that presentation was also posted on the City's website. A separate file transfer site was provided for members of the Technical Working Group that allowed them to access documents and other materials presented during those meetings.

2.4. Public Workshop

On October 23, 2007, a public workshop was held in the John R. Trinkle Center at the Hillsborough Community College campus in Plant City at 6:30 pm. Mayor Rick Lott made opening remarks and introduced the study. Mayor Lott emphasized the importance of having a plan for future growth so that quality of life can be maintained. Assistant City Manager Greg Horwedel reaffirmed the Mayor's statements and assured the audience that the vision being presented was not intended to change their existing uses and rights. Mr. Horwedel explained that the purpose of the vision was to provide a plan for future development undertaken in this area. Mr. Horwedel introduced the City's consultant who presented an overview of the project, the proposed future land use vision, the proposed roadway improvement scenario to support the land use vision, and proposed next steps for the study.

Following the presentation, participants were allowed to ask questions and make comments concerning the study. Concerns expressed focused on specific property designations shown on the vision plan, potential school locations, the widening of Midway

Road to four lanes, potential property takings, the CSX railroad, and the proposed greenway system. Both City staff and the consultant answered questions and encouraged participants to complete written comment forms. A copy of the workshop materials, including the PowerPoint slides, sign-in sheets, comment forms, and summary, are provided in Appendix D.

2.5. Presentations to Local Agencies

At the end of the master plan study, the results of the study were presented to the City Commission, the Planning Commission, and the Metropolitan Planning Organization. The following summarizes each of these presentations.

2.5.1. The Planning Commission

On February 11, 2008, the study was presented to The Planning Commission at a regularly scheduled meeting. Mark Hudson introduced the study and the presentation was given by the Consultant, represented by Jill Quigley and Scott Pringle. The following questions or comments were offered by the Planning Commission members.

- Why was I-4 not used as the Southern Boundary for the Study Area?

  Mr. Hudson answered that it was due to a significant enclave of the very low density land that is still present in Hillsborough County where some annexations were occurring and there was a desire to get some type of vision of how that development should be guided.

- Does the traffic modeling analysis take into account right-of-way that can accommodate future vehicle, bicycle and pedestrian and utility needs such as along Wilder Road, Charlie Taylor Road and CR39 so that it does not have to be created?

  Mr. Pringle responded that the study did not explore that level of detail but that the greenways identified on the plan were identified to address multimodal options.

- Does the plan provide for rail/bus terminals along the I-4 corridor?

  Ms Quigley answered that this was not included since the community leaders requested that the focus be on traffic.

  Commissioner responded by encouraging the consideration of a parallel road plan along I-4 since it has been successfully used in other metropolitan areas that are growing along interstates.

- Has water capacity for the future been considered?

  Ms Quigley noted that this was not included in the master plan but is a recommended next step.

- Was the promotion of high tech or bio-tech considered along the I-4 corridor?

  Ms Quigley responded that this issue arose during the stakeholder interviews and was considered through the planning process but may not be specifically illustrated in the plan.

- The Planning Commission is considering land uses along the I-4 corridor and this master plan should be coordinated with these efforts. Were activity centers considered at SR 39 and Sam Allen Road?

  Ms Quigley noted that coordination with the Planning Commission regarding the I-4 area was part of the process. During the Technical Working Group meetings there was discussion about the use of multiple activity centers within the Study Area. Given the size of the area it was agreed that providing one center was the best approach. Originally the activity center was located more in the middle of the Study Area but due to existing parcelization, it was shifted to its current location at the intersection of Midway Road and Charlie Taylor Road.

- What timeframe is being considered?

  Ms Quigley responded that the transportation model runs were for the Year 2035.

- So that these roads, for instance Sam Allen and Swindell Road, are going to be extending and merging, will they be on a certain timeframe as well? How is it going to be implemented?

  Mr. Pringle responded that the interim analysis was being conducted in order to prioritize the roadway projects and create a first phase of improvements.

- Will the Alexander Extension, from where it ends now at I-4 all the way to Knights Griffin, occur sooner than some of the other roadway improvements?

  Mr. Pringle answered that the extension of Alexander Street is part of the Long Range Transportation Plan, and not something that is prioritized as part of the master plan.

2.5.2. The Plant City City Commission

The final presentation of the Northeast Plant City Area Master Plan to the City Commission was given on Tuesday, May 27, 2008, as part of the regular City Commission meeting. A brief presentation of the project was provided by Jill Quigley and Scott Pringle. The presentation covered the planning process, the preferred land use vision, the transportation analysis, the interim/phase one vision, and implementation strategies.

Following the presentation, Mayor Rick Lott took several minutes to explain to the audience the importance of the master plan. Mayor Lott stressed that the purpose of the plan is not to grow the northeast area but instead ensure that growth, when it does occur, follows a set of standards so that it is not piece meal.

Two members of the public spoke during the public comment period. The comments of these individuals are summarized below.

- Charlotte Butler Nelson – Ms Nelson had several questions about annexation areas and recommendations for roadway improvements and further coordination. Specifically, Ms Nelson asked if recent annexations would be required to follow the plan. The Mayor indicated that they would. Mayor Lott further explained that the hope is for the vision to turn into a viable

plan enforced by a joint planning agreement with Hillsborough County so that even unincorporated areas followed the plan. Ms Nelson also asked if changes would be made to annexation rules since there has been disagreement in the past regarding "substantial abutment". Ken Buchman, City Attorney, responded that there are not any changes anticipated since it is a state rule. Ms Nelson recommended that a one unit per acre zoning designation be considered as it would provide a better transition between suburban and rural land uses. Ms Nelson also suggested that SR 39 be considered for improvements since it is the gateway for the area. Ms Nelson requested that in the future the City include everybody in the area when conducting community interviews. Finally, Ms Nelson expressed skepticism about the plan and strongly encouraged the City to put teeth to it by including it in the comprehensive plan and land development regulations, and then making sure that everybody plays by the same rules.

- Rosalind Baker – Ms Baker commended the City for pre-planning. She noted how different areas have their attraction. For Plant City it is agriculture and the Strawberry Festival. Ms Baker stated that agriculture is an important contrast to urban areas and she encouraged maintenance of the agricultural areas in the northeast area.

Vice Mayor Robert Brown moved that the City approve the master plan. The motion was seconded by Commissioner Yvette Thomas Mathis. Commissioner William Dodson commended Ms Nelson for her participation and following the project and clarified that the land use plan currently controls annexed areas. Vice Mayor Brown thanked the Mayor and staff for including this item on the agenda of his last meeting. Mayor Lott commented on the collaborative process and expressed gratitude for the strong leadership his fellow commissioners exhibited through the process. The motion passed 5-0.

2.5.3. The Hillsborough County Metropolitan Planning Organization

The presentation of the Northeast Plant City Area Master Plan to the Hillsborough County Metropolitan Planning Organization (MPO) was given on Tuesday, June 3, 2008, as part of the regular MPO meeting. A brief presentation of the project was provided by Jill Quigley and Scott Pringle. The presentation covered the planning process, the preferred land use vision, the transportation analysis, the interim/phase one vision, and implementation strategies.

Following the presentation, Mayor (and MPO Board Member) Rick Lott took several minutes to explain to the audience the importance of the master plan. Mayor Lott stressed that the purpose of the plan is not to grow the northeast area but instead ensure that growth, when it does occur, follows a set of standards so that it is not piece meal.

There were no public comments on the project and no official action was taken by the MPO at the meeting.

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3. Existing Conditions

The first step in the master planning process was to identify existing conditions within the Study Area. The purpose of the Existing Conditions analysis was to identify the opportunities and constraints for development in the Study Area. The analysis was divided into three major areas: demographic/socio-economic conditions, public facilities, and environmental conditions. The demographic/socio-economic conditions analysis was based on a review of U.S. Census data. Information on public facilities and environmental conditions was based on existing data from the City's Public Works Department, Hillsborough County, and several State of Florida agencies, including the Department of Transportation. This information was compiled into a development suitability analysis using Geographic Information Systems. The results of the analysis were used as a planning tool for the purposes of developing the future land use alternatives. This section of the master plan document provides a brief summary of the existing conditions in the Study Area. More detail is available in the *Existing Conditions and Physical Constraints Report*.

3.1. Existing Conditions Evaluated

The existing conditions analysis considered the following factors, which are discussed below.

- Demographics and Socio-Economic Conditions
- Water Supply
- Sanitary Sewer Collection
- Transportation
- Public Schools
- Wetlands
- Floodplains
- Surface Water Protection Areas
- Wellfield and Wellhead Protection Areas

- Significant Wildlife Habitat
- Topography/Slope
- Environmental Conservation Areas
- Historical & Archaeological Sites

3.1.1. Demographics and Socio-Economic Conditions

Comparisons were drawn between the Study Area and Plant City as a whole for the following factors: population change, age, race, ethnicity, level of education attained and income. In most of the demographic and socio-economic indicators that were evaluated, the Study Area closely resembles the trends experienced by Plant City as a whole. The most significant differences between the two are the substantially older population and the higher percentage of the population with a college degree found in the Study Area. The following were identified as considerations for the master plan as a result of the demographic and socio-economic analysis:

- The population is growing more diverse. The types of goods and services offered should reflect this change. For example, park and recreational facilities should accommodate a wide variety of activities.
- If reducing the average age of the Study Area population is desired, residential development geared towards families should be promoted. Associated with this will be the provision of a higher level of service for public facilities, such as schools, parks and recreation, and other family-oriented goods and services.
- For an economically sustainable area, the development proposed for the Study Area should be attractive to individuals with higher levels of educational attainment and potentially seeking higher income careers. Ideally, these people would live and work within Plant City so as to avoid further overburdening the regional roadway network.

3.1.2. Water

Plant City's drinking water is supplied from the Floridian Aquifer by four wells. Current permitted (South West Florida Water Management District) water supply is 9.852 MGD, Average Annual Daily Flow (11.823 MGD Peak Month). During 2005, the City's Utilities Department treated and distributed 5.8 MGD of drinking water (Public Works Annual Report 2005), well below its permitted and available capacity. Excess potable water capacity will allow additional development to occur in areas that are already served or can easily be served by existing water lines. Therefore, the location of the existing water lines was determined to be an important factor in assessing the opportunities and constraints to development in the Study Area. As shown in Figure 4, the majority of the Study Area is not served by City water, as the existing lines do not cross north of I-4 (east of Wilder Road) or north of Sam Allen Road (west of Wilder Road).

3.1.3. Sanitary Sewer

The Plant City Water Reclamation Facility collected and treated approximately 5.4 MGD of wastewater in 2005. The existing facility has the capacity to treat 8.0 MGD and construction is underway to expand the treatment capacity to 10.0 MGD by April 29, 2008. The locations of existing sanitary sewer lines are shown in Figure 4. The location of sanitary sewer lines is similar to the potable water system, not extending north of I-4 in the eastern portion (east of Wilder Road) of the Study Area and only extending as far as Sam Allen Road in the western portion (West of Wilder Road) of the Study Area.

The City also provides reclaimed water for non-potable uses, such as irrigation. In 2005, the City distributed 2.5 MGD of reclaimed water. While the use of reclaimed water is an important water conservation measure, the ability to develop land does not depend on its presence or absence.

3.1.4. Transportation

Within the Study Area there are two regional roadways that provide access to the local roadway network. Interstate 4 crosses the southern portion of the Study Area with an east-west orientation. This is a regionally significant interstate that connects the City of

Tampa with the cities of Plant City, Lakeland, Orlando, and points east. State Road 39, while not as regionally significant as I-4, connects the City of Zephyrhills in Pasco County and Downtown Plant City. US-92 and Knights Griffin Road are also significant corridors, providing east-west access to the study area, while connecting Downtown Plant City with major employers such as Publix Supermarket's primary distribution complex. US-92 is also a component of the West Central Florida Chairs Coordinating Committee (CCC) regional transportation network.

The existing LOS for Study Area corridors are documented using the 2005 Roadway Level of Service Report, published by Hillsborough County in July 2004. The results of this effort, which reflect the average PM Peak hour of travel, are presented in Figure 5. The average of many congestion indices are the basis for a Level of Service (LOS) determination. LOS A and B indicate good operating conditions with minimal delay and at LOS C, there are some delays, but congestion is still fairly light. LOS D describes a condition where congestion levels are more noticeable and conditions at LOS E and F reflect poor service levels, with significant congestion. The data indicates that all corridors operate at LOS C or better during the average PM Peak Period with the exception of the following:

- Within the Study Area SR 39 north of I-4 and Wheeler Street south of I-4 operate at LOS D.
- I-4 between the intersections of SR 39 and Park Road is the most congested with operations at LOS E.
- I-4 between the intersections of Park Road and County Line Road operates at LOS D.

Within proximity to the Study Area are two public transit agencies. The first is the Hillsborough Area Regional Transit (HART) Agency which provides local and express service to the metropolitan areas of the City of Tampa and Hillsborough County. HART provides one express route within the vicinity of the project Study Area. This express route (28x) provides service to Forbes Road and US-92. This stop, while outside of the Study Area, provides Plant City residents express bus service to downtown Tampa, leaving twice

in the AM peak commuter hour (6:15AM and 6:45AM) and returning during the PM peak commuter hour (5:31PM and 6:10PM).

The Strawberry Express is a local bus service operated by Plant City with three routes that directly border the Study Area. These routes connect local destinations with downtown Plant City. These routes are the southeast Plant City Route 71, the Northwest Plant City Route 72, and the Northeast Plant City Route 73 which operate with one hour headways and are shown in Figure 6.

There are two heavy rail lines located within the Study Area: one along the SR 39 corridor and the other along US-92. The rail line running along the SR 39 corridor is owned by CSX and is primarily used to carry freight, whereas, the rail line running along US-92 is owned by Amtrak and used for passenger service. Various studies such as the Tampa Bay Commuter Rail, the Florida Coast-to-Coast Rail, the Strategic Regional Transit Needs Assessment, the Tampa Bay Area Regional Transportation Authority's (TBARTA) Regional Master Plan, and the Florida High Speed Rail are considering the use of the existing Amtrak rail line as a possible location to provide regional transit opportunities in the future.

3.1.5. Public Schools

Enrollment from the 2005 school year was obtained for the elementary, middle and high schools that are assigned to the Study Area (see Figure 7 for the school locations). All of the elementary, middle and high schools are over capacity, and therefore, additional capacity will be required to support any new residential developments in the Study Area.

3.1.6. Wetlands

For the purposes of this evaluation, land was divided into uplands or wetlands. The Study Area has a significant number of wetlands (see Figure 8) that may impact the location of development and related facilities, such as roads. The Study Area consists of approximately 10,711 acres of uplands (85 percent) and 1,902 acres of wetlands (15 percent).

3.1.7. Floodplains

Approximately two thirds, or 9,668 acres, of the Study Area is designated as Zone X or X500 floodplain. Of the remainder, approximately 19 percent (2,423 acres) are designated as AE and 4 percent, or 521 acres, is located within the A zone (see Figure 9). Hillsborough County requires the lowest habitable floor of residential structures to be elevated at or above the base flood elevation (BFE) identified on the Flood Insurance Rate Maps (FIRM). Nonresidential structures are allowed to flood proof (be made water tight) to the base flood elevation or elevate the lowest floor to or above the BFE. If BFE has not already been established, the property owner is responsible for conducting the appropriate analysis to determine the proper elevation. Thus, while location in an A or AE flood zone does not prevent development from occurring, it does add to the cost of construction.

3.1.8. Surface Water Resource Protection Areas

Pursuant to Sec. 3.05.02, Wellhead Resource Protection Area Map, Surface Water Resource Protection Area Map and Potable Water Wellfield Protection Area Map, of the Hillsborough County Land Development Code, "lands located adjacent to or near surface water bodies that are upstream of potable water supply systems are designated as Surface Water Resource Protection Areas (SWRPA) to protect downstream water quality from threats of certain types of land use activities and surface water discharges." These zones include the land area of surface water bodies and watercourses. The County has established regulations that restrict certain activities and types of land uses within SWRPA, such as prohibiting new industrial uses or the injection of stormwater into areas connected with the Floridian Aquifer. Over 2,800 acres of land (or 22 percent) within the Study Area is designated as Surface Water Resource Protection Area. Figure 10 shows the location of water bodies and Surface Water Resource Protection Areas within the Study Area.

3.1.9. Wellheads

Hillsborough County requires a 500 foot protection zone around all potable water wellheads, known as Potable Water Wellfield Protection Areas (PWWPA), and has established specific land use regulations to ensure that recharge areas and water quality are protected. In addition to PWWPAs, the County identifies Wellhead Resource Protection

Areas (WRPA). WRPAs are separated into two zones: Zone 1 is the Potable Water Impact Protection Zone and Zone 2 is Public Potable Water Supply Well Protection Zone. Uses that would adversely affect the water quality, such as dry cleaners, golf courses, sewage treatment are prohibited in the protection zones. More stringent criteria are applied to PWWPAs.

Figure 11 shows the locations of Zone 1 and 2 wellhead protection areas. The only Zone 1 area is located at the northern end of the Study Area and it is a potential public water resource area. The Zone 2 areas located within the Study Area are production wells that currently supply drinking water. Three well sites are identified in Zone 2. Thirty-four potable water wells are located in the study area and each has a 500 foot radius protection area buffer zone. Less than 20 percent of the Study Area is designated as a Zone 2 protection area, and only about six percent of the area is designated as a Zone 1 protection area.

3.1.10. Significant Wildlife Habitat

Significant Wildlife Habitat is defined by the Hillsborough County Land Development Code as, "Contiguous stands of natural plant communities which have the potential to support healthy and diverse populations of wildlife and which have been identified in the Florida Game and Freshwater Fish Commission Natural Systems and Land Use Cover Inventory for Hillsborough County." The County's regulations provide for the on-site preservation of all Significant Wildlife Habitat, and do not permit the construction of new roads through these areas unless no other feasible alternative exists. There is a large area of land (approximately 493 acres) designated as Significant Wildlife Habitat within the Study Area (see Figure 12).

3.1.11. Topography/Slope

While slope is not generally a significant consideration in the development of land in West Central Florida, an assessment of the Study Area's contours (see Figure 13) revealed that there may be the potential for some steep terrain. Using data from the Digital Elevation Model (obtained from the Florida Geographic Data Library), a slope analysis was

conducted. The results indicate that while a majority (65 percent) of the land has slopes of eight percent or less, 35 percent has slopes between eight and 20 percent, and nearly 200 acres are sloped in excess of 20 percent.

3.1.12. Environmental Conservation Areas

Figure 14 shows the areas designated for preservation by the County's Environmental Lands Acquisition and Protection Program (ELAPP). To date, only the 365-acre parcel that is immediately adjacent to Knights Griffin Road has been acquired. This parcel was purchased jointly by Plant City and the Florida Communities Trust and is designated as a preservation area. The other designated area, the Zack Tract, occupies most of the area designated as Significant Wildlife Habitat (see Figure 12), but the owner has not responded to inquiries about potential purchase and has already received a change in zoning from the City and intends to develop the property.

3.1.13. Historical, Cultural and Archaeological Resources

An inquiry with the Florida Master Site File (FMSF) in November 2006 resulted in a finding of 33 previously recorded archaeological sites (site types include: prehistoric mound, artifact scatter, prehistoric burial ground, campsite, Nineteenth century development, and aceramic camp), four cemeteries, and 110 standing structures (structure types include: residence, gate, school, store, barn, hotel, and monument) within the project area. Although there are a large number of historically significant properties located within the Study Area, their inclusion in the FMSF does not necessarily suggest the structures are significant. These sites will continue to be an important factor while the land use scenarios are completed for the Northeast Plant City Master Plan. In particular, the four cemeteries will be taken into consideration, have been located, and are shown in Figure 15.

3.2. Evaluation Methodology

The development suitability of the Study Area was evaluated using a Geographical Information System (GIS) based spatial model, using the Spatial Analyst extension of ArcGIS (version 9.1). The model was intended to identify land suitable for development

within the Study Area based on a set of variables that are appropriate for region-wide analysis. In the case of Plant City, this region covers an area of approximately 20 square miles. The model was intended to be used as a tool for analysis and the model outputs were used as a guide for making informed decisions as they relate to alternative future land use scenarios. The final development suitability scale was established using the built-in statistical analysis tools of GIS.

The model uses two parameters: environmental constraints to land development and infrastructure availability necessary for land development. Ten different variables were used to evaluate these parameters. The logic for using these variables included readily available data sources, appropriateness to the scale at which the model is applied, and model simplicity. Table 1 shows the variables used and how each was evaluated.

Table 1: Variables and Evaluation Measures

Variable	Measure Evaluated
Water Supply	Proximity
Sanitary Sewer	Proximity
Environmental Conservation Areas	Designated areas
Topography	Percent of slope
Floodplains	Type of flood zone
Wetlands	Proximity
Streams	Proximity
Significant Wildlife Habitat	Designated areas
Surface Water Protection Area	Designated areas
Potable Water Well & Wellhead Resource Protection Areas	Proximity

Source: Carter & Burgess, Inc., 2006

GIS maps of the study area, comprised of data grid-cells representing 90′ x 90′ land areas, were assembled for each variable. A three-tiered ranking was then applied. First, each variable was divided into its component traits. For example, the floodplain variable has three traits: Zone X/X500, Zone A, and Zone AE. Each trait was then given a rating for its suitability for development. These ratings were assigned on a scale of three, where one (1) equals High Suitability, two (2) equals Limited Suitability and three (3) equals Poor Suitability.

The second tier of analysis was based on the impact the variable has on overall development, and each variable was assigned a weighting factor on a scale of 0 to 100, where 0 represents no constraint to development and 100 represents significant constraint. For example, the absence of water supply lines is not as limiting to development as the existence of wetlands, so the weighting factor assigned for water supply is lower than the factor for wetlands. Considerations in determining an appropriate weighting factor included the impact on the ability to develop the land from a physical standpoint and the financial impacts of the variable.

The third tier of the analysis was determining the relative value of each variable in relation to overall scale. This was determined by totaling the weighting factors and calculating the percent each variable contributed to this total. As an equation, this concept is expressed as: Relative Value = Variable Weighting Factor/Sum of Weighing Factors * 100. Table 2 summarizes the three-tiered analysis for each variable.

Table 2: Variables, Suitability Ratings, Weighting Factors and Relative Values

Variables	Suitability Rating	Weighting Factor	Relative Value
Wetlands		100	18.2%
No	1		
Yes	3		
Floodplain		50	9.2%
X or X500	1		
AE	2		
A	3		
Significant Wildlife Habitat		70	12.7%
No	1		
Yes	3		
Topography		30	5.4%
0 – 8% slope	1		
8 – 20% slope	2		
Greater than 20% slope	3		
Surface Water Protection Area		20	3.6%
No	1		
Yes	3		
Streams		100	18.2%
No	1		
Yes	3		

Variables	Suitability Rating	Weighting Factor	Relative Value
Wellfield & Wellhead Protection Areas		20	3.6%
None	1		
Zone 1	2		
500 ft buffer or Zone 2	3		
Water Supply		30	5.5%
Within 500 feet of existing service	1		
Between 500 and 1,000 feet of existing service	2		
Beyond 1,000 feet of existing service	3		
Sanitary Sewer		30	5.4%
Within 500 feet of existing service	1		
Between 500 and 1,000 feet of existing service	2		
Beyond 1,000 feet of existing service	3		
Environmental Conservation Areas		100	18.2%
No	1		
Yes	3		
	TOTALS	**550**	**100.0%**

Source: Carter & Burgess, Inc., 2006

3.3. Evaluation Results

The composite analysis indicates that a majority (over 60 percent) of the Study Area is suitable (either "High" or "Moderate") for development. The areas with "High" are generally located in the southern portion of the Study Area where existing water and sewer facilities are available. The "Moderate" suitability areas, which represent the largest portion of the Study Area, are located in the center and on the western edge and northern (north of Knights Griffin Road) portions of the Study Area. These are the areas where the environmental conditions were the least restrictive, i.e. there is a greater presence of uplands, land is outside the 100-year floodplain, and is not designated for preservation, as wildlife habitat, or as a surface water resource or wellfield/wellhead protection area. The portions of the Study Area that are less ("Low" and "Very Low") suitable for development, according to this analysis, are those areas designated as Surface Water Resource Protection Areas and within the 100-year floodplain or are comprised of wetlands (orange, "Very Low" areas). The areas that "May Not Be Suitable" for development are shown as red in Figure

16, and these are comprised of the ELAPP preserved site, streams, and areas where streams and wetlands overlap.

As mentioned previously, the results of this analysis were not meant to provide a basis for land use regulation, but rather to act as a planning tool for the creation of the land use scenarios. The results of this analysis combined with existing parcelization patterns, information on approved developments, ownership data, information from the Florida Master Site File, the guiding principles established as a result of the community interviews, and the professional judgment of the project team were used to create the future land use scenarios.

Figure 4: Existing Water, Sewer and Reclaimed Water Lines

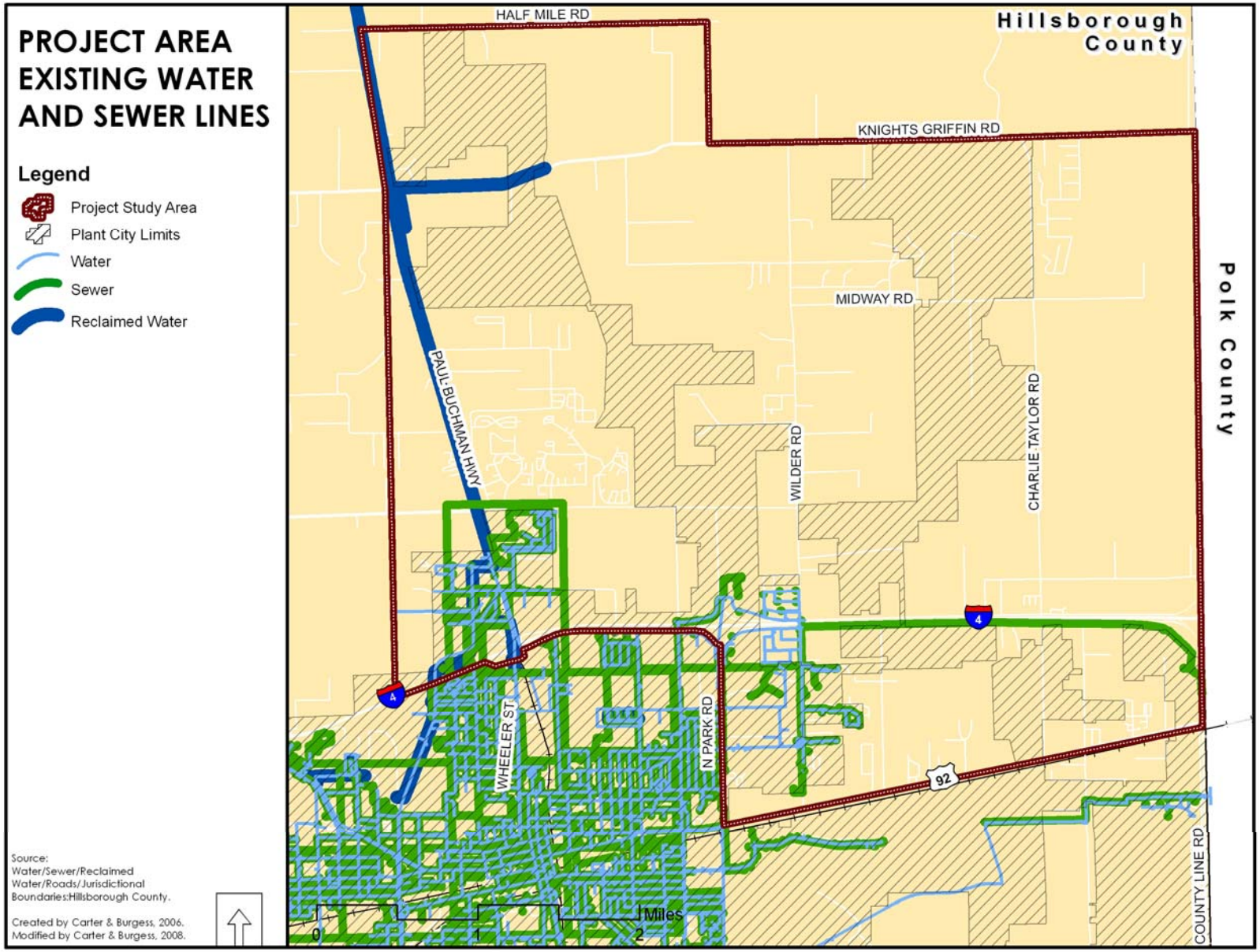


Figure 5: Existing Roadways and Levels of Service (2004)

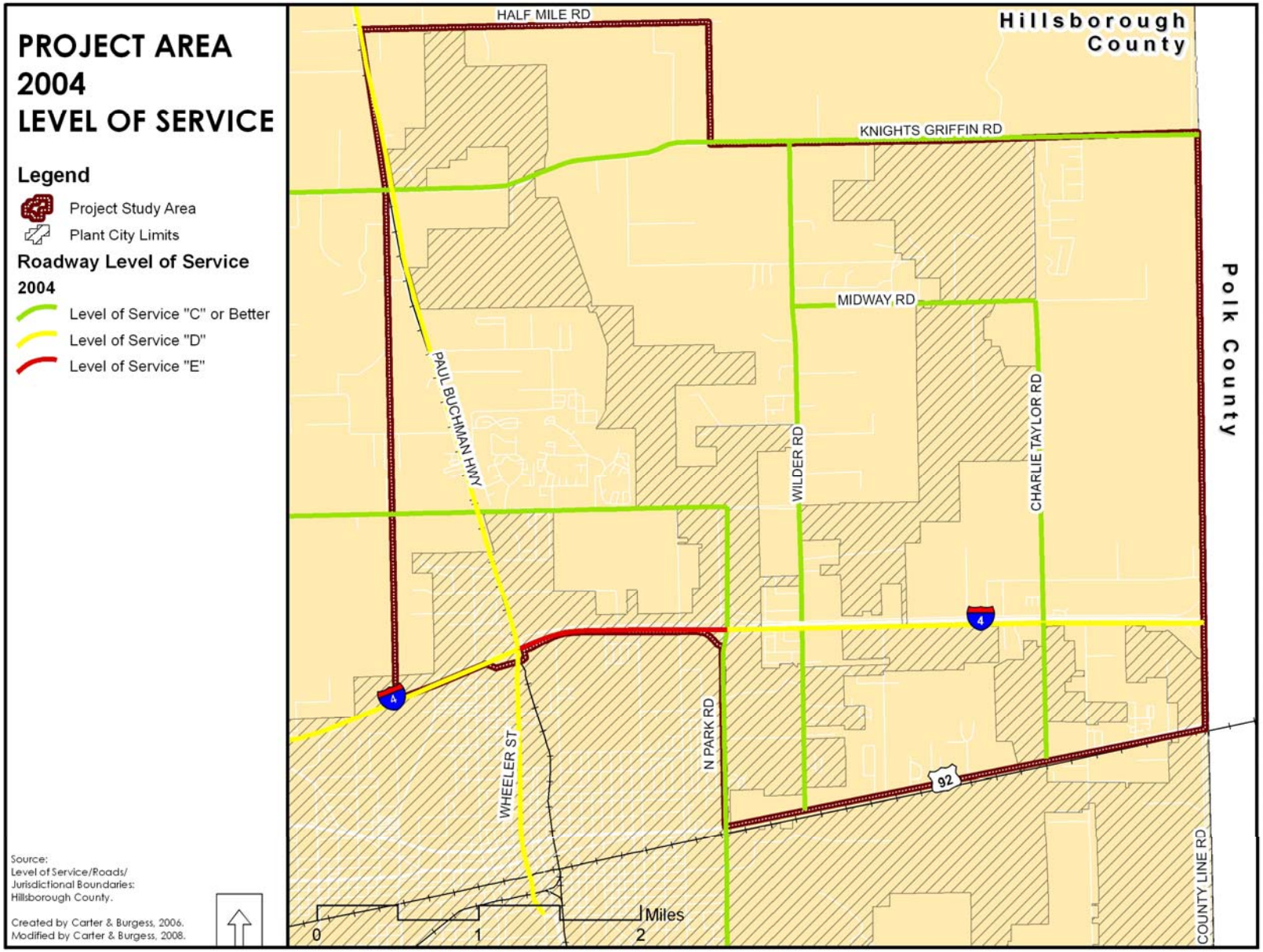


Figure 6: Existing Public Transportation

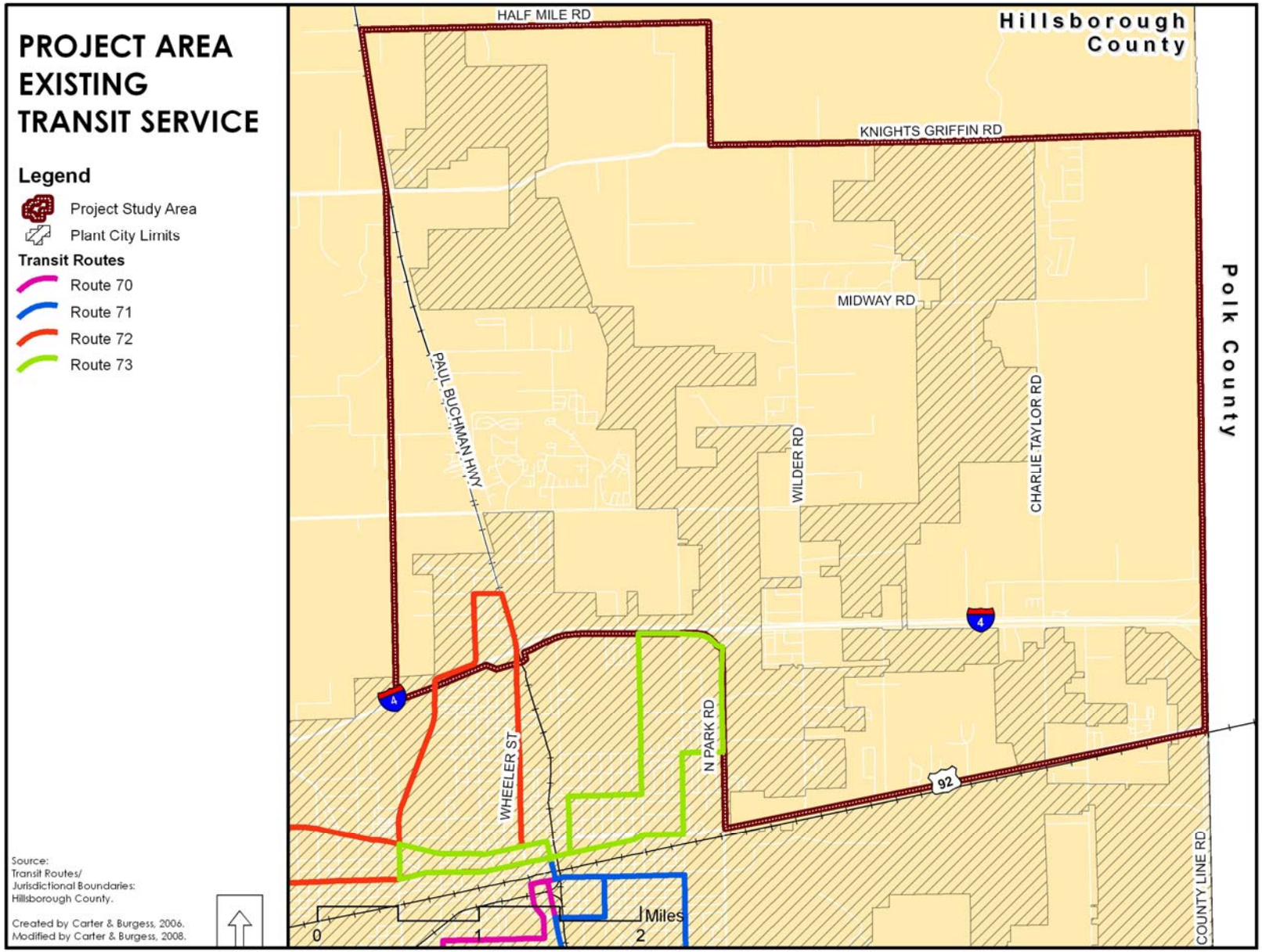


Figure 7: Existing Public Schools

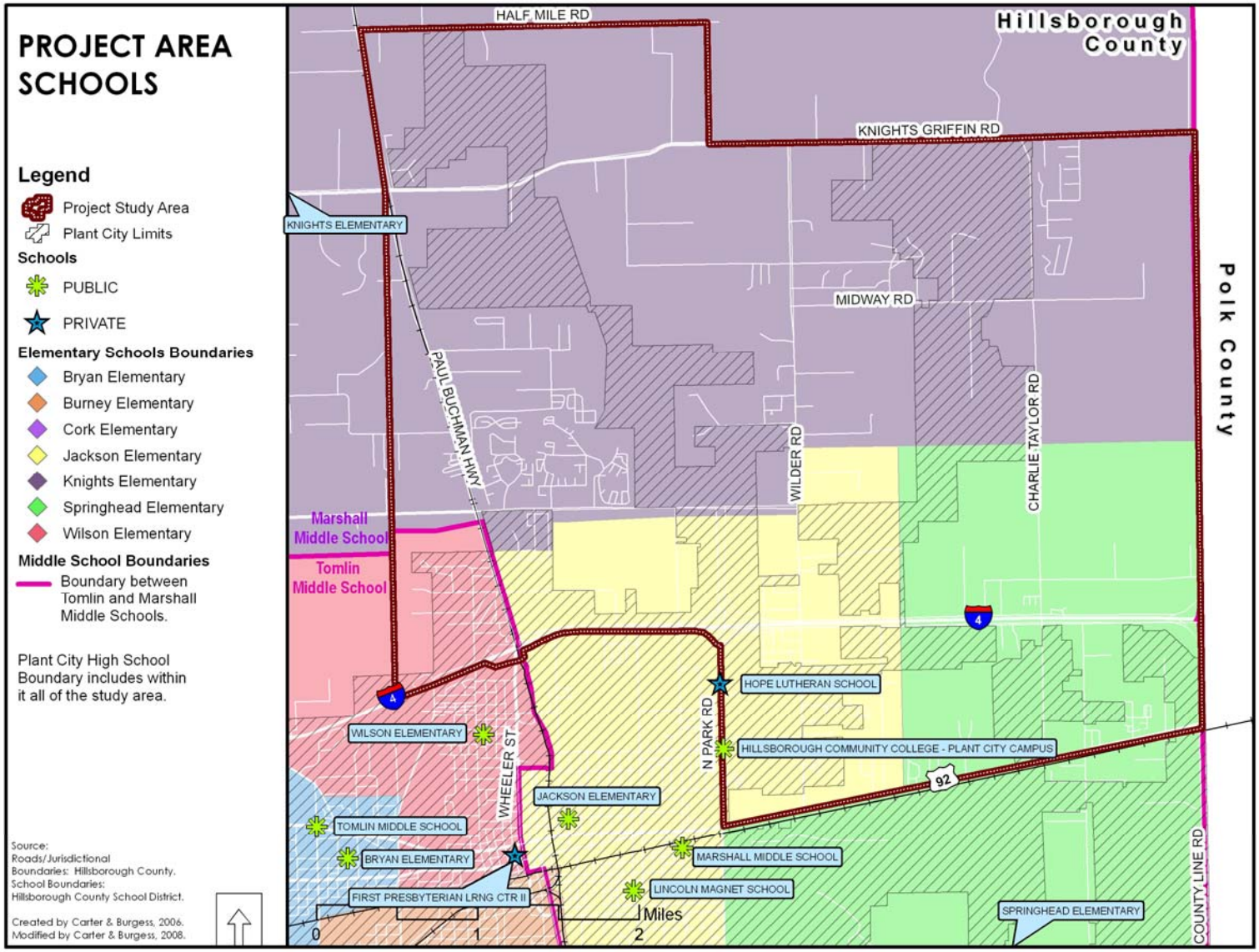


Figure 8: Wetlands

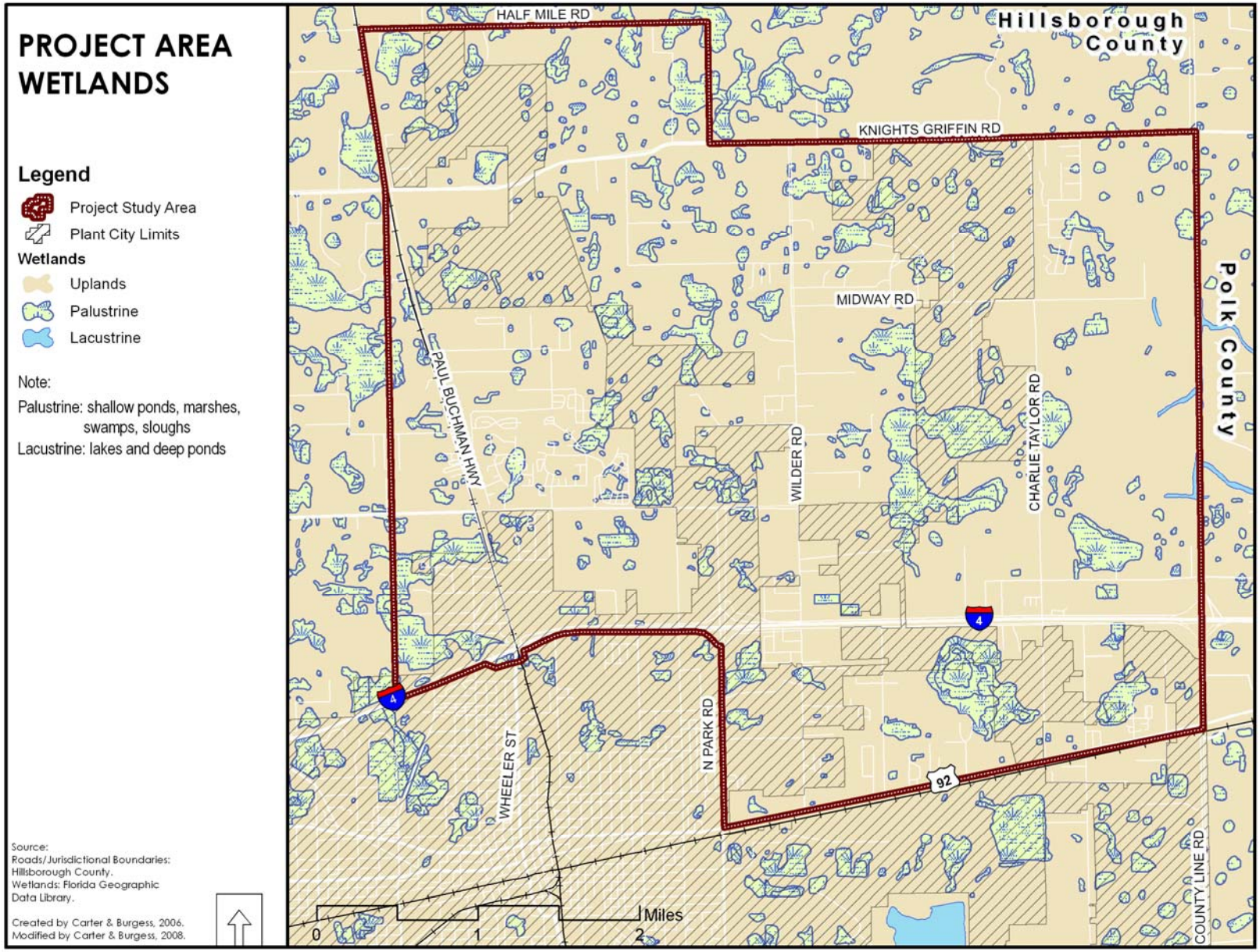


Figure 9: Floodplains

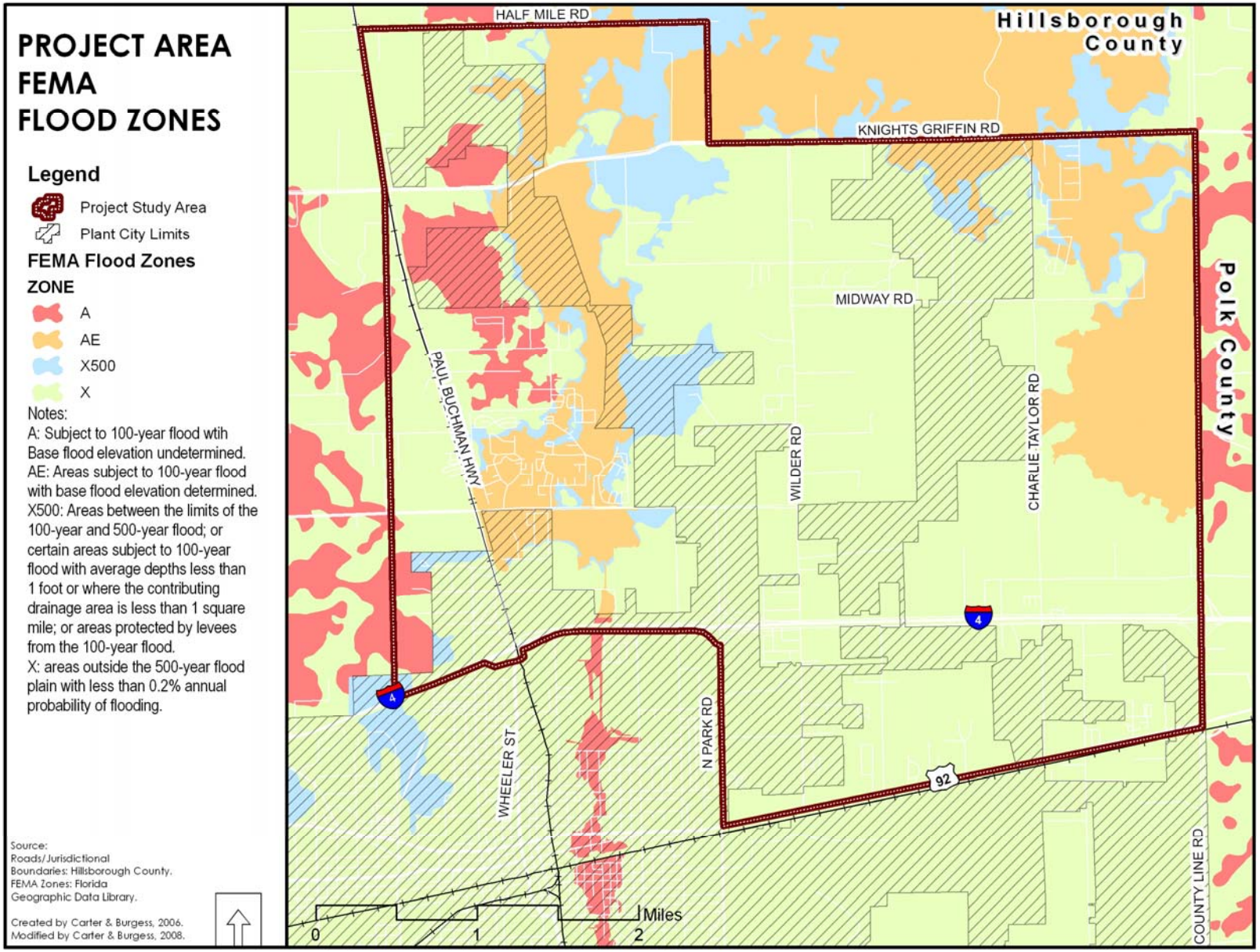


Figure 10: Surface Water Protection Areas

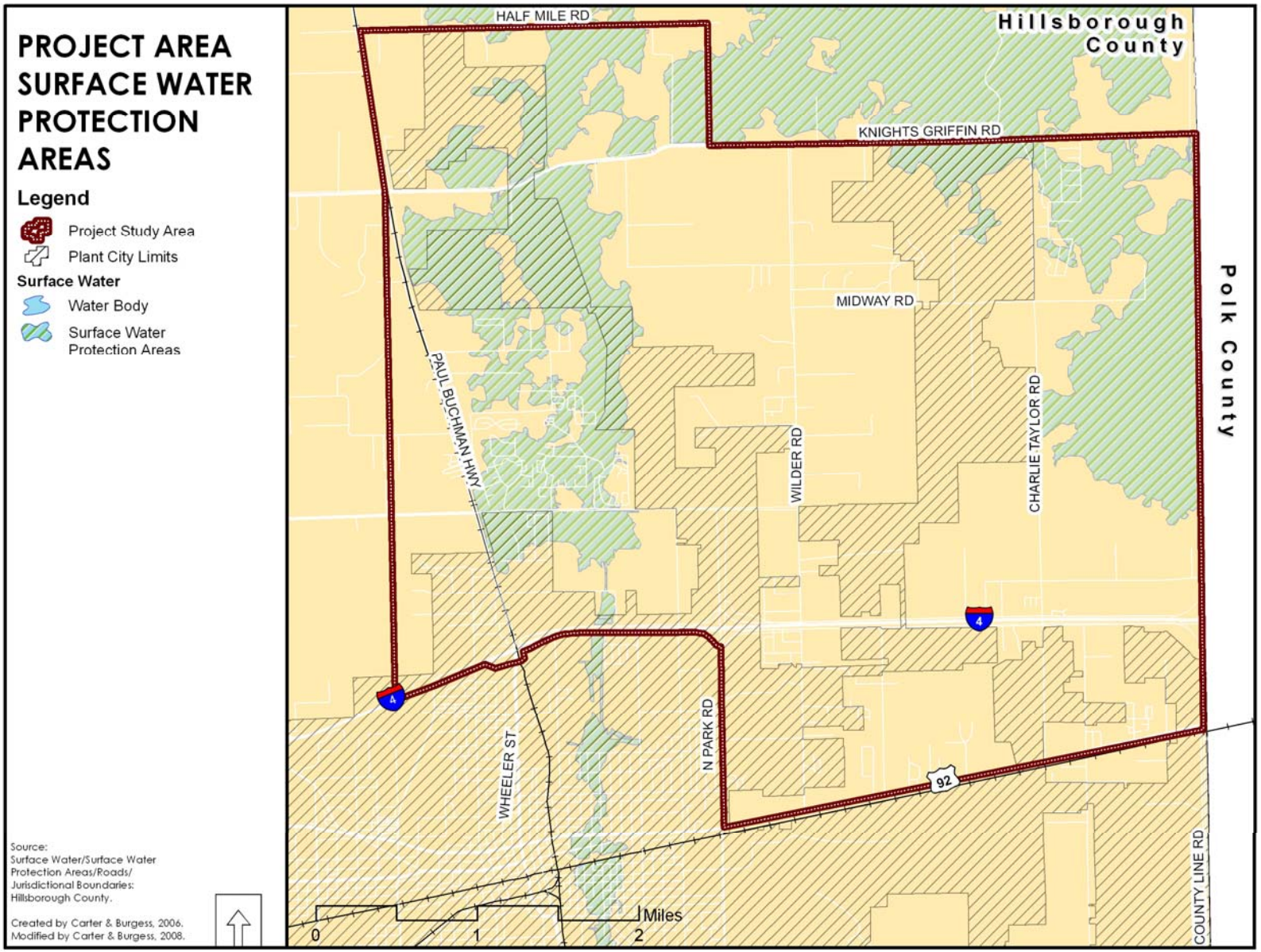


Figure 11: Wellhead Protection Areas

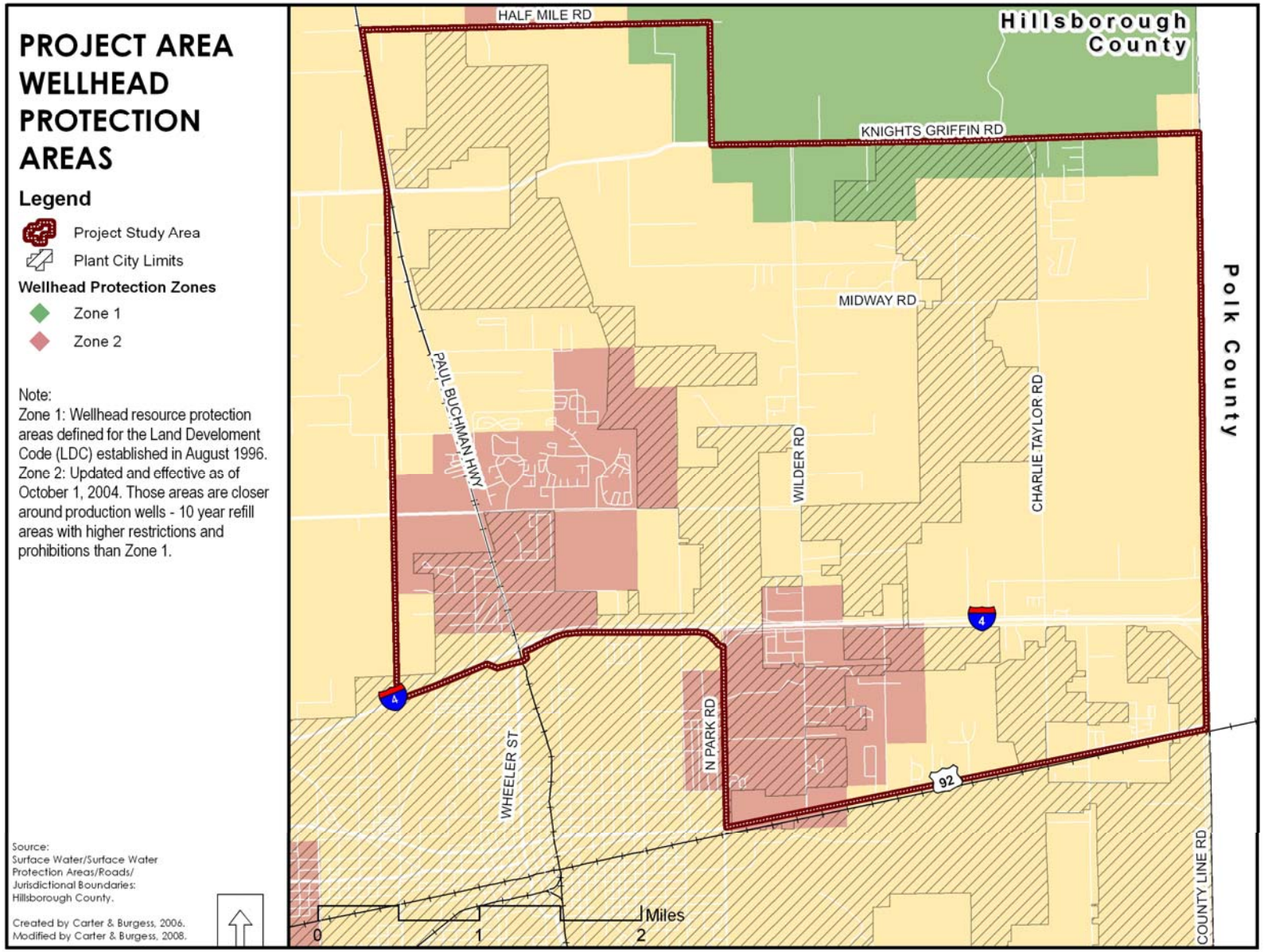


Figure 12: Significant Wildlife Habitat Areas

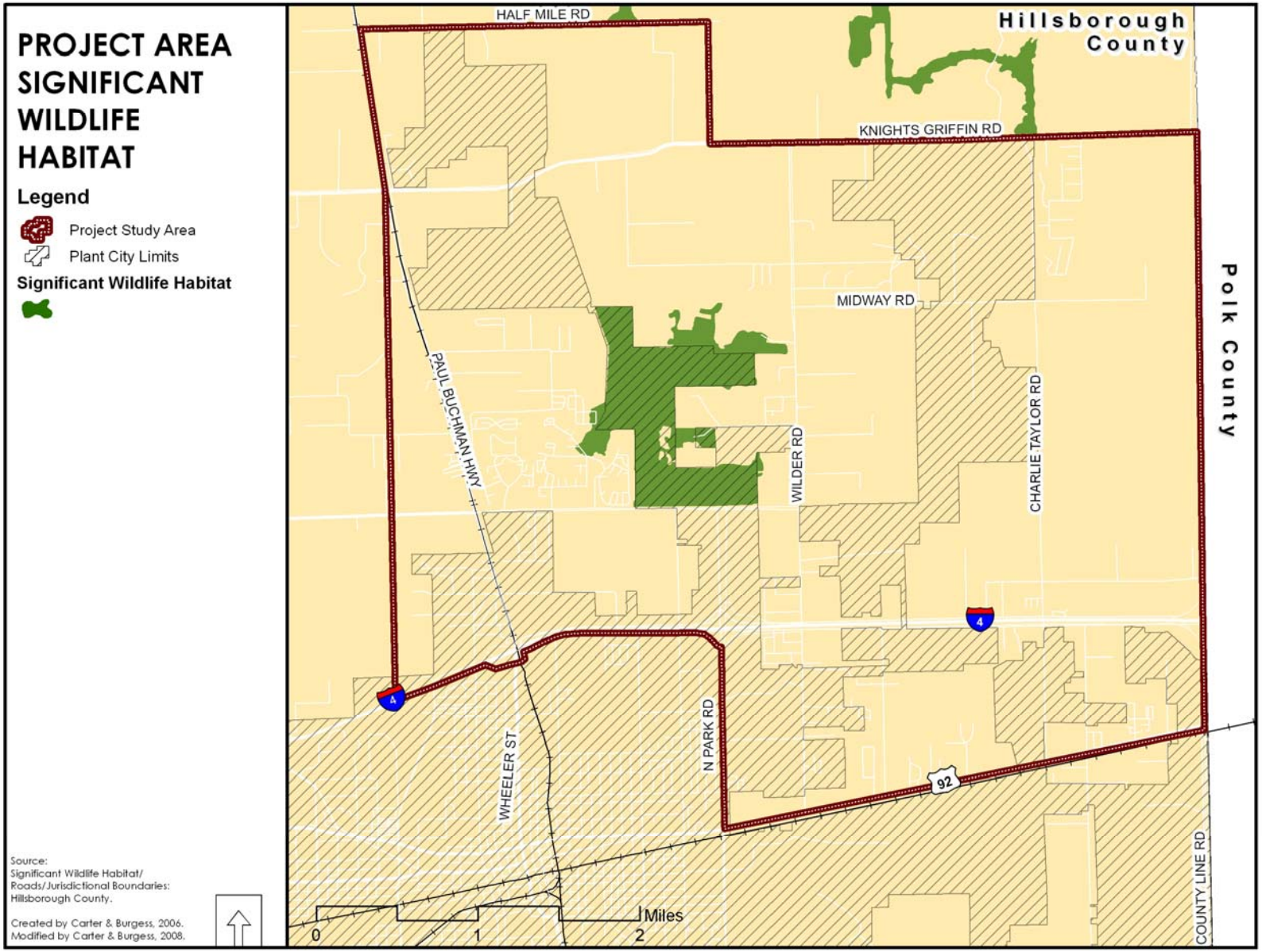


Figure 13: Topography/Slope

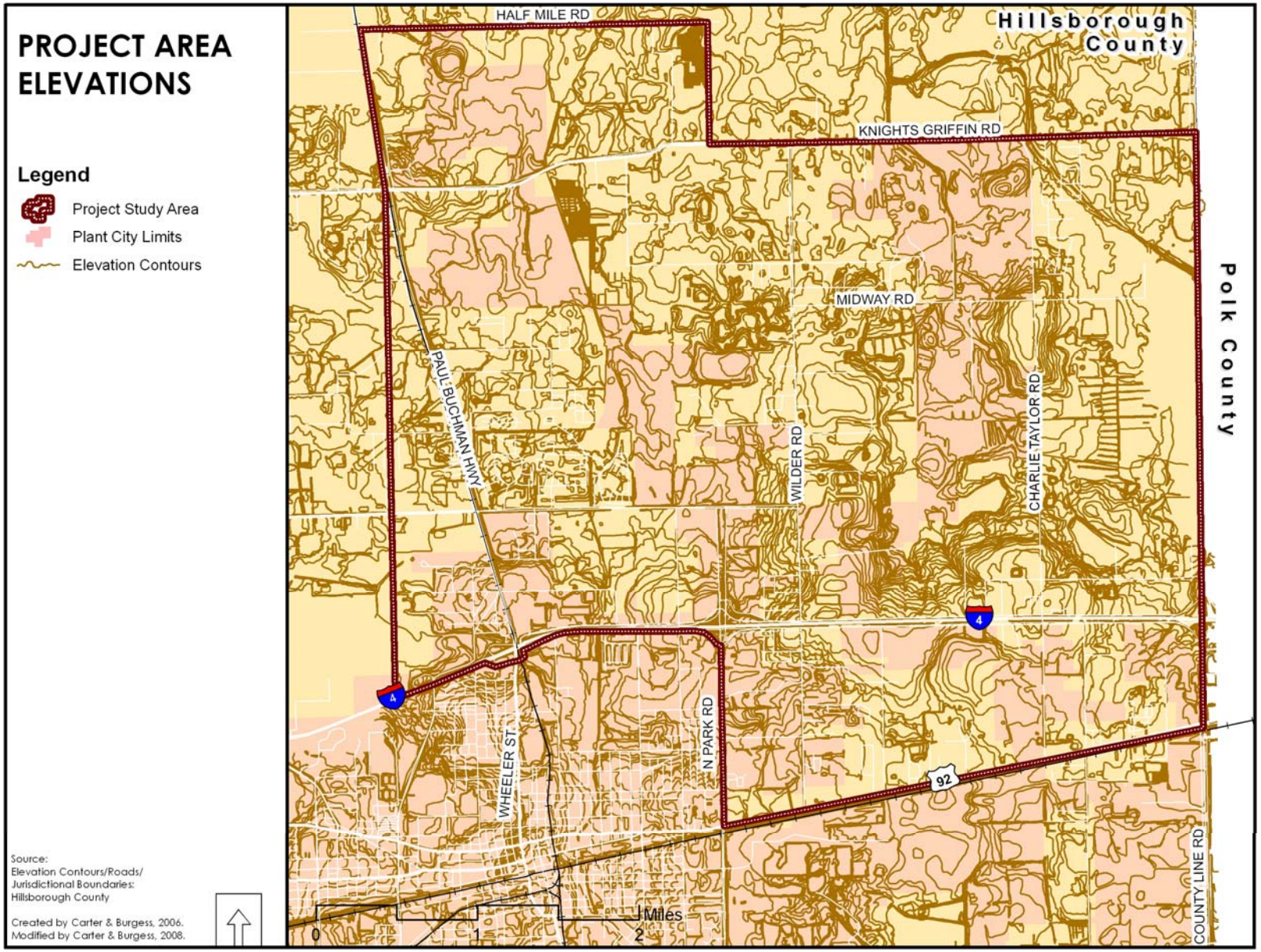


Figure 14: Environmental Conservation Areas

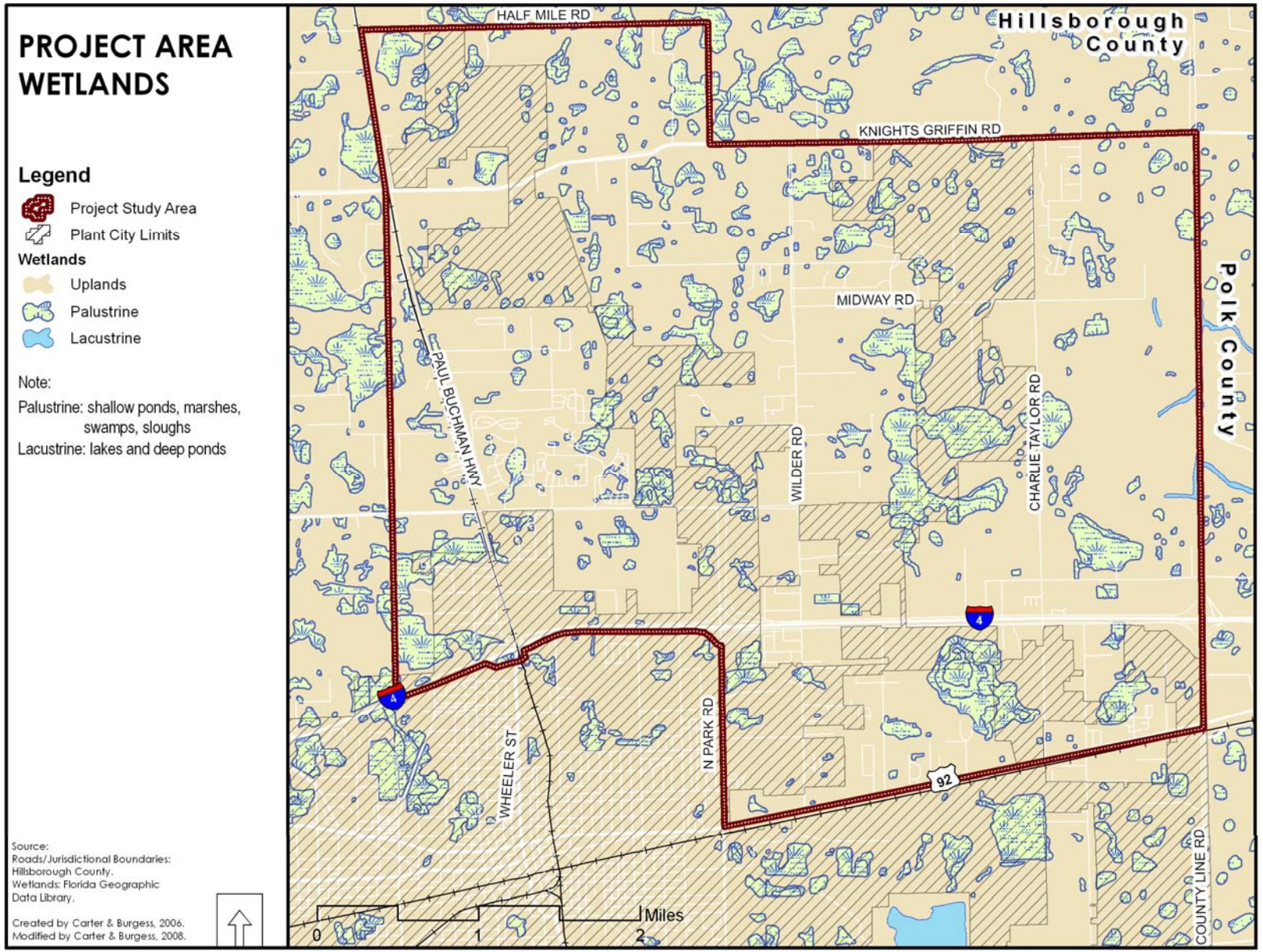


Figure 15: Cemeteries Identified by the Florida Master Site File

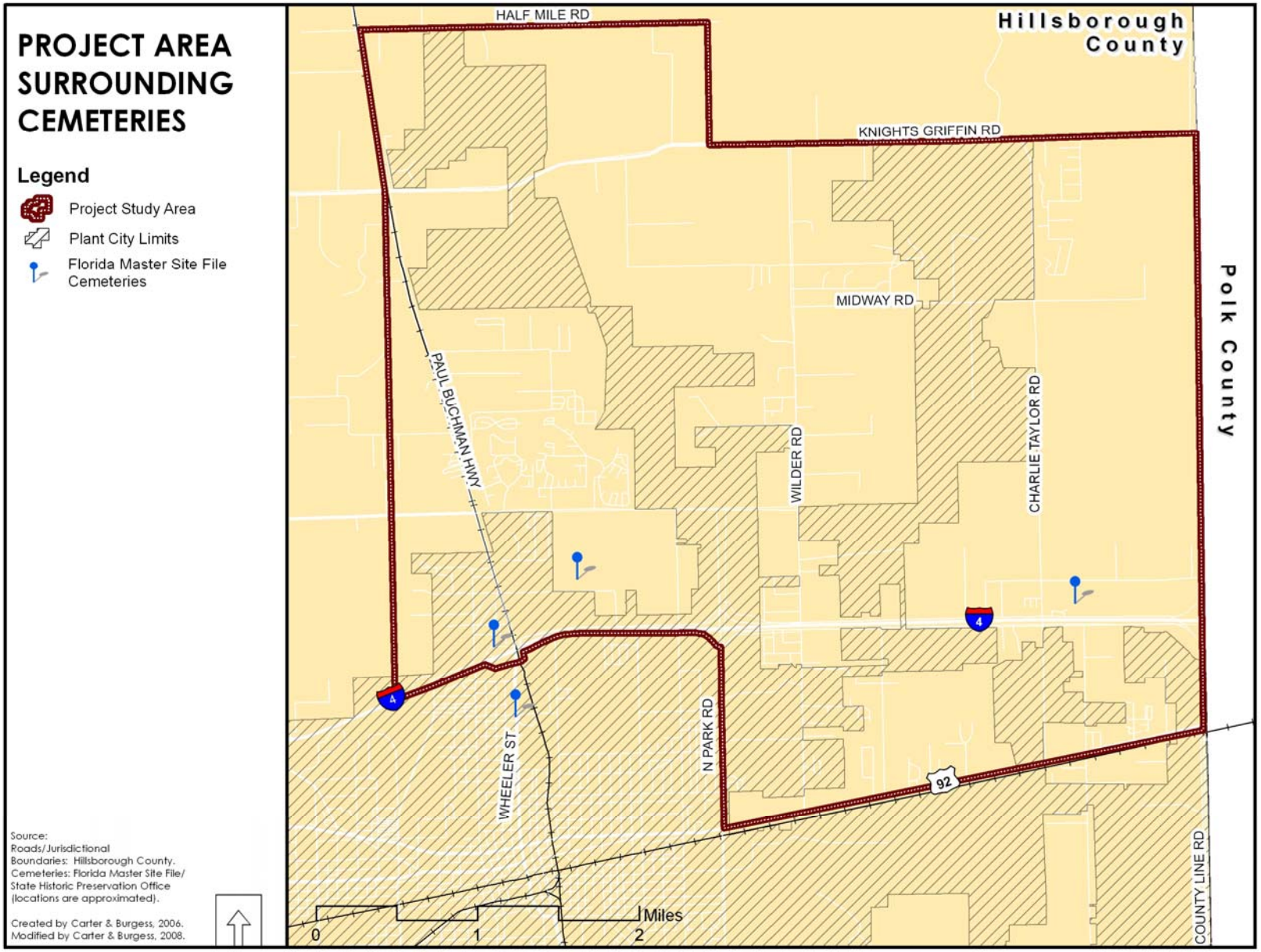
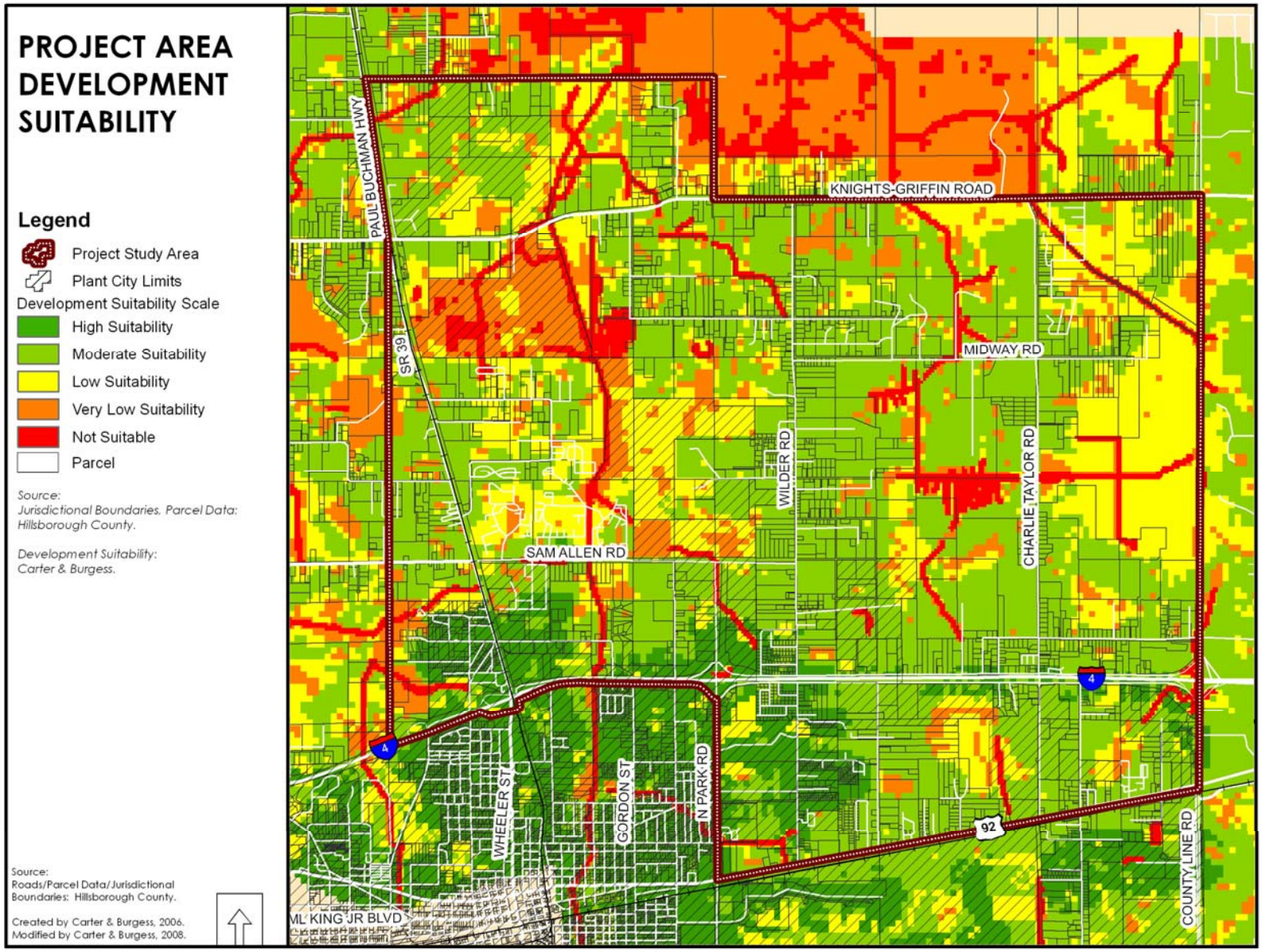


Figure 16: Development Suitability Analysis Results



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4. Guiding Principles

The next step in the master plan process was to develop a set of Guiding Principles that would be used to shape the alternative future land use and transportation scenarios. There were three key ingredients in the creation of these principles:

1. Stakeholder interviews as described in Section 2.
2. Review of the draft set of principles with the Technical Working Group.
3. Review and approval of the principles by the City Commission.

The final result was the set of principles and implementation strategies presented below.

Guiding Principle: Home Town Character

Strategies:

1. Ensure accessibility between neighborhoods.
2. Promote connectivity to Downtown.
3. Encourage compatible residential development (scale and size).
4. Promote a Livable Community.

Guiding Principle: Economic Diversity

Strategies:

1. Consider existing and future development.
2. Provide adequate land area for employment opportunities.
3. Encourage a variety of commercial uses.

Guiding Principle: Adequate Infrastructure

Strategies:

1. Preserve land for civic uses (schools, parks and recreation, etc.).
2. Cluster civic uses.
3. Encourage multimodal transportation.
4. Share infrastructure costs equitably.
5. Encourage local vehicle trips on local roads.
6. Preserve and enhance regional transportation systems and functions.

Guiding Principle: Sustainable Natural and Built Environments

Strategies:

1. Diversity in housing options.
2. Ensure provision of adequate open space.
3. Protect productive agricultural lands.
4. Appropriately locate higher density residential and nonresidential uses.

The following is provided to better explain the reasoning behind the Guiding Principles and their associated strategies.

Principle: Preserve Home Town Character

When asked what made Plant City unique, nearly every interviewee responded with "small town charm" or character. The follow up question asked the respondent to identify what was responsible for creating this character. While many of the elements that were cited are not related to land development patterns, the strategies associated with this principle are the translations of how the physical environment affects the social fabric of a community.

Strategy 1. Ensure accessibility between neighborhoods.

This means that the majority of the new residential development in the Study Area should allow for interconnections. An example of how this strategy may be illustrated on the land use scenarios is residential areas with more than one access point and with internal interconnections.

Strategy 2. Promote connectivity to Downtown.

Similar to the first strategy, this refers to both a physical connection to Downtown and the areas of the City located south of I-4, as well as to preserving the role of Downtown. In the physical regard, this may be demonstrated on the land use scenarios by enhancing existing connections under I-4 and to Downtown with pedestrian and bicycle paths or greenways. From the perspective of preserving the

role of Downtown, this means that proposed development within the Study Area will not compete with Downtown.

Strategy 3. Encourage compatible residential development (size and scale).

This strategy refers primarily to ensuring that new residential areas in the Study Area are compatible with the existing residential and/or appropriately buffered. On a larger scale, it also suggests that the residential development pattern in this area should not be drastically different from residential patterns existing in the City.

Strategy 4. Promote a Livable Community.

Livable Communities is a planning concept that encourages a return to pre-World War II development patterns of compact, walkable communities. The principles of Livable Communities include human scale buildings that create a sense of place and community; an interconnected system of streets and paths that encourage bicycle and pedestrian use; narrow streets (where appropriate) to help slow traffic and create a safer environment for pedestrians.

Principle: Economic Diversity

A majority of the interviewees recognized the need for a mixture of uses within the Study Area. In addition to providing for support services such as grocery stores and other retail and service uses, many interviewees recommended that employment opportunities be provided.

Strategy 1. Consider existing and future development.

This strategy refers to the need to consider existing and proposed developments within the Study Area, other areas of the City, such as Midtown or the Lakeside Station DRI, as well as adjacent communities like Polk County, Lakeland, Brandon, and Tampa. The point is to prevent planning for the Study Area in isolation when other the activities and plans for nearby communities impact the market in Plant City and the Study Area. How this translates into the land use scenario plans is that the plans should not show an excess of any particular non-residential use if there is

already a sufficient supply of that use in a nearby area and the proposed growth of the region will not support additional development. Since a market analysis is not included as part of this project, the Consultant will make use of the best available existing data.

Strategy 2. Ensure adequate land areas for employment opportunities.

Closely tied to the first strategy, this means that sufficient land area should be included in the land use scenarios to accommodate employment areas. There was significant discussion during the interviews as to the types of employment opportunities to provide. This is another issue that is best addressed following a market analysis and policy discussion. For the land use scenarios, a variety of employment opportunities will be considered as a means to diversify the economic base of the City and to address the transportation goals of the project. As a result the City may determine that additional distribution facilities may not be the best and highest use in this area.

Strategy 3. Encourage a variety of commercial uses.

The purpose of this strategy is to ensure that a range of commercial uses, in terms of size and type, be considered for the Study Area. Commercial uses are distinguished from employment opportunities in their focus on providing goods and services to residents of the area. Thus, while they may offer employment opportunities, their primary purpose is to provide for the everyday needs of the community.

Principle: Adequate Infrastructure

A critical component of this project is ensuring that there is adequate infrastructure available to support proposed growth. From a land use perspective, the provision of adequate infrastructure relates to ensuring sufficient land is available and the efficiency of providing the infrastructure is directly related to the development pattern.

Strategy 1. Preserve land for infrastructure and civic uses.

The proposed land use scenarios should ensure that adequate land is set aside for rights-of-way, public schools, parks and recreational facilities, government buildings, and other civic uses.

Strategy 2. Cluster civic uses.

Whenever feasible, co-locate civic uses to more efficiently use land area; for example co-locate schools and parks.

Strategy 3. Encourage multimodal transportation.

This refers to ensuring that appropriate facilities are provided for bicycles and pedestrians, as well as vehicles. As an example, the land use scenarios may show a series of greenways connecting residential and non-residential areas as a means to encourage other forms of transportation.

Strategy 4. Share infrastructure costs equitably.

The equitable distribution of infrastructure costs depends upon the placement of development and the phasing or timing of development. The proposed land use scenarios will seek to locate development in areas already served by infrastructure or where required expansion is limited. The scenarios will not address phasing/timing, but this may be addressed as part of the follow up activities.

Strategy 5. Encourage local vehicle trips on local roads.

To protect the function of regional and intrastate roadways, the proposed land use scenarios and accompanying transportation improvements should provide adequate facilities and connectivity to encourage local trips (e.g. trips within Plant City) to use local roadways.

Strategy 6. Preserve and enhance regional transportation systems and functions.

As a complement to strategy 5, this strategy seeks to preserve regional transportation functions. Translating this to the land use scenarios, implementation of this strategy

could include identification of a park-n-ride facility and/or extensions or improvements to roadways that provide regional connections.

Principle: Sustainable Natural and Built Environments

This means that the proposed land use scenarios will strive to achieve a development pattern that meets the needs of the projected population while ensuring that adequate provision is made for the natural environment. The development pattern should also recognize and allow for the continued growth of the area.

Strategy 1. Diversity in housing options.

Key to any sustainable community is the provision of housing options that allows for a mix of economic cohorts. The land use scenarios will reflect a variety of housing types to accommodate both renters and owners.

Strategy 2. Ensure provision of adequate open space.

Open space, whether urban (e.g. plaza) or green, is important to the health of a community. Through the land use scenarios, adequate land areas will be reserved for open space. The reservation of this land does not imply that it will be publicly acquired, but rather that residential density and non-residential uses will not be assigned to the entire land area.

Strategy 3. Protect productive agricultural lands.

The Study Area includes some land that is currently in active agricultural production. The land use scenarios will identify those parcels that could be preserved for agricultural use and ensure that an appropriate buffer is provided between these parcels and adjacent development. These agricultural parcels will not be recommended for inclusion in the City's boundaries. To the extent feasible, the land use scenarios will discourage the leapfrogging of residential development over agricultural lands.

Strategy 4. Appropriately locate higher density residential and nonresidential uses.

Specifically, the land use scenarios will identify corridors and nodes that are appropriate locations for higher density residential development and nonresidential uses. During the interviews, some specific corridors were suggested. Through collaboration with the transportation analysis, the most appropriate locations that preserve regional roadway function will be identified.

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5. Future Land Use and Transportation Scenarios

Once the Guiding Principles were established, the focus turned to the creation of alternative future land use scenarios and supporting roadway improvements for the Master Plan. This was a coordinated and iterative process where the land use and transportation planners worked together. For ease of reading, the process for each of these scenarios is separated, focusing on land use and then transportation. Within each section coordination between the two processes is highlighted.

5.1. Alternative Future Land Use Scenarios

The land use planning process started with the first task, Existing Conditions. As part of the Existing Conditions Report, a Development Suitability Map was created (see Figure 16). The purpose of this map was to identify the areas within the Study Area that are appropriate for development from the perspective of physical conditions, such as slope, floodplains, wetlands, etc. In examining the Development Suitability Map, it was apparent to the planning team that the Study Area could be subdivided into four planning areas, divided by significant environmental resources. Figure 17 shows the planning areas that were created for this study.

Information on approved development within the Study Area was provided to the consultant and overlaid on the base map created for the future land use scenarios. This base map included the natural features identified through the development suitability analysis, existing roadways, and the approved development information. One of the largest properties within the Study Area, referred to as the Cone Graham property, initiated an amendment to the Future Land Use Map at roughly the same time as the master plan study began. Throughout the planning process, the consultant and City staff met with representatives of the Cone Graham property to discuss their plans for the property and how the master plan may affect them.

The first step in establishing the land use scenarios was creating the linkages between environmentally sensitive and open space areas. These linkages are shown on the

land use scenarios as dashed green lines that are identified as possible greenways. Continuing with the linkages concept, a preliminary roadway network was developed that improved east-west connectivity throughout the area and created a grid network to the greatest extent practical. The future land use alternatives development was separated into three distinct phases: preliminary alternatives; refined alternatives; and preferred alternative.

5.1.1. Preliminary Future Land Use Alternatives

Two preliminary alternative land use scenarios were created by separate planning teams with different focuses. One alternative, known as Scenario A (see Figure 18), was more uniform in its pattern and spread development across the study area. This scenario yielded a higher level of development in terms of both residential and nonresidential uses because more land was being consumed for development. The other alternative, known as Scenario B (see Figure 19) employed a village or community center where the highest intensity of use occurs with commercial/ office/residential mixed use. The intensity of development decreases as it moves away from the village center. The one constant in both of these scenarios was the land use plan for the southern planning area, that portion of the Study Area located south of I-4, which focused on supporting Downtown Plant City and the Study Area's connection to Downtown.

5.1.1.1. Scenario A Description by Planning Area

In the West planning area the existing intensity of development in built-out areas was recognized and density was increased in non built-out areas around roadways, such as at nodes along Alexander Street, Sam Allen and SR 39. The industrial land uses were maintained and the commercial areas near Park Road were extended.

In the Central area, the development proposed on the Cone Graham property (per the information available at that time) was duplicated. A larger area of commercial was created near the interchange of Park Road at I-4 to concentrate nonresidential use in this area.

For the Eastern area, low density residential was assigned (R-4, which is higher than current designation). The following table provides some details about the land uses within Scenario A.

Table 3: Land Use Breakdown within Scenario A

Type of Use	Land Area Utilized
Residential (37,000 dwelling units)	7,100 acres
Recreation & Open Space	3,700 acres
Commercial	778 acres
Industrial	650 acres

Source: Carter & Burgess, Inc., 2007

5.1.1.2. Scenario B Description by Planning Area

In the Western area, the residential densities were increased from R-1 to R-4 and additional density added along SR 39 at the intersections with Sam Allen, Joe McIntosh and Knights Griffin.

In the Central area, the majority of the development was focused in the center of the Study Area at the proposed Village Center located on the east side of Wilder Road, equidistant between Sam Allen Road and Midway Road. Densities were scaled down away from the Village Center, but the proposed scenario represents an increase over current permitted densities. The existing commercial area along Park Road was extended to the east side.

In the East area, the existing agricultural land use patterns were mostly maintained. Some intensification in the area between Swindell Road and I-4 is proposed, as well as a slight increase in residential density on the east side of Charlie Taylor Road south of Midway. Additional commercial areas were identified at intersections along Charlie Taylor Road and on the south side of Knights Griffin (as identified in the Cone Graham proposed development at that time).

The South area was maintained as closely as possible to the existing development patterns and is the same in both Scenarios A and B. The following table shows some details about Scenario B.

Table 4: Land Use Breakdown within Scenario B

Type of Use	Land Area Utilized
Residential (33,000 dwelling units)	7,400 acres
Recreation & Open Space	3,850 acres
Commercial	505 acres
Industrial	750 acres

Source: Carter & Burgess, Inc., 2007

Once prepared, these scenarios were discussed with staff from the City's Planning and Zoning Department and the Planning Commission. Recommendations resulting from those discussions included:

- Changing all of the areas identified as R-1 to R-4, since this is the minimum density for the City.
- Relocating the proposed Village Center in Scenario B since the current location is an area with many small parcels.
- Reducing the amount of Recreation & Open Space areas and indicating the proposed greenway system in a different manner.

Due to time constraints, not all of these issues and those raised by the Technical Working Group were incorporated into the land use scenarios prior to the first transportation model analysis. It was agreed that these changes would be incorporated into the revised land use scenario and reflected in the second transportation analysis.

Up to this point, the preparation of land use and transportation scenarios proceeded in isolation. Prior to completing the first set of transportation model runs, the proposed roadway improvements identified in the two alternative future land use scenarios were included in the preliminary roadway scenario as appropriate (e.g. new local roadways were not included in the No Build Network model analysis). Further, socio-economic data (numbers of households, employees, and students) from each of the future land use alternatives had to be generated by Traffic Analysis Zone (TAZ) and provided to the transportation modelers. (Note: There are other categories of uses and factors that were

used in the model, such as hotel rooms, vacancy rates and seasonal rates for dwelling units that were assumed from the existing model data.)

Generation of the TAZ data was a complex and repetitive process. Starting with spreadsheets that identify the number of acres within each TAZ and identifying the acreage of different land uses within these zones, the total number of households was calculated by multiplying the permitted density of each land use designation by the number of acres available. Student generation rates were then determined using information from the Hillsborough School District that applies generation rates to different types of residential units. For example, a detached single family home is expected to generate 0.188 elementary school student, 0.117 middle school student, and 0.133 high school student. The generation rates are different for attached single family homes and multifamily homes. For the study's purposes it was assumed that residential units developed in the Residential-4 land use designation or lower were detached single family. Residential units developed in either the Residential-6 or Residential-12 categories were assumed to be attached single family, or townhouses. Any residential development in the Residential-20 or Mixed Use categories were assumed to be multifamily, or apartments.

The number of schools required was then determined by dividing the number of students generated at each level by the median number of student stations provided district wide. For elementary schools the median number of student stations used was 956, for middle schools it was 1,550, and for high schools it was 2,507. Since the number of residential units in both Scenario A and B was close, the number of school facilities required for each scenario was the same: five elementary schools, two middle schools and one high school. The next step was to identify locations for these facilities on the future land use alternatives.

Using average school site sizes obtained from the School District, it was assumed that an elementary school requires a minimum of 15 acres, middle schools require a minimum of 25 acres, and high schools require a minimum of 40 acres. Following School District policy of locating schools on either arterials or collectors, locations within each

future land use scenario were identified by considering the student generation rates for each school level in a given area and finding an appropriate location[1]. Once these locations were identified, the land use spreadsheet was revised by adding the appropriate acreage of institutional land and subtracting acreage from the appropriate land use designation where the school was located. These amendments to land use acreages resulted in changes to the student generation rates; however, the changes were not significant enough to require a change in the number of school facilities required. Finally, the TAZ where the school facility was located (for planning purposes only) was identified as having student enrollment and the appropriate number of students were assigned.

With land use acreages for residential, institutional and nonresidential resolved, the focus then turned to estimating the number of employees in each TAZ. A correlation between trip generation rates per 1,000 square feet and number of employees per 1,000 square feet was determined using the Institute of Traffic Engineers' *Trip Generation* manual. The following table provides the results of this research.

Table 5: Number of Square Feet per Employee by Land Use

Land Use Category	Number of Square Feet per Employee
Industrial	500
Commercial	500
Institutional	300

Source: Carter & Burgess, Inc., 2007

The total square feet for each type of use was calculated by determining the number of square feet of land area in each category in each TAZ and applying an appropriate floor area ratio factor. For commercial uses, a floor area ratio (FAR) of 0.25 was used, for industrial an FAR of 0.35 was used and for institutional an FAR of 0.25 was used. The resulting square feet were then divided by the appropriate factor to determine the number

[1] When comparing the maps to the text, the total number of school sites identified on the maps does not equal the eight facilities identified in the text. It was assumed that some of the school locations may be outside of the Study Area to support changes in population occurring in these adjacent areas. Also, in Scenario B, it was assumed that there would be co-location of an elementary and middle school within the Town Center.

of employees within each TAZ. Spreadsheets containing this detailed TAZ information are provided in Appendix E.

5.1.2. Refined Future Land Use Scenarios

Following the initial transportation model runs, a significant difference in the impact to I-4 was not identified between the two land use scenarios. The greatest difference between the two scenarios was evidenced instead on the local and county roadway networks within the Study Area. The initial intent was for the transportation analysis to show a clear distinction between the land use scenarios, enabling the Technical Working Group to select a preferred scenario for further analysis. Since this did not occur, a different approach was taken.

The two land use scenarios were compared to the Guiding Principles and an evaluation system was developed that determined which scenario more closely met the established Guiding Principles. A copy of this evaluation is included as Table 6 below. The results of this evaluation indicated that Scenario B was most appropriate for achieving the Guiding Principles, and the issue was taken before the City Commission for approval. At their August 13, 2007, City Commission Workshop, the Commissioners agreed to move forward with Scenario B, as revised in Figure 20 to address the comments of the City and Planning Commission staff.

Table 6: Assessment of Alternative Future Land Use Scenarios by Guiding Principle

Guiding Principle & Strategies	Scenario A	Scenario B
Home Town Character		
Strategy #1: Accessibility between neighborhoods	–	+
Strategy #2: Connectivity to Downtown	O	O
Strategy #3: Compatible residential development	O	+
Strategy #4: Livable Community	O	+
Economic Diversity		
Strategy #1: Existing and future development	+	O
Strategy #2: Adequate land for employment	O	O
Strategy #3: Variety of commercial uses	+	O

Guiding Principle & Strategies	Scenario A	Scenario B
Adequate Infrastructure		
Strategy #1: Land for civic uses	O	+
Strategy #2: Clustering of civic uses	—	+
Strategy #3: Multimodal transportation options	O	+
Strategy #4: Share infrastructure costs equitably	O	O
Strategy #5: Local trips on local roads	—	—
Strategy #6: Preserve regional transportation functions	—	—
Sustainable Natural and Built Environments		
Strategy #1: Diversity of housing options	—	+
Strategy #2: Provision of open space	O	+
Strategy #3: Protect productive agricultural lands	O	+
Strategy #4: Appropriately locate higher density and intensity	+	+
Total Points	**15**	**25**
Legend: + = 2 points; O = 1 point; and — = 0 points		
Note: Scenarios are ranked based on the extent to which they meet the adopted guiding principles and strategies.		

Source: Carter & Burgess, Inc., 2007

5.1.3. Preferred Land Use Alternative

Coordination with the Cone Graham representatives continued throughout the land use development process and prior to completing the revised Scenario B (the "preferred alternative"), the most recent version of the Cone Graham plan was obtained. On this version of the Cone Graham plan, some changes to the proposed roadway network were noticed that led to additional changes for the selected alternative. In particular, instead of the "S" shaped roadway that provided a connection through the property from Charlie Taylor Road to Wilder Road, a "T" intersection was created by straightening the "S" curve and ending it at Lampp Road. Lampp Road was then extended east to County Line Road and west to Wilder Road. This change in the roadway network along with the relocation of the Village Center inspired some additional changes in the land use scenario, primarily

increasing the density and intensity of uses south of the proposed Village Center along Charlie Taylor Road. This preferred alternative is shown in Figure 21.

The second transportation model was run with the preferred land use scenario and a preferred build roadway network. Revised socio-economic data for the model was generated for the selected alternative following the same process outlined in Section 5.1.1.2 above. Specific details about the model results are provided in Section 5.2 of this report. However, the results indicate that a reduction of approximately 17,000 trips per day on I-4 may occur with the proposed land use and roadway scenario.

5.2. Alternative Transportation Scenarios

Similar to the future land use scenario development process, the transportation scenarios for the Master Plan were developed in two phases. The first phase was called the Preliminary Build Network and the second phase was called the Preferred Build Network. Early in the master plan process it was agreed that the transportation improvements identified for the study should be consistent for each alternative land use scenario. To examine the impacts of maintaining the status quo from a land use perspective, the "build" alternatives (Preliminary and Preferred) were compared to a No Build Network (Figure 22) that used the West Central Florida Regional Planning Model 2025 and 2030 Cost Feasible Plan networks from both the Hillsborough County and Polk County Long Range Plans, respectively.

The following briefly describes each of these transportation networks and the model results. More detailed information about the transportation work is available in the following documents provided to the Hillsborough Metropolitan Planning Organization and included in Appendix F:

- *Transportation Modeling Methodology Memorandum*, January 19, 2007
- *Transportation Alternatives Analysis Technical Memorandum*, October 2007
- *Transportation Alternatives Analysis Technical Memorandum*, November 2007

5.2.1. Preliminary Build Network

The Preliminary Build Network included the Cost Feasible Plan projects already included in the No-Build Network plus a package of transportation projects developed as part of this study. The Preliminary Build Network is shown in Figure 23. The roadway improvements included in the Preliminary Build Network are:

- Extension of Sam Allen Road to Swindell Road
- Lampp Road extension from Wilder Road to Charlie Taylor Road
- Mayday Drive extension to Charlie Taylor Road
- Williams Road extension to Knights Griffin Road
- Extension of Midway Road east and west through the Study Area

This Preliminary Build Network was tested to evaluate both preliminary land use scenarios A and B. The resulting levels of service for the Preliminary Build Network from this first model run are shown in Figures 24, 25 and 26. Figure 24 shows the "Baseline Land Use" scenario for comparison purposes. This baseline scenario used the Preferred Build Network with a future land use scenario that includes anticipated growth based on current trends and does not include land use changes identified in either land use scenarios A or B.

The results of the first model run are summarized as follows:

- The Sam Allen Road extension to Swindell Road, as indicated in the model, attracted volume in all three land use scenarios. Where these volumes were being attracted from could not specifically be identified, but it was anticipated that they were being attracted from both I-4 and SR 39.
- The Midway Road extension, a new facility, attracted noteworthy volumes in both scenarios.
- Both Scenarios A and B experienced level of service constraints along I-4, Park Road, Wilder Road, and Charlie Taylor Road.

Based on these results, there were several modifications to the roadway network proposed. These modifications would be incorporated into the next model run and included:

- Extending County Line Road to Knights Griffin as a way to potentially alleviate some congestion along Swindell Road, Wilder Road, and Charlie Taylor Road
- Extending Park Road to Knights Griffin as a means to alleviate congestion along Wilder Road and Charlie Taylor Road
- Widening Midway Road and its extension to four lanes
- Widening the Sam Allen Road – Swindell Road corridor to four lanes
- Widening Charlie Taylor to four lanes

5.2.2. Preferred Build Network

The Preferred Build Network recommended a roadway network that focused on providing new and extended east-west roadway alignments that support connectivity within the study area and attempted to provide parallel corridor facilities to I-4. Other recommendations include either widening or extending roadway facilities to support the anticipated demand of the Preferred Land Use Vision. Figure 27 graphically depicts recommended improvements proposed by the Preferred Build Network, summarized below.

<u>New Alignment or Extension</u>

- Williams Road extension from Wilder Road to Knights Griffin Road
- Midway Road extension west from Wilder Road to Alexander Street
- Midway Road extension east from Wilder Road to County Line Road
- Lampp Road extension east from Wilder Road to County Line Road extension
- Lampp Road extension northeast to Charlie Taylor Road

- Joe McIntosh Road extension west from Paul Buchman Highway to Alexander Street
- Sam Allen Road extension east from Wilder Road to Swindell Road
- Park Road extension north from Sam Allen Road to Knights Griffin Road
- County Line Road extension north from Swindell Road to Knights Griffin Road
- Cherry Street extension east from Wilder Road to Wiggins Road

Increased Roadway Capacity (within study area)

- Widen Knights Griffin Road from two to four lanes
- Widen Midway Road from two to four lanes
- Consistently widen Sam Allen Road/Swindell Road from two to four lanes

Due to the evolving nature of this project, additional analysis was required to provide an in-depth evaluation of the Preferred Build Network recommendations and their anticipated effect on study area roadways. To identify this anticipated effect, several specific roadway network links were isolated and Preferred Build Network vehicle volumes on these links were compared against existing conditions and future conditions without the implementation of master plan. As with the previous transportation alternatives, the West Central Florida Regional Planning Model (WCFRPM) was used for the purposes of a select roadway link evaluation because the WCFRPM includes Polk County and areas east of the study area. These LOS operating conditions are presented in Figures 29 and 30 and described in detail in the *Transportation Alternatives Technical Memorandum*. This analysis helped to determine if the proposed roadway improvements were alleviating congestion on I-4 and helped to refine the final transportation recommendations for the Master Plan.

If implemented, the Master Plan using the Preferred Build Network in combination with the Preferred Land Use Scenario is anticipated to reassign between 5,000 to 17,000 daily vehicle trips from I-4 and SR 39 to the proposed parallel facilities created by the extension of Midway Road and Sam Allen Road to Swindell Road. The improvements of the Master Plan

are projected to improve the LOS on Knights Griffin Road from LOS F to LOS B/C, on Midway Road from LOS F to LOS D, and along Sam Allen Road from LOS F to LOS D.

Figure 17: Study Area Planning Areas

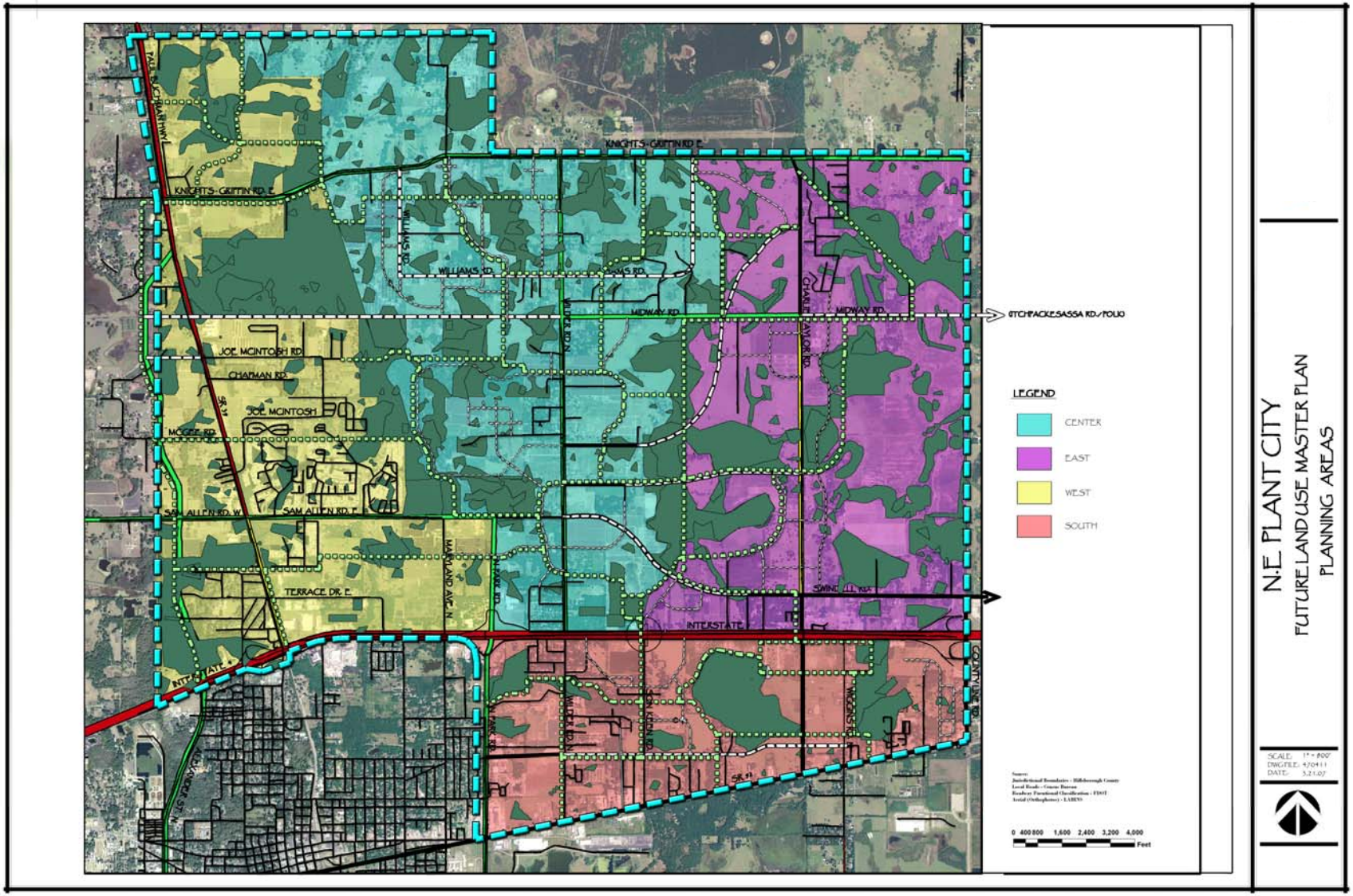


Figure 18: Preliminary Future Land Use Alternative – Scenario A

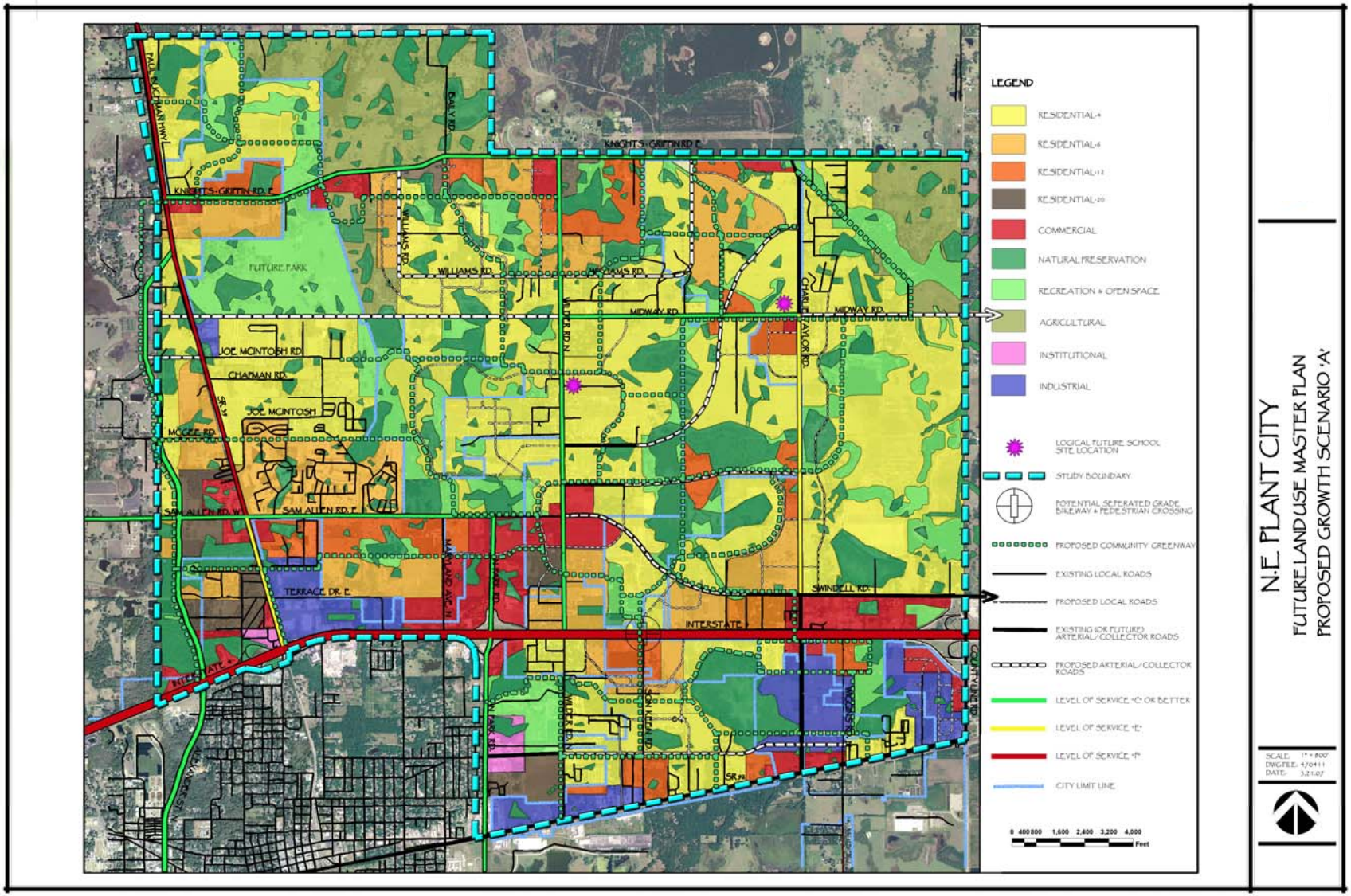


Figure 19: Preliminary Future Land Use Alternative – Scenario B

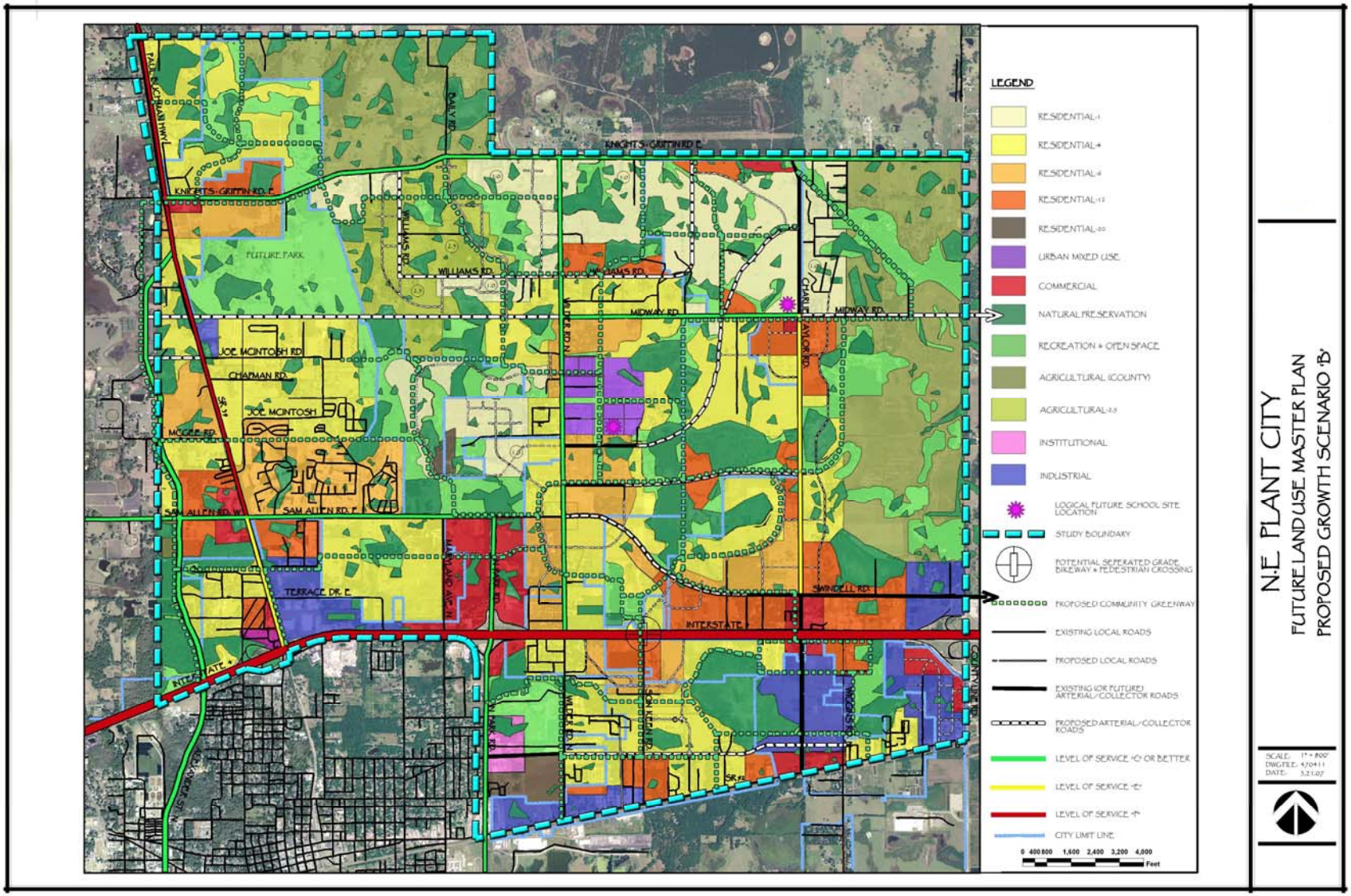


Figure 20: Revised Future Land Use Alternative – Scenario B

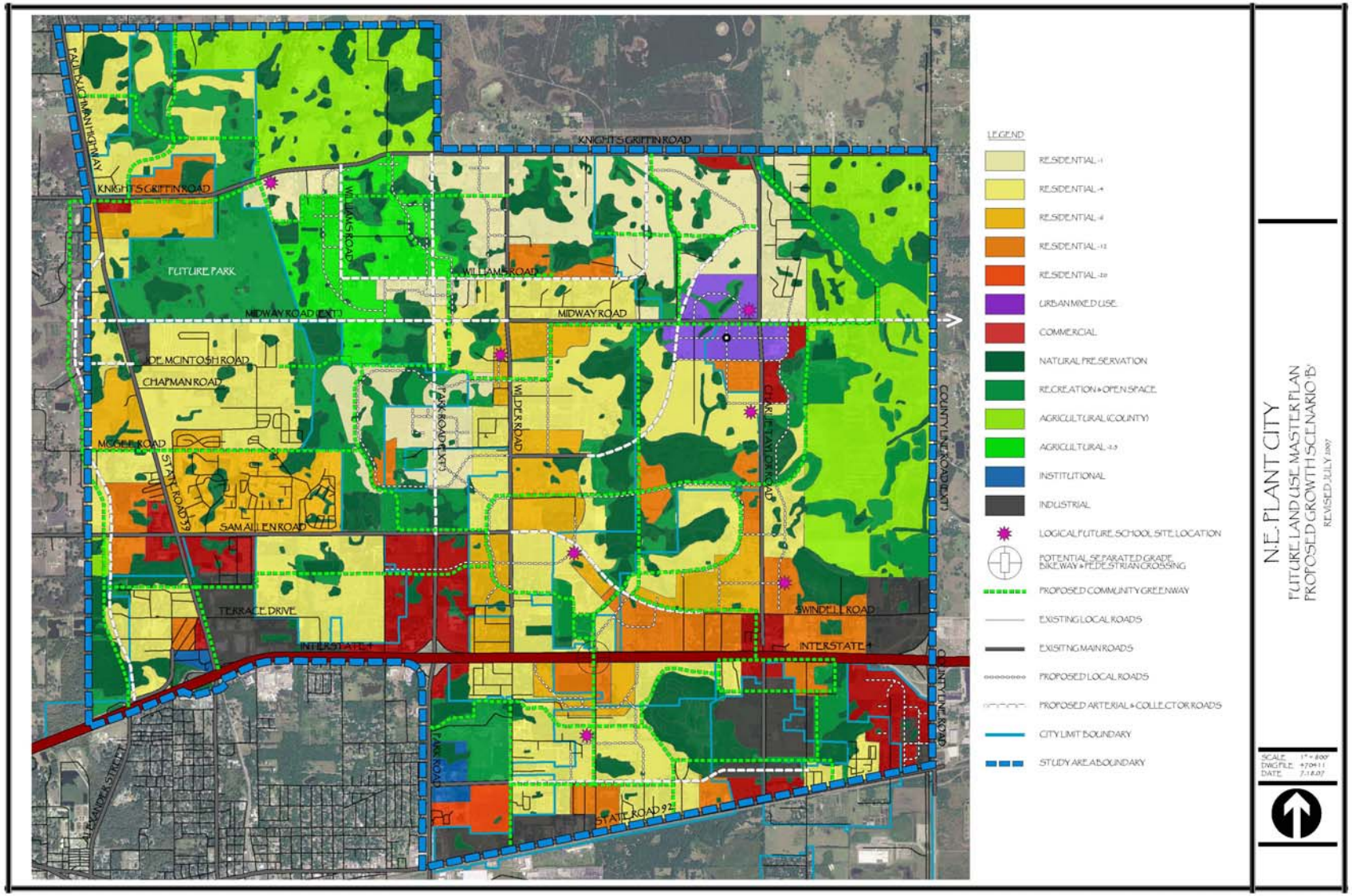


Figure 21: Preferred Land Use Vision

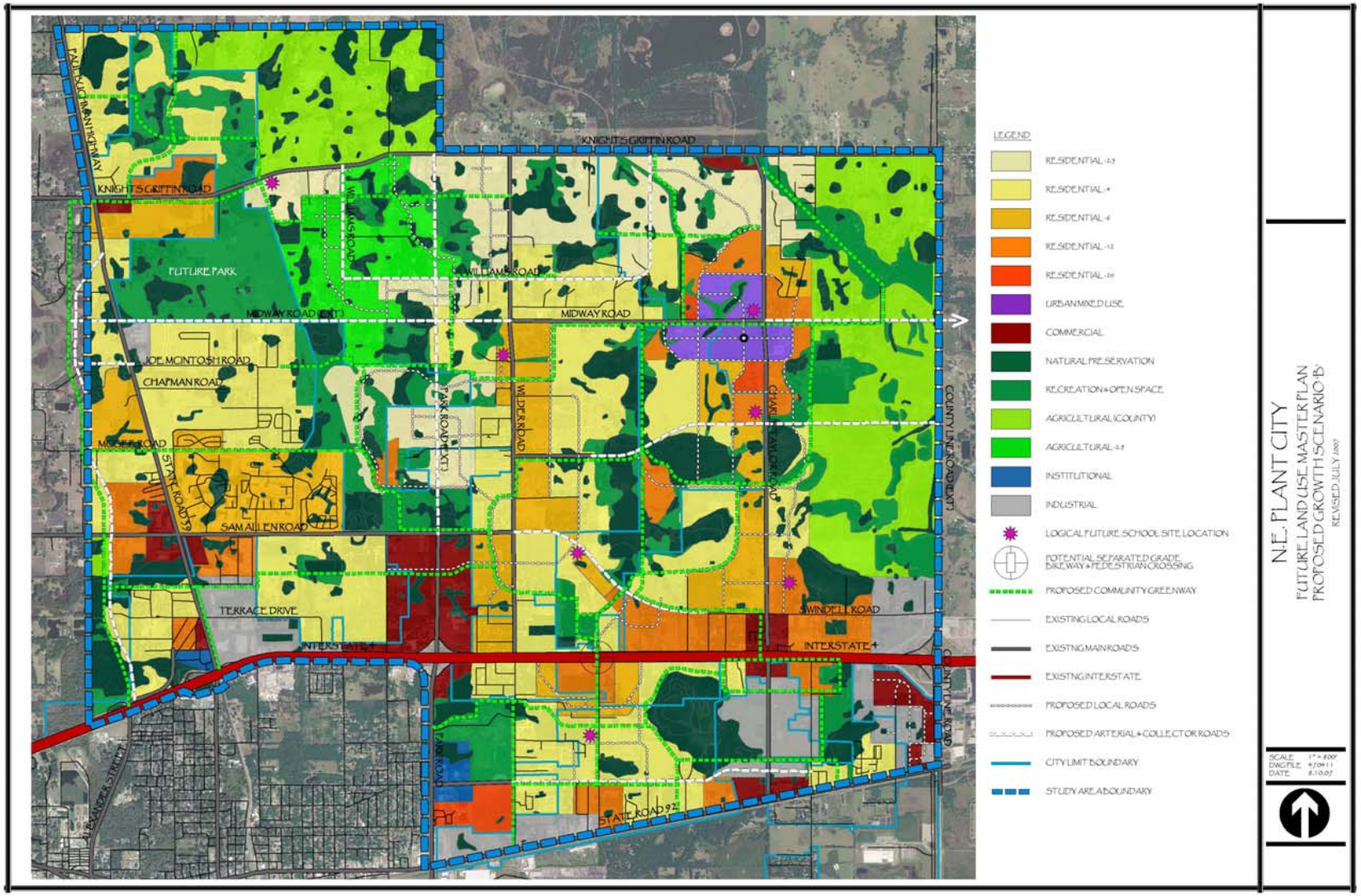


Figure 22: No Build Transportation Network

Figure 23: Preliminary Build Transportation Network

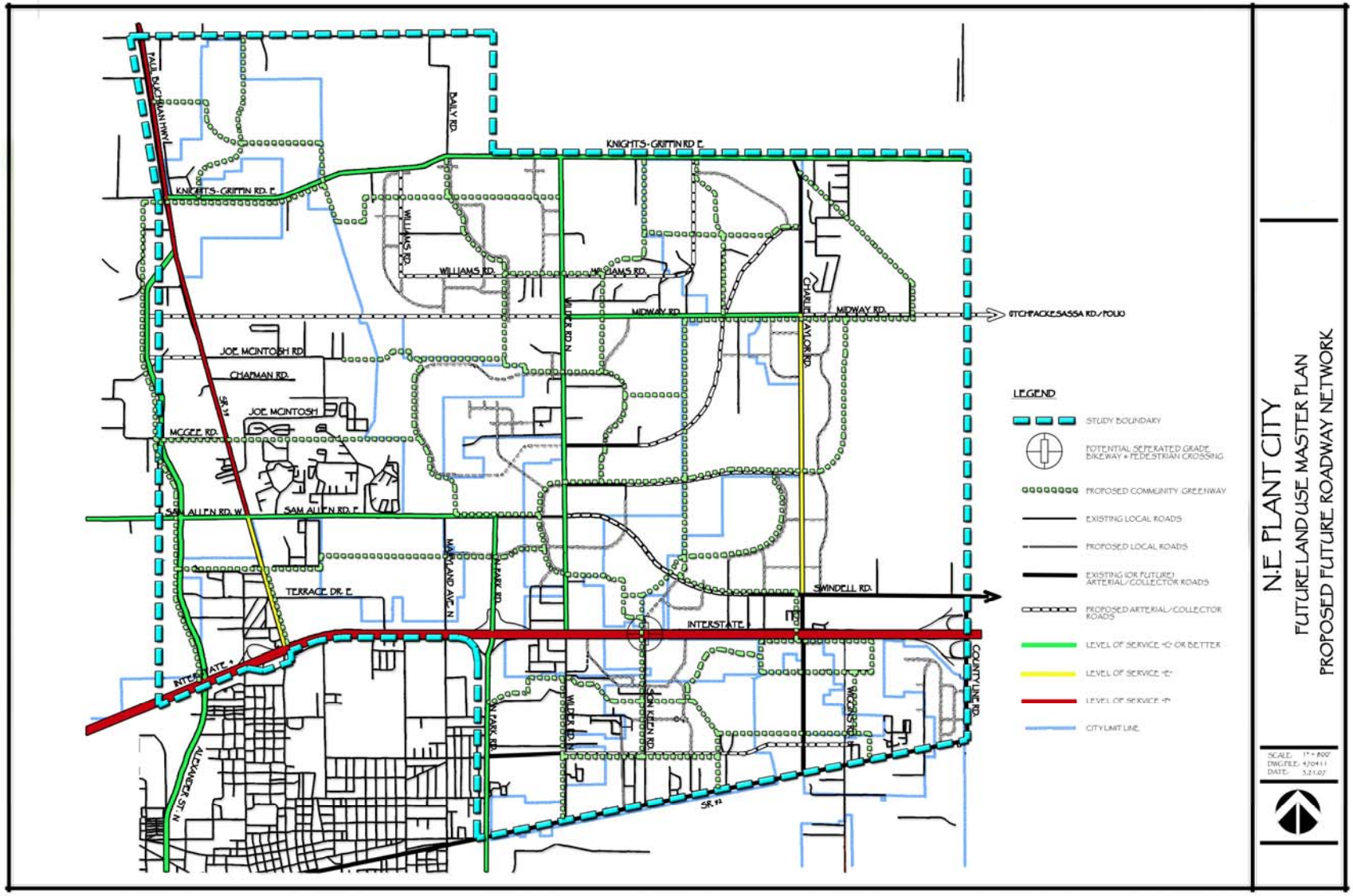


Figure 24: Baseline Land Use Scenario Preliminary Model Run Results

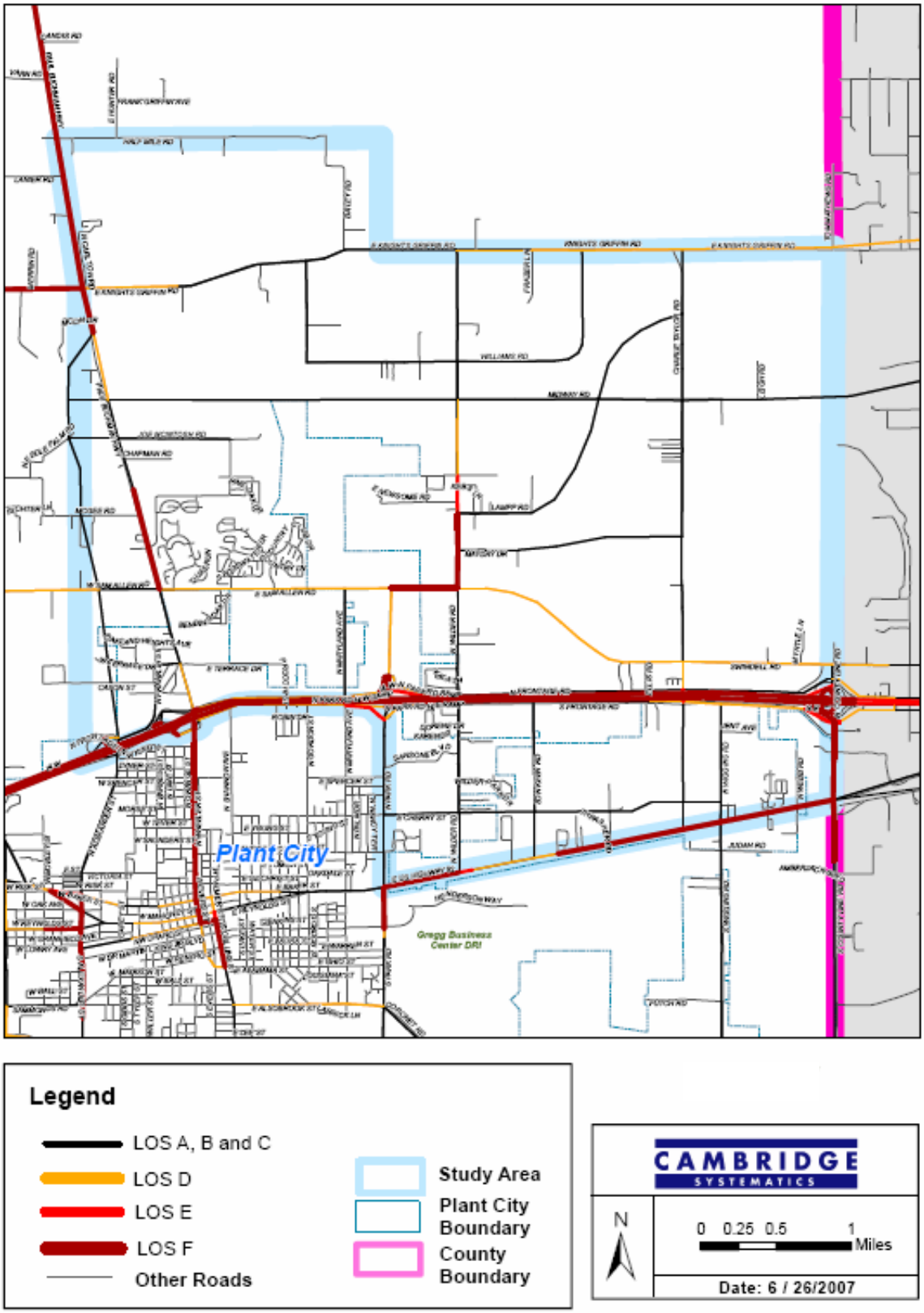


Figure 25: Future Land Use Alternative Scenario A Preliminary Model Run Results

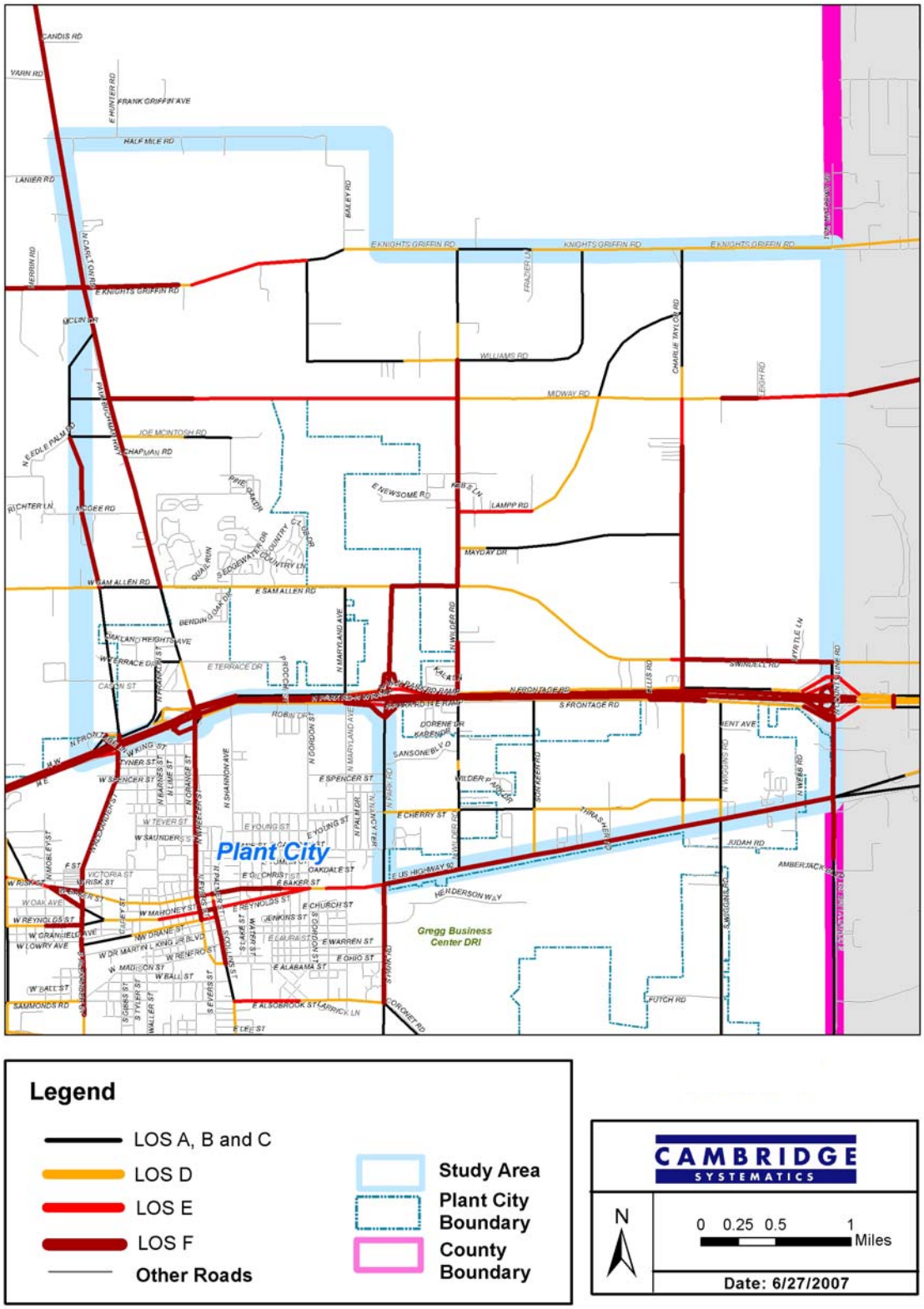


Figure 26: Future Land Use Alternative Scenario B Preliminary Model Run Results

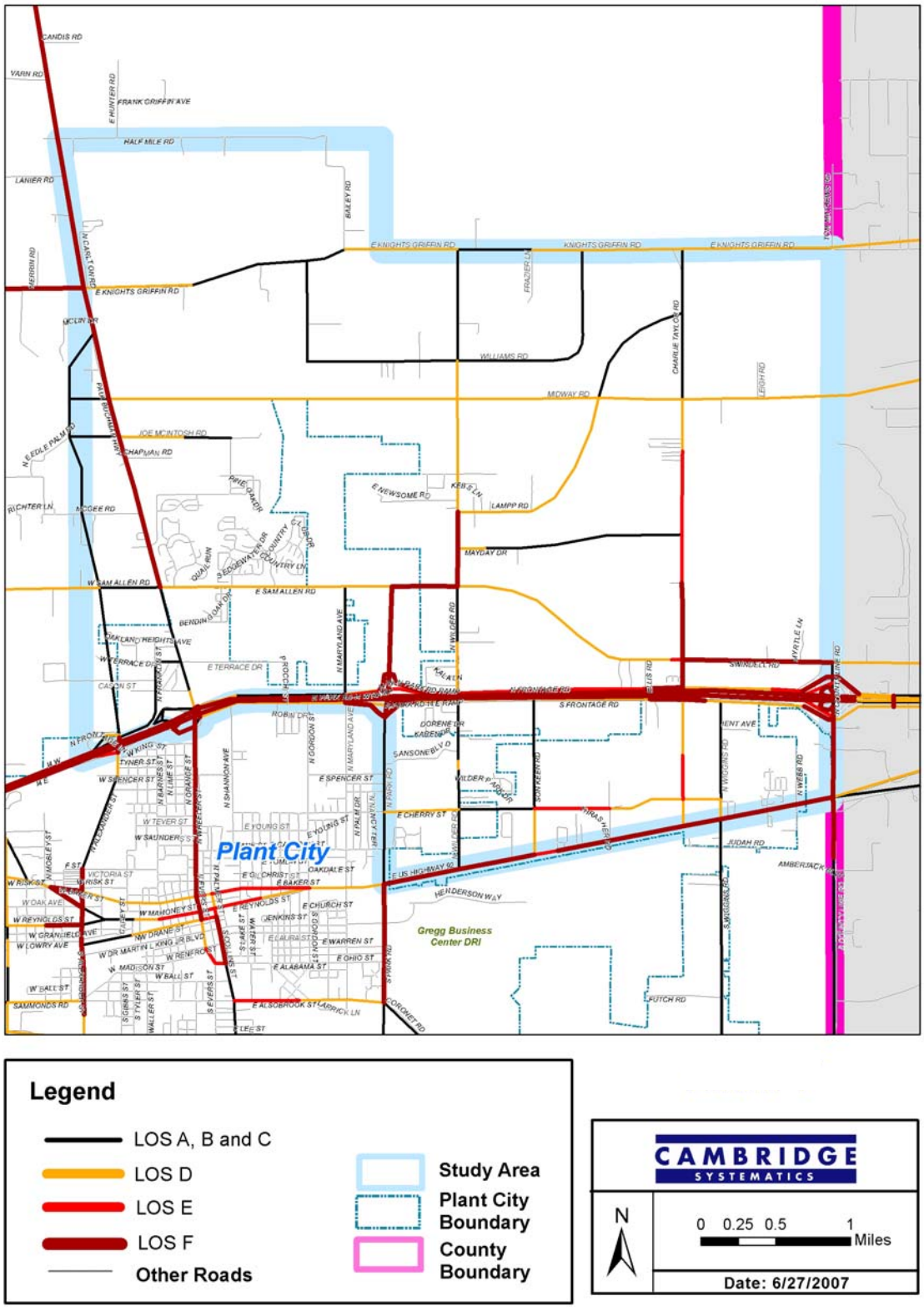


Figure 27: Preferred Transportation Build Network

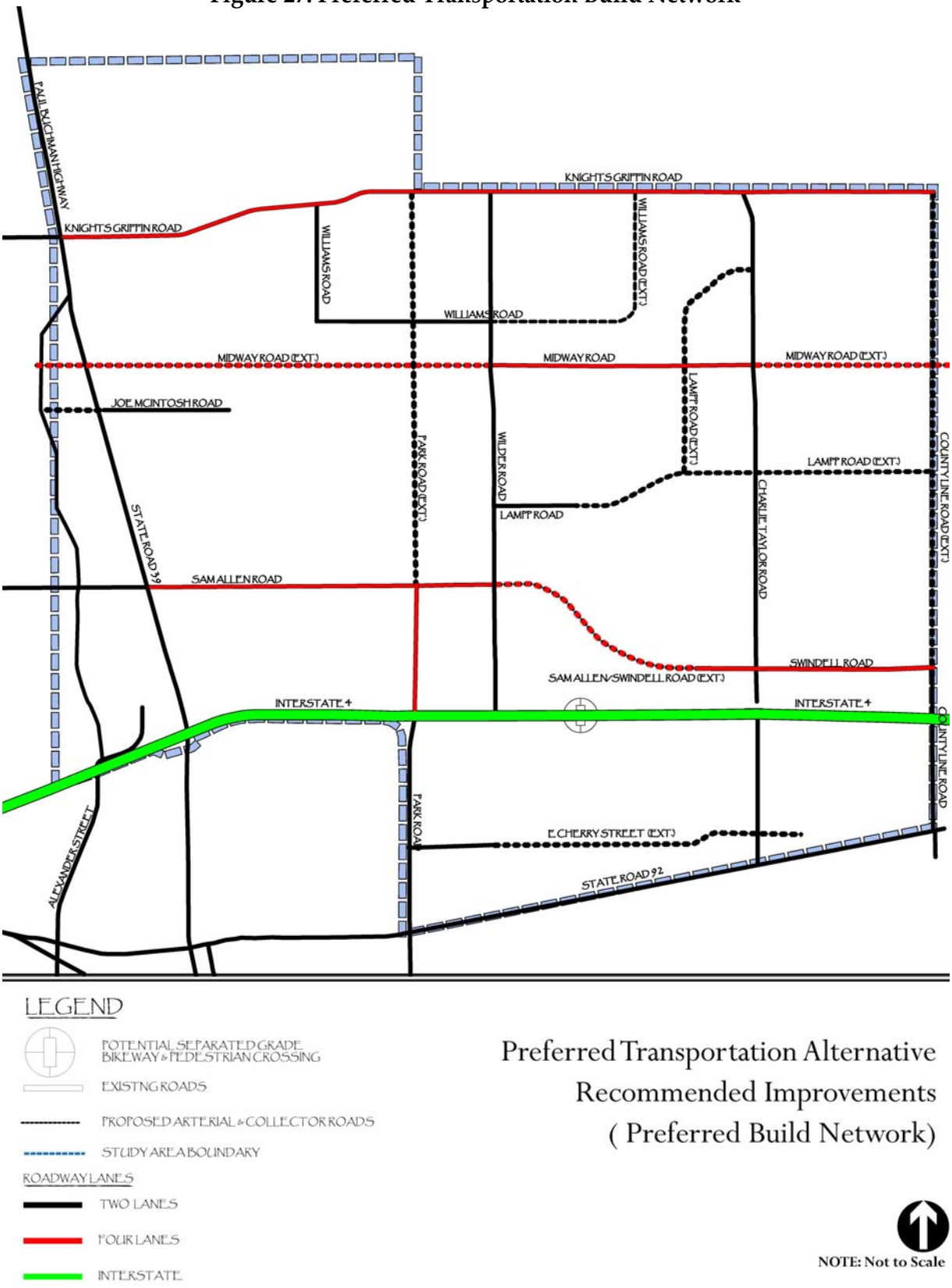


Figure 28: No Build Network with Preferred Land Use Scenario 2nd Model Run Level of Service Results

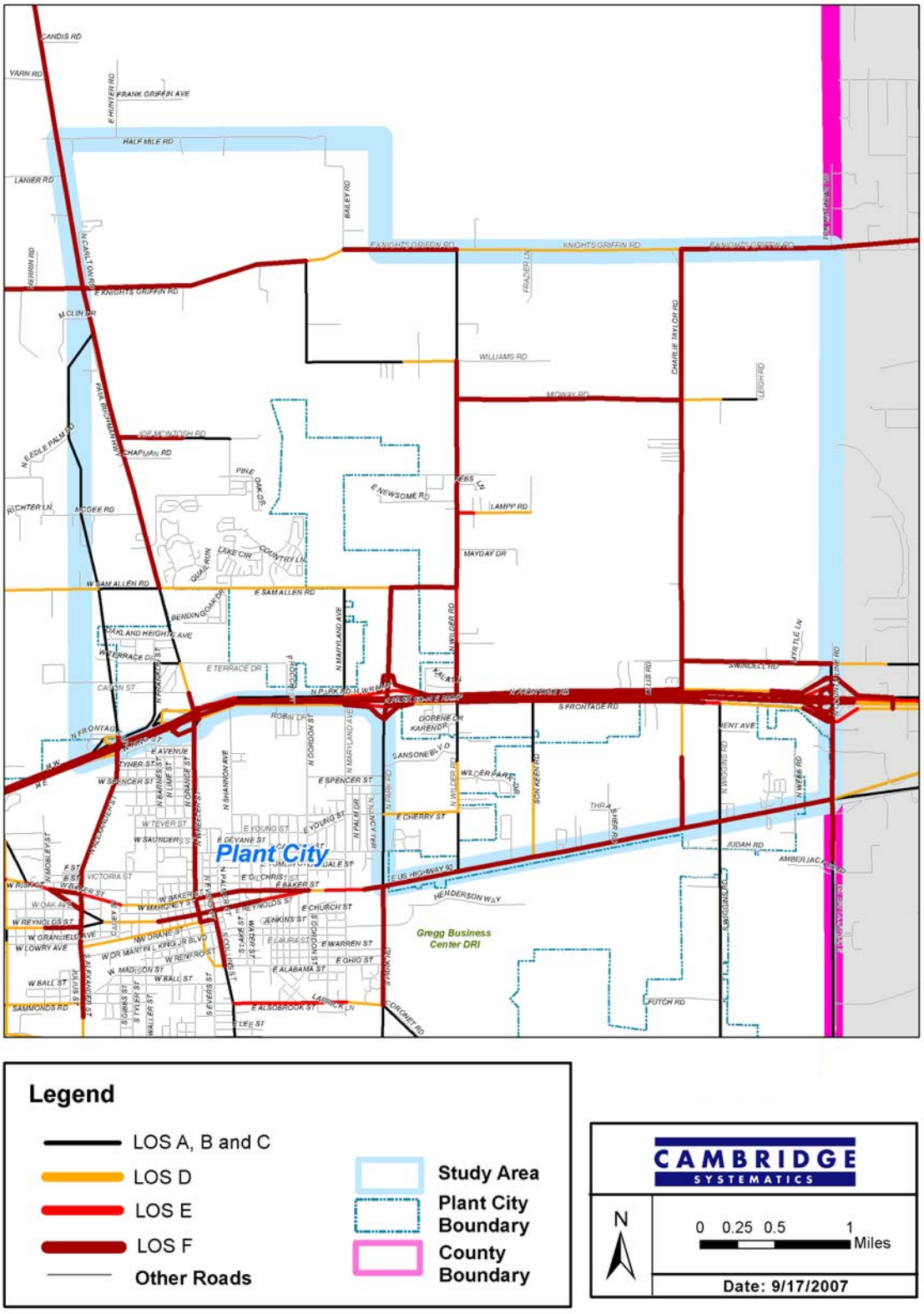
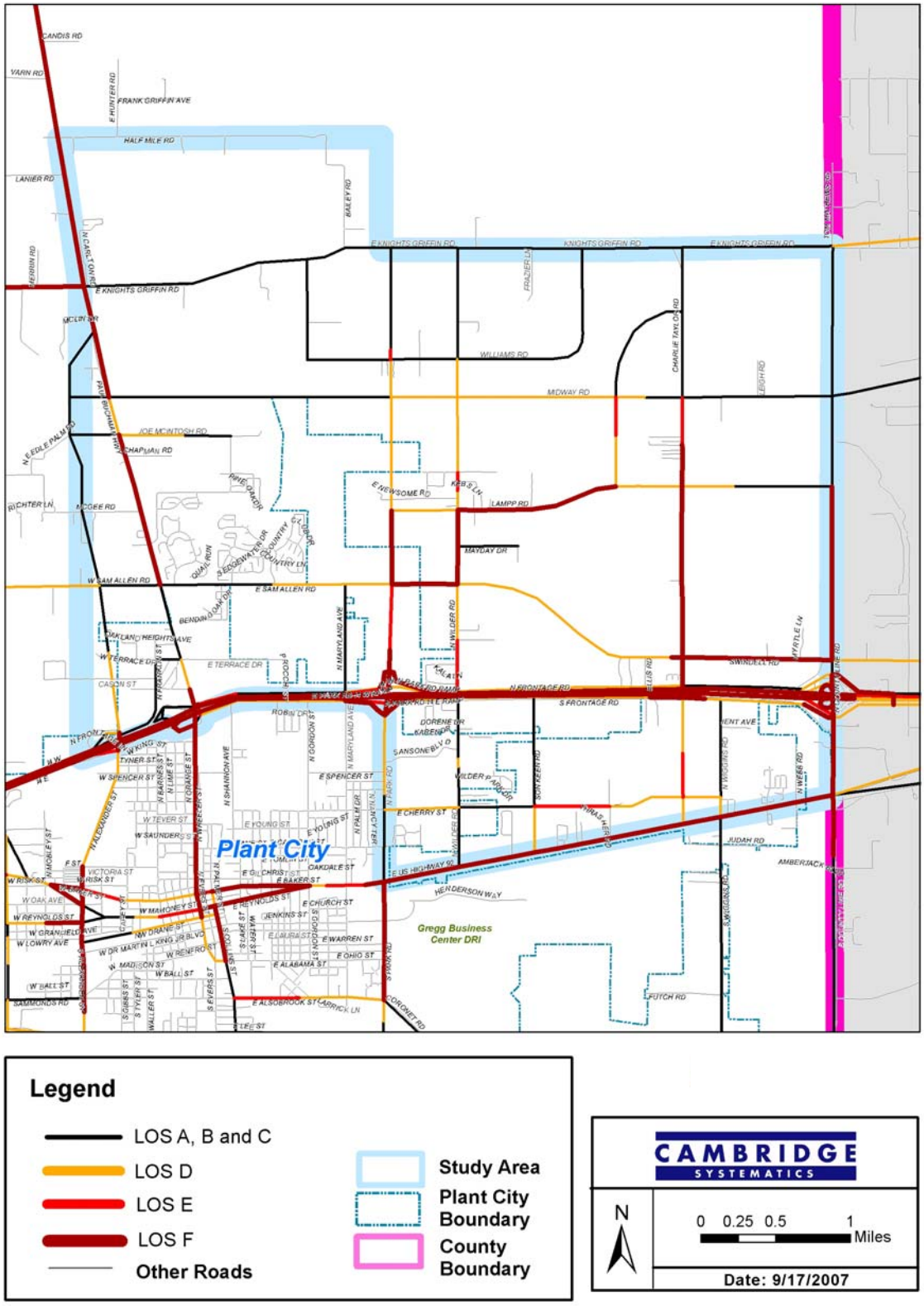


Figure 29: Preferred Build Network 2nd Model Run Level of Service Results



6. Master Plan and Implementation

6.1. Master Plan

The Master Plan resulting from the planning process is shown in Figure 30. The components of the Master Plan include:

- Creation of a Village Center that is a mixed use focal point, providing a mixture of housing, employment and civic uses.
- Clustered residential density.
- Creation of a series of greenways that provide alternatives to vehicular travel and recreation opportunities.
- Continuation of agricultural uses.
- Roadway improvements to create parallel facilities to I-4 and SR 39.

The development considered in the Master Plan is based on maximum build out of the proposed land use categories. Based on historic growth trends and current market conditions, the Master Plan represents a build out year beyond the 2035 planning horizon used for the transportation analysis, and therefore is considered to be a much longer range vision for the Northeast Plant City Area. For these reasons, an initial implementation phase (Phase 1) for the year 2025 was identified and is described in the following section.

6.2. Implementation

As emphasized during the public workshop, the master plan is meant to be a vision of the Northeast Plant City Area's possible future. The land use changes and transportation improvements depicted in this plan will be used by both the City and the County as a guide for directing future growth and development in this area. The master plan is not meant to serve as a regulatory tool for existing landowners, meaning that existing uses may remain and the provisions of the plan will not be enforced until such time as development approval is sought from either the City or County. As such, there are no proposed modifications to

the City's Future Land Use Map associated with this vision. Alternatively, the City is proposing that a Joint Planning Agreement, or JPA, be entered into with the County.

The provisions of this JPA would call for both the City and County to adopt the Northeast Plant City Vision as a guide for future development in the area, to evaluate the potential future land uses and consider adopting them as an overlay in the comprehensive plan, and to establish enhanced coordination between City and County planning and development review staff when development applications for properties within the Northeast Plant City Area are submitted. The JPA would also identify the transportation network improvements included in the Master Plan and the proposed Phase 1 and assign responsibility to the appropriate agency (City or County) for ensuring that adequate right-of-way is provided as part of the development approval process.

The JPA would also consider the use of generalized construction cost estimates, shown in Table 9, to identify the approximate cost per dwelling unit and/or employee or per vehicle trip. This development cost would be credited towards the City's impact fee and would be collected to build the needed roadway infrastructure identified by Phase 1 of the Master Plan to support the proposed development in the study area. As a result, the preliminary estimated per trip cost is $611.45. As identified in Appendix G, this estimated cost per trip was developed by using the *Institute of Transportation Engineers Trip Generation Manual (7th Edition)* divided by the generalized construction cost estimates for Phase 1.

6.2.1. Phase 1

Prompted by a cost to benefit evaluation of the Master Plan roadway improvements, an initial implementation phase of the Master Plan was identified. Phase 1 of the Master Plan reflects a conservative interim year forecast that integrates flexibility, greater development market sensitivity, and the prioritization of transportation infrastructure improvements. Modifications to the proposed land uses were also undertaken to correspond to the priority transportation improvements. Figure 31 shows the final results of the land use modifications and these are briefly described below.

As an initial step, the build out densities were reduced from maximum levels to the effective densities published on page 38 of the City's *Evaluation and Appraisal Report*. The following table shows how the build out densities were modified.

Table 7: Comparison of Effective Build Out Densities

Land Use Category	Master Plan Build Out Density	Phase 1 Build Out Density
Agricultural (County)	1 unit/20 acres	1 unit/20 acres
Agricultural (City)	1 unit/2.5 acres	1 unit/2.5 acres
Residential 2.5[1]	2.5 units/acre	2.5 units/acre
Residential 4	4 units/acre	2.8 units/acre
Residential 6	6 units/acre	4.6 units acre
Residential 12	12 units/acre	11.2 units/acre
Residential 20	20 units/acre	13.5 units/acre
Mixed Use (Town Center)[2]	20 units/acre	12 units/acre
Commercial[3]	None	15 units/acre

Source: Carter & Burgess, Inc., 2007 and Plant City Evaluation and Appraisal Report, 2006.

Notes: [1]This land use category does not currently exist within the City's comprehensive plan; therefore a recommendation of the master plan is to revise the comprehensive plan to include this land use category.

[2] The Master Plan assumes 15% of the area would be used for residential. The effective density provided in the EAR indicated that 35% of mixed use areas were developed with residential at 12 units per acre.

[3] The Master Plan does not assume any residential units in the Commercial designation. The effective density provided in the EAR indicates that 5% of commercial areas are developed with residential at a density of 15 units per acre.

A similar approach was used for the nonresidential areas. Under the Master Plan, it was assumed that 100 percent of the nonresidential areas would develop at the designated floor area ratio. The City's EAR identified the effective non-residential development patterns shown in Table 8. With the exception of the residential categories, these same percentages and floor area ratios were assumed in Phase 1. Additional commercial square feet for the residential categories were not calculated in order to be consistent with the previous scenario. Since the EAR did not address Institutional uses, the build out for this category was reduced to 50 percent with a floor area ratio of 0.25 for 2025.

Table 8: Nonresidential Development Patterns by Land Use Category

Land Use Category	Percentage Nonresidential	Floor Area Ratio
Commercial	95%	0.35
Industrial	100%	0.50
Mixed Use	65%	0.35
Residential 4	0%	N/A
Residential 6	5%	0.25
Residential 12	5%	0.35
Residential 20	5%	0.35

Source: Plant City Evaluation and Appraisal Report, 2006.

Based on comments received from the Public Workshop and modifications made to the transportation network, the following additional changes were made to the land uses.

- Density reduced from R-12 to R-2.5 in area northeast corner of the Swindell Road/Charlie Taylor Road intersection.
- Density reduced from R-6 to R-4 along west side of Charlie Taylor Road, north of Swindell Road.
- Density reduced from R-6 to R-4 on south side of I-4 around R-12 area.
- Density reduced from R-6 to R-4 for area west of SR 39 between Joe McIntosh Road and McGee Road.
- Reductions in density eliminated need for one school, so the potential location north of Swindell Road and east of Charlie Taylor Road was removed from the map.

The final step was to complete a straight line regression analysis to determine the number of dwelling units, employees and students within each TAZ in the year 2025. The resulting numbers are 19,690 dwelling units, 26,917 employees, and 4,960 students.

Figure 32 shows the prioritized transportation improvements for Phase 1 of the Master Plan. These improvements include:

- Extension of Lampp Road as a two-lane facility
- Extension of Sam Allen Road to Swindell Road as a four-lane facility

- Extension of County Line Road to Knights Griffin Road as a two-lane facility
- Widening of Knights Griffin Road from two- to four-lanes
- Widening of Swindell Road from two- to four-lanes

Similar analysis of these interim improvements was completed using the WCFRPM. These LOS operating conditions are presented in Figure 33. This analysis helped to prioritize proposed roadway improvements and determine if the recommend facilities were alleviating congestion on I-4. If implemented, the Phase 1 roadway improvements are anticipated to reassign between 2,000 and 4,000 daily vehicle trips from portions of I-4 and SR 39 to the proposed parallel facility created by the Sam Allen Road/Swindell Road Extension. The Phase 1 roadway improvement recommendations were also anticipated to improve the LOS on Knights Griffin Road from LOS F to LOS B/C, on Midway Road from LOS F to LOS E, and along portions of Sam Allen Road from LOS F to LOS B/C.

Once the Phase 1 transportation improvements were identified, the City met with representatives from the Florida Department of Transportation, District 7 to discuss the results of the Master Plan. At this meeting, FDOT agreed to publicly support the Master Plan if the analysis and forecasts are found satisfactory. FDOT identified the need for continued coordination with FDOT and Hillsborough County and suggested the creation of a special transportation assessment as a means to finance the proposed transportation improvements. Further detail for this meeting can be found in Appendix G.

In response to this request from FDOT, cost estimates for the Phase 1 roadway improvements were developed and an estimated cost per trip calculated. FDOT District 7's *Roadway Cost per Center Mile* (August 2007) estimates were used to determine the approximate construction cost for the implementation of proposed roadway improvements for Phase 1. These estimates include construction, Project Development & Environment (PD&E), contingency, and scope creep costs. The cost estimates do not include the cost for acquiring additional right-of-way. All proposed roadway improvements were assumed to have a rural typical section. Table 9 shows the construction cost estimates.

Table 9: Construction Cost Estimates for Master Plan and Phase 1 Roadway Improvements

Road Name	Improvement	Length (Miles)	Cost Per Mile*	Cost
Preferred Transportation Network (Complete Master Plan)				
Midway Road Ext. (West)	New Construction (4 lanes)	2.60	$ 20,519,619.00	$ 53,382,451.08
Midway Road Ext. (East)	New Construction (4 lanes)	1.06	$ 20,519,619.00	$ 21,803,496.52
Park Road Ext.	New Construction (2 lanes)	2.24	$ 13,538,311.00	$ 30,376,169.47
Williams Road Ext.	New Construction (2 lanes)	1.50	$ 13,538,311.00	$ 20,371,776.57
Lampp Road Ext. (N-S)	New Construction (2 lanes)	1.41	$ 13,538,311.00	$ 19,028,556.10
Lampp Road Ext. (E-W)	New Construction (2 lanes)	2.07	$ 13,538,311.00	$ 27,985,031.80
Sam Allen/Swindell Road Ext.	New Construction (4 lanes)	1.33	$ 20,519,619.00	$ 27,267,526.97
E. Cherry Street Ext.	New Construction (2 lanes)	1.76	$ 13,538,311.00	$ 23,767,960.08
County Line Road Ext.	New Construction (2 lanes)	2.74	$ 13,538,311.00	$ 37,103,891.20
Joe McIntosh Road Ext.	New Construction (2 lanes)	0.35	$ 13,538,311.00	$ 4,770,782.07
Widening of Knights Griffin Road	Widening from 2 to 4 lanes	5.07	$ 12,335,687.00	$ 62,592,226.71
Widening of Midway (Wilder to Charlie Taylor)	Widening from 2 to 4 lanes	1.50	$ 12,335,687.00	$ 18,498,530.81
Widening of Swindell Road	Widening from 2 to 4 lanes	1.75	$ 12,335,687.00	$ 21,565,855.45
TOTAL:		**25.38**		**$ 368,514,254.83**
Phase I				
Lampp Road Ext. (N-S)	New Construction (2 lanes)	1.41	$ 13,538,311.00	$ 19,028,556.10
Lampp Road Ext. (E-W)	New Construction (2 lanes)	2.07	$ 13,538,311.00	$ 27,985,031.80
Sam Allen/Swindell Road Ext.	New Construction (4 lanes)	1.33	$ 20,519,619.00	$ 27,267,526.97
County Line Road Ext.	New Construction (2 lanes)	2.74	$ 13,538,311.00	$ 37,103,891.20
Widening of Knights Griffin Road	Widening from 2 to 4 lanes	5.07	$ 12,335,687.00	$ 62,592,226.71
Widening of Swindell Road	Widening from 2 to 4 lanes	1.75	$ 12,335,687.00	$ 21,565,855.45
TOTAL:		**14.36**		**$ 195,543,088.24**

NOTE: 1) Does not include Right-of-Way costs
2) Includes Design, PD&E, Contingency, and Scope Creep Costs
Source: * = FDOT District 7 *Roadway Cost per Centerline Mile (August 2007),* Assuming a rural typical

LEGEND

* Assumes Following Costs per Centerline Mile	
New Construction 2-Lane Roadway	$ 13,538,311.00
New Construction 4-Lane Roadway	$ 20,519,619.00
Roadway Widening from 2 to 4 Lanes	$ 12,335,687.00

The cost per vehicle trip was calculated by dividing the estimated capital costs by the total number trips generated by Phase 1. The total number of trips generated by the development anticipated in Phase 1 is approximately 319,800.

6.2.2. Other Implementation Strategies

The tasks that remain to implement the Master Plan are identified below.

- Initiate and complete negotiations with Hillsborough County regarding the JPA.
- Develop a new transportation impact district that is separate from the existing Plant City district that is specific to and bounded by the Northeast Plant City Area Master Plan.
- Incorporate the Northeast Plant City Area Master Plan into the Goals, Objectives, and Policies of both the Plant City and Hillsborough County comprehensive plans, including the creation of a new future land use category "Residential 2.0" that allows 2.0 dwelling units per acre.
- Revise the land development regulations of both the City and County to include the joint development review requirements for properties located within the Master Plan area.
- Consider potential changes to the Future Land Use Map and adopt agreed upon changes as an overlay to the comprehensive plan.
- Initiate amendments to the County's Corridor Preservation Plan to identify the roadway corridors required to support the development anticipated in the master plan area.
- Initiate the process to have the regional transportation improvements (e.g. the widening of Knights Griffin Road and the identified bicycle and pedestrian improvements) included in the Long Range Transportation Plan.

In addition to the tasks required to complete the master planning process, the following are recommended next steps for the Northeast Plant City Area in general.

- Complete an infrastructure and public facilities needs assessment focused on potable water, wastewater, police and fire protection, and other government services that would be impacted by the potential annexation and development of this area.
- Completion of a market analysis to determine the amount and types of development that can be supported in the Village Center.
- Development of a Village Center concept plan that identifies a specific development program, the amount of land required, and the aesthetic vision and function.
- Corridor feasibility studies for identified roadway improvements, such as the Sam Allen Road/Swindell Road connection.
- Identification of neighborhoods within the Study Area and development of neighborhood plans to tie these areas together.
- Continue working with the School Board to identify capacity needs and possible school locations as the Study Area develops.

Figure 30: Northeast Plant City Area Master Plan Vision

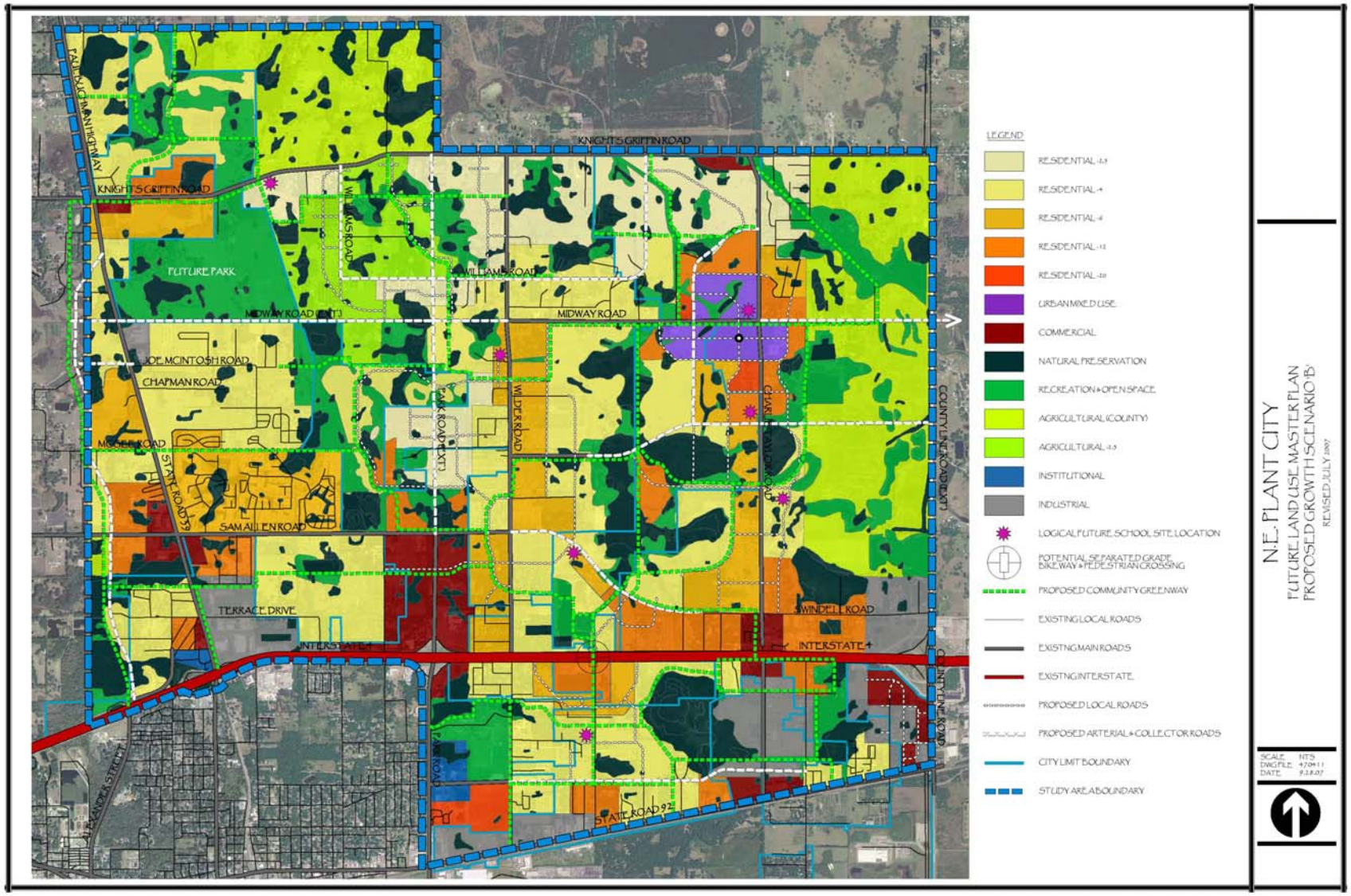


Figure 31: Phase 1 Future Land Use Scenario

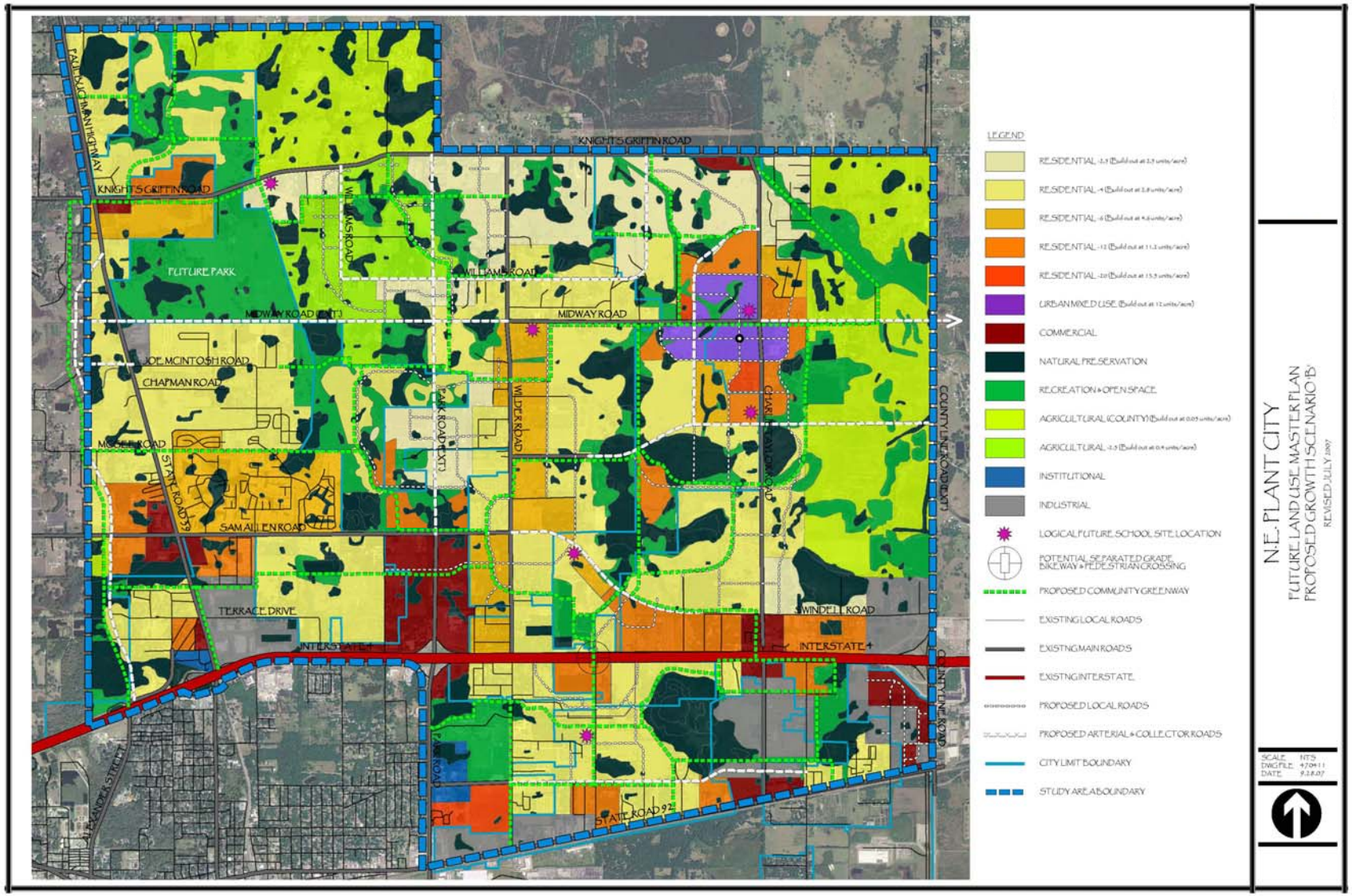


Figure 32: Initial Phase Network

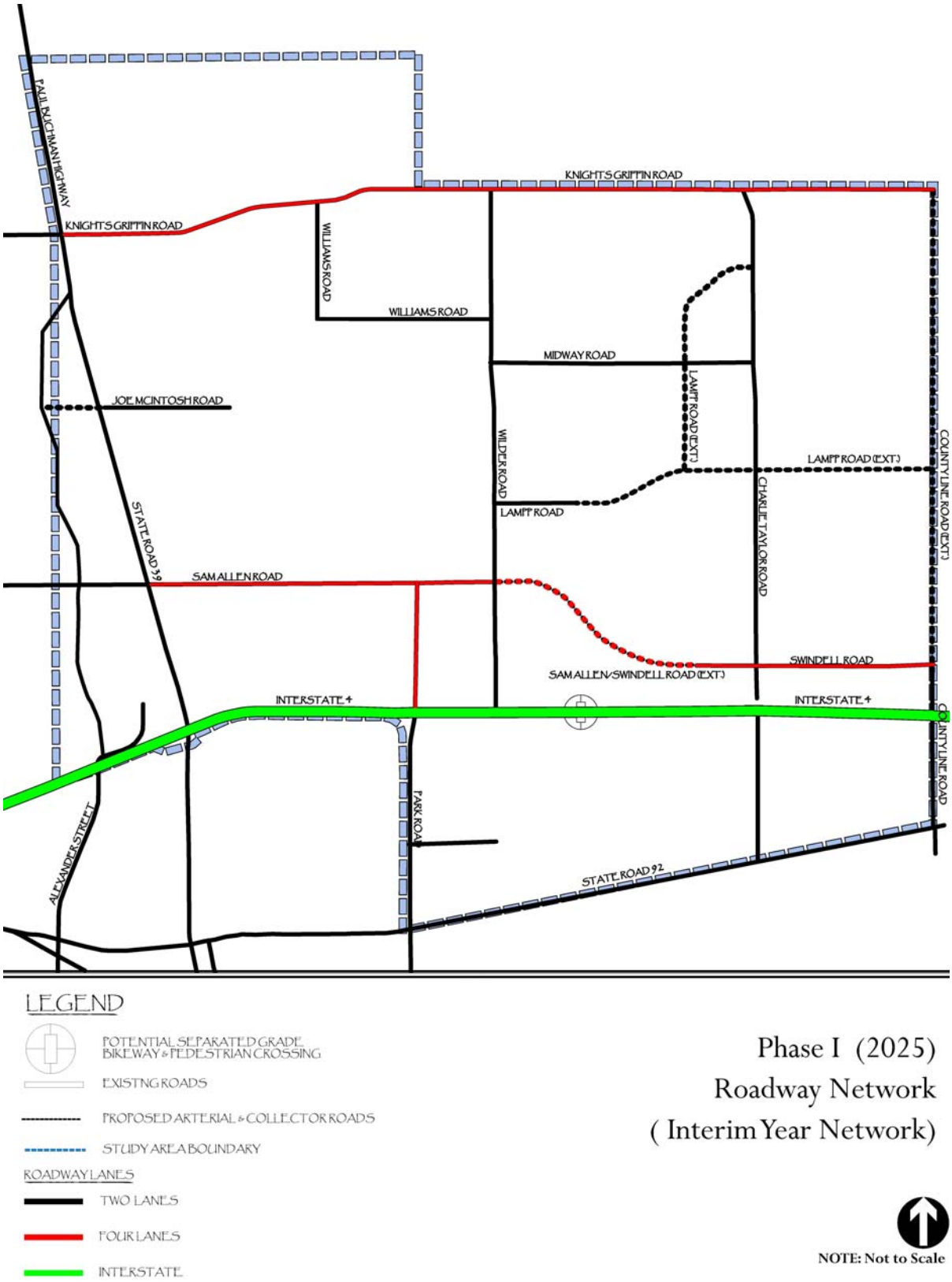
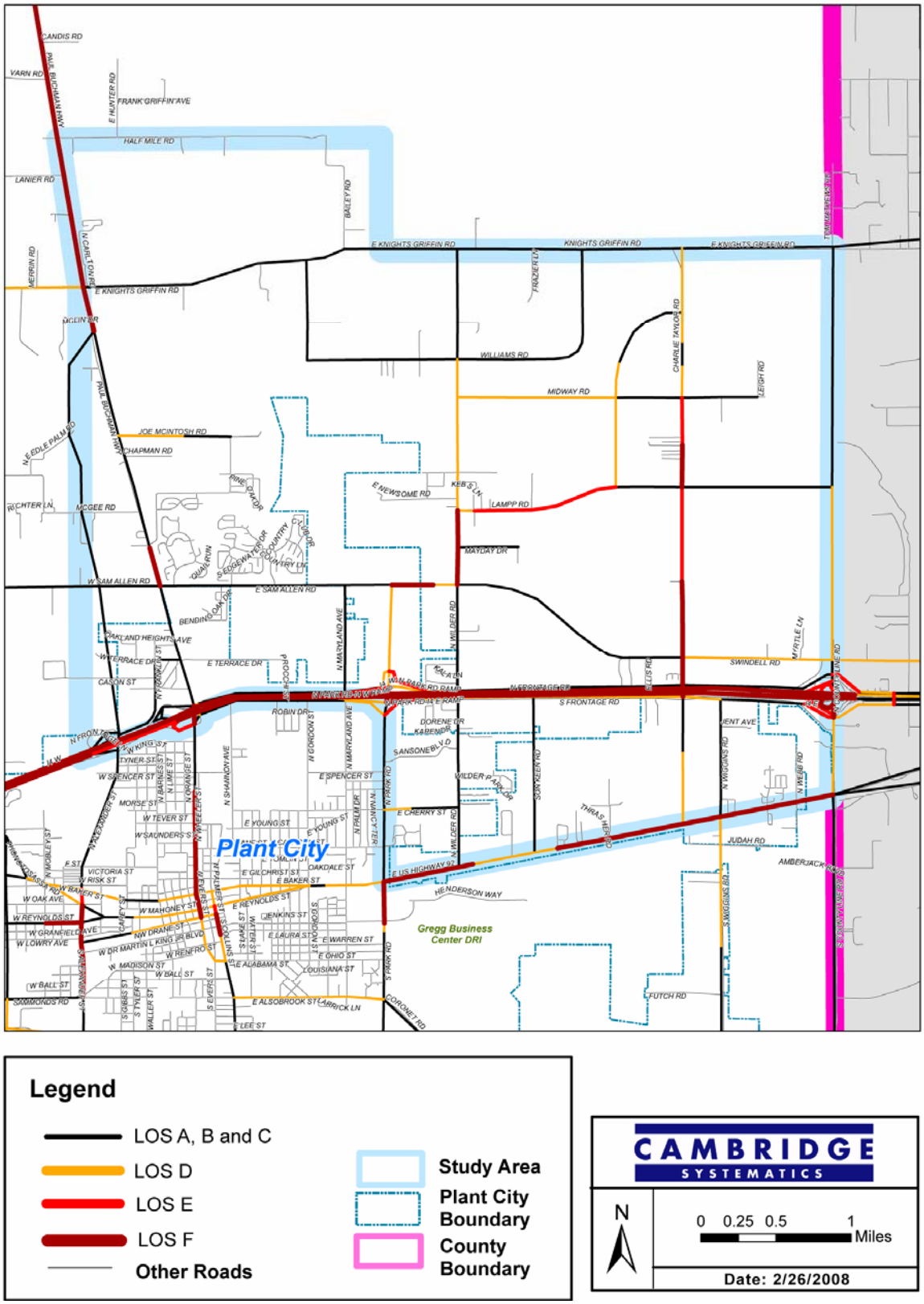


Figure 33: Initial Phase Level of Service Results



7. Conclusions

A master plan sets the stage for the coordinated growth of an area, and is the first in a series of steps that will ensure that the quality of life is maintained or enhanced as growth occurs. The vision expressed by the Northeast Plant City Area Master Plan is based on the concepts of a livable community. This vision is achievable over a long-range planning horizon. The initial implementation identified by Phase 1 is feasible by 2025 provided the development market and economy in the state and Tampa Bay area recover, the Joint Planning Agreement between the City and County is implemented, and funding for the transportation improvements is established. Further, successful implementation of the Master Plan requires coordination between all of the stakeholders, including the property owners, City and County staff and elected officials, the Planning Commission, the Florida Department of Transportation, and other agencies involved in the growth and development of this area.

The Master Plan, if implemented as presented in this document, will allow growth and development to occur within the Study Area while protecting the agricultural heritage and rural lifestyle of Plant City.

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Appendix A – Technical Working Group Meeting Summaries

Northeast Plant City Master Plan
Plant City, Florida

Kick-Off Meeting
September 15, 2006 3:30pm
Minutes

Agenda:

I. Welcome and Introductions

II. Overview of Master Plan
- Purpose
- Scope
- Schedule

III. Overview of Existing Conditions and Physical Constraints Report
- Approach
- Results
- Comments

IV. Community Leader Interviews
- Proposed Interviews and Schedules
- Draft Interview Questions
- Comments

V. Future Meetings
- Technical Working Group Meetings
- Transportation Methodology Meeting

Location:

302 W Reynolds Street
Plant City, Florida 33563

Participants:

Greg Horwedel – City of Plant City, Assistant City Manager
Alan Steinbeck, AICP – Hillsborough County MPO
David Borinsenko – School District of Hillsborough County
Mark Hudson, AICP – Hillsborough County Planning Commission
Brett Gocka, PE – City of Plant City Engineering
Yvonne Arens – FDOT District 7
Christy Supp – Hillsborough County Plan. & Growth Mgmt.
Rob Anders, AICP – City of Plant City Planning & Zoning
Phillip Scearce, AICP – City of Plant City Planning & Zoning
Tom Wodrich – Polk County Planning
Benjamin Dunn – Polk TPO Long Range Planning
Chuck Barmby, AICP – City of Lakeland Community Development
Ned Baier, AICP – Hillsborough County Plan. & Growth Mgmt.
Jill Quigley, AICP – Carter & Burgess
Brett Nein, RLA, ASLA – Carter & Burgess
Jim Leslie, ASLA, CLARB – Carter & Burgess
Cassandra Ecker, AICP – Carter & Burgess
Jennifer Lewis – Carter & Burgess

Meeting Handout:
- Revised Schedule (9/14/06)
- Draft Existing Conditions and Physical Constraints Report Executive Summary
- Draft Community Leaders Interview Questions
- Instructions to Access Project ftp Site
- Transportation Methodology Background

This meeting was a Kick-Off Meeting for the Northeast Plant City Master Plan Technical Working Group (TWG). The TWG meetings are intended to be an opportunity to have interactive exchange and discussion between the agencies involved and impacted by changes to Plant City. The purpose of the meeting was to establish the TWG and introduce the project and approach to the TWG members. A summary of the meeting discussion follows.

There has been a specific ftp site created for this project, and an email will be sent out to all TWG members with instructions and the link to access the ftp site. All materials from the TWG meetings, as well as any documents to be reviewed by the TWG, will be available on the ftp site to download.

1.0 Welcome and Introduction

At the start of the meeting, all attendees introduced themselves, stating their agency or company. A list of the attendees is on the first page of this memorandum.

2.0 Overview of Master Plan

2.1 Purpose

Jill Quigley gave a brief introduction of the project. The City is undertaking this project as a result of recent growth in the area and the rising number of voluntary annexations requesting higher densities that are not allowed for in the comprehensive plan. Specific issues to be addressed include the level of service (LOS) on I-4, the provision of adequate public facilities, and most importantly, ensuring a cohesive pattern of development between Plant City and the NE expansion area.

Greg Horwedel stated that the study area shown on the map does not follow the boundary of Plant City, and includes a significant amount of land in unincorporated Hillsborough County. Ms. Quigley pointed out that all maps have a hatching over the limits of Plant City.

2.2 Scope

1. *Existing Conditions and Physical Constraints Report* – currently located on the Project ftp Site
2. Kick-Off Meeting
3. TWG Meetings - there will be three additional TWG meetings after the kick-off meeting
4. Community Leader Interviews – will be used to determine guiding principles for the study area development vision
5. Conceptual Land Use Scenarios – being studied as separate contract under the Planning Commission
6. Transportation Analysis - being studied as separate contract under the Hillsborough MPO
7. Follow-up Planning Activity Recommendations – land use code changes, comprehensive plan amendments, and suggestions for how to deal with infrastructure issues
8. Possible Public Workshop – present preferred land use scenario, best options in terms of transportation
9. Presentations – Hillsborough County MPO, Hillsborough County Planning Commission, Hillsborough County Planning Board, and Plant City City Commission

2.3 Schedule

The project will last from June 26, 2006 to June 26, 2007. There will be three more TWG meetings after the Kick-Off Meeting. The second meeting (Fall 2006) will be held to review and comment on the proposed guiding principles developed after the community leader interviews. At the third meeting the consultant will present the conceptual land use plans, and give the members of the TWG the opportunity to make comments before they are presented to the public. The final TWG meeting will review the results of the transportation analysis, and the preferred land use scenario will be determined.

There will be a public workshop in Spring 2007. Two newsletters will be created for the project and distributed to area residents, land owners, and those with an interest in the study area. The first newsletter will introduce the project and present the finalized guiding principles. The second newsletter will announce the public workshop. The presentations to the agencies will be given in Summer 2007.

3.0 Overview of the *Existing Conditions and Physical Constraints* Report

3.1 Approach

Brett Nein outlined the general demographics, characteristics, and issues of the study area including:

- Plant City's Population is around 33,000
- Annexation objections and the lack of transportation data, coordination will need to occur between transportation and land use
- Future land use plan will minimize impacts on I-4, encourage east-west connections within the study area, and ultimately connect the study area to Plant City without relying on I-4
- The problems with US 92 and SR 39 will be taken into account
- The study area is approximately 20 square miles, which is roughly the size of Plant City now
- Look at historical population trends:
  - Plant City population has increased by 30-32% over the last 10 years
  - Study area population has increased 17-18% over last 10 years
- Expected by 2030:
  - Double in population
  - Income increase
  - Education level increase
  - Average age decrease (larger number of families will increase need for parks/recreation and other family-oriented facilities)
  - More diversity
- Because of these changes there will be an opportunity to bring in a mix of development patterns to the study area

3.1.1 Area Facilities

Mr. Nein explained the technical process used to approach the analysis portion of the report. The purpose of the analysis is to determine the areas that are physically suitable for development. The variables considered are as follows:

- Water – more expensive service to expand into study area, but easiest to finance and long-term self-sustaining because the user pays for the service
- Sewer – more expensive service to expand into study area, but easiest to finance and long-term self-sustaining because the user pays for the service
- Transportation – very expensive, and harder to spread out over long-term (causing more of an impact on budget), not possible to differentiate available capacity between particular facilities
- Schools – enrollment of schools was not used because it is not possible to differentiate available capacity between any particular areas, and very expensive, and harder to spread out over long-term (causing more of an impact on budget)
- Solid waste – not a hindrance to suitability for development because it is a pass-along service to consumers (simple extension of contract, not infrastructure expense)
- Stormwater – generally taken care of by development on parcels (lesser infrastructure expense to city)
- Parks & Recreation – can be funded through impact fees or requirement of land to be dedicated by development

Mr. Horwedel asked to what extent the project team has looked at transportation and solid waste, which are currently county functions in the study area, and how they are accounted for in the overall mix. Mr. Nein responded that the team did not look at those items as differentiators for suitability, that it will be worked into the formula to determine density and intensity of future land use.

3.1.2 Environmental Conditions

The following environmental conditions were all considered critical in determining development suitability:

- Wetlands
- Floodplains
- Streams
- Surface water protection areas
- Wellfield/wellhead protection zones
- Topography – not a lot of areas are unsuitable, topography was only a hindrance
- Significant wildlife habitat – region-wide concern
- Conservation lands – region-wide concern

3.2 Results

Jim Leslie elaborated on the variables used, and ultimately how the variables were measured. A map was designed for each variable considered, based on three different levels of developability (1 being high suitability, 2 moderate suitability, or 3 unsuitable). In the instance that a variable is either developable or undevelopable, the option is either 1 or 3. Once the variables were given a suitability rating, the variables were given a weight out of 100 based on each one's level of impact on suitability.

Mr. Horwedel commented that water and sewer should have a more significant impact than wetlands. Developers are arguing that water and sewer are far too expensive to provide to new developments, but wetlands can be mitigated.

Mr. Leslie explained that water and sewer can be supplied, but wetlands cannot be replaced. Mr. Nein stated that the water and sewer supply were only given a highly suitable rating within a ¼ mile buffer of existing lines, because the cost associated with laying new lines would be substantial. Mr. Nein continued by stating that consideration will be given to possibly increase the range of ratings (1-4 or 1-5) for each variable.

Rob Anders stated that parcel size should be taken into account, because parcels smaller than 1 acre are more than likely lost to development. Mr. Leslie explained that the team looked at developed land, but has not looked at parcel size in general, but will take that comment into consideration.

Brett Gocka asked if the model has been used before in other analysis, and where the relative values came from. Mr. Leslie explained that the relative value is the percent each variable represents of the total of the weighting factor values.

Mr. Horwedel asked if it makes sense to have roadway LOS as a factor. The team confirmed that the LOS should be factored in later in the process. Mr. Nein explained that the best development scenario must respect LOS on the transportation system.

Yvonne Arens suggested that the weighting factors be discussed further to determine their appropriateness. Carter & Burgess or The Consultant encouraged the TWG to make comments on the weighting factors for each variable.

Mr. Nein explained that the weighting factor is a "negative impact factor", therefore the higher the percentage of a factor's weight, the less suitable the land. For example, if the land is wetland, a stream, and conservation, its negative suitability is already almost 60%. Mr. Gocka stated his concern that no factor has an automatic trigger, or immediately puts land in the unsuitable category. Mr. Nein asked that the TWG determine which variables should be placed into that category. The parcel size may fit into that category.

Mr. Gocka requested a copy of the GIS shapefiles that were used to create the suitability map. The Consultant agreed to send him the information.

Rob Anders stated his concern that the land in the northern portion of the study area was never designated as wellhead protection, but in the map it is shown as wellhead protection. The property was originally bought by the county to be a wellfield, but he believes it was never designated. This should be resolved to avoid a political issue.

4.0 TRANSPORTATION

Cassandra Ecker explained that the transportation portion of the project will come after the land use scenarios have been developed. The Consultant will then go back and use the transportation analysis results to balance out the relationship between transportation and land use. It is important to have the baseline methodology for determining the transportation impacts (including vested trips) as well as any needed data (such as traffic counts) worked out before that phase of the project.

Ms. Ecker discussed the methodology background including the current transportation issues (LOS on I-4, LOS on other roadways) and retrieving traffic counts on I-4 ramps for additional detail about Plant City trips.

A major decision in the methodology is determining which travel demand model to use – the Tampa Bay Regional Planning Model (TBRPM) or the West Central Florida (WCF) model. The WCF model will identify trips being generated external to the study area, as it includes both the TBRPM and the Polk County Model.

A sample list of the agencies to involve in the methodology meeting was provided, with the request that the TWG recommend additional agencies to include. Mr. Horwedel suggested having a representative from FDOT District One. Ms. Ecker agreed, and proposed that someone from the Polk County TPO should be in attendance as well. The City of Lakeland should also be respresented. Ms. Arens agreed that Polk County should be involved.

Ms. Ecker concluded with a request of comments on the transportation methodology and the Existing Conditions Report. Ms. Arens asked if the analysis would cover additional interim years. Ms. Ecker stated that interim years would be examined, especially related to land development phasing. Ms. Ecker will follow up with transportation agencies to further discuss the methodology and data available. A transportation methodology meeting will be held later this Fall.

5.0 COMMUNITY LEADER INTERVIEWS

Ms. Quigley discussed the Community Leaders Interviews. There will be 15 interviews. The city will select who will be interviewed, such as elected officials, community organizations, and major land owners. The interviews will be used to help develop the guiding principles and land use scenarios. Prior to the meetings, the interviewees will receive the executive summary of the report and the list of interview questions. Ms. Quigley requested the TWG to look over the draft interview questions and return any comments as soon as possible. Mr. Horwedel also asked the TWG members to forward a list of people they believe should be interviewed.

Mr. Nein outlined the approach taken to compose the interview questions. The questions are divided into categories, and are intended to help establish guiding principles and conceptual land use scenarios. The questions are intentionally worded to remain neutral about the subject matter. Although the draft list is lengthy, not all questions will ultimately be asked. Mr. Nein then asked the TWG members to comment on and prioritize the questions.

6.0 SCHEDULE

Ms. Quigley referred to the schedule handed out prior to the meeting. The project is set to conclude in June 2007. The only item that may extend the schedule is the community leader interviews. Therefore, it is important to get the comments from the TWG members as soon as possible, and the meetings scheduled.

On the schedule, there are weeks blocked out in yellow set aside for the TWG meetings. Ms. Quigley requested the members to comment on the best or worst day of the week, and the best or worst weeks to hold the remaining meetings. TWG members generally supported Friday afternoons, although earlier meetings would be preferred.

7.0 TWG MEMBERS PERSPECTIVES

Alan Steinbeck suggested that each TWG member present his/her expectations and anticipated results for the project.

Alan Steinbeck, Hillsborough County MPO

- Managing project from MPO's perspective, on the transportation side
- MPO is involved to help fund the project
- Need more integrated roadway network, not only within Hillsborough, but special attention must be paid to the eastern portion of the study area and its tie-in to Polk County
- The team must be aware of potential political conflicts between the city and the county

David Borisenko, School District of Hillsborough County

- School facilities planning manager
- Interested in land use policies, because the school district must respond to any increases in demand
- School concurrency is coming down the pike
- One of the interview questions asks if school capacity should be taken into consideration when determining land use scenarios, this question may need to be reworded, possibly as an option during the planning process instead. (Mr. Nein explained that the question is asking if the community leader believes the team should contemplate the siting of schools within the study area, and should the school locations be taken from the model in response to items such as population density.)

Ned Baier, Hillsborough County Planning & Growth Management

- Manages transportation and land development vision
- Met with the consultant earlier in the week to discuss resources, transportation and infrastructure issues, planning issues (regional beltway considered), and city vs. county concurrency for roadways
- Concerned about political sensitivity (include political figures, such as county commissioners, on the interview list)

Mark Hudson, Hillsborough County Planning Commission

- An overall vision of how the area should look is important to help keep the area from becoming disjointed from the rest of the city
- The separation of I-4 is a difficult obstacle to overcome in making the study area cohesive with the area south of the interstate

Rob Anders, City of Plant City Planning & Zoning

- The two jurisdictions (Hillsborough County and Plant City) will need to come up with joint planning areas and agreements from both jurisdictions

Brett Gocka, City of Plant City Engineering

- The end result should allow a development to be placed into the scenario and the results of potential impacts on the other factors that go into developing other parcels be identified

Yvonne Arens, FDOT District 7

- The FDOT appreciates the efforts from the city and county for putting the project together

Christy Supp, Hillsborough County Planning & Growth Management

- It is important to include the Hillsborough County commissioners, but should heavily consider including the Polk County commissioners as well
- Should include property owners in the public involvement process
- Add environmental protection concerns to list of issues to consider

Greg Horwedel, City of Plant City Assistant City Manager

- Need to think long-term about what issues need to be overcome (water, sewer, transportation)
- It is important to add Polk County and Lakeland to discussion

Phillip Scearce, City of Plant City Planning & Zoning

- As annexations occur, there should be a discussion between the city and county about development patterns that are emerging
- The team should produce a parcelized map of potential parcels large enough for development

Tom Wodrich, Polk County Planning

- Joint planning area is a an opportunity to open communication between the city and county
- Although the project is not within the boundaries of Polk County, it is very close, and the effects of the areas in Polk County need to be considered
- Would like to see the maps zoomed out a little and the analysis taken out a little farther beyond the limits of the study area
- Offered to provide the team with Polk County shapefiles (Mr. Horwedel deferred to the Consultant in determining whether inclusion of Polk County is feasible under existing scope.)

Benjamin Dunn, Polk County TPO Long Range Planning

- I-4 a concern in Polk County as well
- Lakeland has major DRIs to consider

Charles Barmby, City of Lakeland Community Development

- Similar process to what the City of Lakeland has discussed for the southwest portion of the city, which is one of the major growth areas in Polk County
- Would like to see a prioritized list of projects that cross the county line, to connect Polk County to Hillsborough County
- It would be beneficial to use the "regional" aspect of projects to acquire additional funding

Ms. Quigley concluded the meeting by reiterating the request for comments on the document, weighting factor, and interview questions by Friday, September 22, 2006. All materials from the meeting will be available on the ftp site. The link will be sent out Monday, September 18, 2006.

Northeast Plant City Master Plan
Plant City, Florida

Meeting #2 – January 9, 2007
Minutes

Agenda:

I. Welcome and Opening Remarks

II. Review of Draft Guiding Principles

III. Transportation Update

IV. Next Steps

V. Additional Comments / Questions

Location:
302 W Reynolds Street
Plant City, Florida 33563

Participants:
Greg Horwedel – City of Plant City, Assistant City Manager
Alan Steinbeck, AICP – Hillsborough County MPO
David Borinsenko – School District of Hillsborough County
Yvonne Arens – FDOT District 7
Christy Supp – Hillsborough County Plan. & Growth Mgmt.
Rob Anders, AICP – City of Plant City Planning & Zoning
Phillip Scearce, AICP – City of Plant City Planning & Zoning
Chuck Barmby, AICP – City of Lakeland Community Development
Ned Baier, AICP – Hillsborough County Plan. & Growth Mgmt.
Peter Maass – FDOT District 7
Joe Zambito – Hillsborough County MPO
Julie Ham – City of Plant City Planning & Zoning
G.D. Willie Nabong – City of Plant City Public Works
Jill Quigley, AICP – Carter & Burgess
Jim Leslie, ASLA, CLARB – Carter & Burgess
Scott Pringle, AICP – Carter & Burgess
Jennifer Lewis – Carter & Burgess

Meeting Handout:

- ❑ Draft Guiding Principles
- ❑ Existing Roadway Network Map
- ❑ Activity Centers Map
- ❑ Aerial Photograph of Region
- ❑ Community Leaders Interview Summaries
- ❑ Community Leaders Interview Questions
- ❑ Transportation Methodology Figure

This meeting was the second meeting for the Northeast Plant City Master Plan Technical Working Group (TWG). The purpose of the meeting was to review the draft Guiding Principles developed for the project and provide an update on the transportation methodology meetings. A summary of the meeting discussion follows.

1.0 Welcome and Opening Remarks

At the start of the meeting, all attendees introduced themselves, stating their agency or company. A list of the attendees is on the first page of this memorandum. Jill Quigley gave a brief overview of the project and the role of the Technical Working Group for those members who were not able to attend the Kick-Off Meeting.

2.0 Review of Draft Guiding Principles

The draft Guiding Principles were displayed on presentation boards to allow the group to edit them through discussion. Ms. Quigley outlined the different categories of guiding principles and then led the group through a discussion of each. There was significant discussion about the level of development detail addressed by the principles. Ms. Quigley explained that the community interviews did not give a clear impression that support existed for a neo-traditional plan, and therefore the Guiding Principles were drafted in such a way as to allow for the creation of both a neo-traditional and a more conventional land use scenario. The following edits were recommended:

- Condense the strategies under each principle to a couple of words with an explanation of each principle and its associated strategies attached separately.
- Home Town Character is really a principle and not a strategy.
- The location of higher density residential and nonresidential uses should be along appropriate corridors and in nodes, and not specifically restricted to I-4 or parallel routes.
- Strategy concerning compatible residential development should specify what aspect of residential development should be compatible. If something is to be prohibited or avoided, it should be clearly identified.
- A strategy regarding the provision of safe streets in neighborhoods should be added.
- "Efficient Public Services" should be reworded to "Adequate Infrastructure" since not all of the infrastructure may be provided by public entities.
- The clustering of civic uses (e.g. co-location of schools and parks) should be encouraged.
- A strategy regarding the protection of the regional transportation system should be added.

3.0 Transportation Update

Scott Pringle gave a brief update on the transportation portion of the project. The update included a description of how the transportation modeling methodology was being developed. This description of the modeling methodologies included a discussion of the model, model data, and scenarios to be used in

coordination with the land use aspects of the study. Mr. Pringle also discussed the coordination between FDOT, Cambridge Systematics, and Carter & Burgess that formulated the modeling methodologies.

4.0 NEXT STEPS

Ms. Quigley went over the next steps of the project including the presentation of the Guiding Principles to the City Commission and the subsequent preparation of the land use scenarios. The next meeting of the Technical Working Group was proposed for the last week of February. Ms. Quigley concluded the meeting by reiterating the request for comments on the guiding principles and the activity center map. All materials from the meeting are available on the ftp site.

Northeast Plant City Master Plan
Plant City, Florida

Meeting #3 – April 20, 2007
Minutes

Agenda:

I. Opening Remarks

II. Review of Draft Land Use Scenarios

III. Other Items

IV. Additional Comments / Questions

Location:
302 W Reynolds Street
Plant City, Florida 33563

Participants:
Rob Anders, AICP – City of Plant City Planning & Zoning
Chuck Barmby, AICP – City of Lakeland Community Development
David Borisenko – School District of Hillsborough County
Carol Collins – FDOT District 7
Brett Gocka – City of Plant City
Julie Ham – City of Plant City Planning & Zoning
Mark Hudson – Hillsborough County Planning Commission
Jennifer Lewis – Carter & Burgess
Peter Maass – FDOT District 7
Elaine Martino – representing FDOT District 7
Bill McCall – Hillsborough County Plan. & Growth Mgmt.
Brett Nein, RLA, ASLA – Carter & Burgess
Richard Perez – City of Lakeland
Scott Pringle, AICP – Carter & Burgess
Jill Quigley, AICP – Carter & Burgess
Phillip Scearce, AICP – City of Plant City Planning & Zoning
Alan Steinbeck, AICP – Hillsborough County MPO
Christy Supp – Hillsborough County Plan. & Growth Mgmt.
Joe Zambito – Hillsborough County MPO

Meeting Handout:

- ❑ Agenda

This meeting was the third meeting for the Northeast Plant City Master Plan Technical Working Group (TWG). The purpose of the meeting was to introduce the draft land use scenarios to the TWG members. A summary of the meeting discussion follows.

1.0 Opening Remarks

At the start of the meeting, all attendees introduced themselves, stating their agency or company. A list of the attendees is on the first page of this memorandum.

Jill Quigley gave a brief overview of the TWG, and relayed that questions and comments were encouraged. Ms. Quigley then explained the outcome of the land use scenarios would be put into the transportation model to determine their effects on the transportation system in and around Plant City.

The last TWG meeting was used to review the draft guiding principles that were instrumental in the development of the land use scenarios. Ms. Quigley then introduced Brett Nein to discuss the land use scenarios.

2.0 Review of Draft Land Use Scenarios

The display items included the following maps:

- Development Suitability
- Development Suitability with Parcel Lines Displayed
- Environmentally Sensitive Areas
- Planning Areas
- Road Map (Region)
- Road Map (Plant City)
- Proposed Land Use Alternative A
- Proposed Land Use Alternative B

Mr. Nein discussed the maps and their roles in developing the land use scenario alternatives.

The Development Suitability Maps were created for the Existing Conditions Memorandum showing where development is most, moderately, and least suitable through the evaluation of various factors such as wetlands, public facilities access, and wildlife habitat.

The Planning Areas Map was the result of a discussion with Mark, Rob, and Philip. The goal was to break up the acreage of the study area into workable planning areas to see how they relate to one another. The pattern that has emerged helped to create development areas or neighborhoods that will link together. The Environmentally Sensitive Land Map was also used to help create the planning areas.

Joe Zambito asked why there is a red line in the center of the study area on the Suitability Map that is considered unsuitable for development. Mr. Nein explained that the line is most likely a natural drainage area such as a stream. Anywhere there is a stream, river, or lake, the suitability automatically turned red, as there is very little possibility of developing in those areas.

Mr. Nein then explained the green areas on the Planning Areas Map are the environmentally sensitive areas and could be used as open space and linkages. These areas are not designated on the Comprehensive Plan, but this is only a starting point for the land use scenarios. The next step in identifying the land use scenarios was to distinguish the four separate planning areas and create the

linkages needed to ensure connectivity throughout the study area and to the existing municipality. The four areas are:

- East Park – area south of I-4, directly adjacent to Plant City
- Western Sector – future connection to Alexander Street provides a natural connection, and is easier to solve in short term
- Central Area – direct connection is not as easily identifiable, but section may be the best place for the community center
- Eastern Sector – good connection, but different character due to the large amount of environmental areas

Mr. Zambito asked if identifying the "open space" will affect property owners. Mr. Nein stated they recognize that some discussion may result from the outcome of the land use scenarios, but that they may instead become the basis for changes to the future land use, but will not establish land use or zoning classification. The challenge becomes reinforcing the guiding principles and the goal of "highest and best use" for the land, which may be higher density or open space.

Mr. Nein continued that the areas that are set aside for open space will be difficult to develop due to the type of land. He focused on the Cone-Graham property and the amount of designated land to be set aside through the development of that project.

Mr. Anders continued that the initial intention of the project was to create a land use map, but that the map would instead become a vision or concept. He then stated that his hope is still to have something that will easily transition into a future land use map. Further, it would be best if the planning areas would be adopted by the City and the County as cooperative planning areas.

Mr. Nein and Ms. Quigley further explained that the final step in the project would be to look at the possibility of looking at parcel lines to study more in depth the effects of land use on the specific parcels. It would also determine which areas need to remain a "vision" versus land use changes to ensure there is no controversy.

The Future Roadway Network Map was developed as key to the project to ensure linkages throughout the study area. East-west connections were the focus of the future roadway network. Another primary focus was on other modes of transportation (pedestrian and bicycle primarily), in response the recreation and open spaces were important factors.

Lands for schools were also considered when determining the future transportation network. General school locations were identified in the land use scenarios.

An important part of the development was the idea of grid streets (on a large scale) instead of isolated neighborhoods with cul-de-sacs and no connectivity.

The proposed roadway network differs from the existing network as follows:

- Knights-Griffin Road – becomes major east-west connection at north end of study area
- Williams – not proposing anything different than exists (Cone-Graham identified it) except to identify it as a collector in the center
- Midway Road – important because of Park Road and the opportunity of east-west connection in the center of the study area
- Internal Connectors

- Joe McIntosh – connection to Alexander
- Wilder to Charlie Taylor (included in Cone-Graham)
- Sam Allen to Swindell connection – becomes southern connector that connects to Polk County, includes connection to I-4 at County Line Road
  - Discussion resulted as to whether the road should connect to the north to connect to Lakeland Square Mall or to the south as shown on the map provided
  - Lakeland believes the connection should be to the mall to reduce the trips on I-4

Alan Steinbeck stated the team needs to look at corridors that went through the public hearing process for corridor preservation. Once the Corridor Preservation Plan is adopted, it will be difficult to change. Mr. Anders asked how the Corridor Preservation Plan affects land use. Mr. Steinbeck explained that if the developments provide right-of-way, they will receive impact credits. Discussion followed regarding the rules behind corridor preservation and its role in development along those corridors.

Elaine Martino then stated that the railroad being reverted to this area would create challenges for opening and closing railroad crossings. Mr. Nein agreed that there may need to be discussion with the railroad about solutions.

Mr. Nein then turned to the land use scenario alternatives.

Two alternatives were created by two teams with different focuses. Alternative A is more uniform across the study area. It yields a higher level of development in terms of residential units and commercial and office space square footage. The outcome is a not vastly different from the current land use pattern out there today, with residential spread across the entire area.

Alternative B focuses a village or community center with highest intensity in the center of the study area with commercial/office/residential mixed use. It provides linkages and connections through roadways and greenways to the center. The intensity of development decreases moving away from the center.

Both alternatives are well connected to the southern section of the study area and ultimately Plant City.

The guiding principles and their correlation to the alternatives are as follows:

- Hometown Character / Assuring accessibility between neighborhoods
  - More intense system of interconnectivity through greenways and roadways
  - Promote connectivity of downtown by focusing development pattern to ensure good connection to Alexander and Charlie Taylor, proposing grade separated crossing for pedestrians and bicycles to connect to the southern section of the study area as well as downtown Plant City
- Encourage Compatible Residential Development
  - Looked at residential and ensured there was no industrial or heavy commercial uses directly adjacent
- Economic Diversity
  - Considered future and existing developments
- Provide adequate land area for employment opportunities
  - Increased commercial square footage
  - Increased residential density allowed for more areas for commercial and employment areas

- Variety of Commercial Uses
  - Distributed beyond existing land use
- Adequate Infrastructure
  - Alternative B would concentrate infrastructure needs into one area and filter outward
- Encourage Multi-Modal Transportation
  - Focused on when providing greenway connections
  - Greenway could incorporate not only pedestrian and bicycle, but also transit (trolley, circulator)
- Encourage Local Trips on Local Roads
  - Previously identified connections
- Preserve and Enhance Regional Transportation Network
  - Previously identified connections
- Sustainable and Built Environments
  - Diversity in housing options
  - Increased at least two-fold the number of residential types based on the patterns provided in alternatives
  - May need to start thinking about residential density in terms of minimum standards as well as maximums
- Protect Productive Agricultural Lands
  - Alternative B focuses on restoration of agricultural properties

Discussion of Scenario A

- West Sector
  - Future Park became good reason for Midway Road connection to provide community-wide connection to the park in two places (Knights-Griffin and Midway Road).
  - Increased density around roadways
  - Recognized existing intensity of development in built-out areas and increased density
  - Alexander to Sam Allen connection, with higher intensity residential around that node as well as down SR 39 and Alexander
  - Industrial is exactly the same, although did modify commercial to extend it around connection at Park Road
  - Natural separator between west and central sector
  - Already proposed residential in area that wraps around existing agricultural
  - Southern end near Park provides a natural commercial hub, but would not be highway oriented, instead would be neighborhood oriented
- Central Sector
  - Cone Graham area matches the proposed development
  - Take out acreage counting for recreation and open space to approach higher density
  - In south end created a larger commercial area near interchange at I-4 and Park Road to concentrate it
- East Sector
  - Residential to east of Charlie Taylor is lower density (R-4), but higher than it is now

- Enhance connections to north, but also linear connections through to existing Plant City
- Proposed greenways to create sense of connection throughout community
- Eastland may turn into industrial park
- Connections with both arterials and greenways
- With separated crossing for bicycles and pedestrians, it would allow a greenway that would continue to south of the interstate

- South Sector
  - Similar to existing, similar in both scenarios

Discussion of Scenario B

This scenario includes a concentrated village center, or community center in the center of the study area.

- Village Center
  - Concentration of uses
  - Green space linkages
  - Civic Uses
  - School Site
  - Commercial needs for entire area
  - Creates a destination for community
  - Residential in center as well
  - Causes the residential density to become internal
  - Allows for lower density residential around agricultural areas

Densities:

- Existing Land Use
  - Residential
    - 19,137 dwelling unit
    - 8,300 acres
  - Recreational/Open Space
    - 600 acres
  - Commercial
    - 335 acres
  - Industrial
    - 435 acres
- Alternative A
  - Residential
    - 37,000 dwelling unit
    - 7,100 acres
  - Recreational/Open Space
    - 3,700 acres
  - Commercial
    - 778 acres

- Industrial
  - 650 acres

- Alternative B
  - Residential
    - 33,000 dwelling unit
    - 7,400 acres
  - Recreational/Open Space
    - 3,850 acres
  - Commercial
    - 505 acres
  - Industrial
    - 750 acres

Currently, the existing land use would provide housing for 2045 Projected Population for this area. The two scenarios allow the area to have available housing for 20-30 years beyond existing land use.

Mr. Anders suggested looking into focusing the industrial development around the railroad line on the western edge of the study area. Mr. Nein agreed that it should be something that is checked out.

David Borisenko requested Mr. Nein to discuss the process behind choosing the school locations. Mr. Nein explained that they calculated the need for schools to be around 3,700 students. Mr. Borisenko is concerned that there will be more students than that, and there are too few schools planned. Discussion continued about the number of students per household, but was not resolved.

Mr. Nein explained that they would like to place the school site near the center of the community, which resulted in the site on Wilder Road. The secondary option is at the intersection of Midway and Charlie Taylor. He continued that other sites have been considered, along with the size of sites and co-locating schools on the same or neighboring properties.

Mr. Borisenko suggested that a policy be put in place between the Plant City government and school district about acquiring sites to encourage them to work together. Mr. Anders explained that Plant City had opened dialogue with the school board in the past and the discussion will continue.

Chuck Barmby asked if east-west collector roads were considered in the southern section of the study area. Mr. Nein stated that it was not considered because the open space and natural areas may prohibit the creation of a roadway through that section, but that the team would consider it as a viable connection, possibly running only to Charlie Taylor from County Line Road and keeping the open space intact.

Bill McCall asked if truck routes were considered when determining the roadway network for the project. Mark Hudson offered to send Mr. Nein a copy of the truck route plan from the county. Mr. Nein suggested that none of the routes mentioned would be changing. Discussion continued and the suggestion was made that when the Alexander Extension opens, it may allow for a circuit from Alexander to Knights-Griffin to Charlie Taylor that would take Wilder off the truck route.

Mr. Hudson asked if roadway improvements will be taken into account during the model run. Scott Pringle explained that cost affordable improvements will be included in the model prior to the run as the "No-Build". Discussion continued regarding the model and capacity issues.

3.0 OTHER ITEMS

Ms. Quigley explained that the maps and materials would be posted to the TWG ftp Site to allow the members to review the materials and return comments. She continued that comments will need to be received back to the project team by the end of the next week (April 27, 2007).

Mr. Nein reminded everyone to be careful with the project materials due to its sensitivity to land owners in the study area as well as the residents.

The next TWG meeting will present the outputs of the models, which will determine whether the team will use Alternative A, Alternative B, or produce a new final Land Use Scenario. Once the final scenario is determined the team will make presentations to the boards to explain the scenario that was chosen as well as detail the process taken to reach it.

Northeast Plant City Master Plan
Plant City, Florida

Meeting #4 – July 25, 2007
Minutes

Agenda:

I. Opening Remarks

II. Review of Initial Transportation Analysis

III. Land Use Scenarios

IV. Dates for Public Workshop

Location:
302 W Reynolds Street
Plant City, Florida 33563

Participants:
Rob Anders, AICP – City of Plant City Planning & Zoning
Ned Baier – Hillsborough County
David Borisenko – School District of Hillsborough County
Carol Collins – FDOT District 7
Brett Gocka – City of Plant City
Greg Horwedel – City of Plant City
Mark Hudson – Hillsborough County Planning Commission
Peter Maass – FDOT District 7
Willie Nabong – City of Plant City
Richard Perez – City of Lakeland
Scott Pringle, AICP – Carter & Burgess
Jill Quigley, AICP – Carter & Burgess
Phillip Scearce, AICP – City of Plant City Planning & Zoning
Christy Supp – Hillsborough County Plan. & Growth Mgmt.
Susan Van Hoose – FDOT District 7
Joe Zambito – Hillsborough County MPO

Meeting Handouts:

- Agenda
- LOS Maps (No Build & Build)
- Land Use Scenarios A & B
- Corrections to land use and transportation maps
- Assessment of land use scenarios by Guiding Principles
- Guiding Principles

This meeting was the fourth and final meeting for the Northeast Plant City Master Plan Technical Working Group (TWG). The purpose of the meeting was to present the transportation model results, discuss appropriate modifications to the roadway network and land use scenarios, and recommend one land use scenario that will be carried forward for the final transportation analysis. A summary of the meeting discussion follows.

1.0 Opening Remarks

At the start of the meeting, all attendees introduced themselves, stating their agency or company. A list of the attendees is on the first page of this memorandum.

Jill Quigley gave a brief overview of the TWG, and relayed that questions and comments were encouraged. The last TWG meeting was used to review the draft land use scenarios. Since that meeting, the transportation model was run for each scenario. Ms. Quigley introduced Scott Pringle to provide an overview of the transportation analysis results.

2.0 Review of Initial Transportation Analysis

Mr. Pringle referred to the six LOS maps in the attendees' packets. The first three maps are the No-Build Network – they are essentially the existing network as it is today with planned improvements incorporated only, which includes things like the Sam Allen Extension, the Alexander Street extension – however it does not include the recent amendments – the Corridor Preservation Plan, which has the Sam Allen Extension to County Line Road and the Park Road extension.

Mr. Pringle explained that the first three maps have the three different land use scenarios. The first is the Baseline, which uses the socio-economic data from the model projected to year 2035. The other maps are Scenario A and Scenario B, which were discussed at the last technical working group meeting. Mr. Pringle noted that in the No Build Network I-4 continues to function poorly in all three land use scenarios. Additional roads that would function poorly with the No Build Network are Park Road, Wilder Road and Charlie Taylor Road.

Mr. Pringle explained the final three maps in the packet are the Preferred Future Network maps. These maps include various changes which are based on the master plan and complement the two land use scenarios. Some notable changes to the preferred roadway network is the Sam Allen Road extension to Swindell Road, the Lampp Road extension from Wilder Road to Charlie Taylor Road, the Mayday Drive extension over to Charlie Taylor Road, the Williams Road extension to Knights Griffin, and the Midway Road extension.

There was discussion about how the roadway network in the master plan correlates to the County's Corridor Preservation Plan. Mr. Pringle explained that the roadway improvements shown on these maps are recommendations for accommodating the proposed land use scenarios and are not meant to reflect the County's Corridor Preservation Plan.

Mr. Pringle noted the following issues identified in the analysis:

- The Sam Allen Road extension to Swindell Road seems to be attracting volume in all three land use scenarios. Where those volumes are being attracted from cannot specifically be identified, but the hope is that they are being attracted from I-4. The idea of course is to start creating some parallel facilities to I-4.
- The Midway Road extension also attracts pretty heavy volumes in both scenarios.
- Unfortunately in both Scenarios A & B there are still level of service issues with I-4, Park Road, Wilder Road and Charlie Taylor Road.

Based on these results, there are several modifications to the roadway network proposed, and Mr. Pringle described these to the group. These modifications would be incorporated into the next model run and include:

- Extending County Line Road to Knights-Griffin as a way to potentially alleviate some congestion along Swindell Road, Wilder Road and Charlie Taylor Road
- Extending Park Road to Knights-Griffin as a means to alleviate congestion along Wilder Road and Charlie Taylor Road
- Widen Midway Road and its extension to four lanes
- Widen the Sam Allen Road – Swindell Road corridor to four lanes
- Widen Charlie Taylor to four lanes

There was discussion about what these modifications mean. Specifically, there was concern that the roadway alignments shown represent the exact location of the proposed improvement. Mr. Pringle explained that the roadway link is just being coded into the model to determine what happens if that link is present. The links do not represent true alignments since significant engineering and design is required to do so. Other discussion focused on the extension of Park Road and its probable location or tie in with other nearby facilities. Other questions focused on the level of detail achieved by the model regarding turning movements and intersection operations. Mr. Pringle responded that the model only considered the level of service of a specific link and did not look at turning movements or intersections.

Mr. Pringle explained that as an additional effort, a select link analysis will be conducted. This analysis will pick select interchanges off I-4 and pull out specific volumes to determine how much local traffic is coming from the NE Master Plan area onto I-4 and how much is originating from destinations outside the study area. Once a preferred land use scenario is selected, the final model run that includes the select link analysis will be completed. Mr. Pringle turned the discussion to Ms. Quigley to address the land use scenarios.

3.0 LAND USE SCENARIOS

Ms. Quigley directed the group's attention to the maps in their packets behind the transportation maps and explained that these are the land use scenarios that were analyzed with the transportation model. At the last meeting comments on these scenarios were requested and the following page of the packet summarizes the comments and corrections that were received. Ms. Quigley briefly went through the items, which included:

- Correcting the southeast corner of State Road 39 and Sam Allen Road to make it commercial in Scenario B

- An area in the middle of the map that was incorrectly designated as R-20 instead of R-12
- Relocation of the Town Center due to the number of small lots in the area adjacent to Wilder Road. In the new Scenario B, the Town Center has been shifted east so that it is located on Midway Road and Charlie Taylor Road.

There was discussion about coordination with the Cone Graham representatives concerning the change in the Town Center location. Ms. Quigley described the conversations that occurred with Cone Graham representatives and the revised plan that shows a Town Center on their property was provided. City staff commented that they want to be sure that the City is aware of what is proposed on the property and that it is compatible with the plan for the area. Ms. Quigley noted that one concern with the revised Cone Graham plan is that it locates the Town Center in the middle of their property, away from Charlie Taylor, and that experts in retail development have indicated that this scenario never works well for the retailers. For this reason, the relocation of the Town Center was focused on the intersection of Midway Road with Charlie Taylor Road.

Additional comments on the revised Scenario B were the low density areas surrounding it. Ms. Quigley noted that the entire area was going to be revisited if Scenario B is selected as the preferred alternative. Other changes that would be made include upgrading the R-1 areas to a higher density.

A question about the school site locations prompted Ms. Quigley to explain the process used to identify these areas. Since the number of students located within each traffic analysis zone had to be identified for the transportation model, the location of schools had to be assigned. The goal was to locate the schools near arterials and to distribute them based on dwelling unit generation rates. Ms. Quigley explained that the maps should not be construed as set in concrete but rather as possible areas for school locations. An identified weakness of the process is that it did not consider schools within the region and only looked at the study area.

Additional discussion about the low density areas adjacent to Knights Griffin Road occurred. Specifically, if Knights Griffin becomes a major east-west connector, then it is likely that densities in that area will increase. Ms. Quigley noted that the density shown on the existing scenario was based on the Cone Graham proposal and that it was going to be revisited. This led to additional discussion about the location of the Town Center and how it should be more centrally located within the Study Area, as it was shown on the original Scenario B.

Ms. Quigley continued to address other comments that were received on the initial scenarios. There was significant discussion about the identification of and locations of recreation and open space on the scenarios. Ms. Quigley explained how the areas were derived, by creating additional land around wetlands to provide a buffer. In the draft scenarios reviewed by City Staff and the Planning Commission, these areas were connected by other lands designated as preservation areas. However, after concern was expressed that these areas could be construed as a taking, they were removed. Since that time the idea that one of these scenarios would become an adopted Future Land Use map has been reconsidered and it may be possible to restore some of the connections if the group feels that it is appropriate. Ms. Quigley explained that the dashed green lines on the maps represent possible greenway features that would provide the connectivity between preservation and open space areas.

Discussion about the open space and natural preservation areas continued with concern expressed about showing more than what is already on the adopted Future Land Use Map Series. As a counter to this, a

comment was made noting that land designated for open space is removed from development calculations, thereby reducing impacts to transportation facilities. Additional discussion about showing only wetland areas versus flood plains occurred. Ms. Quigley suggested removing all the open space and recreation areas, except those that are currently in place, and seeing how the transportation network is affected. There was no consensus reached on this issue.

At this point a question about the width of Knights Griffin Road was asked. The road is seen as a major east-west connector and widening from two to four lanes should be considered.

Ms. Quigley continued reviewing the comments received on the land use scenarios, including upgrading the R-1 areas and a suggestion to add additional mixed use areas at the intersections of Charlie Taylor Road with Swindell Road and South Frontage Road with Son Keene Road. Ms. Quigley explained that there was concern that additional areas would detract from the Town Center and therefore this was generally not recommended. Considerable discussion about development in the area south of I-4 occurred and it was agreed that additional mixed use locations would not be identified as part of this study.

Another comment received was in relation to the amount of commercial land located between Swindell Road and I-4 and potential interchange problems. Additionally, there was concern expressed about the land uses proposed along truck routes and needing to make some changes. Ms. Quigley noted that research indicated that all the major roads in this area are identified as truck routes. A member of the group noted that the truck route plan changes all the time and that the truck route plan should not drive this process. It was recommended that there may be a significant truck route that should be protected but that otherwise the truck routes should be coordinated with the land use and not influence it.

A question about the location of traffic signals lead to a discussion about this issue. Mr. Pringle commented that signalized intersections were not identified as part of the transportation analysis.

Ms. Quigley moved the discussion to the revised Scenario B and the need to identify a preferred land use scenario. Since the initial transportation results did not show a clear distinction in the impacts to I-4, a meeting with the MPO and city staff was held to discuss a new approach. It was agreed that a preferred land use scenario would be identified, subject to approval by the City Commission, and that the select link analysis and final model run would be completed on this scenario. To that end, a pros and cons analysis of the two scenarios was prepared, evaluating each scenario against the Guiding Principles. Ms. Quigley briefly explained the process used to evaluate each scenario and noted that Scenario B ends up as the one most compatible with the Guiding Principles. Ms. Quigley asked for comments on the evaluation and the responses received were in agreement with the evaluation results. Ms. Quigley explained that the next step was to take the recommended scenario to the City Commission for approval and then move into the last phase of the transportation analysis.

Ms. Quigley then shared some proposed changes to the roadway network in the Town Center area with the group. Discussion focused on the realignment of the north-south roadway within the Cone Graham property. It was agreed that the Consultant would review the transportation network in this area and make changes that were in the best interest of the City.

4.0 Dates for Public Workshop

Ms. Quigley asked how soon the recommendation on the land use scenario could be taken to the City Commission. City staff indicated they would provide that information as soon as possible. Ms. Quigley noted that the project schedule had been revised and that the goal was to have the public workshop at the end of September. City staff again noted that they would provide some information on that as soon as possible.

5.0 Other Items

In closing, Ms. Quigley noted that this was the last meeting of this group. There was discussion about the best way to convey the final model results and select link analysis information to the group and it was agreed that an e-mail would be sent and that another meeting date could be set if necessary.

Appendix B – Stakeholder Interview Questions and Comments Summary

N.E. PLANT CITY MASTER PLAN

Draft Community Leaders Interview Questions

Future Vision for NE Plant City

1. Plant City's Vision Statement emphasizes a 'sense of community', 'closeness' and 'support for one another'. How do you feel that vision can be maintained in the face of growth and increased diversity?
2. What attracts people and businesses to visit or locate in Plant City? How will that be affected by annexation of the Study Area?
3. What aspects of Plant City's identity should the Study Area seek to preserve or enhance?
4. What are Plant City's best opportunities for economic growth? How can annexation of the study area help promote those growth opportunities?
5. How can annexation of the Study Area benefit Plant City's 'quality of life' in terms of housing, employment, cultural, recreational or other opportunities?
6. What is Plant City's vision of its place in its regional context? How can that be promoted?
7. Are there other communities or developing areas that exhibit the qualities you envision for the Study Area? Can you name a few examples of those developing areas in Florida or the Country?

Physical & Financial Constraints

1. Considering the costs associated with the City's growth related to utilities service expansions, should those costs be shared citywide, or only funded by the future new development and/or redevelopment applicants?
2. Would you support the City's purchase of conservation areas, open space tracts or other appropriate undeveloped properties to increase or insure a minimum preservation % for the City at build out?
3. With respect to local roadways operating at or near capacity, do you believe the impacts generally associated with roadway expansion projects are worth the improved public travel conveniences that result?
4. Do you believe there are acceptable methods for long term municipal financing of public improvements to support growth?

5. Should Plant City allow privatized utilities or public-private partnerships the option of serving the City's expansion areas, whose costs would be passed on to the users in a specific area, rather than expanding the existing public utility providers?

Existing Land Uses / Proposed Land Uses / Densities & Intensities

1. Of the existing Future Land Use Classifications (refer to list) are there categories that you feel are no longer appropriate for NE Plant City study area?
2. Do you feel the existing land use patterns established under the County's Future Land Use plan are acceptable for the study area?
3. Are there some categories that are OK, but need adjustments for density or intensity of development (increase or decrease)?
4. Do you have an opinion about certain Future Land Use Classifications and their positive or negative impacts on quality of life, economic viability, and sustainability?
5. Are there other new Land Use classifications that you feel the City should consider adding into the study area (refer to list of examples)?
6. Is the increased density and intensity associated with planned urbanization inherently negative, positive or neutral?
7. Would the addition of some compact higher density uses to the study area be acceptable considering their cost efficiency in providing public services?
8. Should growth in Plant City be focused on geographic expansion, internalized density increases (redevelopment or in-fill), or both?

Acceptable Levels of Service

1. How close to the adopted minimum Levels of Service should the future alternative land use scenarios reach, before a change in Land Use would not be acceptable?
2. Do you believe that the current operating levels of service for some or all public services in the study area may allow expansion without requiring a change in service capacity? (this will mean a drop in performance, but still within acceptable standards)
3. Should school capacities and possible new school locations be incorporated into the future alternatives for the study area, even though this is beyond local control?

Roadways & Transportation Issues

1. In your opinion, are there significant traffic 'problem areas' in the City expansion study area; where?
2. In general, should the City address regional or local roads problems first?
3. Do you feel local Mass Transit solutions should be considered to solve traffic performance issues in the Study area? How about planning for connections to the existing Plant City commercial district?
4. Even if the costs are higher, should new roadway networks include provisions for pedestrian and bicycle corridors (or other transportation modes)?
5. In the Study area, should new roadway networks be planned with a higher priority on interconnectivity or closed loops for neighborhood security?
6. Should common 'traffic calming' concepts be incorporated into the new roadway networks, even if there is a resulting decrease in capacity?

Northeast Plant City Master Plan
Community Interview Summaries

List of Interviews

Name	Date of Interview
Alvin Futch	10/24/06
Commissioner William Dodson	10/24/06
Danny Coton	10/24/06
Johnny Dean Page	10/24/06
Bea Bare	10/25/06
State Representative Rich Glorioso	10/25/06
Robert Chadwell	10/25/06
Ron Weaver et. al.	10/25/06
Commissioner Robert Brown	10/31/06
Ed Verner	10/31/06
Mayor John Dicks	10/31/06
Phil Waldron	10/31/06
Vice Mayor Rick Lott	10/31/06
Growth & Planning Committee	11/7/06
Barbara Franques	11/10/06

The interviews noted above were scheduled by the City of Plant City and held at the City Hall, except as follows:

- The meeting with Representative Glorioso was at his office (110 W. Reynolds St., Suite 204).
- The meeting with the Growth & Planning Committee was at the Chamber of Commerce building (106 N Evers St.).
- The interview of Barbara Franques was conducted via telephone.

A series of questions (see Attachment 1) was developed to guide the interviews. Most participants were asked the same set of questions, with variations occurring based on the participant's expertise and/or responses to previous questions.

This first section summarizes the responses received to the prepared questions, by question, and is followed by additional comments received during the interviews. Questions are identified by *underlined italics* and responses are in normal text.

Prepared Question Responses

What attracts people and businesses to Plant City?
Hometown charm
Downtown area
Quality of life
Character of the City

What attracts people and businesses to Plant City?
Transportation facilities

What gives the City that hometown charm?
Ability of the City to accomplish things quickly
Word and handshake still have value
You know your neighbor
City's kids play together
Welcoming community, e.g. annual new teacher coffee events
Southern charm and hospitality
Residents are involved in the community and proud to say they are from Plant City
People still look out for each other
Perception of safety and overall sense of neighborhood
Community events and neighborhood activities that bring people together

How can these qualities be maintained in the Study Area?
Development should complement Downtown area, not compete with it
Establish connection with Downtown through landscaping, signs, paving treatments, etc.
Provide connectivity between developments, not just pockets
Maintain agricultural lands
Promote ownership rather than rental properties
Provide community schools
Provide a variety of housing types at different cost points

What are the City's best opportunities for economic growth in the Study Area?
Build on manufacturing businesses by tying into agricultural base and the Hillsborough Community College, but not through promotion of distribution facilities
Research and development related to agriculture
Examine Polk County's relationship with the University of South Florida and try to develop a similar opportunity in Plant City
Business park
Commercial services node
High tech industry along I-4
Professional and retail jobs, not industrial/manufacturing

Can you name a few examples of cities or developing areas that exhibit the qualities you envision for the Study Area?
Brandon, Florida is an example of what not to do
Walden Lakes development in Plant City
The Villages in Central Florida
Fish Hawk in Riverview, Florida
St. Augustine, Florida
Lakeland's business parks
St. Joe property in Florida's Panhandle
Chicago's Navy Pier
Sabal Park in Tampa
Subdivision regulations for Lakeside Station in Plant City
Lakewood Ranch in Sarasota, Florida

Can you name a few examples of cities or developing areas that exhibit the qualities you envision for the Study Area?
Naples, Florida
Mount Dora, Florida
Tampa's Hyde Park – entertainment portion only
Apollo Beach, Florida
Thomasville, Georgia
Sonoma County, California
Charleston, South Carolina
Savannah, Georgia
Asheville, North Carolina
Weston, Florida

Should infrastructure costs to serve Study Area be shared citywide or by the new development?
New development should pay its own way
Referenced City's policy of allowing developer to be reimbursed for infrastructure expansion costs as additional development occurs

What type and intensity of development should be considered for the Study Area?
Less townhouses and more apartments
Higher densities focused around commercial service areas
Needs to be good mix of single and multifamily units to allow ability to move within the area
Lots of parks, green space and jogging/golf cart trails
Compact development pattern with design standards and everyday commercial services
Greater variety of land use categories and zoning districts needed
Horizontal mix of uses comprised of apartments to luxury homes with supporting commercial services
Shopping, restaurants and entertainment
Planned communities
Employment opportunities for younger generation
Do not want subdivisions that have only one access point on a major road (e.g. Saddlebrook)
Industrial/warehousing with mixed use behind it and single family homes behind that
Neighborhoods should have parks in the middle
One unit per acre is acceptable level of development
Development that maintains property values (e.g. gated communities) and some commercial services
City's existing residential designations are good; apartment densities currently permitted okay; same mix of uses like Hyde Park
Nothing greater than four units per acre (4 u/a)
Upscale ranchettes at densities of two or three units per acre; no more townhouses
Neotraditional development patterns, especially with neighborhood commercial/nonresidential services
Should be new city with grid street network and retail and entertainment and combination of density consisting of townhouses and single family homes only, no apartments
Need more single level condominiums
Denser development should be located adjacent to I-4

In your opinion, are there significant traffic problem areas in the Study Area? If so, where?
Yes, on Alexander St. and Sam Allen.
No, no significant traffic problems.
No problems with I-4 in Plant City, but do experience back ups at 50th and MacIntosh.

More traffic on Wilder Road than on Charlie Taylor Road
Yes, on I-4 and Sam Allen. Need to widen Sam Allen and Knights-Griffin.

Do you feel mass transit should be considered for the Study Area?
If good connections to Tampa and Orlando are provided then it is possible. Park-n-Ride to Downtown Tampa is a possibility. Really need multimodal (bicycle/pedestrian) facilities.
No.
Mass transit to employment centers would be okay.
Goal is to have as much internal capture as possible, but okay to consider transit.

Specific transportation improvements identified during interviews
Extend Park Road north to Knights Griffin and make it a 4-lane facility
Widen Knights-Griffin to 4-lanes
Extend County Line Road
Widen Sam Allen to 4 lanes
City by-pass for truckers is very important
Wilder Road will need to be extended
Extension of Alexander very important
Extend Sam Allen to Charlie Taylor Road
Need another north-south arterial east of Charlie Taylor Road
Improve Wilder Road and Charlie Taylor Road
Expand County Line Road north
Create full interchange at Charlie Taylor Road (on I-4)

Additional Comments

- Concerned about what happens north of I-4 because it could fracture the community, which is why development should complement Downtown and provide connections to it.
- Area south of I-4 is more conducive to light industrial uses and flex space; area north of I-4 is more suited to business campuses.
- Do not develop an independent town center that will compete with Downtown Plant City.
- Concerned about the number of DRIs permitted that do not include business uses.
- Encourage preservation of rights-of-way for additional transportation facilities.
- More landscaping and sign control is required.
- Would like to see I-4 be developed/redeveloped as more of a parkway with landscaping on the sides instead of commercial uses.
- Keys for attracting business in the future are permit-ready sites and maintenance of access.
- Future plans need to be tied into other areas and not rely of private sector completing all of it.
- Do not allow speculative development.
- Consider what is going on in the entire City when developing plans for Study Area.
- Business uses should be developed along Park Road and look to Frontage Road as area for corporate park.
- Area on east side of Charlie Taylor Road is too wet to develop.
- Would support a bond for the provision of amenities (parks, trails and greenways) if there is a plan behind it.
- Need to provide workforce housing so that all economic levels are supported.
- Need to ensure that good access to schools is provided.
- Consider potential for using golf carts in neighborhoods – create trails/paths.

- Important to provide economic prosperity and quality of life.
- A proportionate fair share ordinance should be established that does not hinder development.
- Do not want to be a bedroom community.
- Good schools are key to economic development.
- Need to use more creative lighting and signs.
- City prides itself on maintaining property tax rate for 14 years – not interested in raising it.
- Recreation is big attractor – half of the users of the City's facilities come from the County.
- Consider applying new subdivision regulations to land use scenarios.
- Too much conversion of commercial to residential lately, need to tighten regulations to prevent this.
- Narrow lots are not appropriate for the area – 60 to 70 foot lot widths are the smallest acceptable.
- Most appropriate location for a business park is near the Alexander extension (on west side).
- Need higher paying jobs ($25,000 to $30,000 per year)
- Do not see this area as being right for a Celebration–type of community.
- Workforce housing is the bread and butter of Plant City.
- Transit is not the solution but not against a park-n-ride facility to provide option for commuters to Downtown Tampa.
- Supportive of City purchase of land for preservation.
- Infill areas of City can provide for affordable housing; does not need to be provided in Study Area.
- Buildings should have a sense of place that communicates feel of Plant City.
- Development should pay its way, even for recreational facilities.
- Need more flexibility with lots sizes and setbacks.
- Infrastructure costs will restrict development if too high and window on refund policy may be too short.
- Revisit water and sewer ratings for suitability analysis and using cost as factor in ratings.
- Separate suitability analysis by use type, e.g. impacts of industrial versus residential.
- Need to accommodate high school, middle school and elementary schools, depending upon amount of development.
- Preferable location for schools within Study Area is at western end or in center, not the eastern portion.
- Need development patterns that support stable population (more owners, less renters).
- Need to provide facilities for children to ride bikes and/or walk to school.
- Suggested that travel between New Tampa and Orlando is big route, necessitating widening of Knights-Griffin.
- Against extension of Sam Allen further east – suggest Frontage Road and Knights-Griffin as alternatives.
- Supportive of extending Sam Allen to Charlie Taylor Road.
- Need a good freshwater lake in the City for recreational use.
- Need a community feature that attracts development; in favor of using bonds for improvements (e.g. Polk County's roadway improvements).
- Stop making every development a conditional use and allow more development as-of-right.
- Polk County good at stopping residential development along I-4; need to do same.
- Specific location for business park is north of I-4 between Wilder Road and Charlie Taylor Road or between Park Road and Wilder Road.
- Commercial node is developing at Park Road and Sam Allen; build on this.

Remarks

During the community interviews the issue that had the greatest variety of responses was residential densities. There was a wide range of acceptable densities and variation in the types of residential development desired. Specifically, some respondents prefer single family and townhouses while others did not wish to see any additional townhouses but were supportive of apartments. It is these differing opinions on densities and dwelling unit types that will be used to distinguish one land use scenario from the other, in addition to other variables such as transportation options.

Northeast Plant City Master Plan
Community Interview Summary of Elected Official Comments

List of Elected Officials Interviewed

Name	Representing	Date of Interview
Commissioner William Dodson	City of Plant City	10/24/06
Commissioner Robert Brown	City of Plant City	10/31/06
Mayor John Dicks	City of Plant City	10/31/06
Vice Mayor Rick Lott	City of Plant City	10/31/06
Commissioner Dan Raulerson	City of Plant City	08/23/07

A series of questions (see Attachment A) were developed to guide the interviews, and most participants were asked the same set of questions, with variations occurring based on the participants expertise and/or responses to previous questions. This first section summarizes the responses received to the prepared questions, by question, and is followed by additional comments received during the interviews. Questions are identified by *underlined italics* and responses are in normal text.

Prepared Question Responses

What attracts people and businesses to Plant City?
Hometown charm
Downtown area
People have control over their destiny
Character of the City
Location – all necessities and desires are within 60 minutes drive, including major international airport
Small town where people get to know their neighbors and are involved in the community

What gives the City that hometown charm?
Welcoming community, e.g. annual new teacher coffee events
Southern charm and hospitality
Residents are involved in the community and proud to say they are from Plant City
Enthusiasm of local leaders

How can these qualities be maintained in the Study Area?
Recruit future leaders that buy into vision
Develop a succession plan for the City and the Chamber

What are the City's best opportunities for economic growth in the Study Area?
Business park
Capitalize on location between Tampa & Orlando
High tech industry along I-4
Professional and retail jobs, not industrial/manufacturing

Can you name a few examples of cities or developing areas in Florida that exhibit the qualities you envision for the Study Area?
Brandon, Florida is an example of what not to do
Subdivision regulations for Lakeside Station in Plant City
Lakewood Ranch in Sarasota, Florida
Naples, Florida
Coral Gables, Florida
Charleston, South Carolina
Savannah, Georgia
Asheville, North Carolina
Weston, Florida
Downtown Lakeland

Should infrastructure costs to serve Study Area be shared citywide or by the new development?
New development should pay its own way
Referenced City's policy of allowing developer to be reimbursed for infrastructure expansion costs as additional development occurs

What type and intensity of development should be considered for the Study Area?
Light industrial (higher paying jobs) and some heavy industry
Needs to be good mix of single and multifamily units to allow ability to move within the area
Planned communities
Market driven primarily, focus on townhouses
Industrial/warehousing with mixed use behind it and single family homes behind that
Neighborhoods should have parks in the middle
City's existing residential designations are good; apartment densities currently permitted okay; some mix of uses like Hyde Park
Nothing taller than six stories
Nothing greater than four units per acre (4 u/a)
Should be new city with grided streets and retail and entertainment and combination of density consisting of townhouses and single family homes only, no apartments
Denser development should be located adjacent to I-4
Lot size is not as important as maintaining green space within neighborhoods and City in general

In your opinion, are there significant traffic problem areas in the Study Area? If so, where?
No, no significant traffic problems.
Yes, on I-4 and Same Allen. Need to widen Sam Allen and Knight Griffin.

Do you feel mass transit should be considered for the Study Area?
No.
Yes, we have to provide some way for affordable and efficient transportation.
Goal is to have as much internal capture as possible, but okay to consider transit.

Specific transportation improvements identified during interviews
Widen Knight Griffin to 4-lanes
Extend County Line Road

Specific transportation improvements identified during interviews
Widen Sam Allen to 4 lanes
Wilder will need to be extended
Extension of Alexander very important

Additional Comments
Important to provide economic prosperity and quality of life.
A proportionate fair share ordinance should be established that does not hinder development.
Do not want to be a bedroom community.
Good schools are key to economic development.
Need to use more creative lighting and signs.
City prides itself on maintaining property tax rate for 14 years – not interested in raising it.
Recreation is big attractor – half of the users of the City's facilities come from the County.
Consider applying new subdivision regulations to land use scenarios.
Too much conversion of commercial to residential lately, need to tighten regulations to prevent this.
Narrow lots are not appropriate for the area – 60 to 70 foot lot widths are the smallest acceptable.
Most appropriate location for a business park is near the Alexander extension (on west side).
Need higher paying jobs ($25,000 to $30,000 per year)
Do not see this area as being right for a Celebration–type of community.
Workforce housing is the bread and butter of Plant City.
Transit is not the solution but not against a park-n-ride facility to provide option for commuters to Downtown Tampa.
Supportive of City purchase of land for preservation.
Infill areas of City can provide for affordable housing; does not need to be provided in Study Area.
Buildings should have a sense of place that communicates feel of Plant City.
Development should pay its way, even for recreational facilities.
Need to improve the EDC and make it the clearinghouse for information for companies looking to relocate
Need to balance building heights with parking and appropriately locate taller buildings
Would prefer for smaller buses to be used to provide transit

N.E. PLANT CITY MASTER PLAN

Draft Community Leaders Interview Questions

Future Vision for NE Plant City

1. Plant City's Vision Statement emphasizes a 'sense of community', 'closeness' and 'support for one another'. How do you feel that vision can be maintained in the face of growth and increased diversity?
2. What attracts people and businesses to visit or locate in Plant City? How will that be affected by annexation of the Study Area?
3. What aspects of Plant City's identity should the Study Area seek to preserve or enhance?
4. What are Plant City's best opportunities for economic growth? How can annexation of the study area help promote those growth opportunities?
5. How can annexation of the Study Area benefit Plant City's 'quality of life' in terms of housing, employment, cultural, recreational or other opportunities?
6. What is Plant City's vision of its place in its regional context? How can that be promoted?
7. Are there other communities or developing areas that exhibit the qualities you envision for the Study Area? Can you name a few examples of those developing areas in Florida or the Country?

Physical & Financial Constraints

1. Considering the costs associated with the City's growth related to utilities service expansions, should those costs be shared citywide, or only funded by the future new development and/or redevelopment applicants?
2. Would you support the City's purchase of conservation areas, open space tracts or other appropriate undeveloped properties to increase or insure a minimum preservation % for the City at build out?
3. With respect to local roadways operating at or near capacity, do you believe the impacts generally associated with roadway expansion projects are worth the improved public travel conveniences that result?

4. Do you believe there are acceptable methods for long term municipal financing of public improvements to support growth?
5. Should Plant City allow privatized utilities or public-private partnerships the option of serving the City's expansion areas, whose costs would be passed on to the users in a specific area, rather than expanding the existing public utility providers?

Existing Land Uses / Proposed Land Uses / Densities & Intensities

1. Of the existing Future Land Use Classifications (refer to list) are there categories that you feel are no longer appropriate for NE Plant City study area?
2. Do you feel the existing land use patterns established under the County's Future Land Use plan are acceptable for the study area?
3. Are there some categories that are OK, but need adjustments for density or intensity of development (increase or decrease)?
4. Do you have an opinion about certain Future Land Use Classifications and their positive or negative impacts on quality of life, economic viability, and sustainability?
5. Are there other new Land Use classifications that you feel the City should consider adding into the study area (refer to list of examples)?
6. Is the increased density and intensity associated with planned urbanization inherently negative, positive or neutral?
7. Would the addition of some compact higher density uses to the study area be acceptable considering their cost efficiency in providing public services?
8. Should growth in Plant City be focused on geographic expansion, internalized density increases (redevelopment or in-fill), or both?

Acceptable Levels of Service

1. How close to the adopted minimum Levels of Service should the future alternative land use scenarios reach, before a change in Land Use would not be acceptable?

2. Do you believe that the current operating levels of service for some or all public services in the study area may allow expansion without requiring a change in service capacity? (this will mean a drop in performance, but still within acceptable standards)
3. Should school capacities and possible new school locations be incorporated into the future alternatives for the study area, even though this is beyond local control?

Roadways & Transportation Issues

1. In your opinion, are there significant traffic 'problem areas' in the City expansion study area; where?
2. In general, should the City address regional or local roads problems first?
3. Do you feel local Mass Transit solutions should be considered to solve traffic performance issues in the Study area? How about planning for connections to the existing Plant City commercial district?
4. Even if the costs are higher, should new roadway networks include provisions for pedestrian and bicycle corridors (or other transportation modes)?
5. In the Study area, should new roadway networks be planned with a higher priority on interconnectivity or closed loops for neighborhood security?
6. Should common 'traffic calming' concepts be incorporated into the new roadway networks, even if there is a resulting decrease in capacity?

Appendix C – Master Plan Project Newsletters

City of Plant City
PO Box C
Plant City, Florida 33563
(813) 659-4230

Who to Contact for More Information...

Gregory Horwedel
City of Plant City
Assistant City Manager

PO Box C
Plant City, Florida 33563
Phone: 813-659-4230
Email: ghorwedel@plantcitygov.com

Funding for this project provided by Plant City, the Hillsborough County City-County Planning Commission, and the Hillsborough MPO.

DRAFT 03/26/07

Northeast Plant City Master Plan

About the Project...

The City of Plant City, in collaboration with the Hillsborough County City-County Planning Commission and the Hillsborough Metropolitan Planning Organization (MPO), is developing a master plan for the area generally bounded by Knight's Griffin Road to the north, SR 39 to the west, the Hillsborough-Polk County boundary to the east, and I-4 and US 92 to the south (Project Location Map located below). The study area contains the land in the northeast portion of the city limits and the land to the northeast of the current city limits.

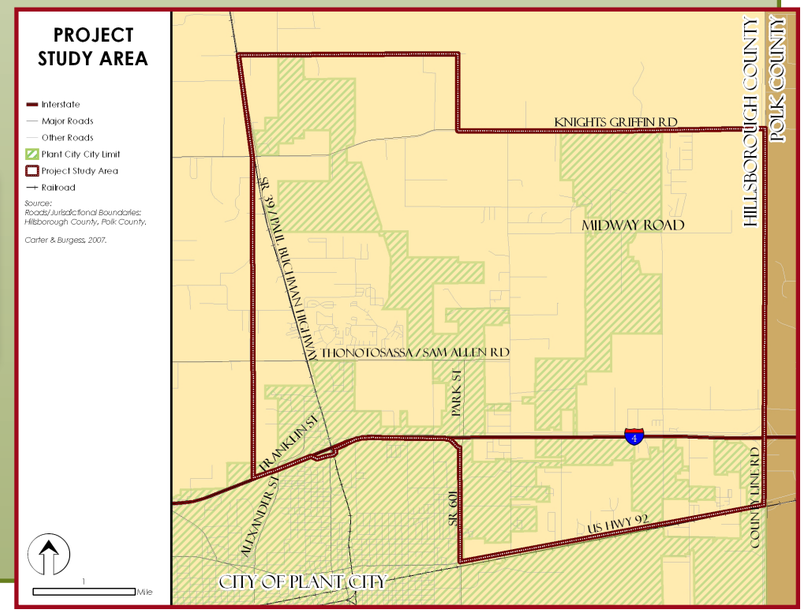
Because this project will influence areas outside of Plant City, a Technical Working Group that includes representatives from adjacent communities, Hillsborough County, and various regional and state agencies has been formed. This group will ensure that regional issues are considered and appropriately addressed in the Master Plan.

The primary purpose of this Master Plan is to develop a coordinated land use and transportation plan that achieves the goals expressed to the right.

Project Goals...

The goal of the master plan is to create a vision of the future development pattern for the Study Area that:

- **Creates a cohesive community.**
- **Provides adequate public services (e.g. water, sewer, schools, recreation, and transportation).**
- **Enhances mobility and connectivity within the study area specifically, and throughout the area in general.**



March 2007

Plant City's Vision Statement...

Plant City is a vibrant city with a diverse economy, excellent services, effective government, a good educational system, and an attractive downtown. As Plant City has grown and prospered, residents still have the sense of belonging to a community. They know their neighbors, share an understanding of Plant City's history, demonstrate care and concern for others, and celebrate the City's Cultural Heritage.








Guiding Principles...

To ensure that future development in the Northeast Plant City Master Plan Study Area is consistent with the City's vision, the following Guiding Principles and Strategies were developed. These principles embody the essential qualities and characteristics desired for the Northeast Plant City Master Plan Study Area. The Guiding Principles are based on comments received during community interviews and from the Technical Working Group and existing planning documents (the City's vision document and Evaluation and Appraisal Report).

Guiding Principle: Home Town Character

Strategies:

1. **Ensure accessibility within and between neighborhoods**
2. **Promote connectivity to downtown**
3. **Encourage compatible residential development in scale and size**
4. **Promote a Livable (compact and walkable) Community**

Guiding Principle: Economic Diversity

Strategies:

1. **Consider existing and future development**
2. **Provide adequate land area for employment opportunities**
3. **Encourage a variety of commercial uses**

Guiding Principle: Adequate Infrastructure

Strategies:

1. **Preserve land for civic uses (such as schools, parks, and recreation facilities)**
2. **Cluster civic uses**
3. **Encourage multimodal (bicycle, pedestrian, and vehicular) transportation**
4. **Share infrastructure costs equitably**
5. **Encourage local vehicle trips on local roads**
6. **Preserve and enhance regional transportation systems and functions**

Guiding Principle: Sustainable Natural and Built Environments

Strategies:

1. **Diversity in housing options**
2. **Ensure provision of adequate open space**
3. **Protect productive agricultural lands**
4. **Appropriately locate higher density residential and non-residential uses**

Project Timeline

Completed Tasks

Existing Conditions and Physical Constraints Report *(Fall 2006)*

Kick-Off Meeting *(September 2006)*

Community Leader Interviews *(Fall 2006)*

Development of Guiding Principles *(Winter 2006)*

Future Tasks

Conceptual Future Land Use Scenarios *(Spring 2007)*

Transportation Analysis *(Spring 2007)*

Follow-up Planning Activity Recommendations *(Spring 2007)*

Public Workshop *(Spring 2007)*

Presentations to Agencies *(Summer 2007)*

Summary of Existing Conditions...

The Study Area is approximately 20 square miles in area and is characterized by rural and agricultural land uses. Low density residential is scattered throughout the Study Area and small areas of commercial use are located adjacent to the major roadways (SR 39, I-4, and US 92). There are two large parcels in public ownership, including the Hillsborough Community College campus and the parcel located south of Knights-Griffin Road and just east of SR 39 that will be developed as a park.

In addition to existing land uses, information on the following issues was collected from the City, Hillsborough County, the Florida Department of State, and the Florida Geographic Data Library (FGDL):

- Wetlands
- Floodplains
- Significant Wildlife Habitat
- Topography/Slope
- Surface Water Protection Areas
- Streams
- Wellfield & Wellhead Protection Areas
- Water Supply
- Sanitary Sewer Collection
- Environmental Conservation Areas
- Historical & Archaeological Sites

A composite of each of these physical and environmental factors was developed to assist the Project Team in better understanding the landscape. The results of the analysis indicate that approximately 85 percent of the Study Area is suitable for development. (Note: Suitability is defined as areas where the land is physically capable of being developed, but does not ensure development will occur.) The remaining 15 percent has very low suitability for development due to environmental conditions. The areas identified as having very low suitability are those where wetlands, floodplains, and environmental conservation lands converge or overlap.

The results of the existing conditions analysis, along with the Guiding Principles, will be used during the creation of the Future Land Use Scenarios, which will define the types and location of uses that may be considered in the Master Plan Study Area. These proposed scenarios, combined with the proposed roadway network improvements, will be analyzed to assess the impacts of each scenario on the regional roadway network.

Next Steps...

The consultant team is currently developing two land use scenarios for the Study Area that will be presented to the Technical Working Group. Once approved by the Technical Working Group, these land use scenarios and associated roadway improvements will be analyzed using the regional transportation model. If necessary, a third land use scenario will be prepared and similarly analyzed. The results of the transportation analysis and the recommended land use scenario for the Study Area will be presented to the City Commission and the public in late spring/early summer.

Northeast Plant City Area Master Plan

About the Project...

The City of Plant City, in collaboration with the Hillsborough County City-County Planning Commission and the Hillsborough Metropolitan Planning Organization (MPO), is developing a master plan for the area generally bounded by Knights Griffin Road to the north, SR 39 to the west, the Hillsborough-Polk County boundary to the east, and I-4 and US 92 to the south (Project Location Map, **Figure 1**, below). The study area contains the land in the northeast portion of the city limits and the land to the northeast of the current city limits.

Because this project includes areas outside of Plant City, a Technical Working Group that includes representatives from adjacent communities, Hillsborough County, and various regional and state agencies was been formed. During the planning process the Technical Working Group reviewed and made recommendations on issues of regional importance.

The primary purpose of this Master Plan is to develop a coordinated land use and transportation plan that achieves the goals expressed below.

Attend the Public Workshop...

We will be holding a public workshop to present the preferred scenario for the master plan.

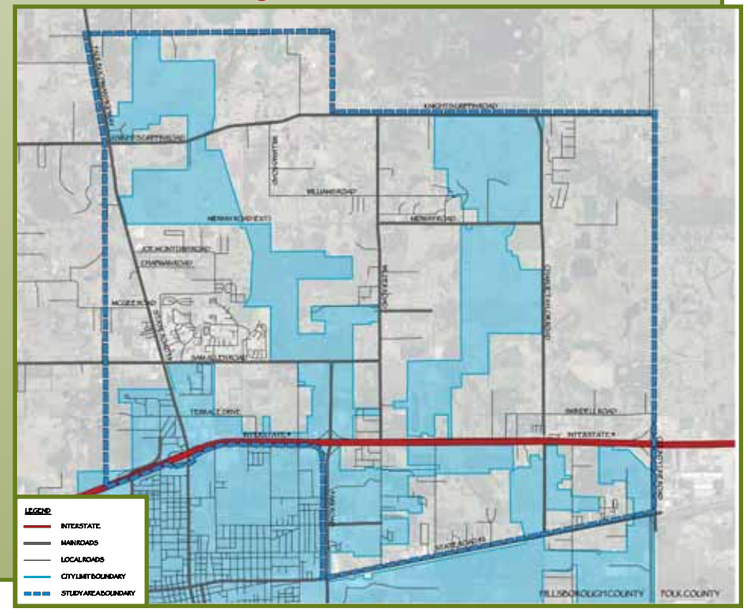
When: Tuesday, October 23, 2007, 6:30 pm

Where: John R Trinkle Center
Hillsborough Community College
Plant City Campus
1206 N Park Road *(Cherry Street Entrance)*
Plant City, Florida 33563

Project Goals...

- Create a cohesive community.
- Provide adequate public services (e.g. water, sewer, schools, recreation, and transportation).
- Enhance mobility and connectivity within the study area specifically, and throughout the area in general.

Figure 1 Project Study Area



October 2007

You are invited to attend our Public Workshop October 23, 2007
See inside for details!

City of Plant City
PO Box C
Plant City, Florida 33563
(813) 659-4230

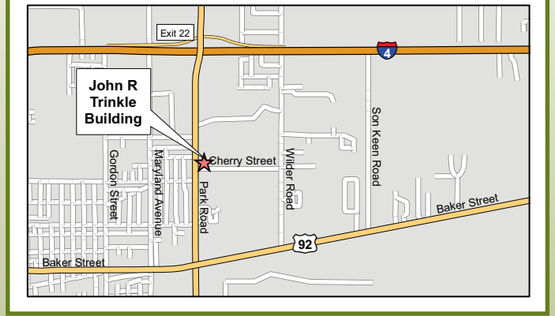
Contact for More Information...

City of Plant City
Planning and Zoning Division

PO Box C
Plant City, Florida 33563
Phone: 813-659-4200. Ext. 4125
Email: randers@plantcitygov.com

Attend the Public Workshop...

Tuesday, October 23, 2007, 6:30 pm



Funding for this project provided by Plant City, the Hillsborough County City-County Planning Commission, and the Hillsborough MPO.

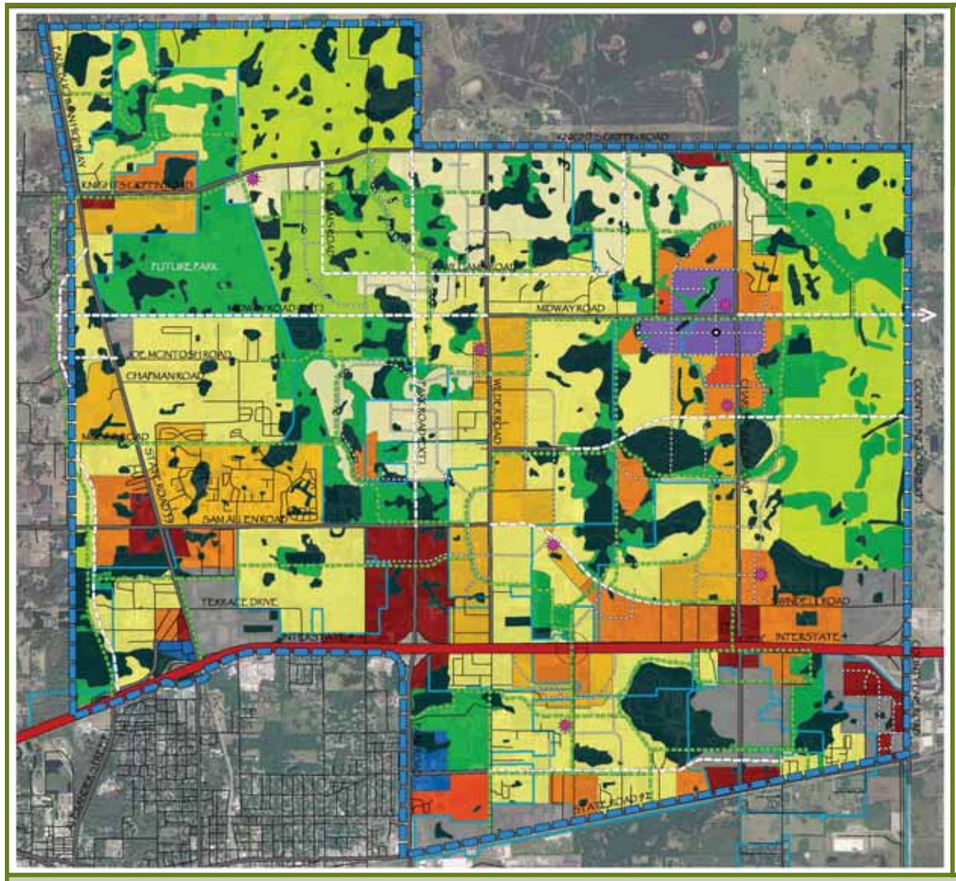


Figure 2

Preferred Land Use Scenario

LEGEND

- RESIDENTIAL-2.5
- RESIDENTIAL-4
- RESIDENTIAL-6
- RESIDENTIAL-12
- RESIDENTIAL-20
- URBAN MIXED USE
- COMMERCIAL
- NATURAL PRESERVATION
- RECREATION & OPEN SPACE
- AGRICULTURAL (COUNTY)
- AGRICULTURAL-2.5
- INSTITUTIONAL
- INDUSTRIAL
- LOGICAL FUTURE SCHOOL SITE LOCATION
- POTENTIAL SEPARATED GRADE BIKEWAY & PEDESTRIAN CROSSING
- PROPOSED COMMUNITY GREENWAY
- EXISTING LOCAL ROADS
- EXISTING MAIN ROADS
- EXISTING INTERSTATE
- PROPOSED LOCAL ROADS
- PROPOSED ARTERIAL & COLLECTOR ROADS
- CITY LIMIT BOUNDARY
- STUDY AREA BOUNDARY

The Preferred Scenario...

Figure 2 is an illustration of the preferred land use vision for the future. This land use scenario is based on the principles of Livable Communities that encourage clustered development, mixed use (such as office or retail on the bottom floor with residential above) and the provision of transportation options as means to manage congestion, reduce pollution, and save energy. A compact development form that includes mixed uses can result in shorter vehicle trips and allow for transportation options, such as walking or bicycling. This vision includes the following components:

- Town Center (shown at the intersection of Midway and Charlie Taylor), a mixed use area that allows for commercial and retail services, multifamily housing, and civic uses, such as schools
- Clustering of higher density residential and nonresidential developments in areas adjacent to major roadways, examples include along State Road 39, Wilder Road, and the proposed Sam Allen extension to Swindell Road
- Preservation of the agricultural areas east of Charlie Taylor Road and north and south of Knights Griffin Road (west of Park Road)
- Lower density (2.5 units per acre) residential in those areas adjacent to environmentally sensitive and agricultural lands

The Vision Plan includes lands outside of the City of Plant City's municipal boundary. Through collaboration with Hillsborough County and the assistance of the Hillsborough County City-County Planning Commission, the City will work towards a Joint Planning Agreement, or JPA, to implement a vision for this area. This does not mean that all land included in the study area will be considered for voluntary annexation by the City; portions of it will but others may remain unincorporated.

How does the vision compare to current plans?

- Reductions in Agricultural and Lower Density Residential uses are off-set by increases in Natural Preservation and Recreation and Open Space areas.
- Clustering approach allows for the construction of more residential units on less land, thereby preserving more open space.
- Increasing the amount of commercial lands leads to an increase in the number of jobs in the area, which reduces the need for residents to travel outside of the Study Area or Plant City for work.
- Additional lands for school facilities were included.
- Potential greenways were identified on the vision plan to provide connectivity between preserve areas for wildlife and to offer alternative travel routes for people.

For this vision plan to be successful, a multi-jurisdictional implementation program, involving both Plant City and Hillsborough County, should be explored. Implementation strategies need to include the possibility of a phasing plan to accommodate the expected growth and mechanisms that allow the plan to react to changes in the market.

Roadway Network...

A major component of this vision plan is the transportation network. As part of the analysis to develop the vision, a series of new roadways and roadway improvements were tested using computer modeling. **Figure 3*** shows the transportation network that best supports the preferred land use plan shown in **Figure 2**. The proposed transportation network includes additional and enhanced roadway facilities to provide increased connectivity within the study area, with a special emphasis given to facilitating east-west travel the does not require the use of I-4.

**Please note the new lines shown on this image represent generalized travel routes, not the final engineered location of new roads.*

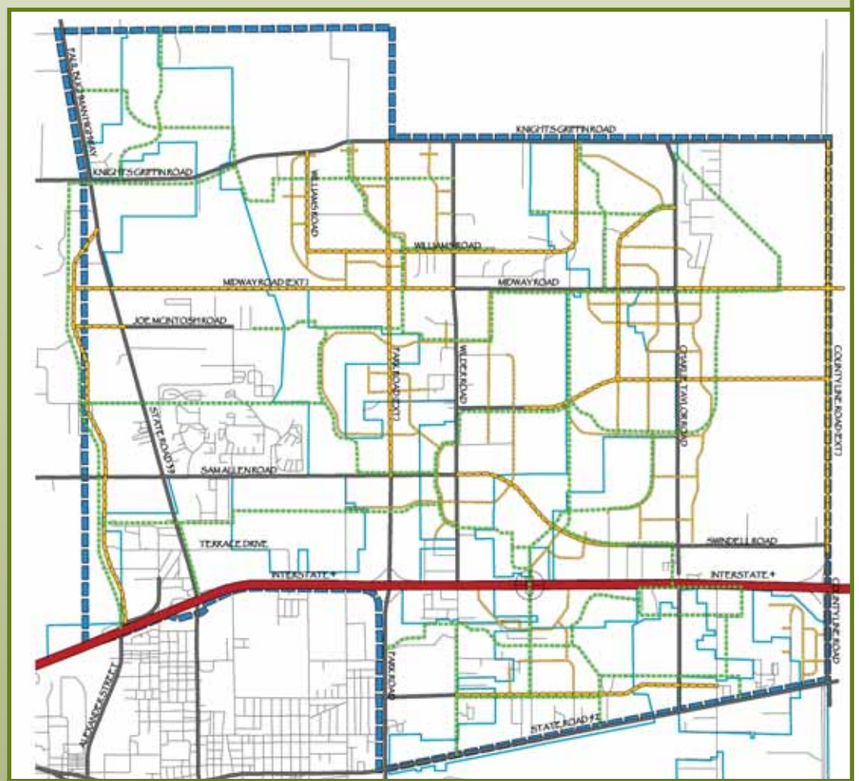


Figure 3

Future Travel Network

Appendix D – Public Workshop Materials, Comment Forms and Summary

Northeast Plant City Master Plan
Plant City, Florida

Public Workshop – October 23, 2007
Summary

Agenda:

I. Opening Remarks

II. Presentation

III. Questions and Comment Period

IV. Closing Remarks

Location:
John R. Trinkle Center
Hillsborough Community College, Plant City Campus
1206 N. Park Road
Plant City, Florida 33563

Attendees:
Mayor Rick Lott
Commissioner Dan Raulerson
Greg Horwedel, Assistant City Manager
Rob Anders, AICP, Planning & Zoning Director
Phillip Scearce, AICP, Senior Planner
Julie Ham, Planning Technician
Marlene Sanchez, Planning Technician
Jill Quigley, AICP, Carter & Burgess
Scott Pringle, AICP, Carter & Burgess
Jennifer Straw, Carter & Burgess
See attached sign-in sheets for other attendees

Meeting Handouts:

- Project Summary
- Comment Form

This meeting was the public workshop for the project. The purpose was to present the results of the project to the general public.

1.0 Opening Remarks

Plant City Mayor Rick Lott opened the meeting, commenting on the need for long-range planning to avoid the poor development patterns that have occurred in other parts of Florida does not happen in Plant City. Mayor Lott introduced Greg Horwedel, Assistant City Manager, who provided an overview of the project and introduced the consultant to start the presentation.

2.0 Presentation

Jill Quigley, Project Manager for Carter & Burgess, began the presentation with an overview of the study area and the project timeline. After explaining why a master plan was undertaken, Ms. Quigley introduced the Preferred Land Use and Transportation Vision and explained the steps completed in developing the land use portion of the vision. Scott Pringle, Senior Planner with Carter & Burgess presented the transportation analysis and results to the audience. Mr. Pringle described the recommended roadway improvements and the projected level of service impacts of such improvements. Ms. Quigley concluded the presentation with a brief description of the next steps and asked for questions and comments.

3.0 Question and Comment Period

Copies of the comment forms received at the workshop are attached to this summary. During the workshop, the following questions and comments were raised.

- A property owner asked how he could keep his land in agricultural use and how to relocate a proposed school off his property. Mr. Horwedel replied that the City was not going to use the NE Area Master Plan to force current property owners to rezone their properties or to build schools. The NE Area Master Plan represents a vision of the preferred or ideal development pattern. Because the NE Area Plan is a vision plan it does not have the same legal status as the City's Comprehensive Plan, property owners have more flexibility to make different use of their property if desired.
- Concern was expressed about the location of school sites on the map, and the possibility of moving them.
- Concern was expressed about people who have owned their property for some time and want to develop other than the designation on the map. The team responded that this is a vision, it is not set in stone, but instead is a plan to help develop the land desirably so as to avoid sprawl.
- Questions were raised pertaining to the City or Hillsborough County taking property, and how property taxes will be affected because of the plan. The project team responded that property tax valuation was a function of the County Property Appraiser's Office, and that this vision plan should not affect how the property was taxed.
- Concern was expressed about the 4-laning of Midway and impact to adjacent properties (multiple people commented on this issue). Mr. Horwedel commented that as development occurred, roads would need to be constructed. Whether or not sufficient right-of-way for a road to be widened was

not known at this time, but would be evaluated when property owners submitted their specific development proposals.

- Praise was given for the amount of preservation and open space shown on the map. However, concern was expressed about how such open space would impact future development, and if there would be enough space to hold the number of people expected to live here. The project team stated that the plan allows for higher density in some areas, which allows for more open space throughout the entire NE area.
- A question was asked about the status of improvements to US 92. Mayor Lott addressed this with information from a recent MPO meeting, noting that some improvements would be made west of the plan study area. Additional improvements to US 92 within the study area itself would be evaluated as development occurred. A development that impacted US 92 would be expected to help pay for improvements to the impacted sections of the road.
- A comment was made that this area should remain rural and roadways should not be constructed through wetlands. Mr. Horwedel said that the proposed roads shown on the map were for representative purposes only. Any new roads would be designed and built in conformance with environmental regulations in place at the time of road construction.
- It was recommended that the City consider commuter rail service along the CSX corridor since building more roads will not solve the congestion problems. This individual also commented on backups caused when a freight train stops on the CSX tracks and blocks Sam Allen and Joe McIntosh. Mr. Horwedel noted that commuter rail and/or light rail systems between Tampa and Lakeland are being discussed by area transit organizations; a possible route uses I-4 right-of-way. The planning and design process for such a system likely will take many years.
- A question was raised about widening Wilder Road. Mr. Pringle explained that there is no recommendation to widen the road.
- Concern was expressed about the proposed greenways, specifically who was going to be responsible for them, the liability to private property owners, and the prospect of trespassing. Ms. Quigley responded that the greenways were not going to be created in the near future; when they were created an entity such as the County or City would have an extensive public outreach effort. Mr. Horwedel followed up by assuring the speaker that the City would not force current property owners to develop greenways in the absence of new development, but may require greenway easements and/or construction when a property is developed.

4.0 Closing Remarks

Mr. Horwedel thanked everyone for coming and for their participation. Mayor Lott closed the meeting by thanking everyone and reaffirming the need for a future vision for this area.

NORTHEAST PLANT CITY MASTER PLAN

PUBLIC WORKSHOP
October 23, 2007
SIGN-IN SHEET

Name (PLEASE PRINT)	Agency/Company (if applicable)	Address	Phone Number	E-Mail
Debra Tice		1232 Wilder Rd	659 0797	
Lance Ham		1506 Joe McIntosh Rd Plt	754-1731	barhcattleco@aol.com
Kim Horwedel		3024 Spring Hammock PC		
Sherrie Campbell		313 E Hunter Rd Plant City	754-8054	campbell1crew@aol.com
Lucille Junnigan		1003 Pleasant Acre DR Plant City FL 33566	813 752-9214	

NORTHEAST PLANT CITY MASTER PLAN

PUBLIC WORKSHOP
October 23, 2007
SIGN-IN SHEET

Name (PLEASE PRINT)	Agency/Company (if applicable)	Address	Phone Number	E-Mail
Wilbur + Sandra Brannan		3516 N. Wilder Rd Plant City Fl. 33565	813-7523912	W-S253
Ruis & David Drawdy		1501 Williams Rd Plant City Fl. 33565		
Alvin + MaryJo Futch		3002 E Taylor Rd PC 33565	8137542118	
Anita Mountain Carol Sherrow		906 E Knights Griffin Plant City Fl 33565	813-426-3279	/
FRAN NEILSEN	AFSCME	1101 N Knight St Plant City, FL 33563	813-404-2227	AFSCMEFRAN@YAHOO.COM
Charles + Cynthia FLOYD		1912 W Hunter Rd Plant City Fl 33565	813659 9813	threePalms1912@aol.com
Jim Pogue		1111 No Park RD PC Fl 33563		
Bruce Rodwell		3001 Barret Ave Pc, FL 33566	813 659-3351	
Ken Gibbs	Gibbs	106 W Grant St Plant City FL 33563	813-752-6171	
[illegible]		1806 Joe McIntosh Rd PC	754-1731	
Andie Ham		1502 Joe McIntosh Rd pc	752-8355	
David McQueen		4120 Midway Rd Plant Cit 33565	754-7705	

NORTHEAST PLANT CITY MASTER PLAN

PUBLIC WORKSHOP
October 23, 2007
SIGN-IN SHEET

Name (PLEASE PRINT)	Agency/Company (if applicable)	Address	Phone Number	E-Mail
Violete Massey		1704 Joe McIntosh Rd P.C. 33565	813-752-2659	
John Leitner III		1710 Joe McIntosh Rd P.C. 33565	813 754-1325	
Fern Leitner		1710 Joe McIntosh Rd PC 33565	813 7541325	
Lea Anne Beahn		1736 Joe McIntosh Rd Plant City 33565	813-764-0767	beaners 813@aol
Wayne Wiggins		6806 W. knights Griffin 33565		Wayne @ PlantCity Realty.com
Alvie + Ann Still		219 Charlie Taylor Rd Plant City, FL 33566	813 752 5342	
Joe Forcucci		607 Half Mile rd. Plant city FL 33565	813 707 9427	
Terry Wyatt		4207 Wyatt Acres Rd Plant City FL 33565	813 754-3664	
Marian Reinhardt		4115 W. Wilder Rd PC.	813 754-1421	
Earl Johnson		2008 W. Hunter Rd PC 33565	813 763.1681	
Ed Veaver		3435 Mayday Dr Pc 33565		
JACK Holland		302 Chapman Rd PC 33565	813 752 2057	Jackholland@att.net

NORTHEAST PLANT CITY MASTER PLAN

PUBLIC WORKSHOP
October 23, 2007
SIGN-IN SHEET

Name (PLEASE PRINT)	Agency/Company (if applicable)	Address	Phone Number	E-Mail
DON PARRISH	HOLLY LANE TREE FARM	1202 E. JOE MCINTOSH P.C. 33565	752-4463	
ANN PARRISH	" "	" "	" "	
RW Willford		908 JOE MCINTOSH RD. P.C. 33565	752-9212	
Felice Willaford		" " " "	" "	
JOHN NEELY		3402 N. WILDER P.C. 33565		
Bruce Donovan		N PARK rd.	727-643-5772	
DOX WALDEN	DOXCO REALTY	PUBN 1569 PC	813 9528013	
Lewis Pogue				
Larry & Martha Granger		3511 N Wilder Rd Plant City, Fl 33565	813 752-0710	
Phil Waldron		P.O Box 1546 Plant City Fl 33564	813 390-8814	
LINDA BLACKBURN		5301 Fulwood DR PC Fl 33565	763-2983	
Dale Mountford				

Northeast Plant City Area Master Plan

Comment Form

Anita Mountain
906 E. Knights Griffin Rd
Plant City, FL 33565
813-426-3279

Would like to schedule a meeting.

Name: See above
Address:
City/State/Zip Code:
Email: anita@mountainclan.com

Please place this form in the "Comments Box" at this meeting or mail it to the following address. Please fold as indicated on the reverse side, tape together, and mail.

City of Plant City
Planning and Zoning Division
PO Box C
Plant City, Florida 33563

Northeast Plant City Area Master Plan

Comment Form

My main concern is I do not want a four lane highway to the north of my property. This 4-lane highway, to me, is not congruent with the vision of McIntosh Park. McIntosh Park was designed to be water reclaim / nature preserve park + this plan does not aligned.

Also - I see that the proposed road is ~~boarded~~ next to wetland areas. I do not want to see a raised highway or a bridge type structure either.

Thank you for providing me this opportunity. I hope to attend the ~~nxt~~ next meeting in November.

Name: LeaAnne Beaks

Address: 1736 Joe McIntosh Rd. (813) 764-0767

City/State/Zip Code: Plant City, Fl. 33565

Email:

Please place this form in the "Comments Box" at this meeting or mail it to the following address. Please fold as indicated on the reverse side, tape together, and mail.

City of Plant City
Planning and Zoning Division
PO Box C
Plant City, Florida 33563

Northeast Plant City
Area Master Plan

Comment Form

Greenway Liability - who
Road right of way - pay?

Name: NORMA GADLE HAM

Address: 1506 Joe McIntosh Rd

City/State/Zip Code: Plant City FL 33565

Email:

Please place this form in the "Comments Box" at this meeting or mail it to the following address. Please fold as indicated on the reverse side, tape together, and mail.

City of Plant City
Planning and Zoning Division
PO Box C
Plant City, Florida 33563

Northeast Plant City Area Master Plan

Comment Form

1) Park Street needs extending 4 Lane to connect into bypass at Zephrills - That Truck Route from 39 S. to pts. north would take a lot of traffic from Plant City + Hy 39 - moving traffic faster thru N.E. Hillsb. City.

2) Land use proposals have to remain flexible - people need to have the say so as to the useage and development potential of the property they own + pay taxes on.

3) I personally prefer high density development in certain areas ~~and~~ to urban sprawl.

Name: Lance H. Ham

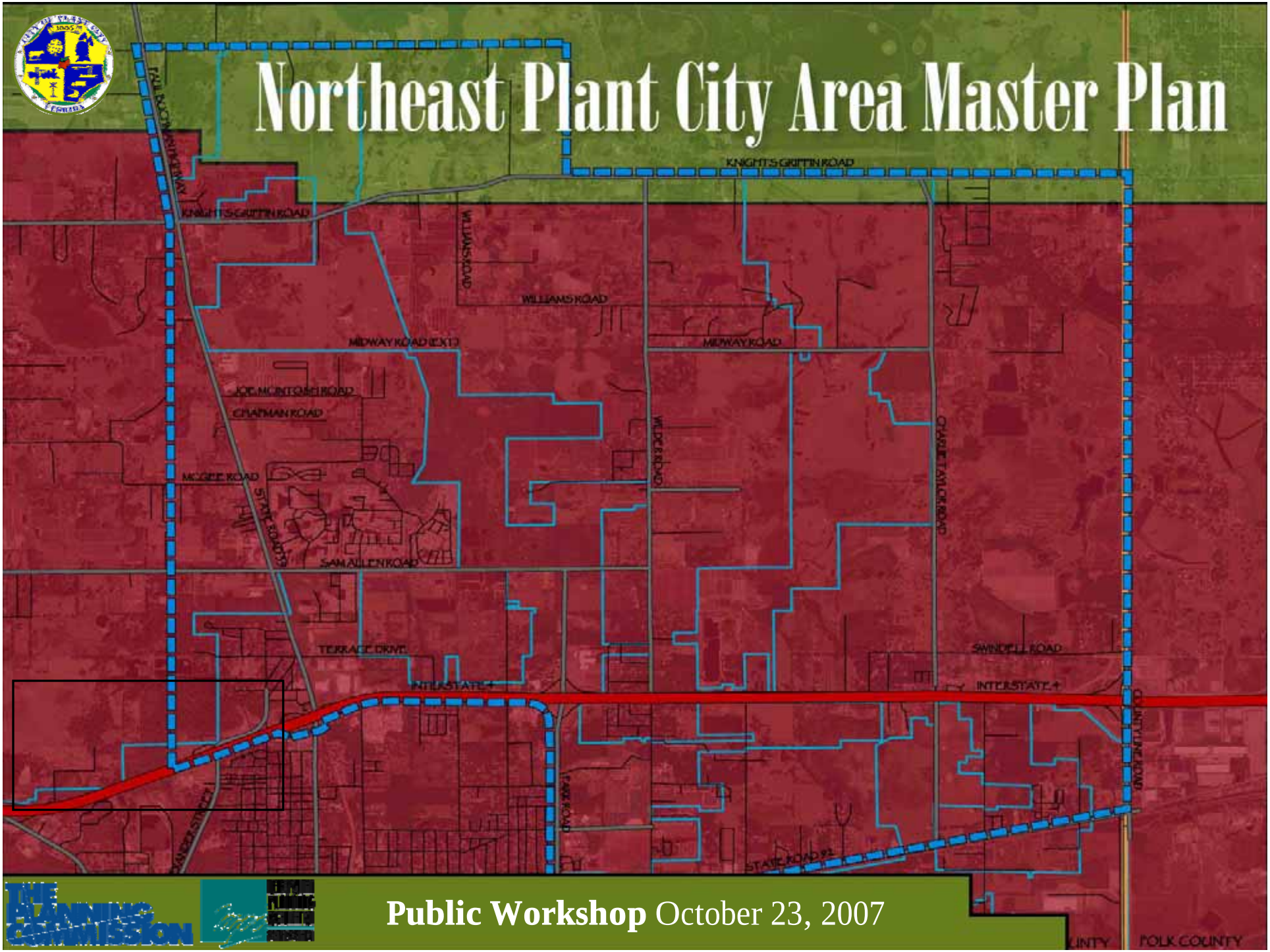
Address: 1506 Joe McIntosh Rd.

City/State/Zip Code: Plant City, FL 33565

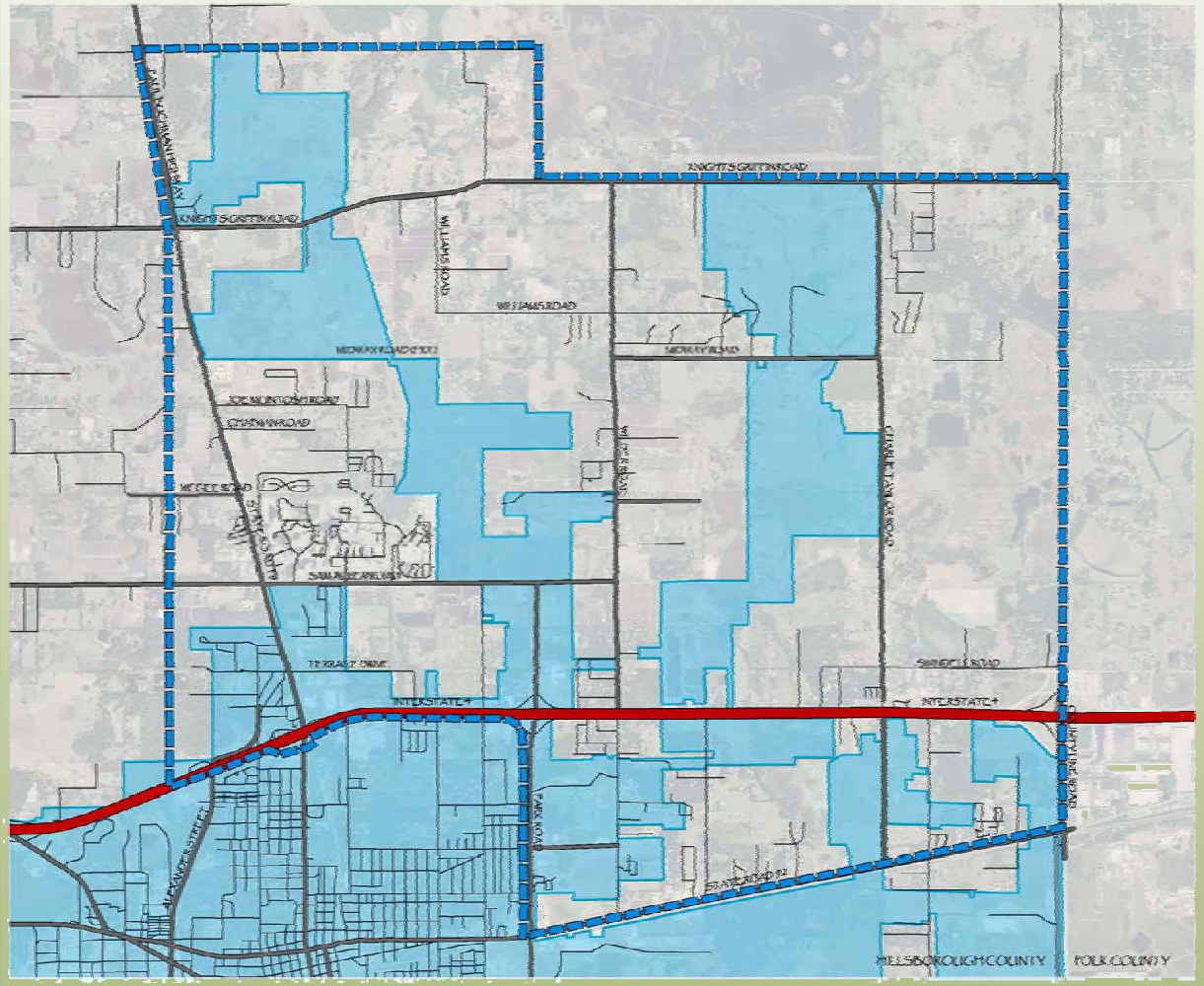
Email: barlhcattle co@aol.com

Please place this form in the "Comments Box" at this meeting or mail it to the following address. Please fold as indicated on the reverse side, tape together, and mail.

City of Plant City
Planning and Zoning Division
PO Box C
Plant City, Florida 33563


Northeast Plant City Area Master Plan
KNIGHTS GRIFFIN ROAD
WILLIAMS ROAD
MIDWAY ROAD (EXT)
MIDWAY ROAD
JOE MCINTOSH ROAD
CHAPMAN ROAD
MCGEE ROAD
SAM ALLEN ROAD
TERRACE DRIVE
INTERSTATE 4
SWINDELL ROAD
COUNTY LINE ROAD
Public Workshop October 23, 2007

Study Area



LEGEND

- INTERSTATE
- MAIN ROADS
- LOCAL ROADS
- CITY LIMIT BOUNDARY
- STUDY AREA BOUNDARY

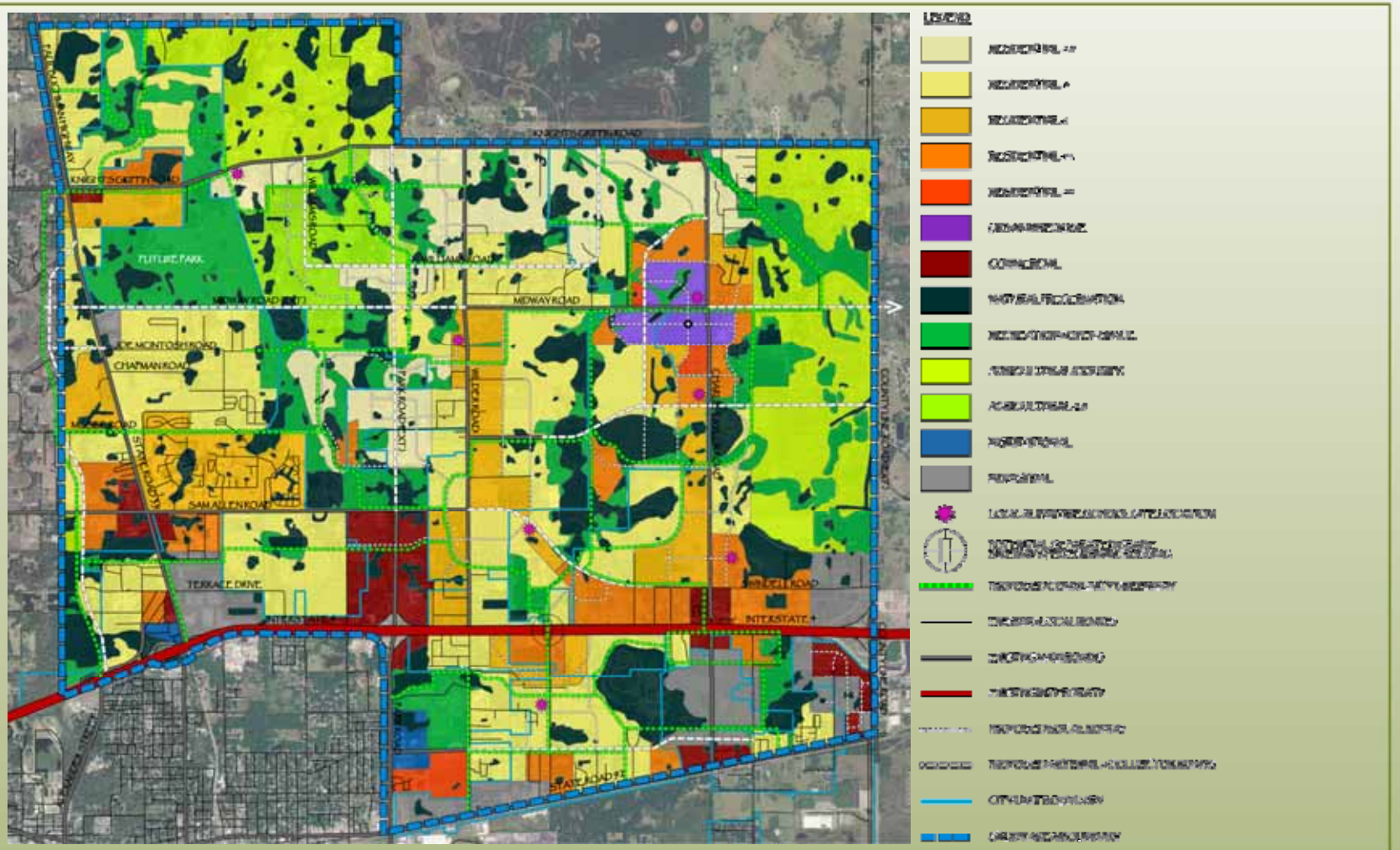
Master Plan Progress

Existing Conditions	JUNE – DEC 2006
Kick-Off Meeting	SEPT 2006
Guiding Principles	OCT ’06 – FEB 2007
Land Use Scenarios	MAR – JULY 2007
Transportation Analysis	MAY – SEPT 2007
Public Workshop	TODAY
Identification of Follow-Up Activities	NOV 2007
Presentations	NOV – DEC 2007

Why a Master Plan?

- Establish vision for future land uses in the Study Area that will:
  - Create a cohesive community
  - Provide adequate public services
  - Enhance mobility and connectivity within the study area specifically, and throughout the area in general
- Identify roadway improvements necessary to ensure mobility within region
- Ensure coordination between the land use vision and transportation plan

Preferred Land Use and Transportation Vision

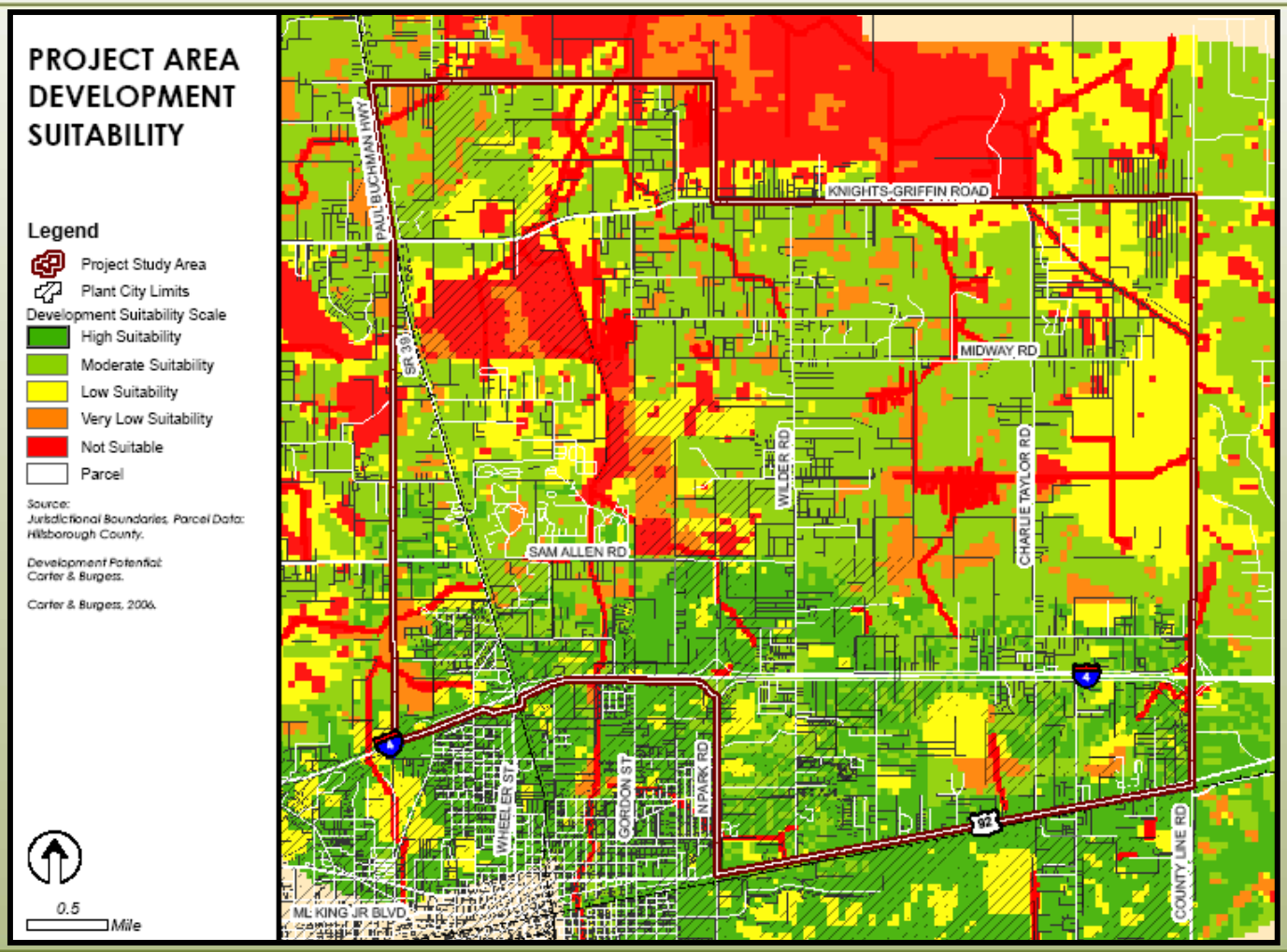


Northeast Plant City Area Master Plan

Steps

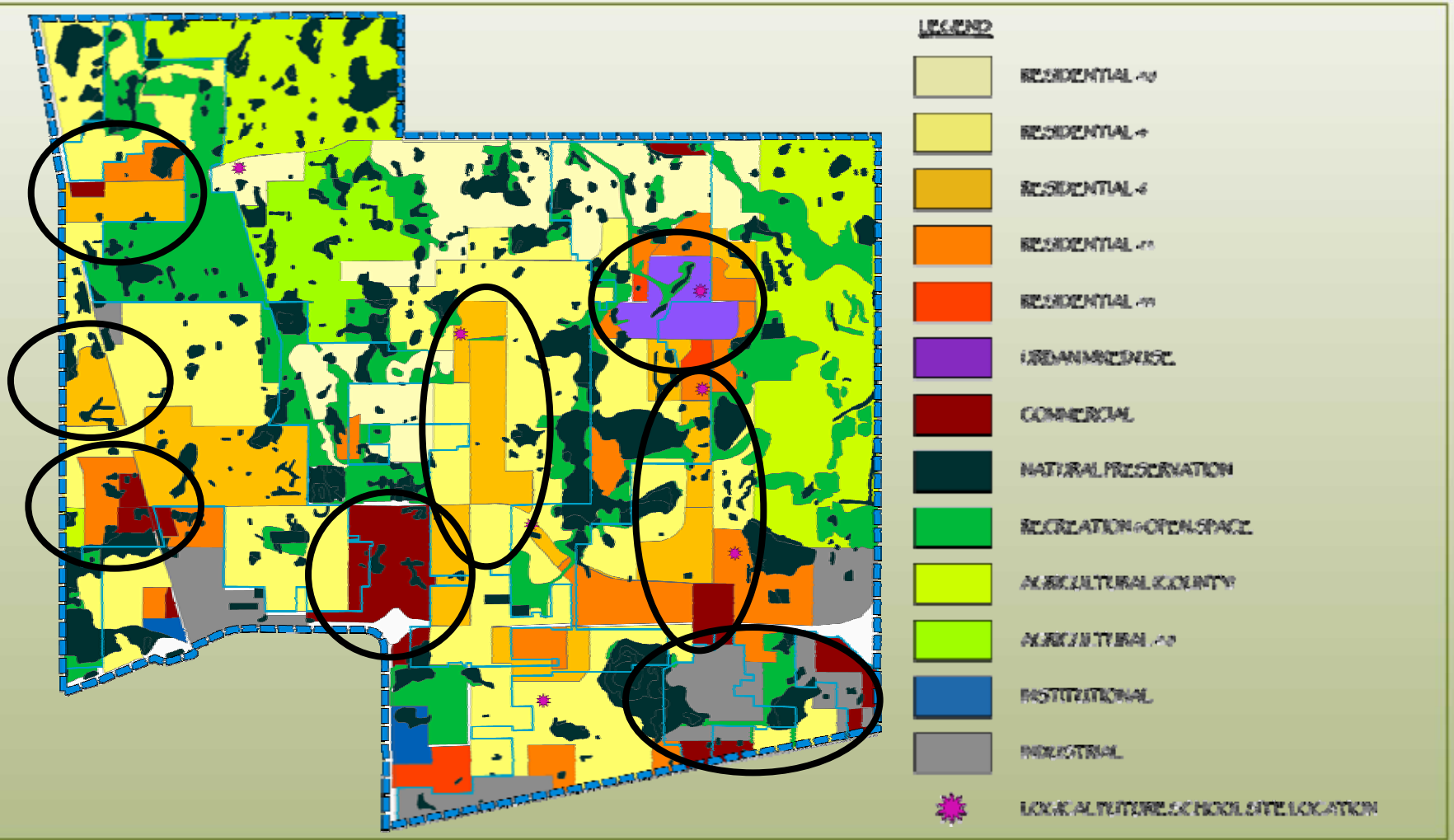
- Guiding Principles
  - Developed a series of principles with key stakeholders that were used to guide the creation of the land use scenarios
- Land Use Scenarios
  - Created two alternative scenarios based on existing conditions, suitability analysis, and Guiding Principles
- Transportation Alternatives
  - 3 alternatives with nine model runs and several rounds of refinement

Suitability Map



Northeast Plant City Area Master Plan

Preferred Land Use Vision

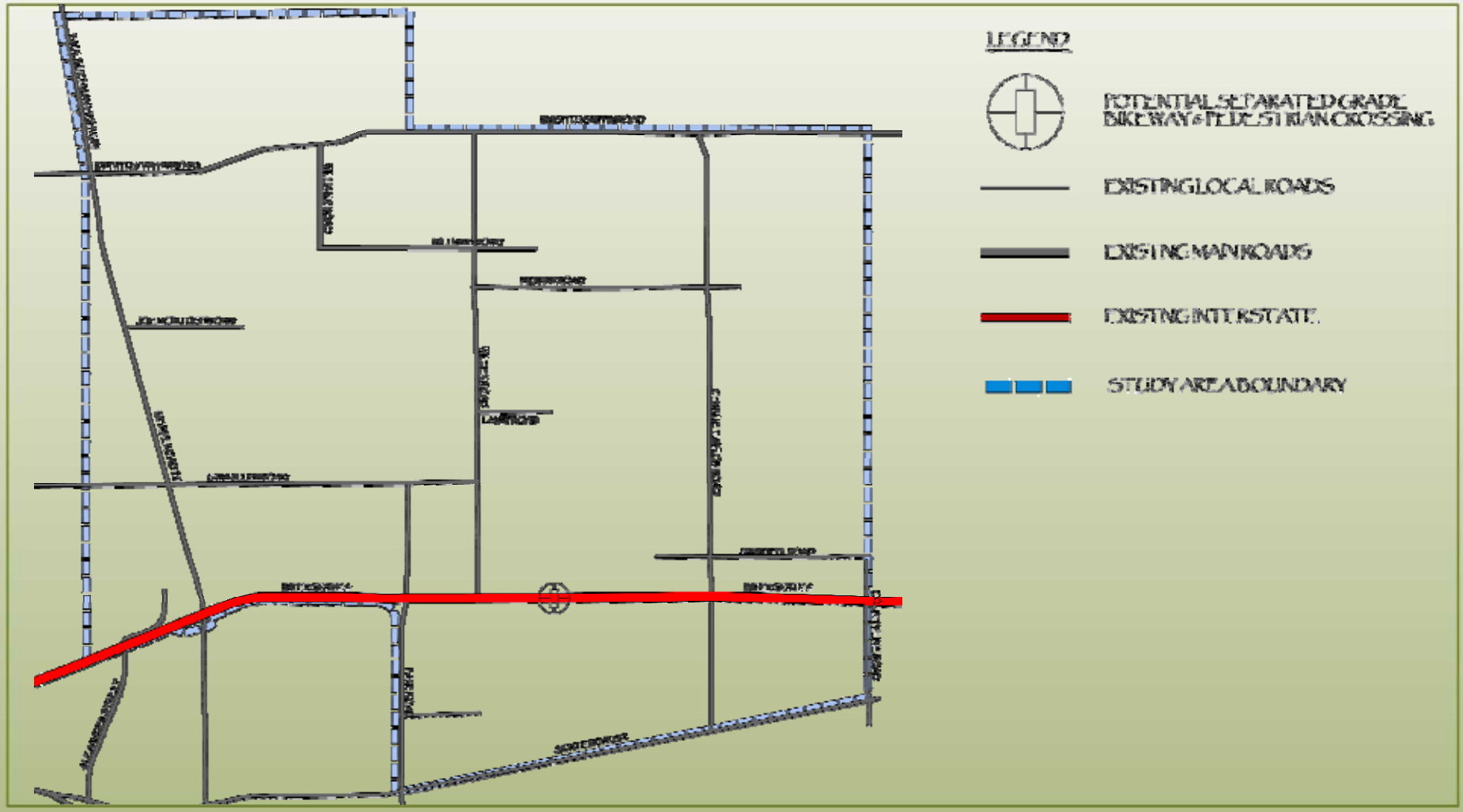


Northeast Plant City Area Master Plan

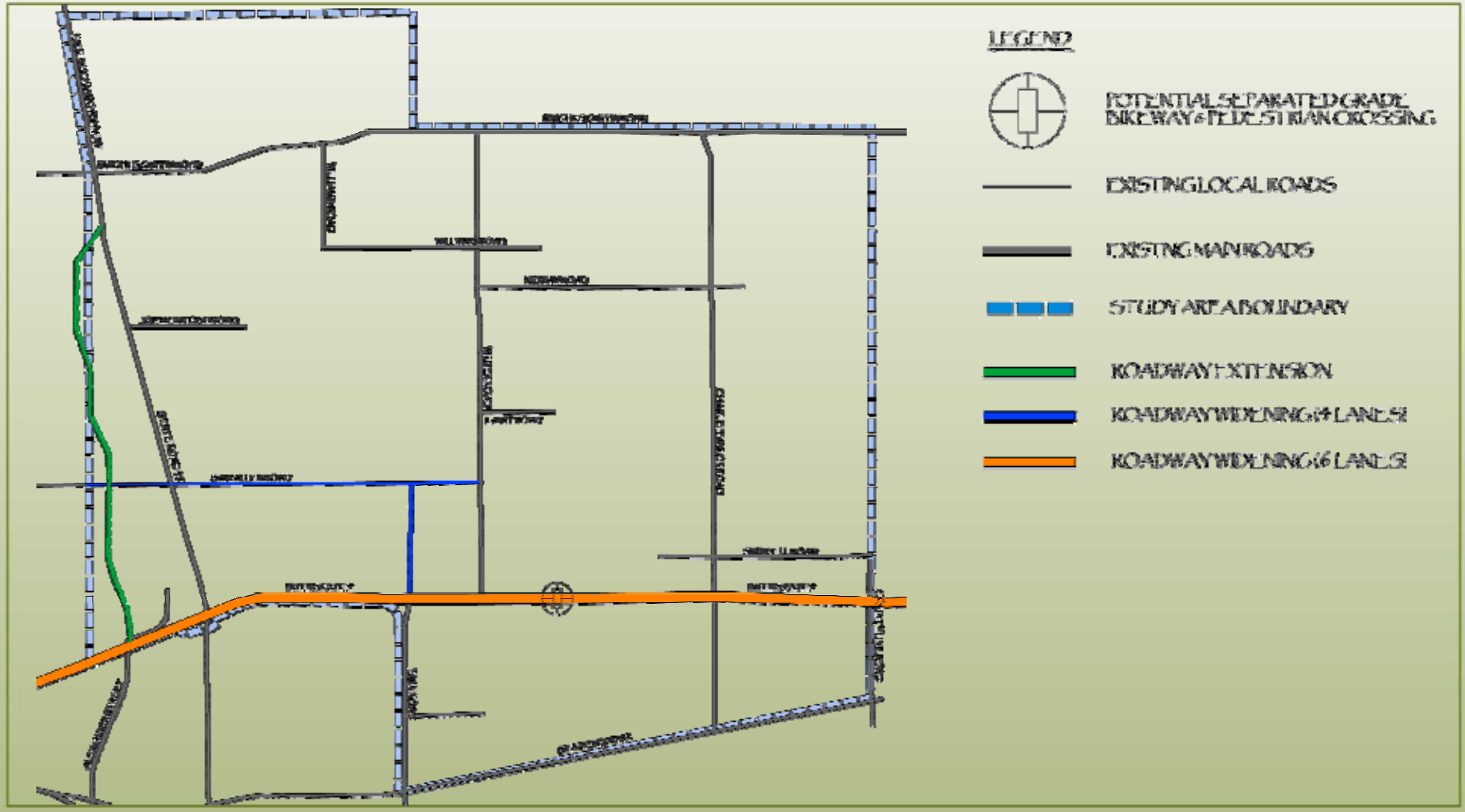
Preferred Land Use Vision

- Reductions in Agricultural and Lower Density Residential (< 4 units per acre)
- Increases in Preservation and Recreation & Open Space areas
- Clustering development for more residential units on less land area
  - Current regulations allows ~ 13,000 units on 12,000 acres
  - Preferred Vision allows ~34,000 units on 7,200 acres (at maximum build out)
- Nonresidential land area is nearly doubled, approximately 3 times the number of jobs (at maximum build out)
- Additional land for school facilities: 3 elementary, 2 middle, 1 high
- Greenway connections between preserve areas also provide alternative forms of travel

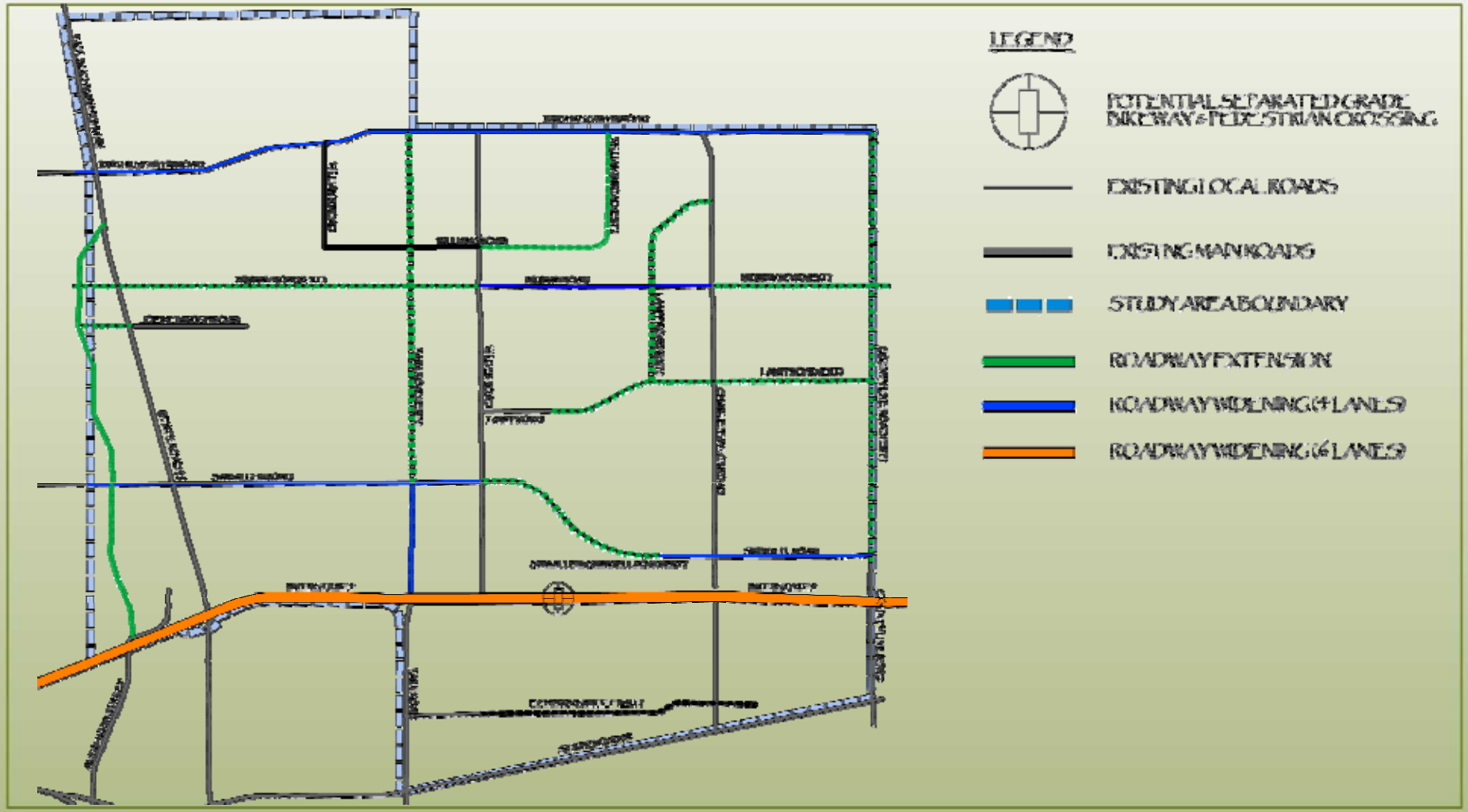
Existing Roadway Network



Planned Roadway Network



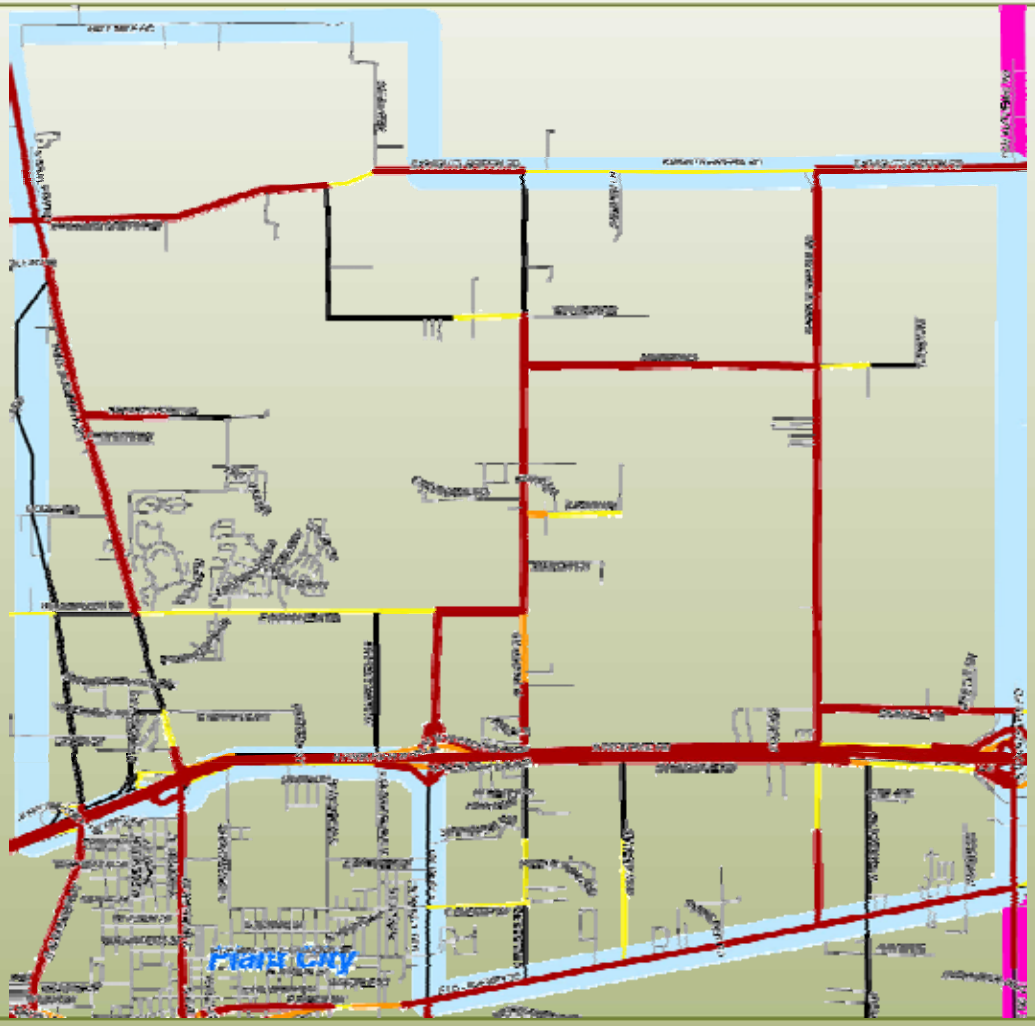
Preferred Roadway Network



Preferred Roadway Network

- Roadway Recommendations
  - Widening of **Knights Griffin Road** from 2 to 4 lanes'
  - Extending and widening **Midway Road** from the Alexander Street extension to Countyline Road with a 4 lane roadway
  - Extending and widening **Sam Allan Road** to connect to **Swindell Road** with a 4 lane roadway
  - Extending **County Line Road** north to Knights Griffin Road
  - Extending **Park Road** to Knights Griffin Road
  - Extending **Lampp Road** to connect to County Line Road and Charlie Taylor Road
  - Extending **Williams Road** to Knights Griffin Road
  - Extending **Joe McIntosh** Road to Alexander Street

Level-of Service Maps

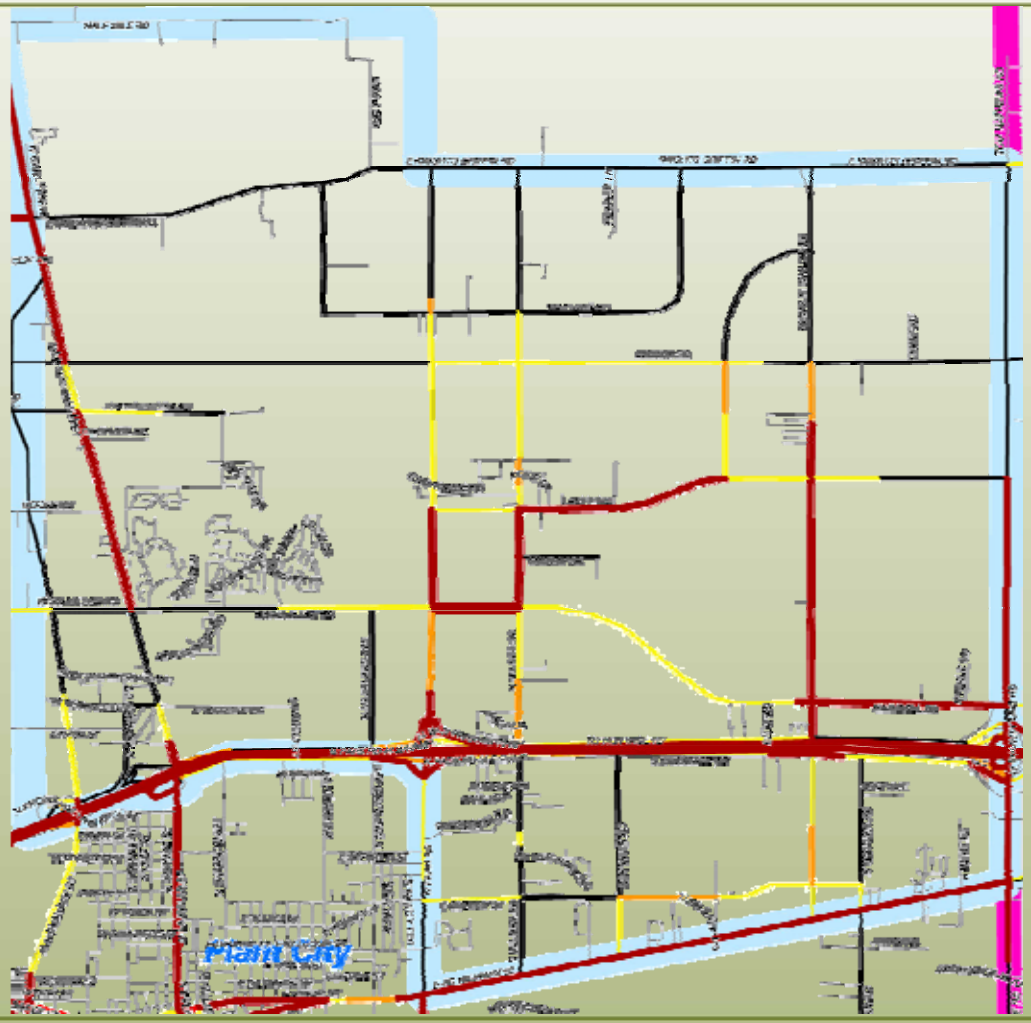


Planned Roadway Network with Preferred Land Use Vision

LEGEND

- ROADWAY LOS A, B & C
- ROADWAY LOS D
- ROADWAY LOS E
- ROADWAY LOS F

Level-of Service Maps



Preferred Roadway Network with Preferred Land Use Vision

LEGEND

- ROADWAY LOS A, B & C
- ROADWAY LOS D
- ROADWAY LOS E
- ROADWAY LOS F

Preferred Roadway Network

- NE Plant City Preferred Roadway Network Impacts
  - Created Midway Road Extension as parallel facility to I-4
    - Removes approximately 17,000 vehicles daily from I-4 & SR 39
  - Created Sam Allen/Swindell Road as parallel facility
    - Removes between 5,000 to 10,000 from I-4 & SR 39
  - Improves LOS on Knights Griffin (LOS F to LOS B/C)
  - Improves LOS on Midway (LOS F to LOS D)
  - Improves LOS on Sam Allen (LOS F to LOS D)

Next Steps

- Incorporate comments from tonight and return to City Commission for their approval
- Identify implementation strategies
  - Phasing plan;
  - Policies for comprehensive plans; or
  - Guidelines for modifying the vision
- Present master plan to County Commission, MPO and the Planning Commission
- Work with County to develop Joint Planning Agreement

Questions or Comments

Appendix E – Socio-economic Data Spreadsheets for Alternate Land Use Scenarios

Preliminary Future Land Use Alternatives Data

PLANT CITY GROWTH SCENARIOS

Scenario A Future Land Use at Traffic Analysis Zone (TAZ) Level

All land use data in is acres

All land use data per April 19, 2007 Future Land Use Master Plan

TAZ	Proposed Future Land Use											TOTAL	TOTAL DUs 2035	Elementary	Middle	High	Total
	Agricultural	Commercial /Office	Industrial	Major Recreation/ Open Space	Natural Preservation	Institutional		Residential		Residential							
	AG	C	I	RO	NP	INST	R.O.W.	R-4	R-6	R-12	R-20						
525	0.00	0.00	0.00	0.00	0.00	0.00		14.93	0.00	0.00	0.00	14.93	60	11.23	6.99	7.94	26.16
527	0.00	20.00	0.00	0.00	40.00	0.00		115.90	120.00	0.00	40.00	335.90	1,984	285.24	146.40	158.30	589.94
528	0.00	0.00	0.00	230.00	230.39	0.00		437.00	405.00	0.00	0.00	1302.39	4,178	654.24	345.46	383.14	1382.84
529	0.00	0.00	0.00	150.39	125.00	0.00		534.00	0.00	0.00	0.00	809.39	2,136	401.57	249.91	284.09	935.57
531	0.00	15.00	0.00	0.00	106.42	0.00		0.00	12.00	0.00	0.00	133.42	72	9.65	4.18	4.46	18.29
532	0.00	40.00	100.00	0.00	50.60	15.00		0.00	25.00	0.00	0.00	230.60	150	20.10	8.70	9.30	38.10
533	0.00	173.00	80.00	40.00	54.71	0.00		0.00	125.00	100.00	0.00	572.71	1,950	261.30	113.10	120.90	495.30
537	0.00	25.00	75.00	0.00	200.07	0.00		198.00	45.00	70.00	0.00	613.07	1,902	297.64	157.04	174.16	628.84
543	0.00	0.00	0.00	0.00	0.00	0.00		5.57	0.00	0.00	0.00	5.57	22	4.19	2.61	2.96	9.76
553	0.00	16.00	0.00	0.00	0.00	16.00		0.00	0.00	41.33	0.00	73.33	496	66.46	28.77	30.75	125.97
556	0.00	0.00	113.83	0.00	10.00	0.00		0.00	0.00	0.00	0.00	123.83	0	0.00	0.00	0.00	0.00
557	0.00	9.33	0.55	0.28	0.00	0.00		0.00	0.00	0.00	3.04	13.20	61	7.72	3.83	3.95	15.50
559	0.00	20.00	60.00	84.58	44.00	40.00		0.00	0.00	0.00	75.00	323.58	1,500	190.50	94.50	97.50	382.50
742	550.00	0.00	0.00	110.00	187.23	0.00		290.00	0.00	35.00	0.00	1172.23	1,608	279.53	163.30	183.98	626.81
743	0.00	25.00	35.00	350.00	50.16	0.00		242.00	85.00	0.00	0.00	787.16	1,478	250.32	142.84	160.36	553.52
744	75.00	55.00	0.00	150.00	224.74	0.00		338.00	120.00	35.00	15.00	1012.74	2,796	445.74	243.64	270.49	959.88
745	0.00	0.00	0.00	30.00	104.57	0.00		210.00	30.00	75.00	20.00	469.57	2,320	353.44	186.12	204.68	744.24
746	0.00	25.00	0.00	40.00	42.79	0.00		175.00	150.00	40.00	0.00	472.79	2,080	316.52	161.94	178.66	657.12
747	175.00	0.00	0.00	150.00	67.80	0.00		250.00	0.00	0.00	0.00	642.80	1,009	189.65	118.02	134.16	441.83
748	0.00	0.00	0.00	25.00	50.31	0.00		284.00	0.00	0.00	0.00	359.31	1,136	213.57	132.91	151.09	497.57
749	0.00	5.00	0.00	25.00	26.32	0.00		265.00	0.00	40.00	0.00	361.32	1,540	263.60	151.86	170.74	586.20
750	0.00	30.00	0.00	25.00	64.74	0.00		117.00	0.00	0.00	0.00	236.74	468	87.98	54.76	62.24	204.98
751	0.00	0.00	0.00	15.00	119.52	0.00		40.00	0.00	69.00	0.00	243.52	988	141.03	66.74	72.62	280.39
752	0.00	125.00	0.00	0.00	17.65	0.00	6.50	0.00	35.00	0.00	35.00	219.15	910	117.04	56.28	58.52	231.84
753	0.00	50.00	0.00	50.00	69.97	0.00		94.00	90.00	0.00	0.00	353.97	916	143.05	75.31	83.49	301.85
754	0.00	20.00	0.00	20.00	20.21	0.00		65.00	150.00	75.00	0.00	350.21	2,060	290.08	134.82	146.18	571.08
755	0.00	100.00	0.00	76.33	100.00	0.00		195.00	0.00	0.00	0.00	471.33	780	146.64	91.26	103.74	341.64
756	0.00	0.00	45.00	37.23	20.00	0.00		200.00	55.00	50.00	0.00	407.23	1,730	275.02	147.54	164.06	586.62
757	0.00	45.00	240.00	50.26	78.00	0.00		35.00	0.00	25.00	0.00	473.26	440	66.52	33.78	37.22	137.52
TOTAL	800.00	798.33	749.38	1659.07	2105.20	71.00	6.50	4105.40	1447.00	655.33	188.04	12585.25	36,768	5789.56	3122.60	3459.69	12371.86

Scenario "A"

Total dwelling units by Land Use

Agricultural	Agricultural	Residential	Residential		Residential			
AG		R-1	R-4	R-6	R-12	R-20		Total
40		0	16421.6	8682	7863.96	3760.8		36768.36

Total SF Detached 16461.6 Units

Total SF Attached 16545.96 Units

Total MF 3760.8 Units

Total Students — Totals 36768.36

Elem	3094.78	2217.16	477.62	5789.56	Elem
Middle	1926.01	959.67	236.93	3122.60	Middle
High	2189.39	1025.85	244.45	3459.69	High
				12371.86	

Districtwide, the median number of student stations provided is:

	# of schools needed
Elementary - 956	6
Middle - 1550	2
High - 2,507	1

Assumptions:SF Detached (R-4 and below) generates
- 0.188 elementary students
- 0.117 middle school students
- 0.133 high school students

SF attached (R-6 and R-12) generates average of
- 0.134 elementary students
- 0.058 middle school students
- 0.062 high school students

Multifamily (R20) unit generates average of
- 0.127 elementary students
- 0.063 middle school students
- 0.065 high school students

PLANT CITY GROWTH SCENARIOS

Scenario B Future Land Use at Traffic Analysis Zone (TAZ) Level

All land use data in is acres

All land use data per April 19, 2007 Future Land Use Master Plan

TAZ	Proposed Future Land Use														TOTAL	TOTAL DUs 2035	Elementary	Middle	High	Total
	Agricultural	Agricultural	Commercial /Office	Industrial	Major Recreation/ Open Space	Natural Preservation	Institutional			Residential	Residential		Residential							
	AG	AG 2.5	C	I	RO	NP	INST	URBAN MU	MISC/ROW	R-1	R-4	R-6	R-12	R-20						
525	0.00		0.00	0.00	0.00	0.00	0.00				14.93	0.00	0.00	0.00	14.93	60	11.23	6.99	7.94	26.16
527	0.00		20.00	0.00	0.00	40.00	0.00				98.90	82.00	95.00	0.00	335.90	2,028	293.06	140.94	153.80	587.80
528	0.00		0.00	0.00	230.00	230.39	0.00				437.00	405.00	0.00	0.00	1302.39	4,178	654.24	345.46	383.14	1382.84
529	450.00		0.00	0.00	132.39	125.00	0.00				50.00	0.00	52.00	0.00	809.39	847	125.45	62.22	68.28	255.95
531	0.00		0.00	0.00	15.00	102.42	0.00				0.00	0.00	0.00	16.00	133.42	320	40.64	20.16	20.80	81.60
532	0.00		15.00	0.00	25.00	50.60	0.00				115.00	0.00	25.00	0.00	230.60	760	126.68	71.22	79.78	277.68
533	0.00		125.00	60.00	40.00	49.71	0.00				233.00	0.00	65.00	0.00	572.71	1,712	279.74	154.28	172.32	606.34
537	0.00		25.00	75.00	0.00	200.07	0.00				198.00	45.00	70.00	0.00	613.07	1,902	297.64	157.04	174.16	628.84
543	0.00		0.00	0.00	0.00	0.00	0.00				0.00	0.00	0.00	0.00	5.57	0	0.00	0.00	0.00	0.00
553	0.00		10.00	0.00	0.00	10.00	13.00		22.33		0.00	0.00	18.00	0.00	73.33	216	28.94	12.53	13.39	54.86
556	0.00		0.00	113.83	0.00	10.00	0.00				0.00	0.00	0.00	0.00	123.83	0	0.00	0.00	0.00	0.00
557	0.00		9.33	0.55	0.28	0.00	0.00				0.00	0.00	0.00	3.04	13.20	61	7.72	3.83	3.95	15.50
559	0.00		20.00	60.00	84.58	44.00	40.00				0.00	0.00	0.00	75.00	323.58	1,500	190.50	94.50	97.50	382.50
742	550.00		0.00	0.00	110.00	187.23	0.00				290.00	0.00	35.00	0.00	1172.23	1,608	279.53	163.30	183.98	626.81
743	0.00		25.00	35.00	350.00	50.16	0.00				242.00	85.00	0.00	0.00	787.16	1,478	250.32	142.84	160.36	553.52
744	0.00	300.00	0.00	0.00	150.00	224.74	0.00			250.00	80.00	8.00	0.00	0.00	1012.74	738	136.15	83.51	94.75	314.41
745	0.00		5.00	0.00	30.00	104.57	0.00			175.00	110.00	0.00	45.00	0.00	469.57	1,155	187.98	103.28	115.28	406.53
746	0.00		15.00	0.00	47.79	75.00	0.00			300.00	0.00	0.00	35.00	0.00	472.79	720	112.68	59.46	65.94	238.08
747	300.00		0.00	0.00	150.00	77.80	0.00			115.00	0.00	0.00	0.00	0.00	642.80	130	24.44	15.21	17.29	56.94
748	0.00		0.00	0.00	25.00	59.31	0.00	135.00		0.00	85.00	55.00	0.00	0.00	359.31	1,045	159.58	84.44	92.01	336.02
749	0.00		5.00	0.00	25.00	26.32	0.00	0.00		5.00	265.00	0.00	35.00	0.00	361.32	1,485	256.50	148.97	167.69	573.15
750	0.00		0.00	0.00	25.00	64.74	0.00		8.00		24.00	115.00	0.00	0.00	236.74	786	110.51	51.25	55.55	217.31
751	0.00		0.00	0.00	15.00	119.52	0.00				40.00	0.00	69.00	0.00	243.52	988	141.03	66.74	72.62	280.39
752	0.00		70.00	0.00	0.00	17.65	0.00		31.50		0.00	100.00	0.00	0.00	219.15	600	80.40	34.80	37.20	152.40
753	0.00		0.00	0.00	50.00	69.97	0.00		24.00		115.00	65.00	30.00	0.00	353.97	1,210	186.98	97.32	107.68	391.98
754	0.00		20.00	0.00	20.00	20.21	0.00		5.00		60.00	125.00	100.00	0.00	350.21	2,190	306.42	141.18	152.82	600.42
755	55.00		20.00	90.00	73.33	90.00	0.00		3.00		25.00	0.00	115.00	0.00	471.33	1,480	204.24	92.06	99.23	395.52
756	0.00		0.00	45.00	37.23	20.00	0.00				200.00	55.00	50.00	0.00	407.23	1,730	275.02	147.54	164.06	586.62
757	0.00		45.00	240.00	50.26	78.00	0.00				35.00	0.00	25.00	0.00	473.26	440	66.52	33.78	37.22	137.52
TOTAL	1355.00	300.00	429.33	719.38	1685.86	2147.41	53.00	135.00	93.83	845.00	2717.83	1140.00	864.00	94.04	12585.25	31,365	4834.13	2534.85	2798.71	10167.69

Scenario "B"

Total dwelling units by Land Use

Agricultural	Agricultural	Residential	Residential		Residential			
AG	AG 2.5	R-1	R-4	R-6	R-12	R-20	MU	Total
67.75	120	845	10871.32	6840	10368	1880.8	405	32210

Total SF Detached	Total SF Attached	Total MF	
11904.07 Units	17208 Units	2285.8 Units	31397.87

Total Students					
	2237.97	2305.87	290.30	4834.13 Elem	Assumptions:SF Detached (R-4 and below) generates
Elem					0.188 elementary students
Middle	1392.78	998.06	144.01	2534.85 Middle	0.117 middle school students
High	1583.24	1066.90	148.58	2798.71 High	0.133 high school students
				10167.69	SF attached (R-6 and R-12) generates average of

Districtwide, the median number of student stations provided is:

	# of schools needed
Elementary - 956	5
Middle - 1550	2
High - 2,507	1

SF attached (R-6 and R-12) generates average of
0.134 elementary students
0.058 middle school students
0.062 high school students

Multifamily (R-20 and MU) unit generates average of
0.127 elementary students
0.063 middle school students
0.065 high school students

PLANT CITY GROWTH SCENARIOS

Residential Uses - SCENARIO "A"

Total Study Area acres =	**12,585**	**100%**		
Note: Study area includes the following residential projects as shown on the Future Land Use Plan:				
Eagles Crest 370 acres				
Clairemore Estates 65 acres				
Park Square 18 acres				
Eastland Estates 175 acres				
North Park Isles 400 acres				
Total 1028				
Scenario "A" Future Land Use plan does not propose to change the approved uses above.				
Total Study Area acres (less 1,028) =	**11,557**			
Proposed Residential Land Uses	Acres			
AG (1 du/20 ga) =	800.0	11.1%	of total residential acres	
RES 4 (4 du/ga) =	4,086.0	56.9%	of total residential acres	
RES 6 (6 du/ga) =	1,447.0	20.2%	of total residential acres	
RES 12 (126 du/ga) =	620.0	8.6%	of total residential acres	
RES 20 (20 du/ga) =	225.0	3.1%	of total residential acres	
	7,178.0			
Proposed Residential Land Uses/Commercial SF	Acres		FAR = .25	FAR = .35
AG (1 du/20 ga) =	800.0			
RES 4 (4 du/ga) =	4,086.0		44,496,540 SF	
RES 6 (6 du/ga) =	1,447.0		15,757,830 SF	
RES 12 (12 du/ga) =	620.0			9,452,520 SF
RES 20 (20 du/ga) =	225.0			3,430,350 SF
	7,178.0			
Potential Dwelling Units	**Acres**			
AG (1 du/20 ga) =	40.0			
RES 4 (4 du/ga) =	16,344.0			
RES 6 (6 du/ga) =	8,682.0			
RES 12 (12 du/ga) =	7,440.0			
RES 20 (20 du/ga) =	4,500.0			
Total	**37,006.0**	**Dus**		

Non-Residential Uses - SCENARIO "A"

Proposed Preservation acres =	2,118.0				
Proposed Rec/Open Space acres =	1,652.0				
(Includes Wetlands, Surface Waters, Native Uplands)					
Total acres =	**3,770.0**	**30%**			
			Proposed allowable intensities		
			FAR = .25	FAR = .35	FAR = .50
Commercial acres =	778.0	6%	8,472,420 SF	11,861,388 SF	N/A
Industrial acres =	749.0	6%	N/A	11,419,254 SF	16,313,220 SF
Institutional acres=	75.0	1%	816,750 SF	1,143,450 SF	1,633,500 SF
Misc (Existing R.O.W. etc)	35.0	0%			
Total acres =	**1,637.0**	**13%**			

PLANT CITY GROWTH SCENARIOS

Residential Uses - SCENARIO "B"

Total Study Area acres =	**12,585**	**100%**		
Note: Study area includes the following residential projects as shown on the Future Land Use Plan:				
Eagles Crest 370 acres				
Clairemore Estates 65 acres				
Park Square 18 acres				
Eastland Estates 175 acres				
North Park Isles 400 acres				
Total 1028				
Scenario "B" Future Land Use plan does not propose to change the approved uses above.				
Total Study Area acres (less 1,028) =	**11,557**			
Proposed Residential Land Uses	Acres			
AG (1 du/20 ga) =	775.0	10.5%	of total residential acres	
AG 2.5 (1 du/2.5 ga) =	650.0	8.8%	of total residential acres	
RES 1 (1 du/ga) =	1,400.0	18.9%	of total residential acres	
RES 4 (4 du/ga) =	2,500.0	33.8%	of total residential acres	
RES 6 (6 du/ga) =	1,200.0	16.2%	of total residential acres	
RES 12 (12 du/ga) =	725.0	9.8%	of total residential acres	
RES 20 (20 du/ga) =	150	2.0%	of total residential acres	
	7,400.0			
Proposed Residential Land Uses/Commercial SF	Acres			
AG (1 du/20 ga) =	775.0			
AG 2.5 (1 du/2.5 ga) =	650.0			
RES 1 (1 du/ga) =	1,400.0		FAR = .25	FAR = .35
RES 4 (4 du/ga) =	2,500.0		27,225,000 SF	
RES 6 (6 du/ga) =	1,200.0		13,068,000 SF	
RES 12 (12 du/ga) =	725.0			11,053,350 SF
RES 20 (20 du/ga) =	150			2,286,900 SF
	7,400.0			
Potential Dwelling Units	**Acres**			
AG (1 du/20 ga) =	38.8			
AG 2.5 (1 du/2.5 ga) =	260.0			
RES 1 (1 du/ga) =	1,400.0			
RES 4 (4 du/ga) =	10,000.0			
RES 6 (6 du/ga) =	7,200.0			
RES 12 (12 du/ga) =	8,700.0			
RES 20 (20 du/ga) =	3,000.0			
(Mixed Use Village Center - see note below)	375.0			
Total	**30,973.8**	**Dus**		

Non-Residential Uses - SCENARIO "B"

	Acres				
Proposed Preservation acres =	2,120.0				
Proposed Rec/Open Space acres =	1,725.0				
(Includes Wetlands, Surface Waters, Native Uplands)					
Total acres =	**3,845.0**	**31%**			
			Proposed allowable intensities		
			FAR = .25	FAR = .35	FAR = .50
	ACRES				
Commercial =	504.0	4%	5,488,560 SF	7,683,984 SF	
NOTE: 125 acres commercial located in Mixed-Use Village Center allows 20 Dus/acre (Assume 15% residential)					
Industrial =	653.0	5%	N/A	9,955,638 SF	14,222,340 SF
Institutional =	75.0	6%	816,750 SF	1,143,450 SF	1,633,500 SF
Misc (Existing R.O.W. etc)	108.0	1%			
Total acres =	**1,340.0**	**11%**			

NE Plant City Master Plan
Land Use Scenario "A"

TAZ	Total Dwelling Units	Student Enrollment	Total Employment
525	60		-
527	1,984		436
528	2,089		-
529	2,136		-
531	72		327
532	150		4,070
533	1,950		6,207
537	1,722	1,000	2,981
543	22		-
553	496		929
556	-		3,471
557	61		220
559	1,500		3,717
742	1,580		-
743	1,478		1,612
744	2,792	1,000	1,021
745	2,320		-
746	2,020	1,000	694
747	1,000		-
748	1,136		-
749	1,040	2,500	341
750	468		653
751	988		-
752	910		2,723
753	916	1,000	912
754	2,060		436
755	780	1,550	1,838
756	1,730		1,372
757	440		8,298
758	1,989	1,550	204
TOTALS	**35,888**	**9,600**	**42,460**

NE Plant City Master Plan
Land Use Scenario "B"

TAZ	Total Dwelling Units	Student Enrollment	Total Employment
525	60		-
527	2,028		436
528	2,089		-
529	824		-
531	320		-
532	760		327
533	1,712		4,552
537	1,722	1,000	2,981
543	-		-
553	216		690
556	-		3,471
557	61		220
559	1,500		3,717
742	1,580		-
743	1,478		1,612
744	603	1,000	149
745	1,155		109
746	705	1,000	476
747	115		-
748	1,045		-
749	1,005	2,500	450
750	786		-
751	988		-
752	600		1,525
753	1,150	1,000	149
754	2,190		436
755	1,420	1,550	2,949
756	1,730		1,372
757	440		8,298
758	1,989	1,550	204
TOTALS	**30,270**	**9,600**	**34,121**

Revised Scenario B Data

PLANT CITY GROWTH SCENARIOS

Scenario B Future Land Use at Traffic Analysis Zone (TAZ) Level

All land use data in is acres

All land use data per July 2007 Scenario B Revisions

TAZ	Acres in TAZ	Proposed Future Land Use														TOTAL	TOTAL DUs 2035	TAZ Acreage Check	Student Generation			
		Agricultural	Agricultural	Commercial/ Office	Industrial	Major Recreation/ Open Space	Natural Preservation	Institutional			Residential	Residential		Residential					Elem.	Middle	High	Total
		AG	AG 2.5	C	I	RO	NP	INST	URBAN MU	MISC/ROW	R-2.5	R-4	R-6	R-12	R-20							
527	335.89	0.00		20.00	0.00	0.00	40.00	0.00			0.00	98.90	82.00	95.00	0.00	335.90	2,028	(0.01)	293.06	140.94	153.80	587.80
528	569.07	0.00		0.00	0.00	18.49	69.07	0.00			0.00	216.72	264.79	0.00	0.00	569.07	2,456	(0.00)	375.86	193.57	213.80	783.23
529	820.60	412.21		0.00	0.00	132.39	125.00	0.00	20.00		0.00	86.00	0.00	45.00	0.00	820.60	965	(0.00)	148.53	77.76	85.87	312.16
531	133.40	0.00		0.00	0.00	15.00	102.42	0.00			0.00	0.00	0.00	0.00	16.00	133.42	320	(0.02)	40.64	20.16	20.80	81.60
532	230.60	0.00		15.00	0.00	25.00	50.60	0.00			0.00	115.00	0.00	25.00	0.00	230.60	760	(0.00)	126.68	71.22	79.78	277.68
533	579.37	0.00		125.00	60.00	40.00	49.71	0.00		6.66	0.00	233.00	0.00	65.00	0.00	579.37	1,712	0.00	279.74	154.28	172.32	606.34
537	613.07	0.00		25.00	75.00	0.00	200.07	15.00			0.00	198.00	45.00	55.00	0.00	613.07	1,722	0.00	273.52	146.60	163.00	583.12
553	73.35	0.00		10.00	0.00	0.00	10.00	13.00		22.33	0.00	0.00	0.00	18.00	0.00	73.33	216	0.02	28.94	12.53	13.39	54.86
556	123.84	0.00		0.00	102.84	0.00	10.00	0.00			0.00	11.00	0.00	0.00	0.00	123.84	44	(0.00)	8.27	5.15	5.85	19.27
559	325.49	0.00		20.00	60.00	84.58	44.00	40.00			0.00	0.00	0.00	0.00	75.00	323.58	1,500	1.91	190.50	94.50	97.50	382.50
742	1,187.02	550.00		0.00	0.00	117.00	195.02	0.00			0.00	290.00	0.00	35.00	0.00	1187.02	1,608	0.00	279.53	163.30	183.98	626.81
743	787.27	0.00		25.00	35.00	350.00	50.16	0.00			0.00	242.00	85.00	0.00	0.00	787.16	1,478	0.11	250.32	142.84	160.36	553.52
744	1,017.47	0.00	270.00	0.00	0.00	150.00	224.74	15.00			235.00	114.73	8.00	0.00	0.00	1017.47	1,202	0.00	223.46	137.85	156.51	517.83
745	476.57	0.00		0.00	0.00	35.00	104.57	0.00		7.00	175.00	155.00	0.00	0.00	0.00	476.57	1,058	0.00	198.81	123.73	140.65	463.19
746	478.45	0.00		15.00	0.00	47.79	75.00	15.00	53.25		168.21	40.95	0.00	54.33	8.92	478.45	1,574	(0.00)	395.90	294.64	306.92	997.47
747	650.23	300.00		0.00	0.00	150.00	77.80	0.00		7.43	64.79	0.00	27.56	22.65	0.00	650.23	614	(0.00)	91.85	46.06	50.64	188.55
748	359.31	0.00		0.00	0.00	25.00	58.71	0.00	0.00		0.00	175.60	100.00	0.00	0.00	359.31	1,302	(0.00)	212.45	116.98	130.62	460.05
749	361.32	0.00		0.00	0.00	25.00	26.32	0.00	103.22	5.21	0.00	95.40	56.76	34.61	14.80	361.32	1,592	0.00	212.64	394.51	403.95	1011.10
750	236.74	0.00		0.00	0.00	25.00	54.74	0.00			0.00	70.00	87.00	0.00	0.00	236.74	802	(0.00)	122.59	63.04	69.60	255.23
751	243.52	0.00		0.00	0.00	15.00	119.52	0.00			0.00	40.00	34.50	34.50	0.00	243.52	781	(0.00)	113.29	54.74	59.78	227.81
752	219.15	0.00		70.00	0.00	0.00	17.65	0.00		31.50	0.00	0.00	100.00	0.00	0.00	219.15	600	(0.00)	80.40	34.80	37.20	152.40
753	353.98	0.00		0.00	0.00	50.00	69.97	15.00		24.00	0.00	100.00	65.00	30.00	0.00	353.97	1,150	0.01	175.70	90.30	99.70	365.70
754	350.21	0.00		20.00	0.00	20.00	20.21	0.00		5.00	0.00	60.00	125.00	100.00	0.00	350.21	2,190	0.00	306.42	141.18	152.82	600.42
755	477.91	48.58		22.00	96.00	73.33	90.00	25.00		3.00	0.00	25.00	0.00	95.00	0.00	477.91	1,242	(0.00)	172.02	78.10	84.30	334.42
756	351.19	0.00		0.00	45.00	0.00	20.00	15.00			0.00	176.19	45.00	50.00	0.00	351.19	1,575	(0.00)	249.07	132.92	147.67	529.66
757	489.86	0.00		117.00	168.00	50.26	78.00	0.00		16.60	0.00	35.00	0.00	25.00	0.00	489.86	440	(0.00)	66.52	33.78	37.22	137.52
758	733.32	0.00		0.00	0.00	231.66	115.00	25.00			341.66	0.00	0.00	20.00	0.00	733.32	1,094	0.00	192.74	113.86	128.48	435.08
TOTAL	12,578.18	1310.79	270.00	484.00	641.84	1680.50	2098.28	178.00	176.47	128.73	984.66	2578.49	1125.61	804.09	114.72	12576.18	32,025	2.00	5,109.47	3,079.33	3,356.53	11,545.32
		AG	1580.79	C/O	Industrial	ROS	NP	Inst	MU	ROW	R2.5	R4-6	3704.10	918.81	12576.18							
														R > 6								

Scenario "B"

Total dwelling units by Land Use

Agricultural	Agricultural	Residential	Residential		Residential			
AG	AG 2.5	R-2.5	R-4	R-6	R-12	R-20	MU	Total
65.54	108.00	2,461.65	10,313.96	6,753.66	9,649.08	2,294.40	378.00	32,024.29

Total Students

Elem	5109.47
Middle	3079.33
High	3356.53
	11545.32

Districtwide, the median number of student stations provided is:

	# of schools needed
Elementary - 956	5
Middle - 1550	2
High - 2,507	1

Elem Assumptions:SF Detached (R-4 and below) generates
Middle 0.188 elementary students
High 0.117 middle school students
0.133 high school students
SF attached (R-6 and R-12) generates average of
0.134 elementary students
0.058 middle school students
0.062 high school students
Multifamily (R-20 and MU) unit generates average of
0.127 elementary students
0.063 middle school students
0.065 high school students

PLANT CITY GROWTH SCENARIOS

Residential Uses - SCENARIO "B"

Total Study Area acres =	**12,578**	**100%**		
Note: Study area includes the following residential projects as shown on the Future Land Use Plan:				
Eagles Crest 370 acres				
Clairemore Estates 65 acres				
Park Square 18 acres				
Eastland Estates 175 acres				
North Park Isles 400 acres				
Total 1028				
Scenario "B" Future Land Use plan does not propose to change the approved uses above.				
Total Study Area acres (less 1,028) =	**11,550**			
Proposed Residential Land Uses	Acres			
AG (1 du/20 ga) =	1,310.8	18.2%	of total residential acres	
AG 2.5 (1 du/2.5 ga) =	270.0	3.8%	of total residential acres	
RES 2.5 (2.5 du/ga) =	984.7	13.7%	of total residential acres	
RES 4 (4 du/ga) =	2,578.5	35.9%	of total residential acres	
RES 6 (6 du/ga) =	1,125.6	15.7%	of total residential acres	
RES 12 (12 du/ga) =	804.1	11.2%	of total residential acres	
RES 20 (20 du/ga) =	115	1.6%	of total residential acres	
	7,188.4			
Proposed Residential Land Uses/Commercial SF	Acres			
AG (1 du/20 ga) =	1,310.8			
AG 2.5 (1 du/2.5 ga) =	270.0			
RES 2.5 (2.5 du/ga) =	984.7		FAR = .25	FAR = .35
RES 4 (4 du/ga) =	2,578.5		28,079,756 SF	
RES 6 (6 du/ga) =	1,125.6		12,257,893 SF	
RES 12 (12 du/ga) =	804.1			12,259,156 SF
RES 20 (20 du/ga) =	115			1,749,021 SF
	7,188.4			
Potential Dwelling Units	**Acres**			
AG (1 du/20 ga) =	65.5			
AG 2.5 (1 du/2.5 ga) =	108.0			
RES 2.5 (2.5 du/ga) =	2,461.7			
RES 4 (4 du/ga) =	10,314.0			
RES 6 (6 du/ga) =	6,753.7			
RES 12 (12 du/ga) =	9,649.1			
RES 20 (20 du/ga) =	2,294.4			
(Mixed Use Town Center - see note below)	378.0			
Total	**32,024.3**	**Dus**		

Non-Residential Uses - SCENARIO "B"

	Acres				
Proposed Preservation acres =	2,098.3				
Proposed Rec/Open Space acres =	1,680.5				
(Includes Wetlands, Surface Waters, Native Uplands)					
Total acres =	**3,778.8**	**30%**			
			Proposed allowable intensities		
			FAR = .25	FAR = .35	FAR = .50
	ACRES				
Commercial =	610.0	5%	6,642,900 SF	9,300,060 SF	
NOTE: 176 acres in Mixed Use Town Center 50 acres used for high school; 126 acres for mixed use (Assume 15% residential)					
Industrial =	641.8	5%	N/A	9,785,493 SF	13,979,275 SF
Institutional =	178.0	16%	1,938,420 SF	2,713,788 SF	3,876,840 SF
Misc (Existing R.O.W. etc)	128.7	1%			
Total acres =	**1,558.6**	**12%**			

Revised Scenario B

TAZ	Total Dwelling Units	Total School Enrollment	Total Employees
527	2,028		436
528	2,456		-
529	965		518
531	320		-
532	760		327
533	1,712		4,552
537	1,722	1000	3,924
553	216		690
556	44		3,136
559	1,500		3,717
742	1,608		-
743	1,478		1,612
744	1,202	1000	1,093
745	1,058		-
746	1,574	1000	2,800
747	614		-
748	1,302		-
749	1,592	2500	2,972
750	802		-
751	781		-
752	600		1,525
753	1,150	1000	1,093
754	2,190		436
755	1,242	1550	4,739
756	1,575	1000	2,465
757	440		7,671
758	1,157	1550	1,333
	32,088	10,600	45,038

Master Plan Data

PLANT CITY GROWTH SCENARIOS

Preferred Scenario Future Land Use at Traffic Analysis Zone (TAZ) Level
All land use data in is acres
All land use data per July 2007 Scenario B Revisions

TAZ	Acres in TAZ	Proposed Future Land Use														TOTAL	TOTAL DUs 2035	TAZ Acreage Check	Student Generation			
		Agricultural	Agricultural	Commercial/ Office	Industrial	Major Recreation/ Open Space	Natural Preservation	Institutional			Residential	Residential		Residential					Elem.	Middle	High	Total
		AG	AG 2.5	C	I	RO	NP	INST	URBAN MU	MISC/ROW	R-2.5	R-4	R-6	R-12	R-20							
527	335.89	0.00		20.00	0.00	0.00	40.00	0.00			0.00	98.90	82.00	95.00	0.00	335.90	1,384	(0.01)	237.43	112.75	122.69	472.88
528	569.07	0.00		0.00	0.00	18.49	69.07	0.00			0.00	216.72	264.79	0.00	0.00	569.07	1,157	(0.00)	269.14	138.11	152.45	559.70
529	820.60	412.21		0.00	0.00	132.39	125.00	0.00	20.00		0.00	86.00	0.00	45.00	0.00	820.60	565	(0.00)	120.49	61.48	67.45	249.41
531	133.40	0.00		0.00	0.00	15.00	102.42	0.00			0.00	0.00	0.00	0.00	16.00	133.42	205	(0.02)	26.06	12.93	13.34	52.33
532	230.60	0.00		15.00	0.00	25.00	50.60	0.00			0.00	115.00	0.00	25.00	0.00	230.60	277	(0.00)	97.61	53.81	60.05	211.47
533	579.37	0.00		125.00	60.00	40.00	49.71	0.00		6.66	0.00	233.00	0.00	65.00	0.00	579.37	785	0.00	227.23	122.35	135.74	485.32
537	613.07	0.00		25.00	75.00	0.00	200.07	15.00			0.00	198.00	45.00	55.00	0.00	613.07	801	0.00	211.38	111.39	123.43	446.20
553	73.35	0.00		10.00	0.00	0.00	10.00	13.00		22.33	0.00	0.00	0.00	18.00	0.00	73.33	199	0.02	26.62	11.58	12.36	50.56
556	123.84	0.00		0.00	102.84	0.00	10.00	0.00			0.00	11.00	0.00	0.00	0.00	123.84	0	(0.00)	5.79	3.60	4.10	13.49
559	325.49	0.00		20.00	60.00	84.58	44.00	40.00			0.00	0.00	0.00	0.00	75.00	323.58	977	1.91	124.06	61.54	63.50	249.10
742	1,187.02	550.00		0.00	0.00	117.00	195.02	0.00			0.00	290.00	0.00	35.00	0.00	1187.02	375	0.00	203.07	116.92	131.45	451.45
743	787.27	0.00		25.00	35.00	350.00	50.16	0.00			0.00	242.00	85.00	0.00	0.00	787.16	390	0.11	179.54	102.00	114.37	395.92
744	1,017.47	0.00	270.00	0.00	0.00	150.00	224.74	15.00			235.00	114.73	8.00	0.00	0.00	1017.47	89	0.00	152.55	94.05	106.77	353.36
745	476.57	0.00		0.00	0.00	35.00	104.57	0.00		7.00	175.00	155.00	0.00	0.00	0.00	476.57	0	0.00	139.17	86.61	98.45	324.23
746	478.45	0.00		15.00	0.00	47.79	75.00	15.00	53.25		168.21	40.95	0.00	54.33	8.92	478.45	929	(0.00)	198.96	103.51	113.07	415.54
747	650.23	300.00		0.00	0.00	150.00	77.80	0.00		7.43	64.79	0.00	27.56	22.65	0.00	650.23	363	(0.00)	70.03	34.40	37.69	142.12
748	359.31	0.00		0.00	0.00	25.00	58.71	0.00	0.00		0.00	175.60	100.00	0.00	0.00	359.31	437	(0.00)	150.99	82.87	92.49	326.35
749	361.32	0.00		0.00	0.00	25.00	26.32	0.00	103.22	5.21	0.00	95.40	56.76	34.61	14.80	361.32	1,243	0.00	212.44	106.50	114.50	433.43
750	236.74	0.00		0.00	0.00	25.00	54.74	0.00			0.00	70.00	87.00	0.00	0.00	236.74	380	(0.00)	87.79	44.98	49.64	182.42
751	243.52	0.00		0.00	0.00	15.00	119.52	0.00			0.00	40.00	34.50	34.50	0.00	243.52	518	(0.00)	90.45	43.14	47.00	180.59
752	219.15	0.00		70.00	0.00	0.00	17.65	0.00		31.50	0.00	0.00	100.00	0.00	0.00	219.15	490	(0.00)	65.23	28.65	30.51	124.39
753	353.98	0.00		0.00	0.00	50.00	69.97	15.00		24.00	0.00	100.00	65.00	30.00	0.00	353.97	603	0.01	133.48	67.75	74.64	275.87
754	350.21	0.00		20.00	0.00	20.00	20.21	0.00		5.00	0.00	60.00	125.00	100.00	0.00	350.21	1,625	0.00	249.26	114.00	123.15	486.41
755	477.91	48.58		22.00	96.00	73.33	90.00	25.00		3.00	0.00	25.00	0.00	95.00	0.00	477.91	1,028	(0.00)	150.75	67.88	73.08	291.72
756	351.19	0.00		0.00	45.00	0.00	20.00	15.00			0.00	176.19	45.00	50.00	0.00	351.19	729	(0.00)	190.39	99.98	110.79	401.16
757	489.86	0.00		117.00	168.00	50.26	78.00	0.00		16.60	0.00	35.00	0.00	25.00	0.00	489.86	354	(0.00)	65.21	32.42	35.23	132.86
758	733.32	0.00		0.00	0.00	231.66	115.00	25.00			341.66	0.00	0.00	20.00	0.00	733.32	213	0.00	140.92	82.30	92.72	315.93
TOTAL	12,578.18	1310.79	270.00	484.00	641.84	1680.50	2098.28	178.00	176.47	128.73	984.66	2578.49	1125.61	804.09	114.72	12576.18	16,117	2.00	3,826.03	1,997.53	2,200.65	8,024.21

Scenario "B"

Total dwelling units by Land Use

Agricultural	Agricultural	Residential	Residential		Residential			
AG	AG 2.5	R-2.5	R-4	R-6	R-12	R-20	MU	Total
65.54	108.00	2,461.65	10,313.96	6,753.66	9,649.08	2,294.40	378.00	32,024.29

Total Students

Elem	3826.03
Middle	1997.53
High	2200.65
	8024.21

Districtwide, the median number of student stations provided is:

	# of schools needed
Elementary - 956	4
Middle - 1550	1
High - 2,507	1

	Assumptions:SF Detached (R-4 and below) generates
Elem	0.188 elementary students
Middle	0.117 middle school students
High	0.133 high school students
	SF attached (R-6 and R-12) generates average of
	0.134 elementary students
	0.058 middle school students
	0.062 high school students
	Multifamily (R-20 and MU) unit generates average of
	0.127 elementary students
	0.063 middle school students
	0.065 high school students

Phase 1 Data

SE Data for Phase 1

TAZ	Dwelling Units	Employees	Students
527	1,356	467	0
528	2,471	59	-
529	573	280	-
531	731	168	-
532	453	217	-
533	1,033	3,055	126
537	951	1,955	-
553	180	334	-
556	441	2,249	-
559	676	2,104	-
742	830	121	-
743	759	1,130	-
744	755	244	686
745	617	52	-
746	1,012	1,567	1,714
747	381	105	-
748	595	448	1,063
749	1,042	1,403	-
750	402	-	-
751	401	-	-
752	365	1,040	-
753	612	231	686
754	1,102	300	-
755	677	2,355	-
756	901	1,189	686
757	375	5,445	-
	19,690	26,517	4,960

Appendix F – Transportation Technical Memorandums, Improvements Coordination and Cost Estimates

Technical Memorandum: Transportation Modeling Methodologies

1.0 STUDY BACKGROUND

The City of Plant City, Florida, is located in Hillsborough County, 23 miles west of the City of Tampa. Plant City has increased its land area by 12 percent between 1995 and 2005 with the majority of this growth occurring since 2000. In anticipation of continued northeastern expansion, the City is developing a master plan for the area. The goal of the *Northeast Plant City Master Plan* is to ensure provisions are made for adequate public services and facilities, especially regarding transportation, to accommodate the expected growth, and to ensure continuity in the development pattern. The purpose of this technical memorandum is to identify modeling methodologies and strategies to assess future transportation conditions within the study area. Analysis results and potential improvements would be recommended for use in the master plan.

2.0 USE OF WEST CENTRAL FLORIDA MODEL

Two travel demand models are proposed for use in the *Northeast Plant City Master Plan*:

1. Tampa Bay Regional Planning Model (TBRPM) version 5.1 (v. 5.1) includes Hillsborough, Pinellas, Pasco, Hernando, Citrus, and Manatee Counties. The TBRPM model forecast year is 2025.

2. West Central Florida Regional Planning Model (WCFRPM) combines five different models. These five models include the TBRPM v. 5.1 (noted above), as well as the Sarasota/Manatee/Charlotte Counties (SMC) model, Polk County model, Hardee County model, and the Desoto County model. The WCFRPM also includes an updated mode choice model and its forecast year is 2030.

It is recommended that the WCFRPM be used for the purposes of the *Northeast Plant City Master Plan*, as the WCFRPM is the only model which includes Polk County thereby providing traffic conditions east of the study area. The WCFRPM also incorporates the TBRPM which covers Hillsborough County. Both models currently use the FSUTMS platform.

Several meetings between the project team and FDOT District Seven took place during the months of December 2006 and January 2007. At the January meeting, FDOT approved the use of the WCFRPM with this particular study under the condition that the consultant team coordinates as needed with Gannett Fleming, Inc., FDOT District Seven's travel demand modeling consultant.

3.0 REFINEMENT AND REVALIDATION OF WCFRPM WITHIN NORTHEAST PLANT CITY STUDY AREA

As part of this study, the year 2000 base year volume-to-count ratios would be evaluated at the link level to determine how well the current WCFRPM is validating within the *Northeast Plant*

City Master Plan study area. To accurately reflect travel patterns in the study area, additional network details would be coded into the model, as well as all available traffic count data. Roadway network refinement would also require that the traffic analysis zones (TAZ) structure be evaluated and disaggregated.

Once roadway and TAZ refinements are made to the WCFRPM within the Northeast Plant City study area, validation statistics for each step in the 4-step modeling process would be compared to the original WCFRPM. This would ensure that the refinements did not negatively impact validation of the modified model. Model refinements and resulting validation statistics would be coordinated with the City of Plant City, the Hillsborough County Metropolitan Planning Organization (MPO), and the Florida Department of Transportation (FDOT), District Seven.

The completion of model refinements and re-validation would result in a refined base year WCFRPM for the *Northeast Plant City Master Plan*.

4.0 FUTURE YEAR MODELS

The refined WCFRPM base year model would be applied to all future year model runs developed for this study. In order to plan for transportation improvements necessary at full build-out of the study area, it is recommended that the year 2035 be used as the full build-out year. The 2035 build-out year is based on information provided by the *Hillsborough County Corridor Preservation Plan*. However, the WCFRPM uses a future horizon year of 2030 and as a result, special generators, Internal-External (IE) productions, and External-External (EE) trips included in the WCFRPM would be interpolated to the year 2035 using 2030 and 2050 model datasets provided by FDOT District Seven.

4.1 Socioeconomic Data

Baseline socioeconomic data from the current 2030 WCFRPM will be interpolated to the year 2035 assuming the same distribution and mix of land use. As noted above, this interpolation will be based on socioeconomic data developed by FDOT District Seven for the 2030 and 2050 WCFRPM analysis years. This will compare the effects of growth on the transportation network if historic growth trends are allowed to continue unabated and constitute a baseline data set from which future land use scenarios will be developed. Alternative build-out land use scenarios redistributing the land use, currently being developed by Carter & Burgess, Inc., will further refine the baseline socioeconomic assumptions which will then be applied to the transportation networks as described in the subsequent section.

4.2 Three Future Year Networks

Three future year transportation networks will be analyzed for this study. The network testing process is outlined in **Section 4.3**, "*Model Runs*".

1. *No-Build Transportation Network* – The No-Build network will be based on the WCFRPM 2025 and 2030 Cost Feasible Plan networks from both the Hillsborough County and Polk County Long Range Plans, respectively. As a result, these Cost Feasible Plan networks

will include refinements within Hillsborough County along with Polk County and will be utilized for the No-Build scenario.

2. *Preliminary Build Transportation Network* – The Preliminary Build network would include the Cost Feasible Plan projects already included in the No-Build Transportation network plus a package of transportation projects developed as part of this study. These transportation packages may include recommended roadway extensions or new roadway alignments.

3. *Preferred Build Transportation Network*– At this point, the project team and project stakeholders will have the opportunity to comment on the Preliminary Build Transportation Network. Ensuing modifications will result in the development of the Preferred Build Transportation Network. This Preferred Build network will be used to model final land use and transportation recommendations as part of this study.

4.3 Model Runs

A total of seven model runs will be conducted as part of this study and are listed below:

1. No-Build Transportation Network with baseline socioeconomic data (one model run).

2. Preliminary Build Transportation Network with baseline socioeconomic data (one model run).

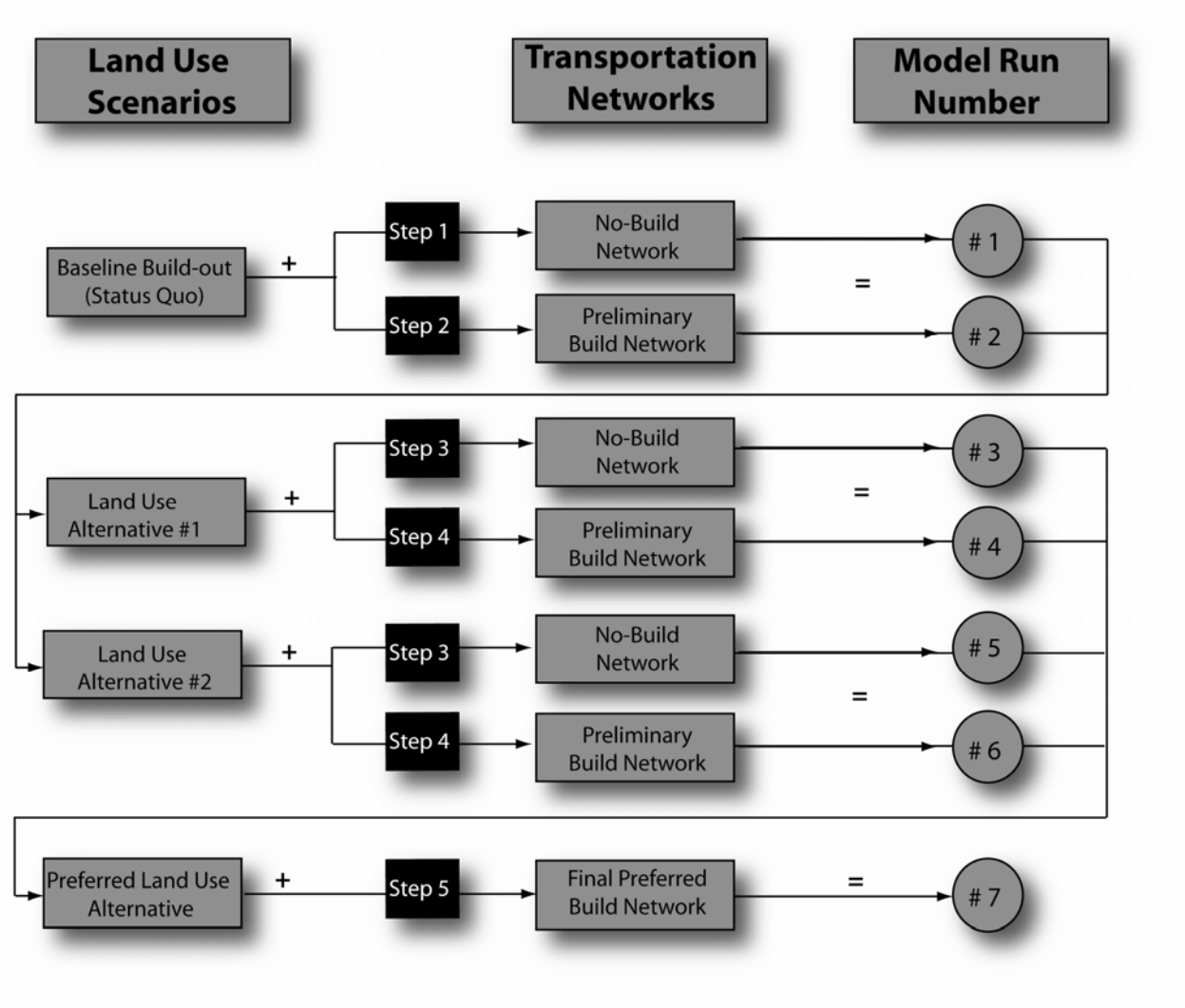
3. No-Build Transportation Network with two land use scenarios (two model runs).

4. Preliminary Build Transportation Network with two land use scenarios (two model runs).

5. Final Preferred Build Transportation Network with one preferred land use scenario (one model run).

As illustrated in Figure 1 below, first, the No Build Transportation Network will be analyzed for deficiencies with baseline socioeconomic data (Step 1, from above). These identified deficiencies will be addressed with recommended network improvements, described as the Preliminary Build Network. Both of these networks will be provided to the land use team for the development of two future land use scenarios. Once completed, both the No-Build and Preliminary Build Transportation networks will be tested, using both future land use scenarios as inputs (Steps 2 & 3, from above). Examining the effect of both on each transportation network allows for a comparison between the No-Build network and Preliminary Build network, isolating travel impacts caused by specific land use scenario recommendations. The four model runs will be used to modify the tested scenarios and will result in the Preferred Land Use Scenario and Preferred Build Transportation Network. The Preferred Land Use Scenario will be used as the socioeconomic input to the Preferred Build Transportation Network for the seventh and final model run (Step 5, from above). These results will be incorporated as the final transportation recommendations for the *Northeast Plant City Master Plan*.

Figure 1: Proposed Model Runs


Land Use Scenarios
Transportation Networks
Model Run Number
Baseline Build-out (Status Quo)
+
Step 1
No-Build Network
=
1
Step 2
Preliminary Build Network
2
Land Use Alternative #1
+
Step 3
No-Build Network
=
3
Step 4
Preliminary Build Network
4
Land Use Alternative #2
+
Step 3
No-Build Network
=
5
Step 4
Preliminary Build Network
6
Preferred Land Use Alternative
+
Step 5
Final Preferred Build Network
=
7

Northeast Plant City Area Master Plan

Supplemental Transportation Alternatives Analysis Technical Memorandum

November 2007

Technical Memorandum: Supplemental Transportation Alternatives Analysis

1.0 STUDY BACKGROUND

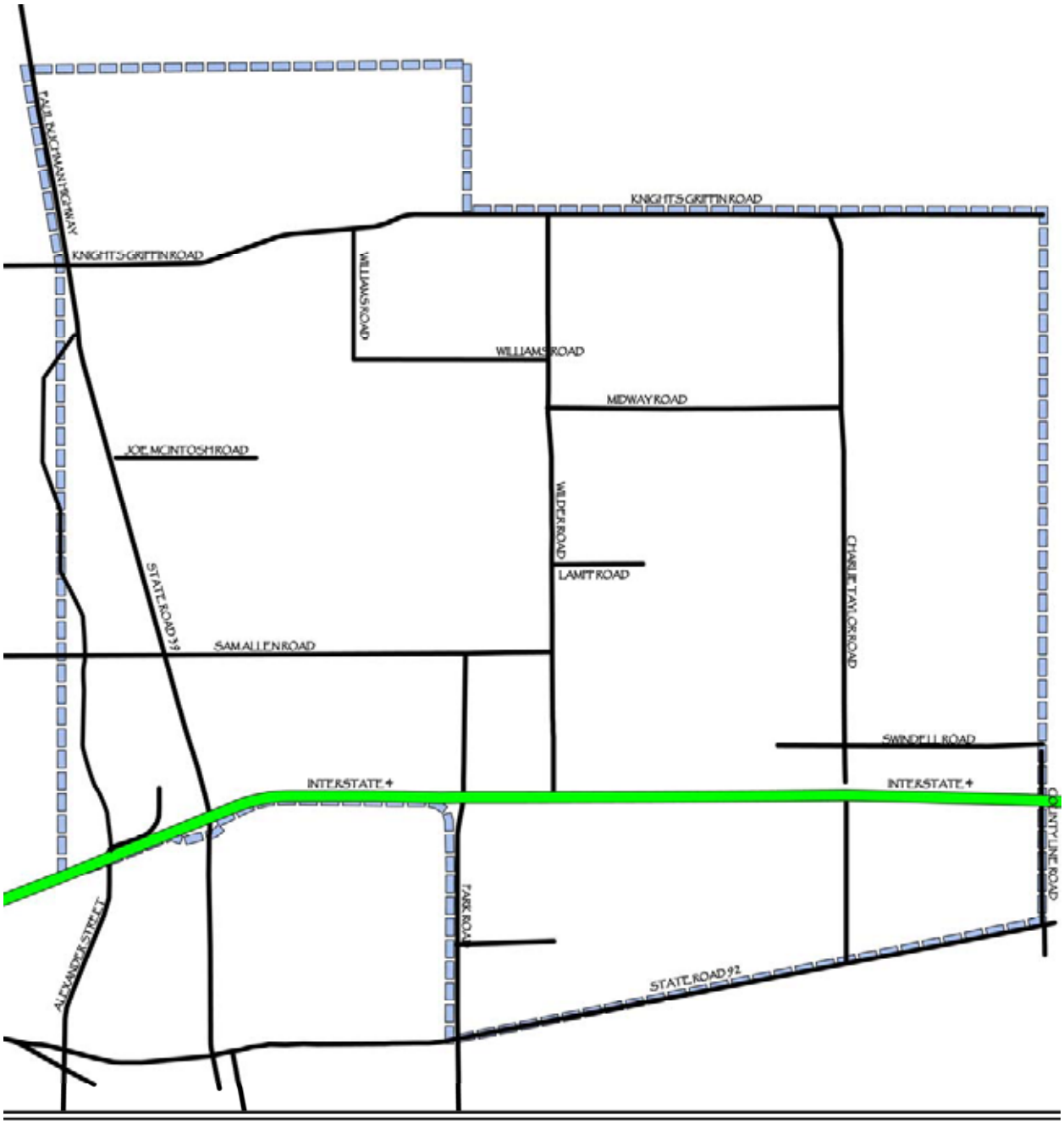
The City of Plant City, Florida, is located in Hillsborough County, 23 miles east of the City of Tampa. Plant City has increased its land area by 12 percent between 1995 and 2005 with the majority of this growth occurring since 2000. In anticipation of continued northward expansion, the City is developing a master plan to ensure provisions are made for adequate public services and facilities. This memorandum focuses on the transportation infrastructure needed to accommodate the expected growth, and to ensure continuity in the development pattern northeast of the current city limits. As a result of several rounds of analysis and close coordination with project partners, the Northeast Plant City Area Master Plan identified a Preferred Land Use Scenario and Preferred Transportation Alternative. These Preferred recommendations were presented for review and comment to the Plant City Commission and the public on October 22nd and 23rd, 2007, respectively.

As shown in **Figure 1**, this study area is roughly bounded by Knights Griffin Road to the north, County Line Road to the east, US 92 to the south, and State Route 39 to the west.

The Northeast Area Master Plan's Preferred Transportation Alternative was developed using the most current transportation model and socioeconomic data derived from the Preferred Future Land Use Scenario.. The components of the Preferred Transportation Alternative aim to reduce the impact of existing roadway deficiencies while meeting the demands of the development patterns presented in the Preferred Land Use Scenario. A detailed description of the effort leading up to the October 2007 meetings is provided within the *Transportation Alternatives Analysis* technical memorandum submitted to Hillsborough County Metropolitan Planning Organization (MPO) in October 2007.

The following steps were taken to develop the Northeast Plant City Master Plan Preferred Transportation Alternative:

- Data Collection
- Existing conditions and physical constraints analysis
- Community leader interviews
  - Information collected was used to develop network improvements for each transportation alternative
- Land use scenario development
  - Information collected was incorporated into the development of both Build Transportation Alternatives
- Development of the Baseline and Preliminary Build Transportation Alternatives
- Modeling of the Baseline and Preliminary Build Transportation Networks
- Selection of a Preferred Land Use Scenario
- Preliminary Build Transportation Alternative Network refinements
- Development and modeling of Preferred Build Transportation Alternative



LEGEND

EXISTING ROADS

INTERSTATE

STUDY AREA BOUNDARY

Figure 1:

Study Area with Planned Improvements
(No Build or Cost Affordable Network)

NOTE: Not to Scale

2.0 PREFERRED TRANSPORTATION ALTERNATIVE

The Preferred Transportation Alternative recommends a roadway network that focuses on providing new and extended east-west roadway alignments that support connectivity within the study area and provide parallel facilities to Interstate 4 (I-4). Other recommendations include either widening or extending roadway facilities to support the anticipated demand of the Preferred Land Use Scenario. **Figure 2** graphically depicts recommended improvements proposed by the Preferred Transportation Alternative, summarized below.

New Alignment or Extension

- Williams Road extension from Wilder Road to Knights Griffin Road
- Midway Road extension west from Wilder Road to Alexander Street
- Midway Road extension east from Wilder Road to County Line Road
- Lampp Road extension east from Wilder Road to County Line Road extension
- Lampp Road extension northeast from Lampp Road extension northeast to Charlie Taylor Road
- Joe McIntosh Road extension west from Paul Buchman Highway to Alexander Street
- Sam Allen Road extension east from Wilder Road to Swindell Road
- Park Road extension north from Sam Allen Road to Knights Griffin Road
- County Line Road extension north from Swindell Road to Knights Griffin Road
- Cherry Street extension east from Wilder Road to Wiggins Road

Increased Roadway Capacity (within study area)

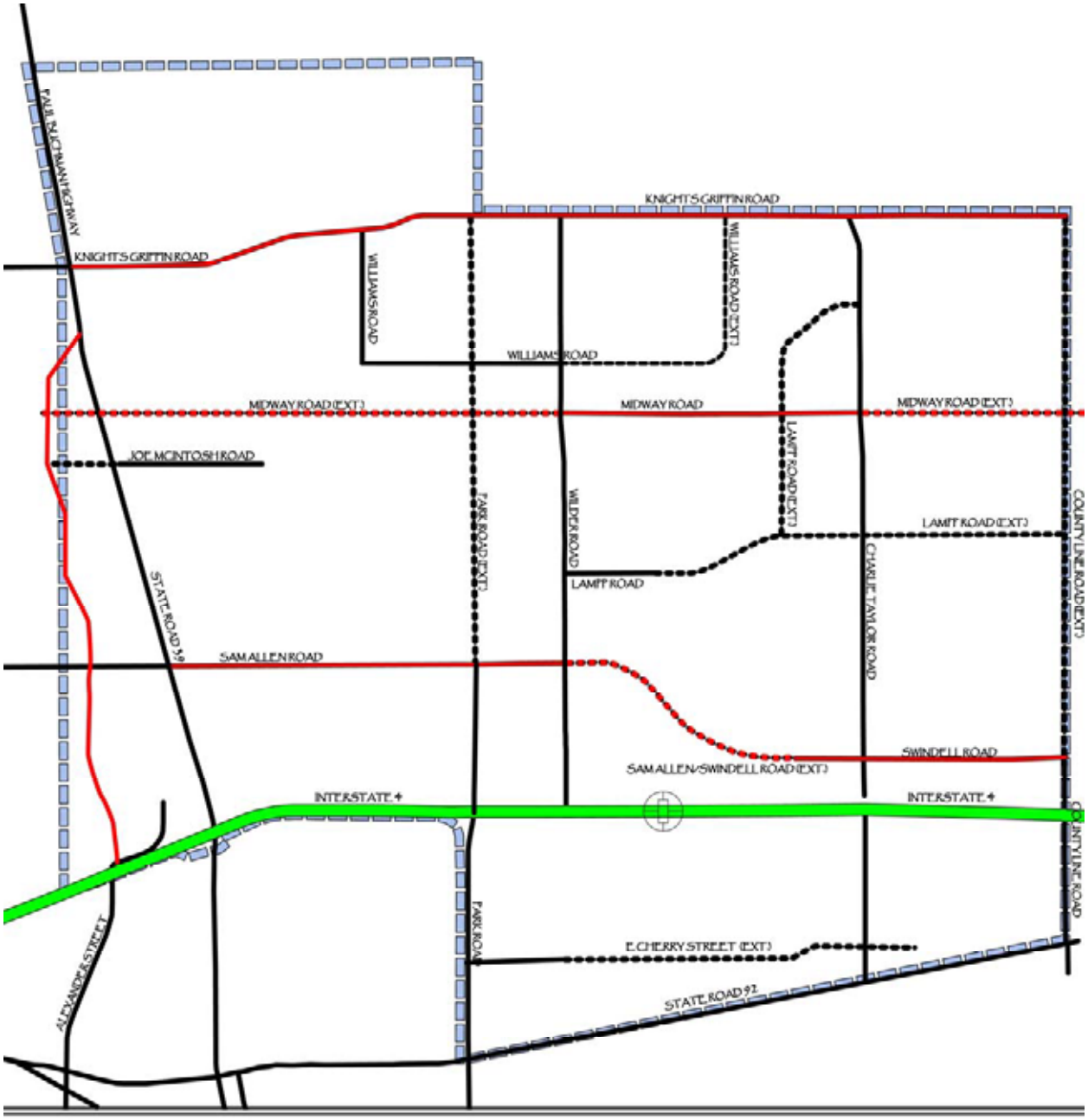
- Widen Knights Griffin Road from two to four lanes
- Widen Midway Road from two to four lanes
- Consistently widen Sam Allen Road/Swindell Road from two to four lanes

3.0 SUPPLMENTAL ANALYSIS

Due to the evolving nature of this project, additional analysis was required to provide an in-depth evaluation of the Preferred Transportation Alternative recommendations and their anticipated effect on study area roadways. To identify this anticipated effect, several specific roadway network links were isolated and Preferred Transportation Alternative vehicle volumes on these links were compared against existing and future conditions without the implementation of master plan.

3.1 Selected Roadway Link Analysis

The West Central Florida Regional Planning Model (WCFRPM) was used for the purposes of a select roadway link evaluation because the WCFRPM includes Polk County and areas east of the study area. The select link analysis evaluates the origin and destination of vehicles using three study area I-4 on/off ramps by comparing the 2035 Baseline Land Use Scenario with Preliminary Build Network, Land Use Scenario A with Preliminary Build Network, Land Use Scenario B Land Use with Preliminary Build Network, and the Preferred Land Use Scenario with the Preferred Transportation Alternative (*Transportation Alternatives Analysis Technical Memorandum, 2007)*. These on/off ramp locations are State Route 39 and Alexander Street at I-4, Park Road at I-4, and County Line Road at I-4.



LEGEND

- POTENTIAL SEPARATED GRADE BIKEWAY & PEDESTRIAN CROSSING
- EXISTNG ROADS
- PROPOSED ARTERIAL & COLLECTOR ROADS
- STUDY AREA BOUNDARY

ROADWAY LANES

- TWO LANES
- FOUR LANES
- SIX LANES

Figure 2:

Preferred Transportation Alternative
Recommended Improvements
(Preferred Build Network)

NOTE: Not to Scale

Using the information provided by the select link analysis, study area travel patterns to and from the interstate were determined, further refining the Preferred Transportation Alternative presented in October 2007. The select link analysis maps for each on/off ramp location by model run are provided in the attached CD ROM.

3.2 Volume Comparisons

The select link evaluation also compared volumes on individual roadway segments between the 2035 No Build roadway network and Preferred Build roadway network. The No Build Network is based on a combination of the WCFRPM 2030 and Hillsborough County 2025 Long Range Transportation Plans and includes only the Cost Affordable Plan network improvements from the two Plans.

The Cost Affordable Plan or No Build Transportation Network within Hillsborough and Polk Counties were modeled using the Preferred Land Use Scenario socioeconomic inputs. The Preferred Build Transportation Network included the No Build Transportation Network plus a package of recommended improvement projects (roadway extensions or new roadway alignments) developed as part of the Preferred Transportation Alternative. For comparison purposes, the Preferred Build Transportation Network was also modeled using socioeconomic data derived from the Preferred Land Use Scenario.

The select link volume comparison, shown in **Table 1,** evaluated 43 locations' forecasted daily vehicle volumes within the Northeast Plant City Area Master Plan study area. This volume comparison between the No-Build and Build Networks evaluated the anticipated effect of the Preferred Transportation Alternative on the Preferred Land Use Scenario. **Tables 2** and **3**, and **Figure 3** highlight the results of this volume comparison.

3.3 Supplemental Analysis Summary

Using the select link evaluation and volume comparison methodology, the anticipated operating conditions for the Build Network, as compared to the No Build Roadway Network, have been identified for the Preferred Transportation Alternative. These Level of Service (LOS) operating conditions are described in detail in **Figures 4** and **5**, and were presented at the October 2007 meetings and in the *Transportation Alternatives Analysis Technical Memorandum* submitted to Hillsborough County MPO in October 2007.

Once implemented, the Preferred Transportation Alternative in combination with the Preferred Land Use Scenario is anticipated to create parallel roadway facilities to I-4 by reassigning between 5,000 to 17,000 daily vehicle trips from I-4 and State Route 39 to the Midway Road Extension and Sam Allen/Swindell Road Extension. The Preferred Transportation Alternative roadway improvement recommendations are also anticipated to improve the LOS on Knights Griffin Road from LOS F, indicating a failing roadway, to LOS B/C, on Midway Road from LOS F to LOS D, and along Sam Allen Road from LOS F to LOS D.

In anticipation of continued northward expansion, the City should continue to ensure provisions are made for adequate transportation facilities. The land use and transportation recommendations presented by the Northeast Plant City Area Master Plan create a viable vision and framework to provide mobility for the Northeast Plant City area, accomplishing the goals set forth by Northeast Plant City Area Master Plan and the City of Plant City.

Table 1: Select Link Evaluation Locations

LOCATIONS		
SR 39 north of I-4 (in study area)	Wilder Rd. south of I-4	Midway Rd. west of Park Rd.
SR 39 south of I-4 (in study area)	Wilder Rd. north of Midway Rd.	Midway Rd. east of Charlie Taylor Rd.
SR 39 north of Midway Rd.	Charlie Taylor Rd. south of I-4	Knights Griffin Rd. east of Charlie Taylor Rd.
SR 39 south of Midway Rd.	Charlie Taylor Rd. north of Midway Rd.	Baker St./US 92 east of Park Rd.
Alexander St. Extension north of I-4 (in study area)	Charlie Taylor Rd. south of Midway Rd.	Baker St./US 92 west of Park Rd.
Alexander St. Extension south of I-4 (in study area)	County Line Rd. north of I-4	Baker St./US 92 east of Charlie Taylor Rd.
Alexander St. Extension north of Midway Rd.	County Line Rd. south of I-4	I-4 Mainline west of Alexander St. Extension
Alexander St. Extension south of Midway Rd.	County Line Rd. north of Midway Rd.	I-4 Mainline between SR 39 and Park Rd.
Park Rd. north of I-4	County Line Rd. south of Midway Rd.	I-4 Mainline between Park Rd. and County Line Rd.
Park Rd. south of I-4	Sam Allen/Swindell Extension east of Park Rd.	I-4 Mainline east of County Line Rd.
Park Rd. north of Midway Rd.	Sam Allen/Swindell Extension west of Park Rd.	I-4 Service Rd. west of Park Rd.
Park Rd. south of Midway Rd.	Sam Allen/Swindell Extension east of Charlie Taylor Rd.	I-4 Service Rd. east of Park Rd.
Wilder Rd. north of I-4	Midway Rd. east of Park Rd.	I-4 Service Rd. east of County Line Rd.
Wilder Rd. south of Midway Rd.	Knights Griffin Rd. east of Park Rd.	
Charlie Taylor Rd. north of I-4	Knights Griffin Rd. west of Park Rd.	

Table 2: Volume Comparision
No Build Network Comparision to Preferred Build Network with Preferred Land Use Scenario

Segment	TWO-DAILY VOLUMES (PSWADT)			
	No Build	Build	Difference	Percent Difference
SR 39 north of I-4 in study area	37,569	34,814	-2,755	-7.3%
SR 39 south of I-4 in study area	17,016	15,530	-1,486	-8.7%
SR 39 north of Midway	42,414	38,725	-3,689	-8.7%
SR 39 south of Midway	42,414	34,656	-7,758	-18.3%
Alexander Street north of I-4 in study area	34,798	35,688	890	2.6%
Alexander Street south of I-4 in study area	37,711	36,035	-1,676	-4.4%
Alexander Street north of Midway	25,442	16,466	-8,976	-35.3%
Alexander Street south of Midway	25,442	26,470	1,028	4.0%
Park north of I-4 in study area	44,042	34,605	-9,437	-21.4%
Park south of I-4 in study area	52,091	57,127	5,036	9.7%
Park north of Midway	N/A	10,714	10,714	N/A
Park south of Midway	N/A	9,587	9,587	N/A
Wilder north of I-4 in study area	20,808	12,378	-8,430	-40.5%
Wilder south of I-4 in study area	2,467	1,098	-1,369	-55.5%
Wilder north of Midway	16,709	7,971	-8,738	-52.3%
Wilder south of Midway	20,704	12,469	-8,235	-39.8%
Charlie Taylor north of I-4 in study area	23,178	17,378	-5,800	-25.0%
Charlie Taylor south of I-4 in study area	6,409	4,077	-2,332	-36.4%
Charlie Taylor north of Midway	16,959	2,277	-14,682	-86.6%
Charlie Taylor south of Midway	21,279	8,724	-12,555	-59.0%
County Line north of I-4 in study area	18,380	35,903	17,523	95.3%
County Line south of I-4 in study area	42,820	43,293	473	1.1%
County Line north of Midway	N/A	2,958	2,958	N/A
County Line south of Midway	N/A	7,805	7,805	N/A
Sam Allen/Swindell east of Park in study area	26,419	30,619	4,200	15.9%
Sam Allen/Swindell west of Park in study area	32,018	28,599	-3,419	-10.7%
Sam Allen/Swindelleast of CharlieTaylor	25,195	38,739	13,544	53.8%
Midway east of Park in study area	N/A	17,297	17,297	N/A
Midway west of Park in study area	N/A	16,955	16,955	N/A
Midway east of Charlie Taylor	5,380	14,534	9,154	170.1%
Knights Griffin east of Park in study area	13,220	14,770	1,550	11.7%
Knights Griffin west of Park in study area	13,220	16,538	3,318	25.1%
Knights Griffin east of Charlie Taylor	16,710	16,069	-641	-3.8%
Baker Sreet east of Park in study area	22,590	21,255	-1,335	-5.9%
Baker Sreet west of Park in study area	36,078	36,622	544	1.5%
Baker Street east of Charlie Taylor	24,049	19,927	-4,122	-17.1%
I-4 Mainline west of Alexander	158,457	156,213	-2,244	-1.4%
I-4 Mainline between SR 39 and Park	170,709	166,577	-4,132	-2.4%
I-4 Mainline between Park and County Line	195,934	178,665	-17,269	-8.8%
I-4 Mainline east of County Line	193,316	182,682	-10,634	-5.5%
I-4 Service Road west of Park	12,945	11,312	-1,633	-12.6%
I-4 Service Road east of Park	17,091	13,444	-3,647	-21.3%
I-4 Service Road east of County Line	11,824	11,227	-597	-5.0%

* Park Rd. extension, County Line extension, Midway extension are new corridors and thus are not modeled in the No-Build Scenario.

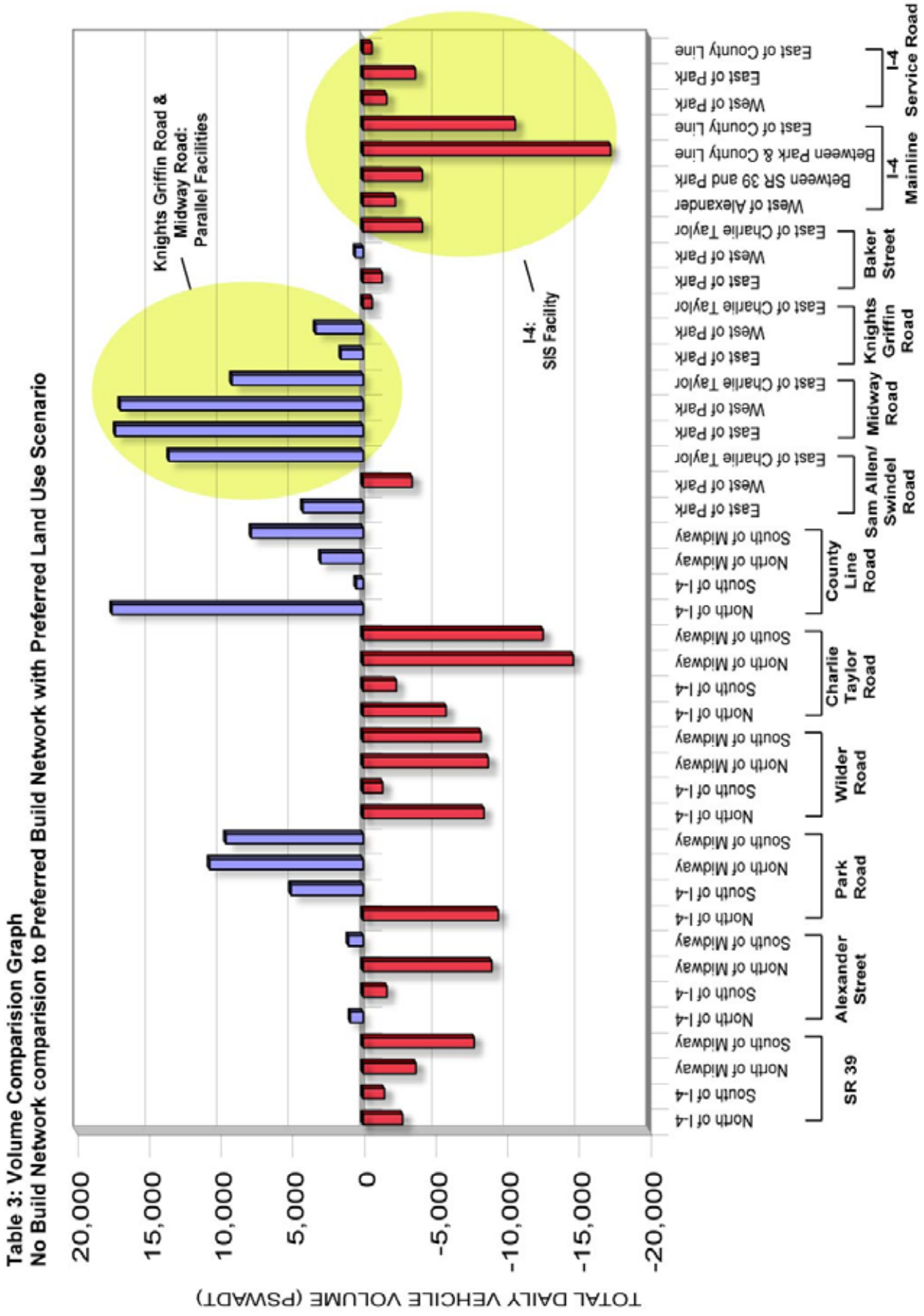


Table 3: Volume Comparision Graph
No Build Network comparision to Preferred Build Network with Preferred Land Use Scenario
TOTAL DAILY VEHICLE VOLUME (PSWADT)
20,000
15,000
10,000
5,000
0
-5,000
-10,000
-15,000
-20,000
Knights Griffin Road & Midway Road: Parallel Facilities
I-4: SIS Facility
SR 39
Alexander Street
Park Road
Wilder Road
Charlie Taylor Road
County Line Road
Sam Allen/ Swindel Road
Midway Road
Knights Griffin Road
Baker Street
I-4 Mainline
I-4 Service Road
North of I-4
South of I-4
North of Midway
South of Midway
East of Park
West of Park
East of Charlie Taylor
West of Alexander
Between SR 39 and Park
Between Park & County Line
East of County Line

LEGEND

+1,000 GROWTH IN DAILY VEHICLE VOLUMES

-1,000 REDUCTION IN DAILY VEHICLE VOLUMES

STUDY AREA BOUNDARY

CHANGE IN TOTAL DAILY VEHICLE VOLUME BETWEEN THE NO-BUILD AND PREFERRED BUILD NETWORKS

INCREASE IN TOTAL DAILY VEHICLE VOLUME

0 +3,600 +7,200 +10,800 +14,400 +18,000

DECREASE IN TOTAL DAILY VEHICLE VOLUME

0 -3,600 -7,200 -10,800 -14,400 -18,000

(+/-RAW TOTAL DAILY VEHICLE VOLUME CHANGE/FSWADT)

Figure 3:
Preferred Transportation Alternative Volume Comparision: No-Build Network vs. Preferred Build Network

NOTE: Not to Scale

Figure 4: Preferred Build Transportation Alternative
2035 Preferred Land Use, No Build Network LOS Map

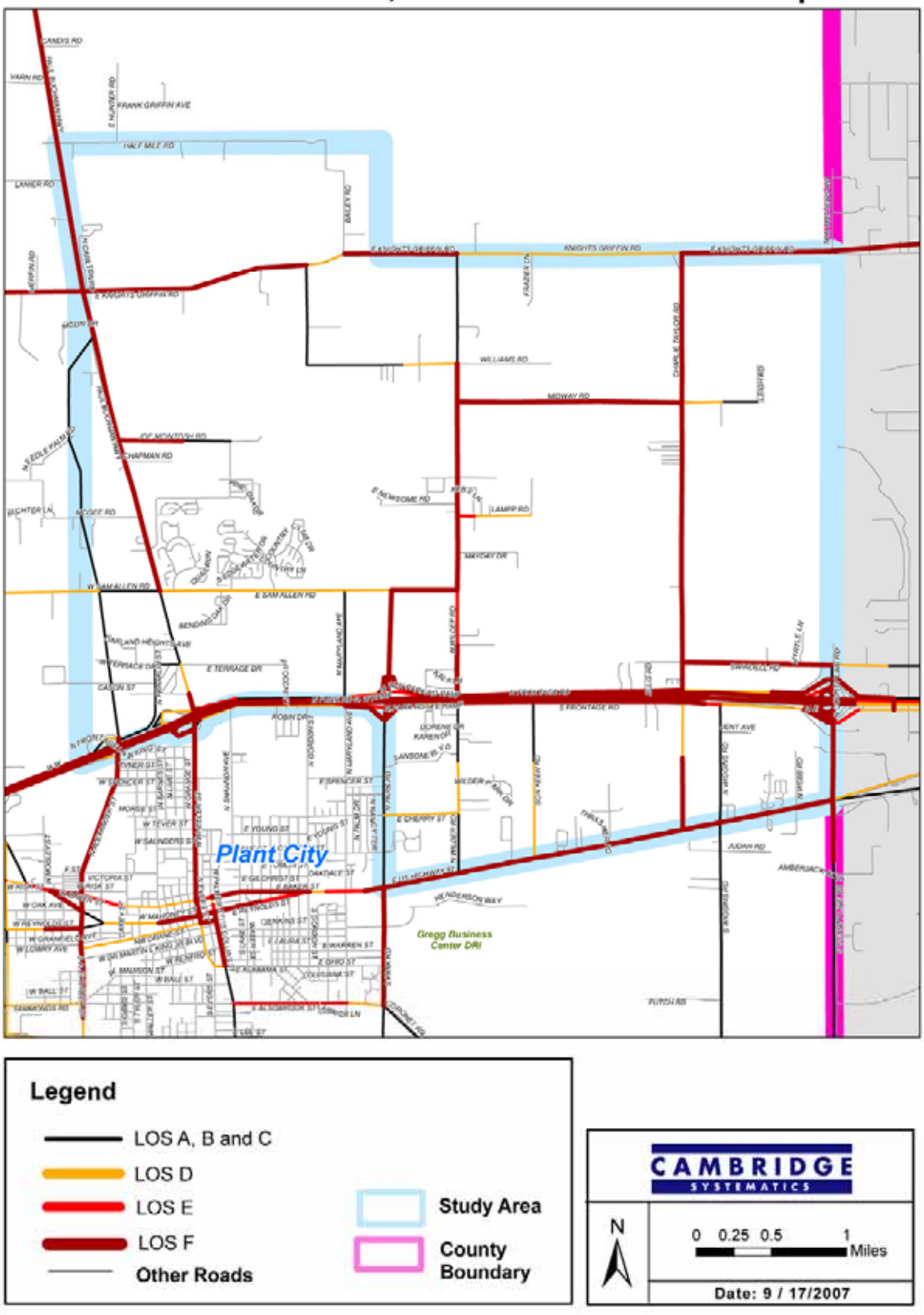
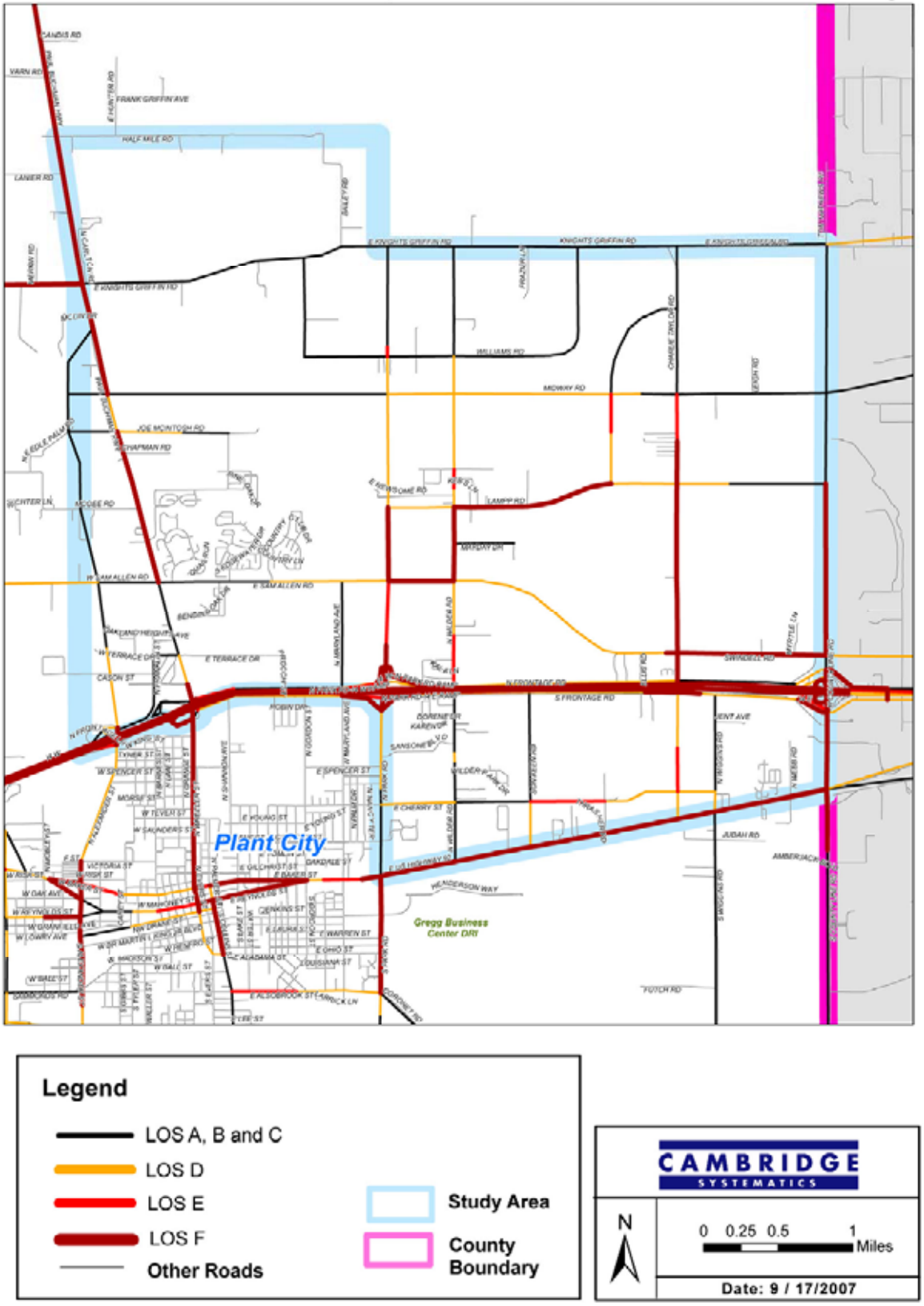


Figure 5: Preferred Build Transportation Alternative
2035 Preferred Land Use, Preferred Build Network LOS Map



4.0 RESPONSE TO COMMENTS

A draft of this technical memorandum was provided to the Hillsborough MPO for review and comment on November 21, 2007. The following section describes the comments received from the Hillsborough MPO along with a subsequent response.

Comment: Does Figure 1 show Planned Improvements?

Response: Figure 1 depicts the No Build or Cost Affordable Network with the study area boundary. The title of Figure 1 has been revised.

Comment: How was the Cost Affordable Plan refined as described on page 5?

Response: The Cost Affordable Plan roadway network itself was not altered with the exception of using the socioeconomic data from the Preferred Land Use Scenario for modeling purposes. The corresponding sentence within the technical memorandum has been revised.

Comment: Is the Sam Allen Road/Swindell Road connection proposed to be 4 lanes as shown in Figure 2?

Response: The Preferred Transportation Alternative recommends that Sam Allen Road, Sam Allen/Swindell connection, and the Swindell Road be 4 lanes in width consistently within the study area. Figure 2, has been revised to better depict this recommendation.

Comment: Pg 5 – Section 3.3: How did the level of service on Knights Griffin and Midway improve when the volumes generally increased? Also, the only part of Sam Allen that was level of service F in figure 4 is still level of service F in Figure 5?

Response: The LOS on Knights Griffin and Midway Roads improved with increased volumes due to the added roadway capacity as a result of widening from 2 to 4 lanes as described on page 3. Figure 2 has been revised to better depict these recommendations. The description of improved LOS on Sam Allen Road is incorrect and has been revised on page 5 of this technical memorandum.

Comment: Is the title of Figure 4 correct? Currently it reads “Preferred Build Transportation Alternative” then “No Build Network LOS Map”?

Response: The title of Figure 4 is correct. Figure 4 depicts the No Build or Cost Affordable Plan network LOS without recommended roadway improvements that are incorporated into the Preferred Build Network (Figure 5). In both cases, the Preferred Land Use Scenario provided socioeconomic data, all of which were conducted for comparison purposes as part of the Preferred Build Transportation Alternative.

Technical Memorandum: Supplemental Transportation Alternatives Analysis Reference Material

NOTE:
Provided on Attached CD

November, 2007

Technical Memorandum: Supplemental Transportation Alternatives Analysis

SELECT LINK ANALYSIS REFERENCE MATERIAL:

SR 39/ALEXANDER STREET AT I-4

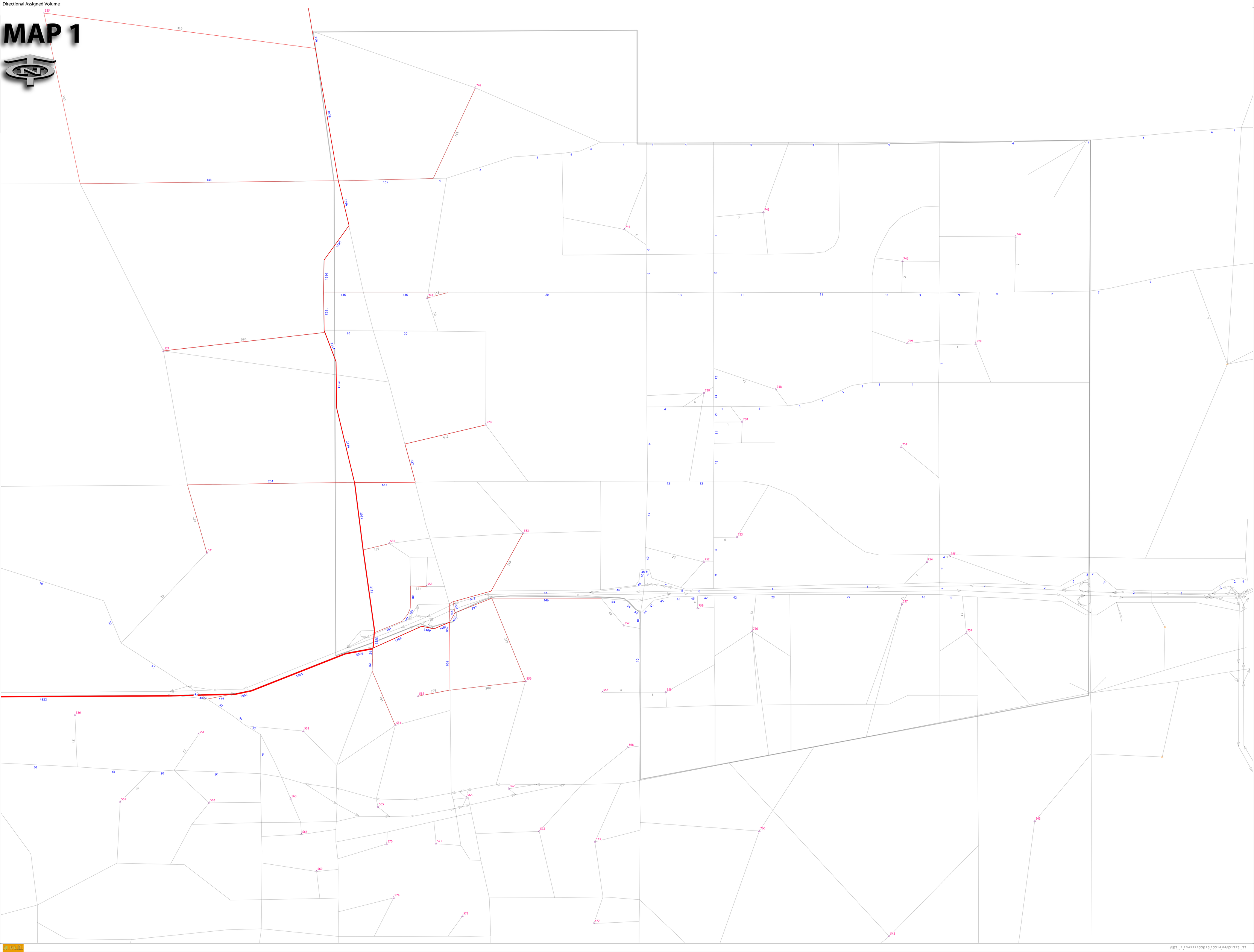
Maps 1-4) Preferred Transportation Alternative with Baseline Growth

Maps 5-8) No Build Transportation Network with Preferred Land Use Scenario

Maps 9-12) Preferred Transportation Alternative with Preferred Land Use Scenario

Select Link Volume - Eastbound I-4 Off Ramp at Alexand er St (Including Trips going to Connector-Distributor to SR39)
Baseline Land Use - Final Build Network - Supplementa l Task
9/18/2007
Directional Assigned Volume

MAP 1



Select Link Volume - Eastbound I-4 On Ramp at SR39
Baseline Land Use - Final Build Network - Supplementa l Task
9/18/2007
Directional Assigned Volume

MAP 2

MAP 3

Select Link Volume - Westbound I-4 Off Ramp at SR39
Baseline Land Use - Final Build Network - Supplemental Task
9/18/2007
Directional Assigned Volume

Select Link Volume - Westbound I-4 On Ramp at Alexande r St (Including Trips from Connector-Distributor from SR39)
Baseline Land Use - Final Build Network - Supplementa l Task
9/18/2007
Directional Assigned Volume

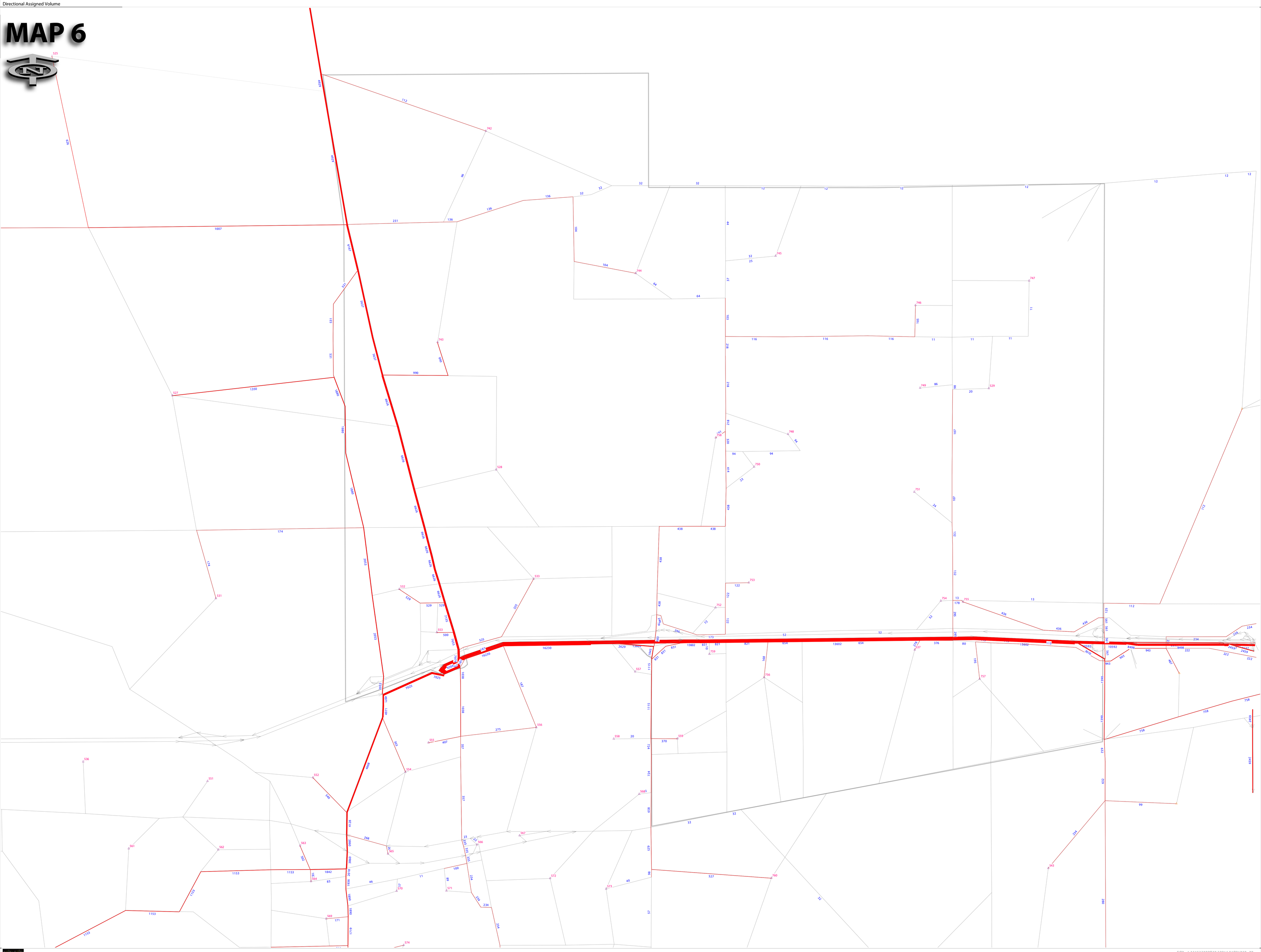
MAP 4

Select Link Volume - Eastbound I-4 Off Ramp at Alexand   er St (Including Trips going to Connector-Distributor   to SR39)
Revised Scenario B Land Use - No Build Network - Suppl   emental Task
9/18/2007
Directional Assigned Volume

MAP 5

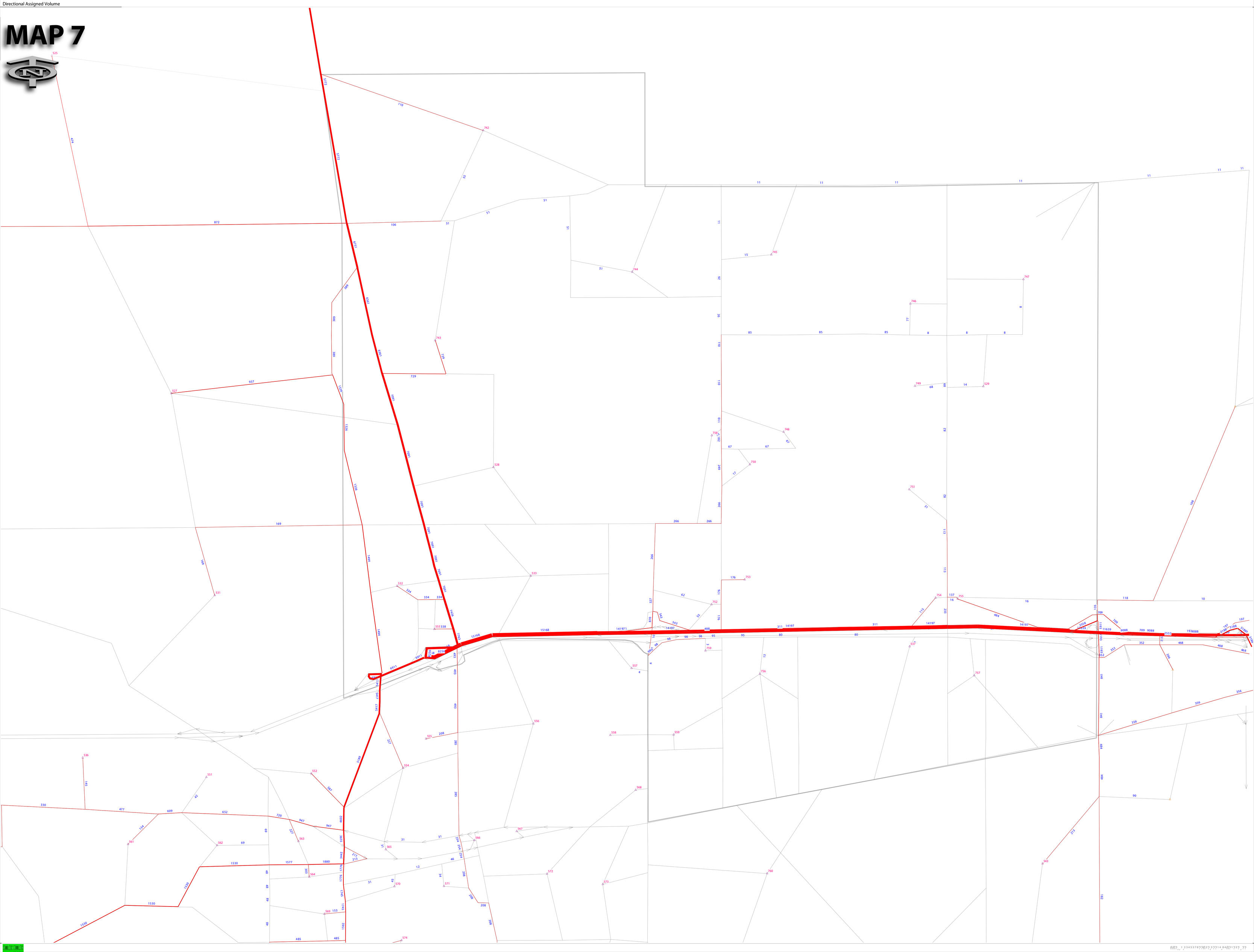
Select Link Volume - Eastbound I-4 On Ramp at SR39
Revised Scenaio B Land Use - No Build Network - Supple mental Task
9/18/2007
Directional Assigned Volume

MAP 6



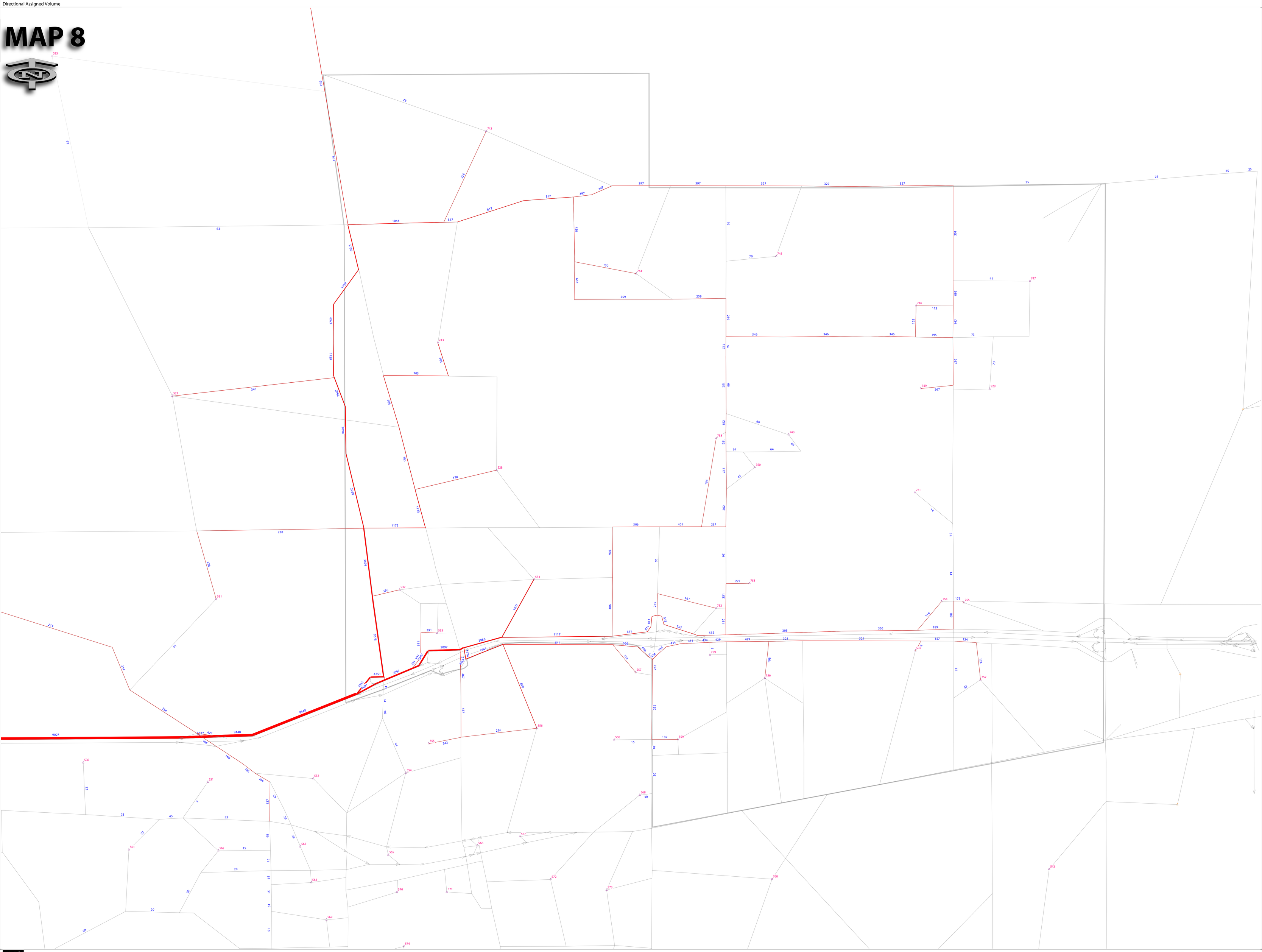
Select Link Volume - Westbound I-4 Off Ramp at SR39
Revised Scenaio B Land Use - No Build Network - Supple mental Task
9/18/2007
Directional Assigned Volume

MAP 7



Select Link Volume - Westbound I-4 On Ramp at Alexande r St (Including Trips from Connector-Distributor from SR39)
Revised Scenaio B Land Use - No Build Network - Supple mental Task
9/18/2007
Directional Assigned Volume

MAP 8



MAP 9

Select Link Volume - Eastbound I-4 On Ramp at Alexande r St (Including Trips going to Connector-Distributor to SR39)
Revised Scenario 8 Land Use - Final Build Network - Su pplemental Task
9/18/2007
Directional Assigned Volume

MAP 10

Select Link Volume - Eastbound I-4 On Ramp at SR 39
Revised Scenario B Land Use - Final Build Network - Sup plemental Task
9/18/2007
Directional Assigned Volume

Select Link Volume - Westbound I-4 Off Ramp at SR 39
Revised Scenario B Land Use - Final Build Network - Sup plemental Task
9/18/2007
Directional Assigned Volume

MAP 11

Select Link Volume - Westbound I-4 On Ramp at Alexande r St (Including Trips from Connector-Distributor from SR39)
Revised Scenaio B Land Use - Final Build Network - Sup plemental Task
9/18/2007
Directional Assigned Volume

MAP 12

SELECT LINK ANALYSIS REFERENCE MATERIAL:

PARK ROAD AT I-4

Maps 13-15) Preferred Transportation Alternative with Baseline Growth

Maps 16-18) No Build Transportation Network with Preferred Land Use Scenario

Maps 19-22) Preferred Transportation Alternative with Preferred Land Use Scenario

Select Link Volume - Eastbound I-4 On Ramp at Park Rd
Baseline Land Use - Final Build Network - Supplementa I Task
9/17/2007
Directional Assigned Volume

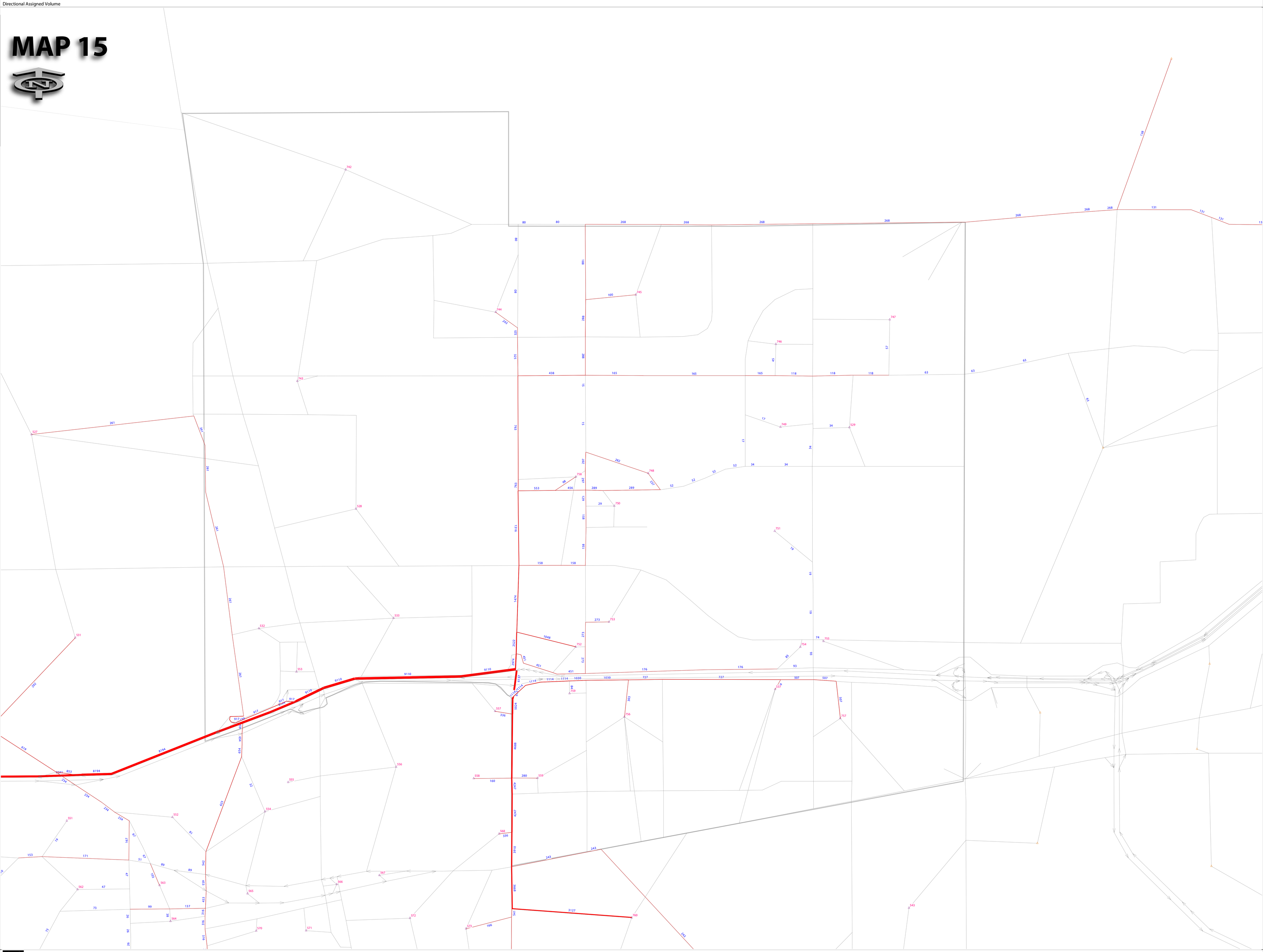
MAP 13

Select Link Volume - Westbound I-4 Off Ramp at Park Rd
Baseline Land Use - Final Build Network - Supplementa I Task
9/17/2007
Directional Assigned Volume

MAP 14

Select Link Volume - Westbound I-4 On Ramp at Park Rd
Baseline Land Use - Final Build Network - Supplementa I Task
9/17/2007
Directional Assigned Volume

MAP 15



Select Link Volume - Eastbound I-4 On Ramp at Park Rd
Revised Scenario B Land Use - No Build Network - Suppl emental Task
9/17/2007
Directional Assigned Volume

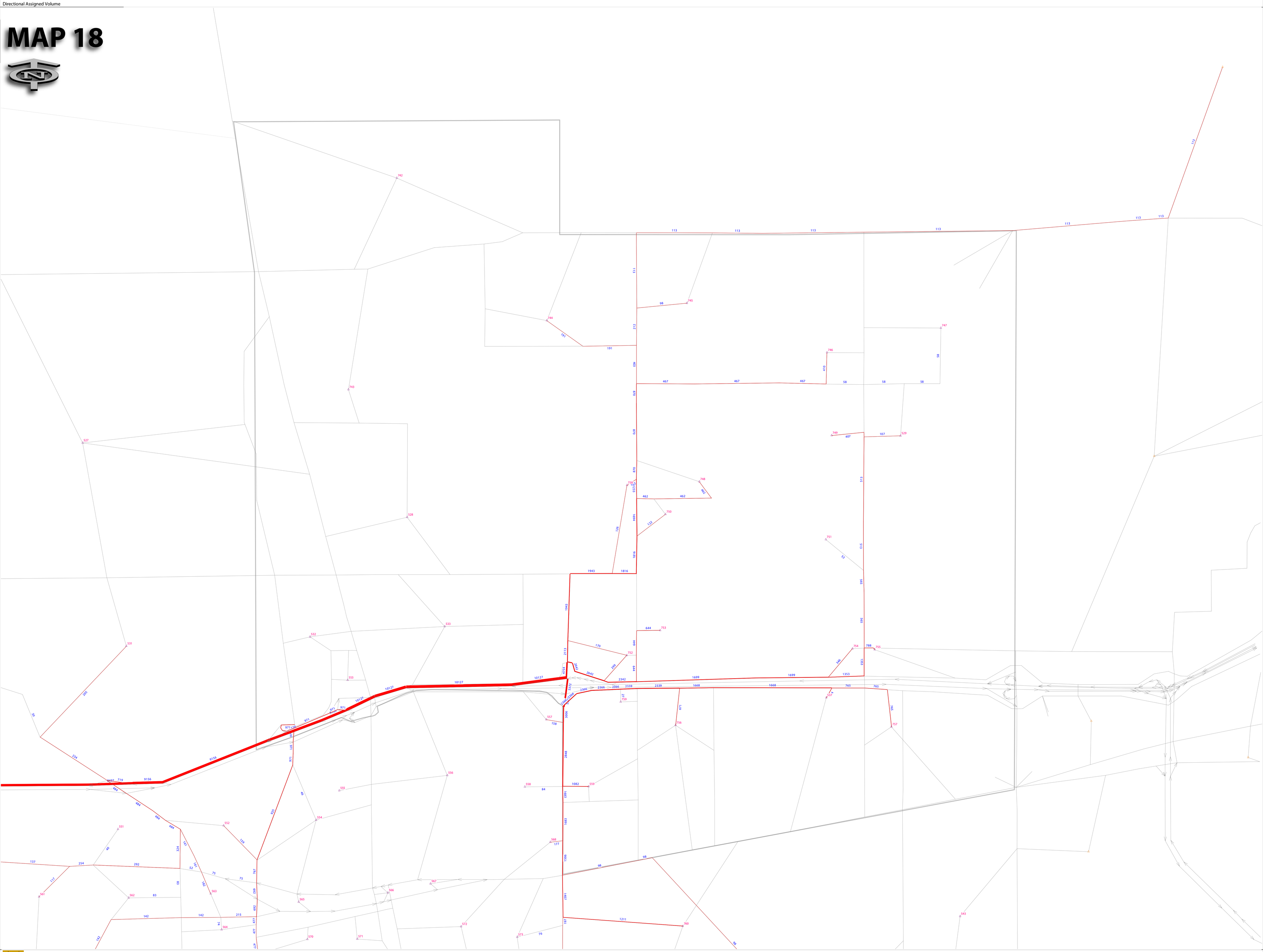
MAP 16

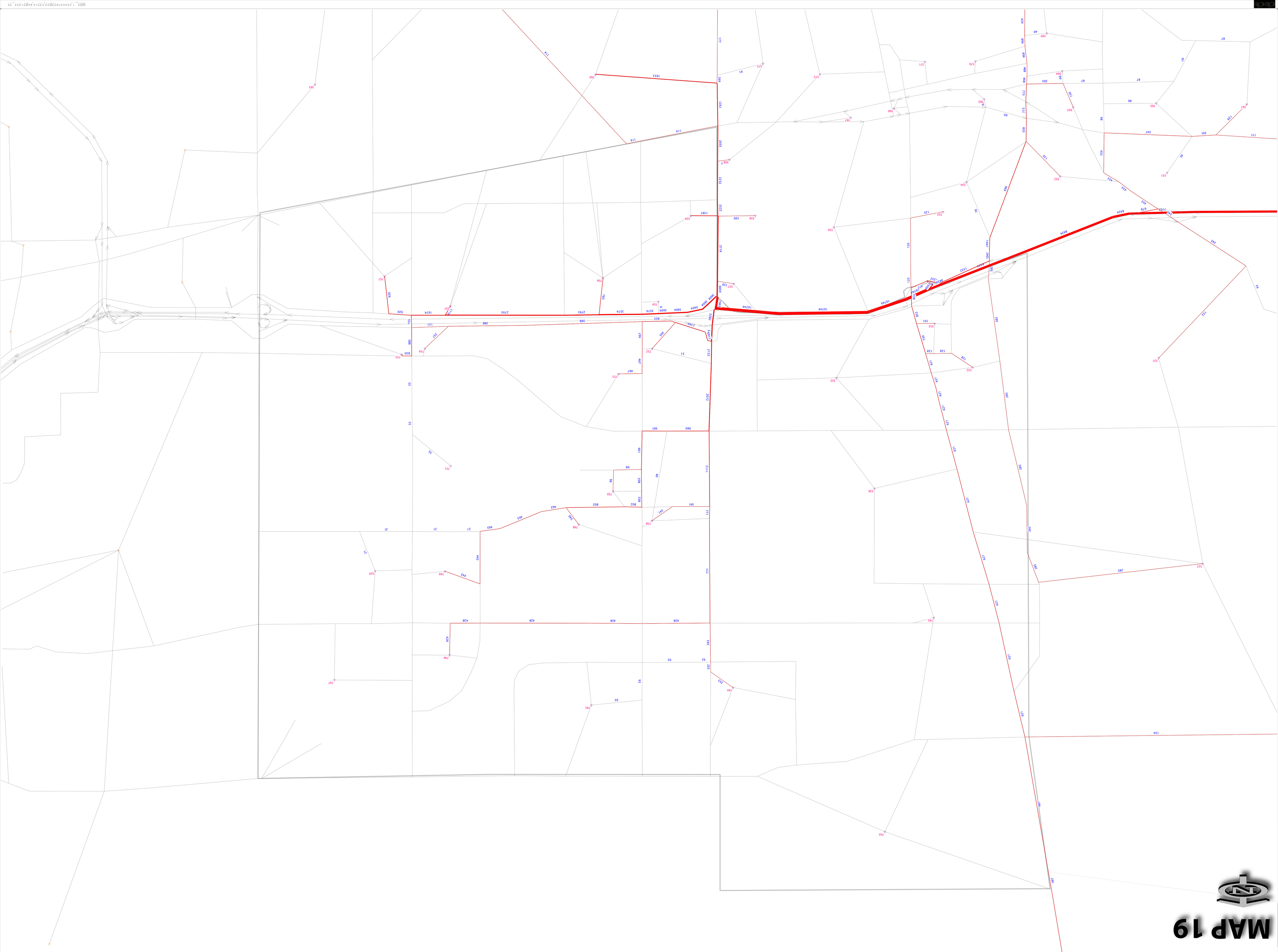
Select Link Volume - Westbound I-4 Off Ramp at Park Rd
Revised Scenario B Land Use - No Build Network - Suppl emental Task
9/17/2007
Directional Assigned Volume

MAP 17

Select Link Volume - Westbound I-4 On Ramp at Park Rd
Revised Scenario B Land Use - No Build Network - Supplemental Task
9/17/2007
Directional Assigned Volume

MAP 18



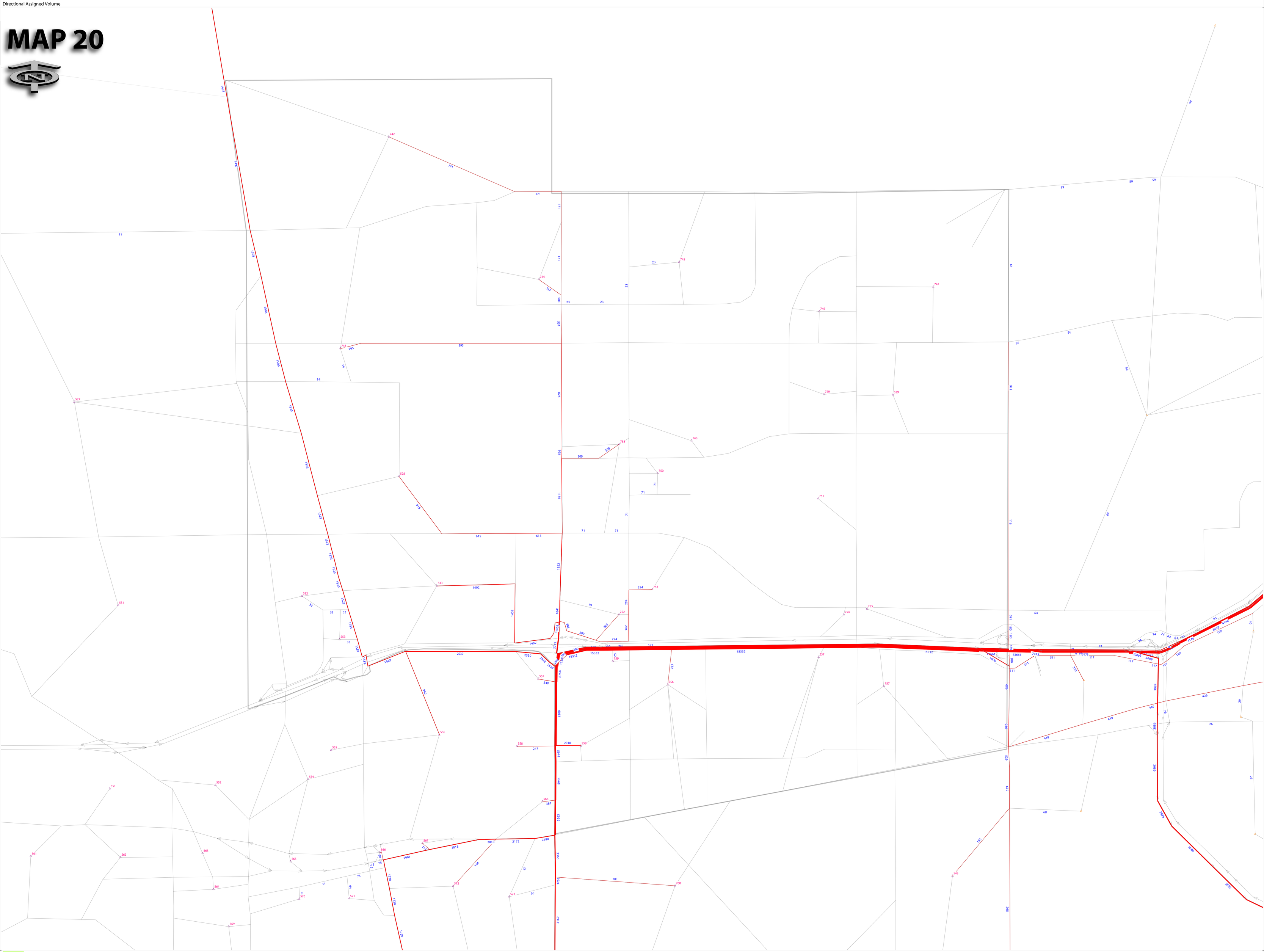


Select Link Volume - Eastbound I-4 Off Ramp at Park Rd
Revised Scenario 8 Land Use - Final Build Network - 5U
9/17/2007
Directional Assigned Volume

Supplemental Task

Select Link Volume - Eastbound I-4 On Ramp at Park Rd
Revised Scenario B Land Use - Final Build Network - Su pplemental Task
9/17/2007
Directional Assigned Volume

MAP 20

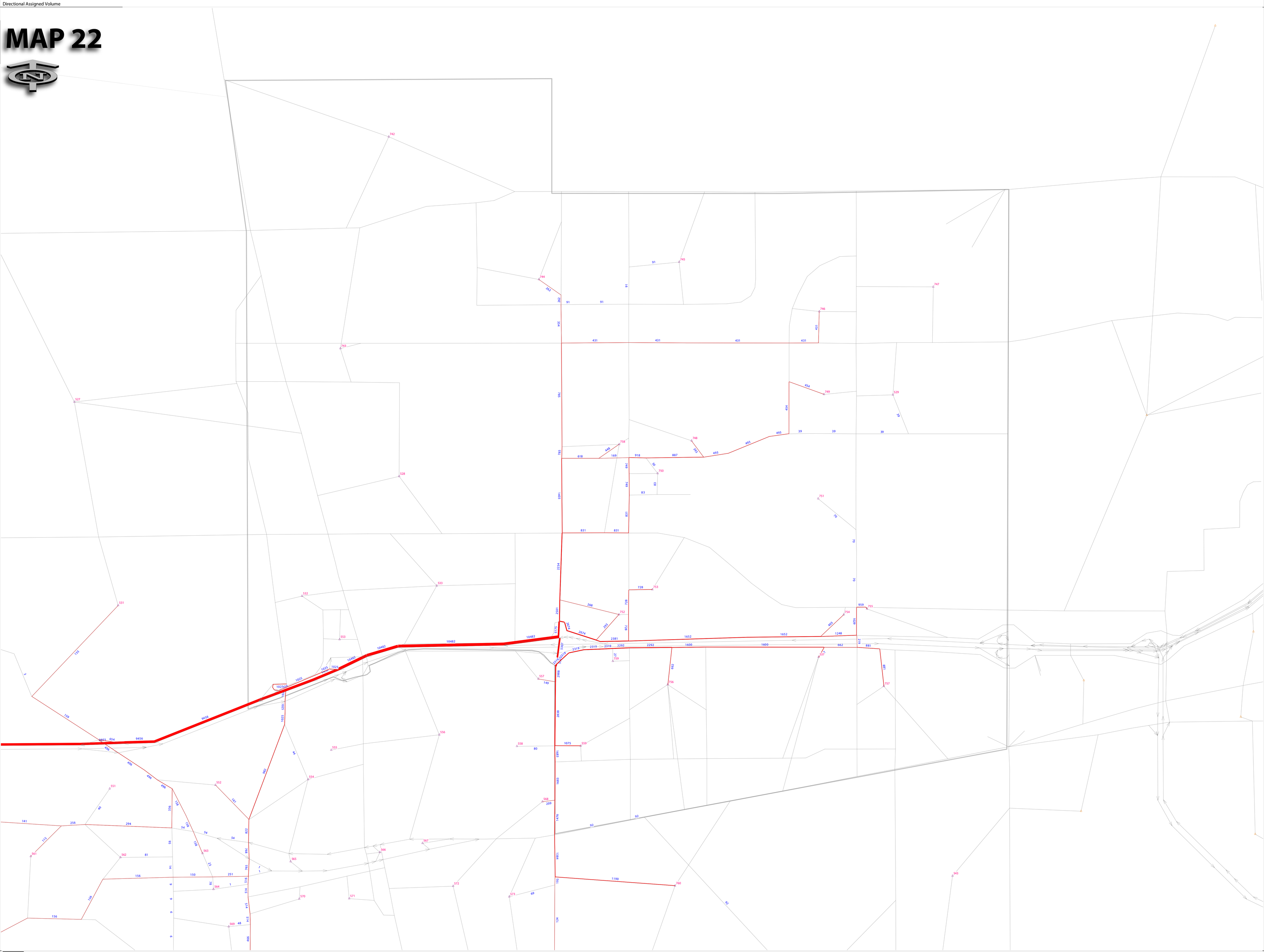


Select Link Volume - Eastbound I-4 Off Ramp at Park Rd
Revised Scenario B Land Use - Final Build Network - Su pplemental Task
9/17/2007
Directional Assigned Volume

MAP 21

Select Link Volume - Westbound I-4 On Ramp at Park Rd
Revised Scenario B Land Use - Final Build Network - Su pplemental Task
9/17/2007
Directional Assigned Volume

MAP 22



SELECT LINK ANALYSIS REFERENCE MATERIAL:

COUNTY LINE ROAD AT I-4

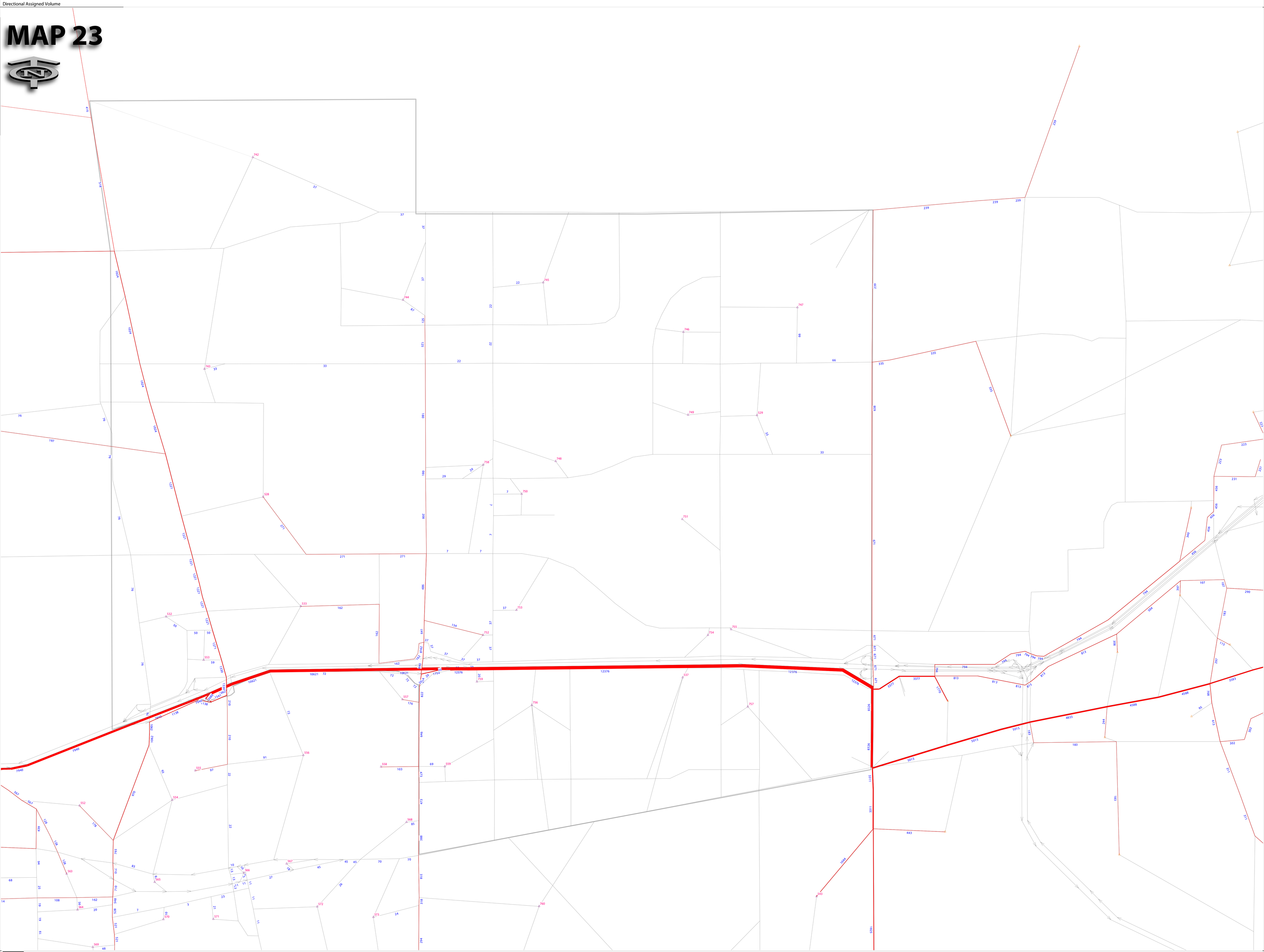
Maps 23-26) Preferred Transportation Alternative with Baseline Growth

Maps 27-30) No Build Transportation Network with Preferred Land Use Scenario

Maps 31-34) Preferred Transportation Alternative with Preferred Land Use Scenario

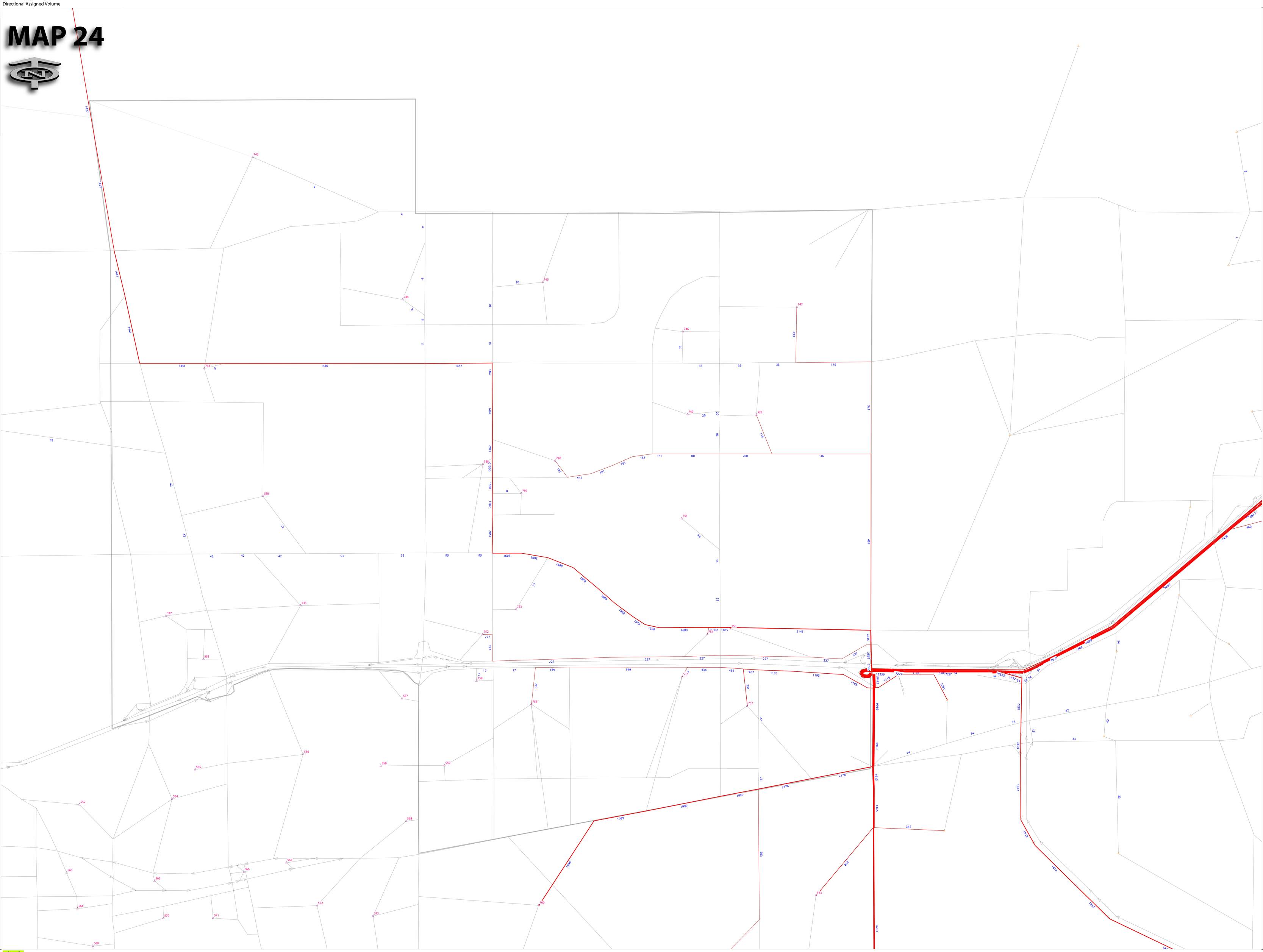
Select Link Volume - Eastbound I-4 Off Ramp at Park Rd
Baseline Land Use - Final Build Network - Supplementa I Task
9/17/2007
Directional Assigned Volume

MAP 23



Select Link Volume - Eastbound I-4 On Ramp at Park Rd
Baseline Land Use - Final Build Network - Supplementa I Task
9/17/2007
Directional Assigned Volume

MAP 24

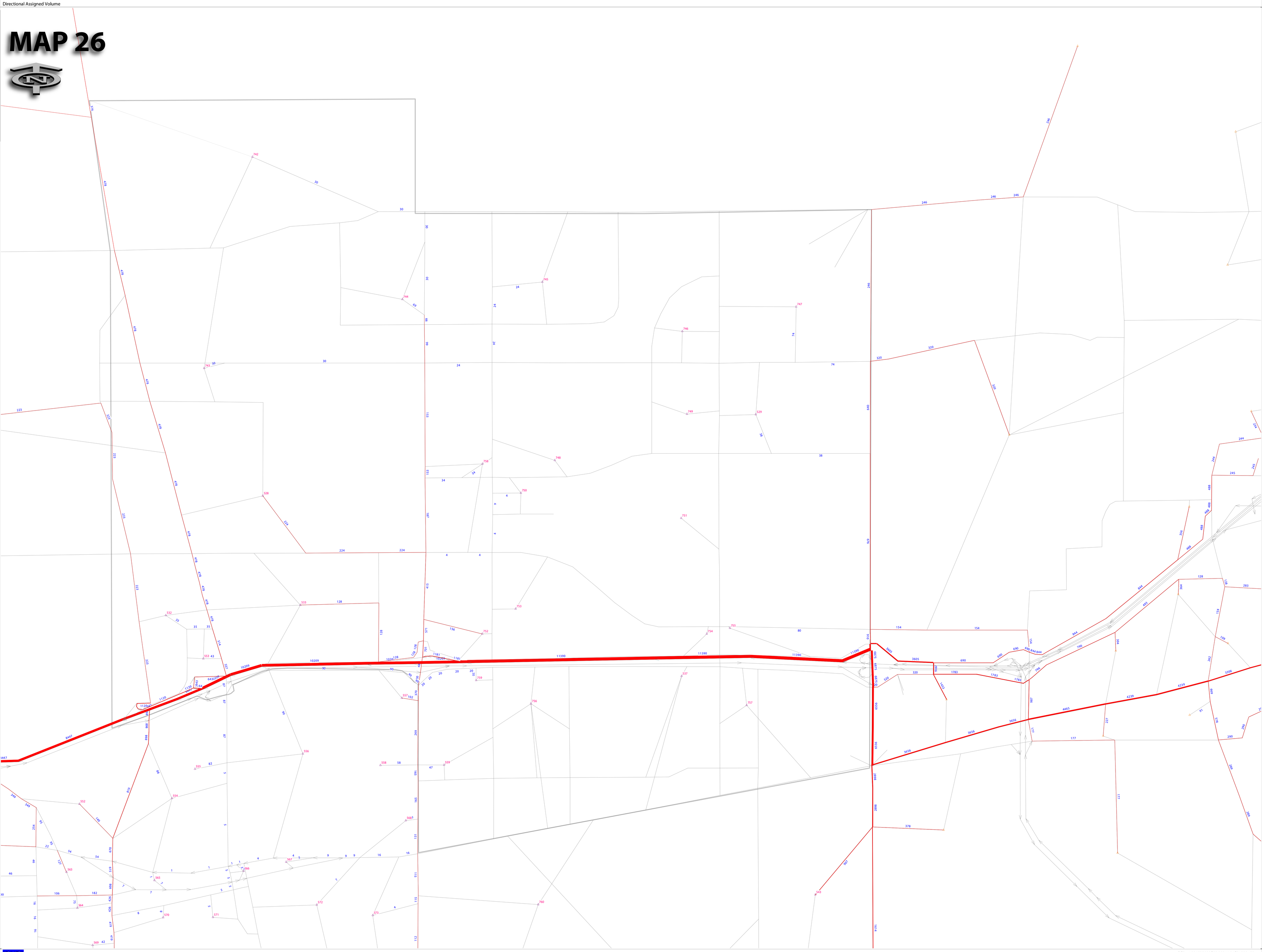


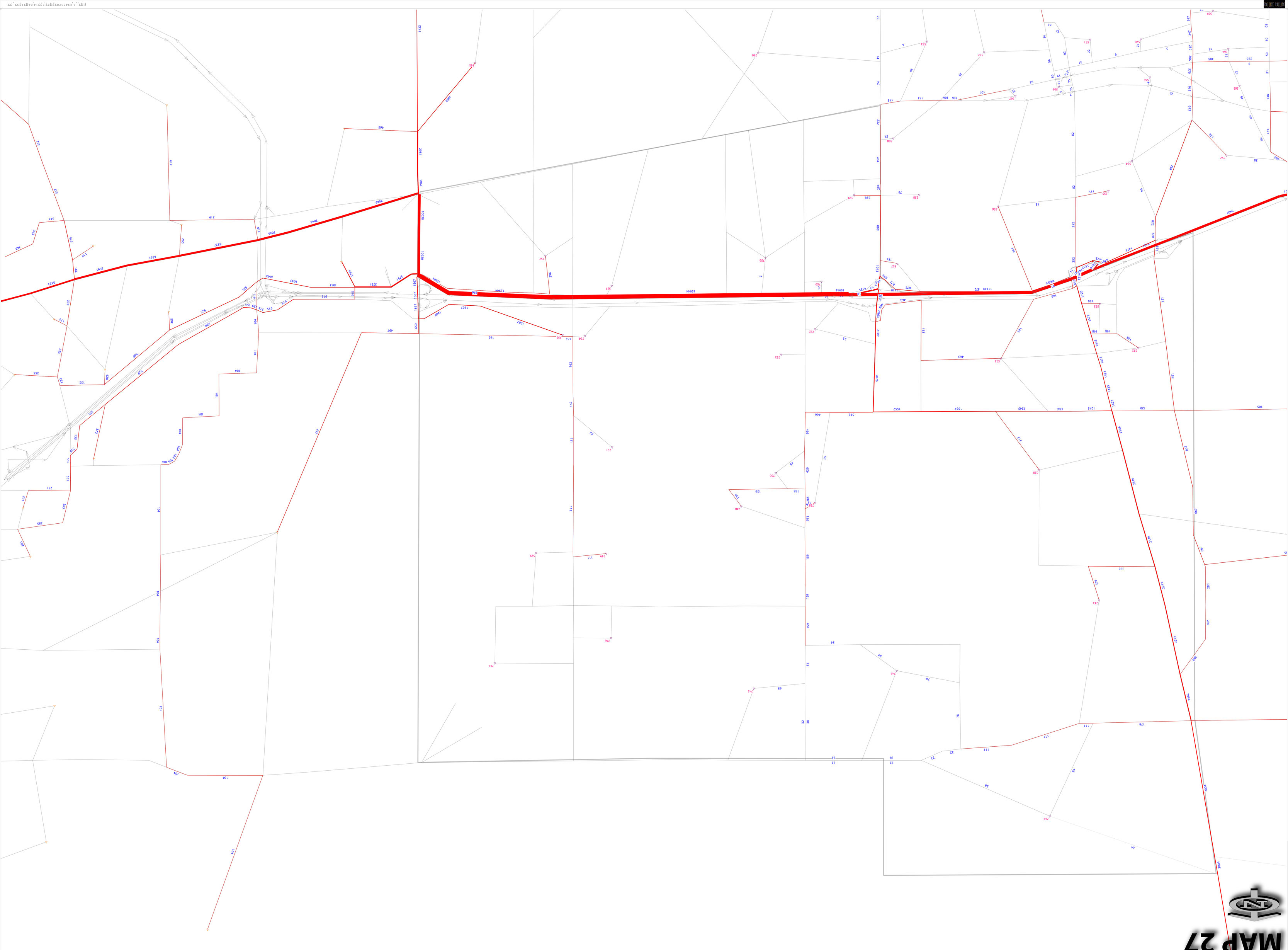
Select Link Volume - Westbound I-4 Off Ramp at Park Rd
Baseline Land Use - Final Build Network - Supplementa I Task
9/17/2007
Directional Assigned Volume

MAP 25

Select Link Volume - Westbound I-4 On Ram at Park Rd
Baseline Land Use - Final Build Network - Supplementa I Task
9/17/2007
Directional Assigned Volume

MAP 26





MAP 27

Select Link Volume - Eastbound I-4 Off Ramp at Polk Co
Revised Scenario 8 Land Use - No Build Network - Supplemental Task
9/17/2007
Directional Assigned Volume

Select Link Volume - Eastbound I-4 On Ramp at Polk Co L ine
Revised Scenario B Land Use - No Build Network - Suppl emental Task
9/17/2007
Directional Assigned Volume

MAP 28

Select Link Volume - Westbound I-4 Off Ramp at Polk Co
Revised Scenario B Land Use - No Build Network - Suppl
9/17/2007
Directional Assigned Volume

Line
emental Task

MAP 29

MAP 30

Select Link Volume - Westbound I-4 On Ramp at Polk C.O
Revised Scenario 8 Land Use - No Build Network - Supplemental Task
9/17/2007
Directional Assigned Volume

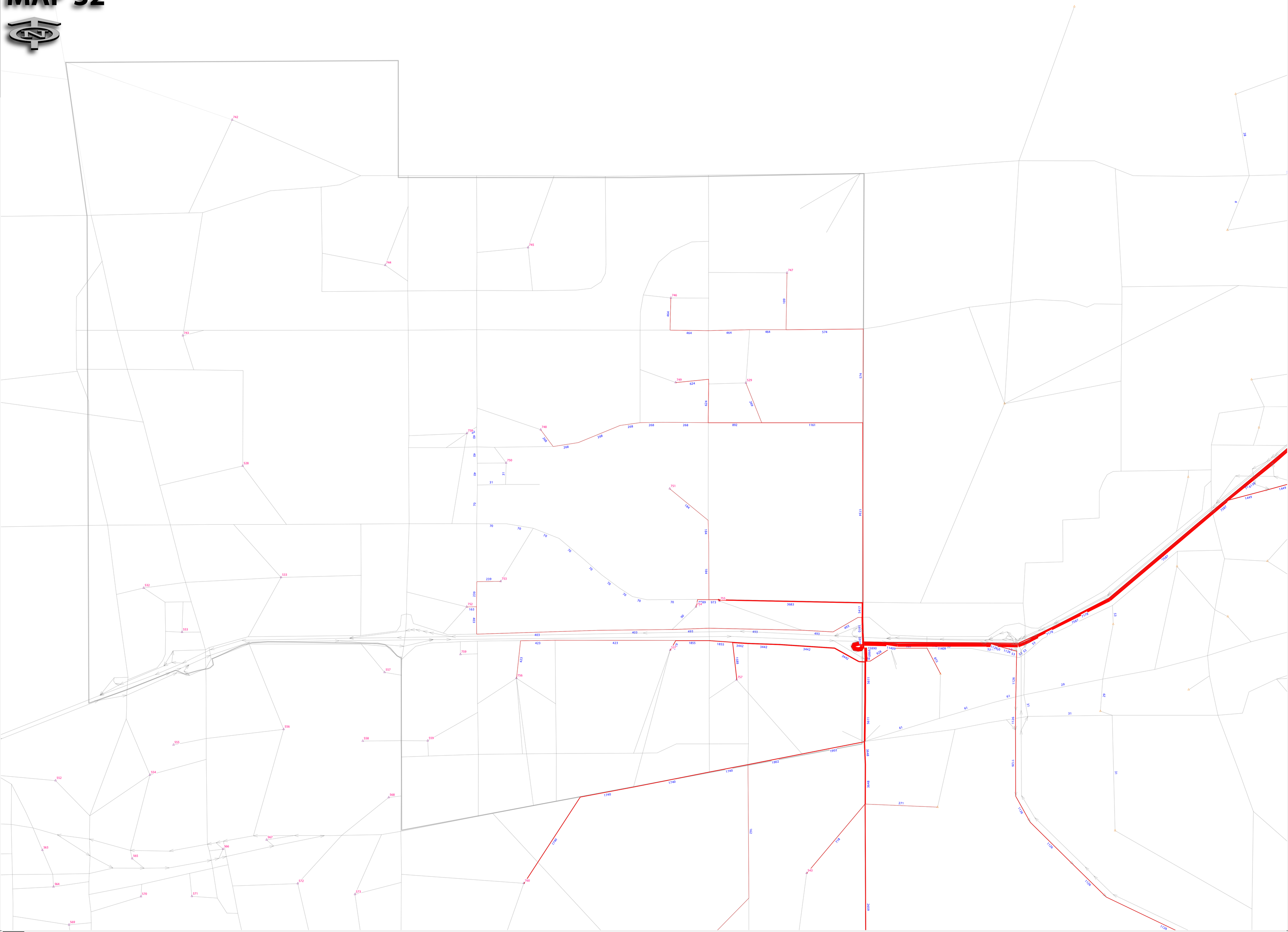
Select Link Volume - Eastbound I-4 Off Ramp at Polk Co
Revised Scenario B Land Use - Final Build Network - Su
9/17/2007
Directional Assigned Volume

Line
pplemental Task

MAP 31

Select Link Volume - Eastbound I-4 On Ramp at Polk Co L ine
Revised Scenario B Land Use - Final Build Network - Su pplemental Task
9/17/2007
Directional Assigned Volume

MAP 32

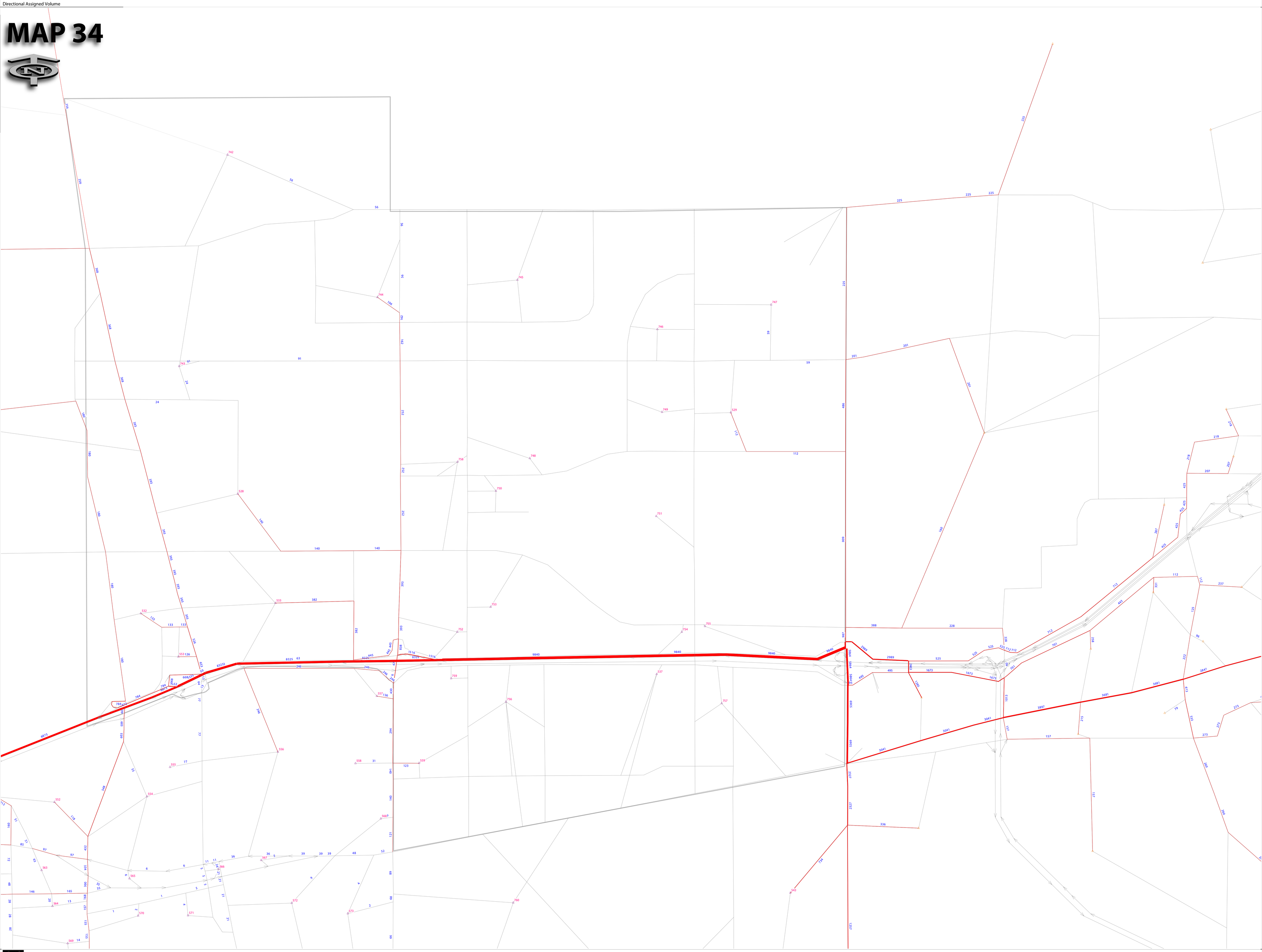


Select Link Volume - Westbound I-4 Off Ramp at Polk Co Line
Revised Scenario B Land Use - Final Build Network - Su pplemental Task
9/17/2007
Directional Assigned Volume

MAP 33

Select Link Volume - Westbound I-4 On Ramp at Polk Co Line
Revised Scenario B Land Use - Final Build Network - Su pplemental Task
9/17/2007
Directional Assigned Volume

MAP 34



Meeting Summary

District Seven — April 7, 2008
11201 North Malcolm McKinley Drive — 9:30 AM

Participants	Representing
○ Waddah Farah	FDOT District Seven
○ Peter Maass	FDOT District Seven
○ Brain Pessaro	FDOT District Seven
○ Greg Horwedel	City of Plant City
○ Rob Anders	City of Plant City
○ Brett Gocka	City of Plant City
○ Philip Scearce	City of Plant City
○ David Twiddy	Jacobs Carter Burgess
○ Scott Pringle	Jacobs Carter Burgess

A) Methodologies (Overview)

Scott Pringle opened the meeting with a description of the methodologies used to develop the land use and transportation forecasts for the both the 2035 Northeast Plant City Area Master Plan Vision and the 2025 Northeast Plant City Area Master Plan Interim Year analysis.

B) Network, Level of Service Maps

Mr. Pringle followed the methodology discussion with several maps depicting proposed improvement measures and corresponding level of service (LOS) maps for the 2035 Cost Feasible Baseline condition, 2035 Preferred Transportation/Land Use Vision, and the 2025 Interim Year Analysis.

Mr. Pringle identified specific areas on the LOS maps where service improvements were forecasted, as well as areas of anticipated constraints. Specific locations identified included improvements along Knights Griffen Road and constraints along Interstate 4 (I-4) and Charlie Taylor Road.

C) Volume Comparison and Cost Estimates

Mr. Pringle presented forecasted raw traffic volumes for both the 2035 and 2025 analysis year's baseline (No Build) and proposed improvement scenarios. Mr. Pringle highlighted some noticeable volume changes, including the increase in traffic along Midway Road (Year 2035) and Sam Allen/Swindell (Years 2035 & 2025) Roads, and reduction of vehicle volumes along I-4.

Following the volume discussion, Mr. Pringle presented draft construction cost estimates for all the facility improvements, without acquisition of Right-of-Way, for the 2035 Cost Feasible Baseline condition, 2035 Preferred Transportation/Land Use Vision, and the 2025 Interim Year.

D) Comments and Discussion Points

- ❑ The City of Plant City stressed concern over adding facility improvements to their Capital Improvement Element (CIE) due to the required commitment to fund the improvement within a 15-year (congestion management system) time frame without flexibility to respond to development interests or other market trends. The City stated that they would, however, be willing to add these improvements to their Capital Improvements Plan (CIP).

- ❑ The City of Plant City identified and expressed concern that Hillsborough County's adopted comprehensive plan allows development to occur within the Northeast Plant City Master Plan study area, adding a number of trips to I-4, without triggering concurrency review by either FDOT or the Florida Department of Community Affairs.
- ❑ David Twiddy identified the full build out of the adopted compressive plan's future land use map as resulting in significant area roadway impacts, representing the "worst-case scenario". Mr. Twiddy identified the Northeast Plant City Master Plan as a guide to comprehensively plan for future growth and development within the study area.
- ❑ FDOT suggested looking at calculating cost per trip for development occurring within the Master Plan study area that could work in tandem with impact fees, citing examples in Gainesville, Hernando County, and Tarpon Springs.
- ❑ FDOT expressed understanding of the concerns stated by the City and compared it to the FDOT 5-year and 10-year work programs. Both the City and FDOT agreed that a similar system would be very beneficial for the Northeast Plant City Area Master Plan.
- ❑ FDOT identified that Hernando, expressing similar funding commitment concerns, and has not placed any future needs or improvements in their CIE.
- ❑ Both the City and FDOT discussed the potential for developing either a second impact district for the Northeast Area of Plant City, a Joint Planning Area, or a similar policy agreement between the City of Plant City and Hillsborough County.
- ❑ FDOT initially expressed support for the City of Plant City's Master Plan and indicated it would review the preliminary findings of the study. FDOT pledged support to the City of Plant City with any subsequent discussion with Hillsborough County and/or the Department of Community Affairs once the forecasts and proposed improvements are found satisfactory.
- ❑ FDOT identified the need for the Northeast Plant City Area Master Plan to coordinate with the Hillsborough County Preservation Plan.

E) Short Term Action Items

- ❑ FDOT will review the preliminary transportation forecasts from the Northeast Plant City Area Master Plan.
- ❑ After the review finds the forecasts to be satisfactory, FDOT staff will get approval from the FDOT District Seven Secretary.
- ❑ Once approval from the Secretary is given, FDOT will publicly support the Northeast Plant City Area Master Plan in subsequent discussion with Hillsborough County.
- ❑ The City of Plant City will present the findings of the Northeast Plant City Area Master Plan to the City of Plant City Board of County Commissioners in May 2008.
- ❑ Mr. Pessaro indicated that he will research policy and/or legislative intent with regards to the level of commitment required for placing proposed facility improvements in the CIE.

- ❑ Jacobs Carter Burgess will develop a draft methodology for calculating cost per trip within the Northeast Plant City Area Master Plan study area using the information collected to date for the 2035 and 2025 analysis years.

F) Next Steps

- ❑ The City of Plant City will coordinate and evaluate the possibility of developing a special assessment zone, joint planning area, or similar for the Northeast Plant City Area Master Plan study area.
- ❑ FDOT will consider inviting the City of Plant City to speak about their concerns with growth, concurrency, and Strategic Intermodal System facilities at upcoming FDOT district coordination meetings.

Cost Per Trip Calculations

Traffic Analysis Zone ID	Phase I Trips Generated/Attracted*
527	8,823.42
528	3,362.48
529	11,294.13
531	-3,103.89
532	5,155.62
533	32,770.33
537	15,842.30
553	3,080.67
556	7,606.62
559	15,787.66
742	6,556.84
743	12,096.74
744	5,453.07
745	5,311.35
746	37,935.35
747	2,209.86
748	4,487.20
749	50,885.67
750	2,713.49
751	2,737.65
752	13,932.30
753	4,844.73
754	11,160.38
755	14,329.78
756	8,917.40
757	31,617.14
758	3,820.72
759	170.76
TOTAL TRIPS	**319,799.76**
Generalized Construction Cost Estimate	$ 195,543,088.24 (Figure 9)
TOTAL COST PER TRIP	**$ 611.45**

*NOTE: Assumes the Institute of Transportation Engineers, Trip Generation Manual's (7th Edition) average rate for the following uses: Single Family Detached (Code 210), Attached Single Family (Code 230), Multi Family (Code 221), Commercial (Weighted Average of Codes 710, 720, 760, & 770), Industrial (Average of Codes 110, 120, 130, 140, 150 & 151), Institutional (Average of Codes 520, 522, 530, 540, 560 ,565, 590, 610, & 620), Mixed Use (Code 820)

Carter Burgess

Tampa.....813.217.4000

Orlando.....407.514.1400

Fort Lauderdale.....954.315.1001