



PIEDMONT
PARKWAY
EXTENSION
FEASIBILITY STUDY



PREPARED FOR:

**City of High Point,
North Carolina**



PREPARED BY:

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August 20, 2007

FEASIBILITY STUDY

Piedmont Parkway Extension

Guilford County

NCDOT Division 7



Prepared by:

HNTB North Carolina, P.C.

For:

City of High Point, North Carolina

August 2007

Handwritten signature of Adin M. McCann in black ink.

Adin M. McCann, P.E.
Project Manager
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8/22/07

Date

The logo for HNTB, consisting of the letters "HNTB" in a bold, black, sans-serif font.

Handwritten signature of Mark V. McDonald in black ink.

Mark V. McDonald, P.E.
Assistant Director of Transportation
City of High Point, North Carolina

09/17/07

Date



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I. GENERAL DESCRIPTION

This feasibility study describes the proposed extension of Piedmont Parkway between Eastchester Drive (NC 68) and the intersection of Johnson Street/Sandy Ridge Road (SR 1818/SR 1850) in High Point, North Carolina. The general location and study area of the proposed project are shown in Figure 1. The total length of the proposed project is approximately 3.2 miles. This study proposes a four-lane divided curb and gutter typical section with approximately 120 feet of right-of-way. The proposed facility will include a 28-foot wide raised grass median, 12-foot inside travel lanes, 14-foot outside travel lanes to accommodate bicyclists, as well as 5-foot sidewalks on both sides of the corridor. The design speed is 50 miles per hour, and the posted speed limit is expected to be 45 miles per hour.

This study also includes consideration of laneage improvements to intersecting streets to provide an acceptable Level of Service (LOS), as well as any realignment required to tie into the proposed Piedmont Parkway Extension. It is estimated that approximately 1.3 miles of intersecting street improvements will be required for this project. The majority of the required intersecting street improvements are due to the realignment of Clinard Farms Road to accommodate the Piedmont Parkway Extension.

Based on the anticipated construction limits, it is estimated that approximately nine (9) existing residences and one existing (1) business will require relocation as a result of the proposed project. The proposed project will also cross two existing natural gas transmission lines. One of the gas transmission line crossings is located approximately 1,100 feet east of the Kendale Road/Sandy Camp Road intersection. This transmission line is owned and operated by Piedmont Natural Gas Company, Inc. The second gas transmission line crossing is approximately 400 feet west of the existing Clinard Farms Road/NC 68/Piedmont Parkway intersection. This transmission line is owned and operated by the Colonial Gas Company.

This study is the initial step in the planning and design process for this project and is not the product of detailed environmental or design analyses. The purpose of this study is to describe the proposed project, including associated costs, and to identify issues that may require further attention in subsequent planning and design phases.

II. BACKGROUND

The City of High Point has identified the need to extend Piedmont Parkway to the west of NC 68 into predominantly rural areas of the City and County. The general purpose of the project includes the following four components:

- Improve system linkage and local connectivity by providing an east/west thoroughfare that will provide an alternate route between southwest Greensboro, northern High Point, and western Guilford County. This will also provide enhanced transportation connectivity to the proposed Greensboro Outer Loop (TIP Project U-2524) and, to a lesser extent, I-85. See Figure 2 for a schematic view of the regional transportation network.

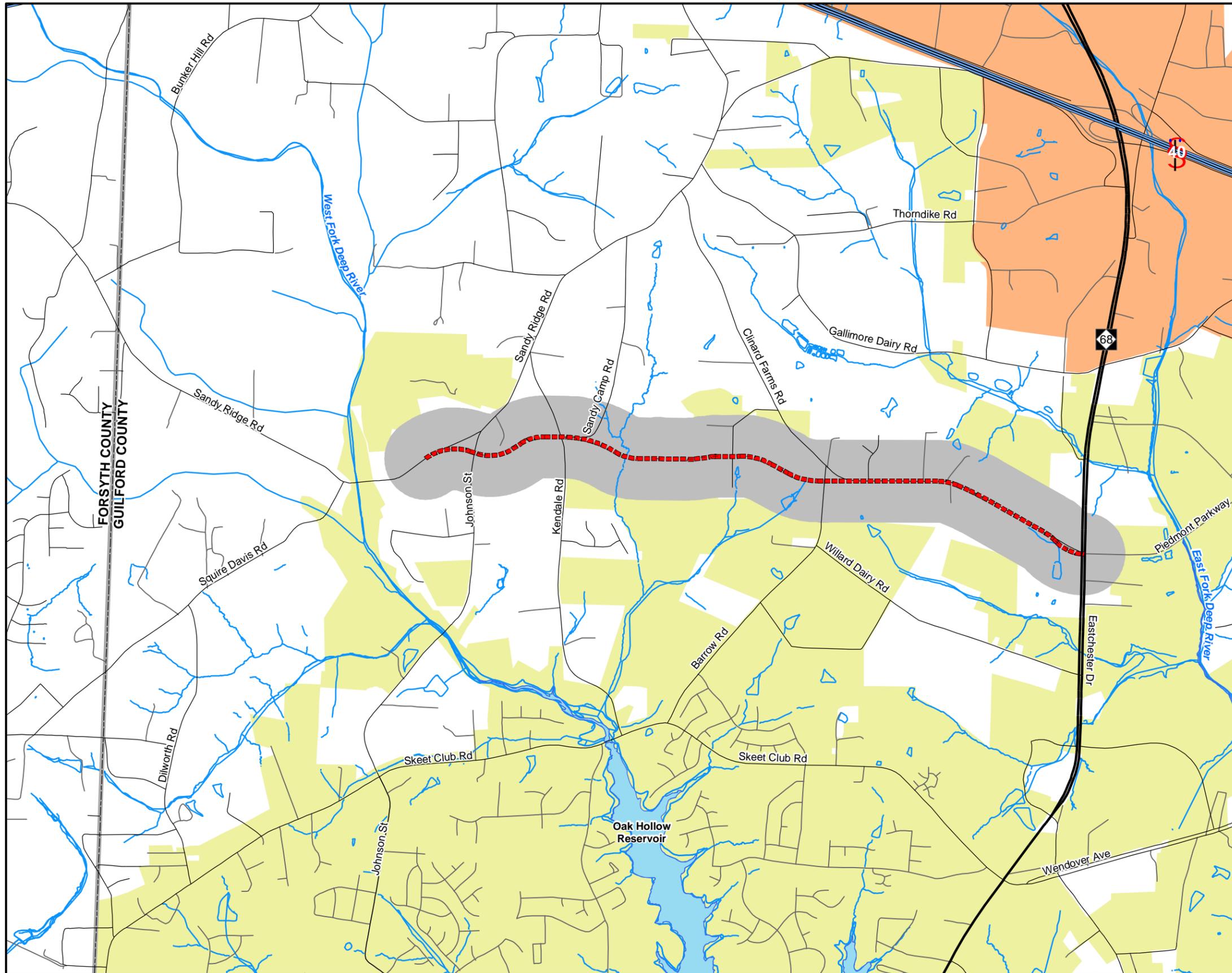
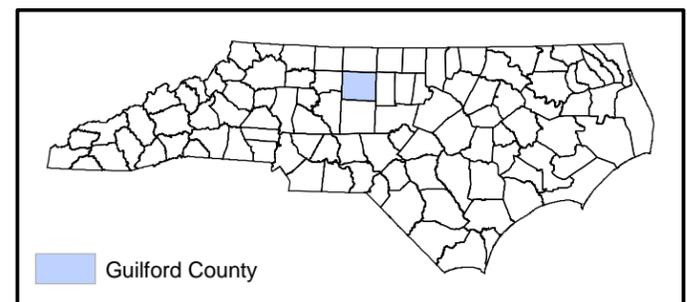


Figure 1 - Project Study Area

- Study Area
- Proposed Piedmont Parkway Extension
- Interstate
- US Route
- State Route
- Secondary Road
- Local Road
- Streams
- Lakes
- High Point
- Greensboro
- County Boundary



MAP SOURCES:
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 CITY OF HIGH POINT
 GUILFORD COUNTY
 FORSYTH COUNTY
 ESRI
 HNTB NORTH CAROLINA, P.C.





- Improve commuter mobility, access, and connectivity to the Piedmont Centre business park employment center. The initial concept and planning for Piedmont Centre first began in the mid-1980s. Since that time, it has developed into High Point's largest business park with over 200 companies and 10,000 employees. Piedmont Centre is situated on approximately 1,100 acres in total land area that is generally bounded by NC 68 on the west, Gallimore Dairy Road on the north, Tarrant Road on the east, and Wendover Avenue on the south. Piedmont Centre also includes several smaller business parks such as Mendenhall at Piedmont Centre, Eagle Hill, Green Point, and Federal Ridge. Figure 2 shows the general locations of Piedmont Centre and other neighboring business parks in relation to the proposed project.
- Provide transportation infrastructure necessary to support proposed land uses, as well as to accommodate development pressures and subsequent growth along the project corridor and in northern High Point and western Guilford County. These areas are currently experiencing rapid growth. This existing growth trend has been supported and further enhanced through the planning and construction of several major non-transportation projects, including the Dell computer manufacturing facility in Kernersville and the FedEx Mid-Atlantic Hub at the Piedmont Triad International Airport (PTIA).

Based on 2000 U.S. Census Data, the area surrounding the Piedmont Parkway (Census Tract 162.02, Block Group 1) experienced a population increase of over 100% between 1990 and 2000. Based on the census tract population projections developed by the City of High Point Planning Department, the population of this same area is projected to grow approximately 130% between 2000 and 2010.

- Provide congestion relief to Interstate 40, Skeet Club Road, and other parallel facilities within northern High Point and western Guilford County.

Public Involvement/Support for Project

A public information workshop was held on August 17, 2006 to obtain community feedback on the proposed Piedmont Parkway Extension project. Large board graphics of the proposed project alignment and typical section were available at two stations for review. A PowerPoint slide presentation with background information and project highlights was provided at another station. The meeting attendees were also provided with an opportunity to interact informally with planning and engineering staff from the City of High Point and ask questions.

Of the 72 people that attended the public workshop, 26 submitted comment forms. Based on the written comments received, the public seemed generally supportive of the proposed project. The majority of comments received focused on access management considerations. Several comments were also received regarding the designation of the project's western terminus. A summary of the public workshop comments was compiled by staff from the City of High Point. This summary is included in Appendix A.

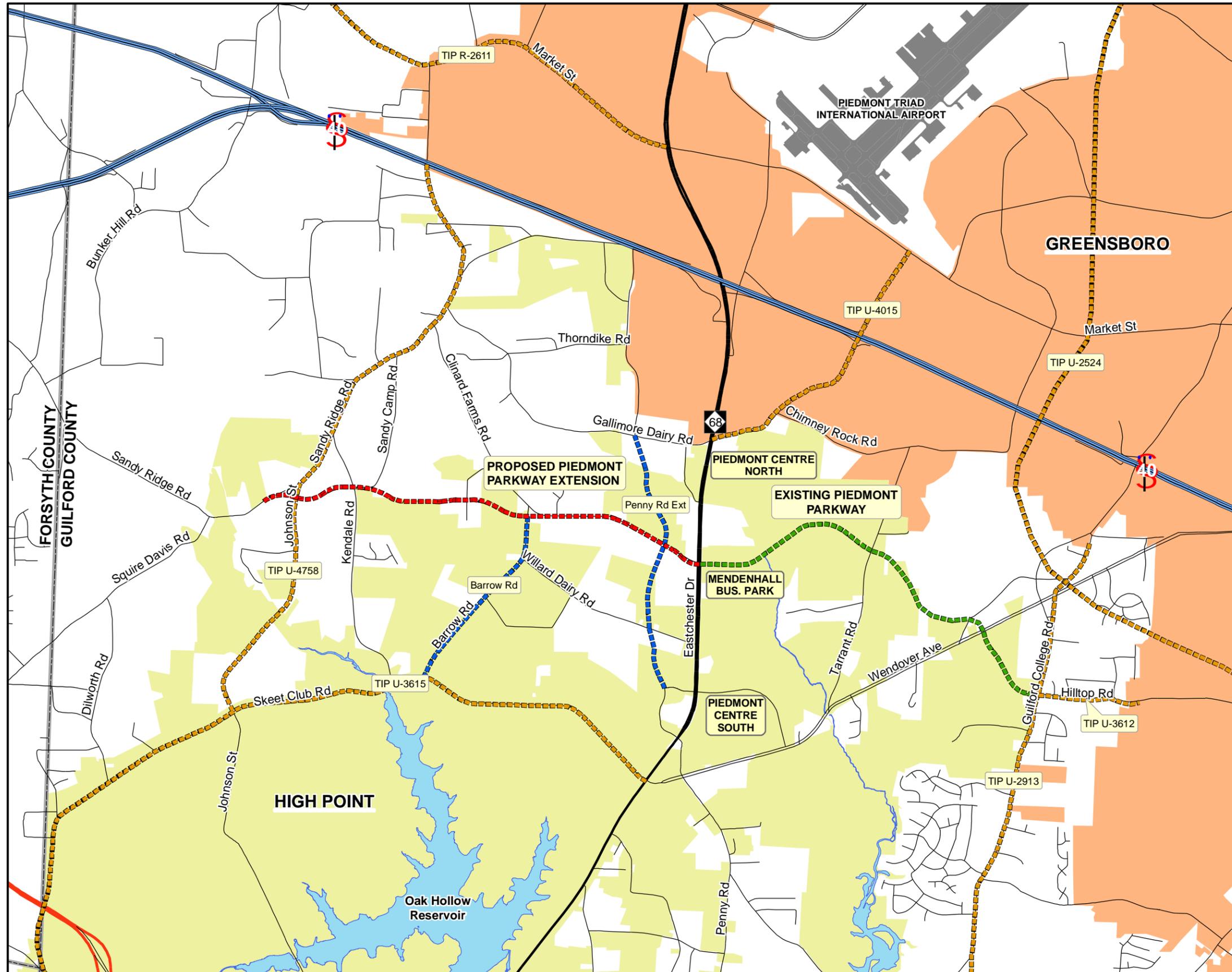
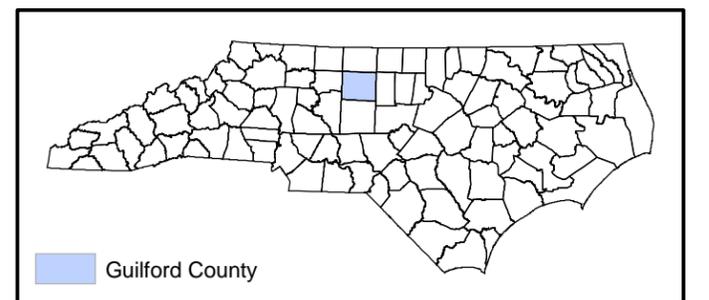


Figure 2 - Regional Transportation Network & Context

- - - Proposed Piedmont Parkway Extension
- - - Existing Piedmont Parkway
- - - 2007-2013 NCDOT TIP Projects
- - - City Transportation Projects
- = Interstate
- = US Route
- = State Route
- = Secondary Road
- █ Lakes
- █ Piedmont Triad International Airport
- █ High Point
- █ Greensboro
- County Boundary

0 0.5 1 Miles

MAP SOURCES:
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 CITY OF HIGH POINT
 GUILFORD COUNTY
 FORSYTH COUNTY
 ESRI
 HNTB NORTH CAROLINA, P.C.





Roadway Functional Classification and Existing Cross-Section

According to the High Point Urbanized Area Thoroughfare Plan, the existing and proposed Piedmont Parkway is classified as a major thoroughfare. Existing Piedmont Parkway east of NC 68 consists of a four-lane divided curb and gutter section with approximately 120 feet of right-of-way. The North Carolina functional classification system identified existing Piedmont Parkway east of NC 68 as a boulevard.

Existing Land Uses

Land uses in the Piedmont Parkway Extension study area vary from industrial/warehousing to rural/agricultural within a space of a few miles. Much of the area surrounding the proposed project is poised to transition from large parcels of agricultural or undeveloped woodland into commercial/industrial/residential higher density development. In the areas north and east of the proposed project, land uses are light industrial/warehousing with interspersed pockets of commercial development. Along the NC 68 corridor, there is consistent commercial/office development. Commercial development also exists along Sandy Ridge Road in some locations, particularly in the area adjacent to I-40. It is anticipated that the noise cone impacts associated with the expansion of Piedmont Triad International Airport (PTIA) will restrict opportunities for residential development in portions of the project study area. Existing suburban residential development is found south of the proposed project and closer to Skeet Club Road. New residential development is found along the Barrow Road corridor between Skeet Club Road and Clinard Farms Road. To the west of Barrow Road (Kendale Road, Johnson Street, Sandy Ridge Road, and Squire Davis Road), a mix of transitional residential, rural residential and open space is currently found.

Other Planned Transportation Projects

Based on the NCDOT 2007-2013 Transportation Improvement Program (TIP), there is one proposed project adjacent to the Piedmont Parkway Extension study area: TIP Project U-4758. **TIP Project U-4758** is the proposed 4.4-mile widening of **Johnson Street/Sandy Ridge Road** between Skeet Club Road and I-40. According to the TIP, this project is programmed for planning and environmental study, but right of way and construction are unfunded at this time.

In addition to projects contained within the NCDOT Draft TIP, the City of High Point is also completing the planning and design of two transportation projects that are adjacent to the proposed Piedmont Parkway Extension. A brief description of these projects is included below:

Barrow Road Widening: Widening of Barrow Road between Skeet Club Road and Clinard Farms Road (approximately 1.4 miles) to a four-lane median-divided facility. A construction contract for this project was awarded in January 2007. Construction is expected to begin in Spring 2007. Project completion is anticipated in late 2008 or early 2009.

Piedmont Parkway / NC 68 Intersection Improvements: Construction of an additional left-turn lane on the existing westbound Piedmont Parkway approach. This project will be funded through municipal bonds and is scheduled for letting in mid to late 2007.



There are several other TIP projects within the general vicinity of the proposed project. A brief description of these projects is included below:

TIP Project U-4017: Piedmont Parkway, SR 1552 (Tarrant Road) to SR 1541 Wendover Avenue. Four-lane divided facility on new location. Approximately 1 mile in length. Construction completed and project opened to traffic in December 2006.

TIP Project U-3615: Skeet Club Road, US 311 to NC 68. Widen to multi-lanes. Approximately 6.3 miles. Planning and design is in progress with mitigation planned in FFY 08. Right of way acquisition for Section B is programmed to begin in FFY 07. Construction of Section B is anticipated to begin in FFY 09. Section A is unfunded in the current TIP.

TIP Project U-2537: North-South Connector, I-85 to US 311 Bypass (10.5 miles). Multi-lane roadway on new location. Programmed for planning and environmental study only; no recent activity on the project has been authorized.

TIP Project B-3847: Replace Bridge No. 63 over the Deep River on Sandy Ridge Road (SR 1850). Construction complete.

III. TRAFFIC AND SAFETY

Existing (2005) Conditions Analysis

Figure 3 shows the estimated 2005 No-Build Average Annual Daily Traffic (AADT) volumes and daily turning movement volumes for key roads in the study area. Current traffic volumes along Piedmont Parkway are approximately 8,800 vehicles per day (vpd) east of NC 68. Along Clinard Farms Road west of NC 68, the existing traffic volumes range from 3,800 to 4,700 vpd. The traffic volumes on Skeet Club Road range from 8,400 vehicles per day (vpd) to 23,600 vehicles per day between Johnson Street and NC 68. Figure 3 also shows the design hourly volume, the PM peak period, the directional split and truck percentages on the study area roads.

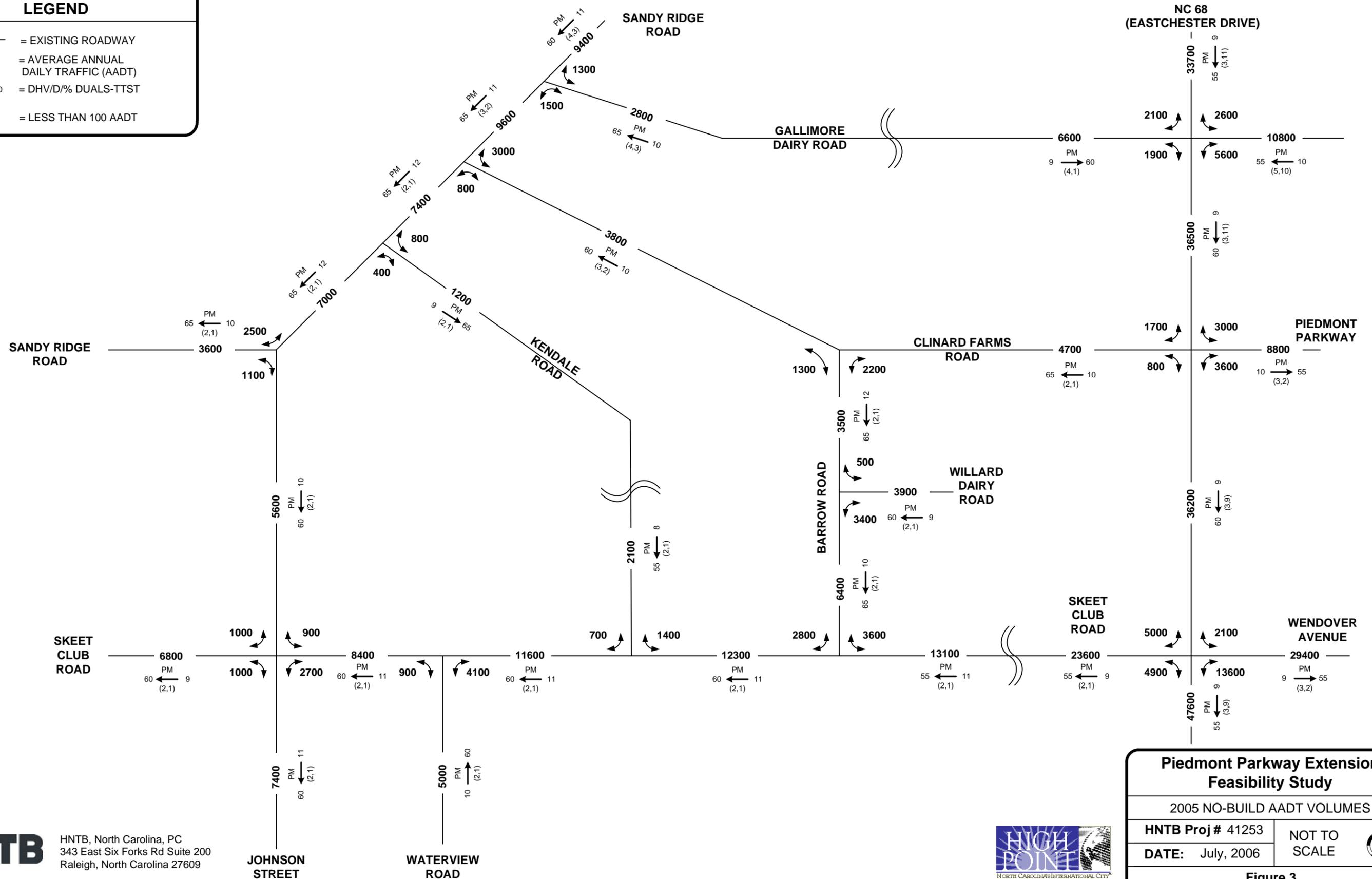
The existing (2005) geometrics, intersection traffic control, and speed limits for the existing roadways in the study area are shown schematically in Figure 4. The only signalized intersection in the study area is located at the Piedmont Parkway/Clinard Farms Road/NC 68 intersection. The remaining intersections in the study area are all unsignalized. All existing roadways in the study area, except NC 68, are two-lane rural collectors or arterial facilities.

Existing conditions analyses were conducted for project area intersections using current intersection geometries, control measures, and the peak hour turning movements collected by the City of High Point. Existing intersections were analyzed by the Highway Capacity Software (if unsignalized) or Synchro (if signalized). Table 1 provides a summary of each intersection's critical movement (if unsignalized) or overall LOS (if signalized) for each alternative.

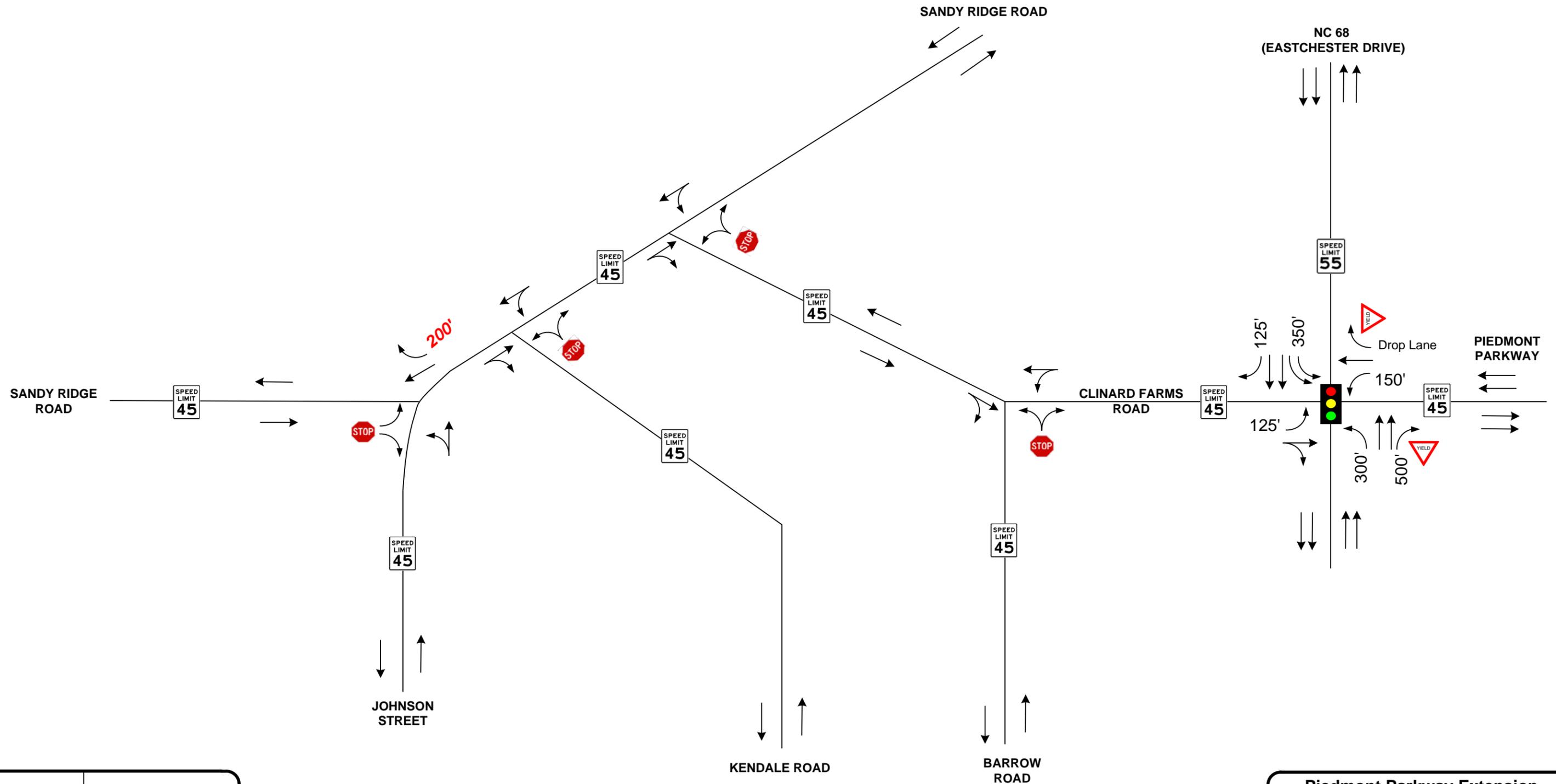
Piedmont Parkway Extension Feasibility Study – 2005 No-Build AADT Volumes

LEGEND

- = EXISTING ROADWAY
- 13700 = AVERAGE ANNUAL DAILY TRAFFIC (AADT)
- PM
10 → 60 = DHV/D/% DUALS-TTST
- 100 = LESS THAN 100 AADT



Piedmont Parkway Extension Feasibility Study – 2005 Existing Lane Geometry



LEGEND

Speed Limits and Traffic Control as Shown



HNTB, North Carolina, PC
343 East Six Forks Rd Suite 200
Raleigh, North Carolina 27609

Piedmont Parkway Extension Feasibility Study

2005 EXISTING LANE GEOMETRY

HNTB Proj # 41253

DATE: December, 2006

NOT TO SCALE



Figure 4



Table 1 – 2005 Existing Scenario LOS and Delay Summary

Intersections	Time Period	Delay (Sec/Veh)	LOS
Clinard Farms Road & NC 68 (Eastchester Drive)	AM	23.4	C
	PM	31.2	C
Clinard Farms Road & Barrow Road	AM	(21.5)	(C)
	PM	(18.7)	(C)
Squire Davis Road & Dilworth Road	AM	(9.0)	(A)
	PM	(8.5)	(A)
Clinard Farms Road & Sandy Ridge Road	AM	(20.5)	(C)
	PM	(25.5)	(D)
Sandy Ridge Road & Johnson Street	AM	(98.7)	(F)
	PM	(21.0)	(C)
Sandy Ridge Road & Kendale Road	AM	(16.8)	(C)
	PM	(16.5)	(C)

() – Unsignalized intersection, critical movement LOS/delay shown

As shown in Table 1, most intersections operate acceptably (i.e., LOS D or better) in the current AM and PM peak hours. Delays and vehicle queues are acceptable at most analyzed network intersections. The results of the analysis suggest that excessive delay (LOS F conditions) are experienced by traffic stopped at the Sandy Ridge Road/Johnson Street intersection in the AM peak hour. This condition was verified through field observations conducted during the AM peak hour period.

Design Year (2030) Projections and No Build Conditions Analysis

In order to effectively evaluate the effects of the proposed project, future traffic volumes were developed and reassigned appropriately to reflect design year (2030) conditions. Figure 5 shows the 2030 No Build AADT volumes and daily turning movement volumes for key roads in the study area. The forecasted 2030 No Build AADT volumes on Piedmont Parkway are approximately 10,600 vpd east of NC 68. Along Clinard Farms Road west of NC 68, the traffic volumes range from 7,100 vpd to 13,000 vpd. The projected traffic volumes on Skeet Club Road range from 18,300 vehicles per day (vpd) to 39,300 vehicles per day between Johnson Street and NC 68.

Each of the study area intersections was evaluated for a No Build scenario. Under this scenario, it is assumed that roadway and traffic control conditions will remain basically unchanged from the current configurations. The No Build analysis did assume that a few proposed transportation improvements would be implemented by 2030. These improvements included the Barrow Road widening, the additional left-turn lane on the westbound Piedmont Parkway approach at NC 68, as well as the Johnson Street/Sandy Ridge Road widening project. The results of the 2030 No Build analysis are summarized in Table 2.



Table 2 – 2030 No-Build Scenario LOS and Delay Summary

Intersections	Time Period	Delay (Sec/Veh)	LOS
Clinard Farms Road & NC 68 (Eastchester Drive)	AM	94.2*	F*
	PM	90.5*	F*
Clinard Farms Road & Barrow Road	AM	17.5**	B**
	PM	17.3**	B**
Squire Davis Road & Dilworth Road	AM	(12.7)	(B)
	PM	(12.1)	(B)
Clinard Farms Road & Sandy Ridge Road	AM	15.8***	B***
	PM	13.1***	B***
Sandy Ridge Road & Johnson Street	AM	16.3***	B***
	PM	14.3***	B***
Kendale Road & Sandy Ridge Road	AM	(33.8)***	(D)***
	PM	(19.8)***	(C)***

() – Unsignalized intersection, critical movement LOS/delay shown
 * - Assumed improvements to Piedmont Parkway approach included
 ** - Assumed improvements to Barrow Road included
 *** - Assumed improvements to Johnson Street/Sandy Ridge Road included

As shown in Table 2, study area intersection operations in the 2030 No-Build scenario deteriorate in both the AM and PM peak hours. However, some relief is provided by the implementation of the improvements recommended in the *Johnson Street/Sandy Ridge Road Feasibility Study* and the City's planned widening of Barrow Road. The construction of Barrow Road is expected to begin in Spring 2007. The analyses completed as a part of this feasibility study assume the widening of Johnson Street/Sandy Ridge Road (TIP Project U-4758) is completed prior to 2030. However, no definitive time table for this project has been established.

Design Year (2030) Projections and Build Conditions Analysis

Figure 6 shows the 2030 Build AADT volumes and daily turning movement volumes for key roads in the study area. The forecasted 2030 Build AADT volumes on Piedmont Parkway east of NC 68 are approximately 12,400 vehicles per day (VPD). West of NC 68, the proposed Piedmont Parkway Extension is forecasted to have traffic volumes ranging from 9,800 to 16,800 vpd. The projected traffic volumes on Skeet Club Road range from 16,000 vpd to 38,100 vpd between Johnson Street and NC 68. It is believed that the difference in volumes along Skeet Club Road may be attributed, at least in part, to a concentration or commercial development near the NC 68/Wendover Avenue intersection.

In addition to intersections along the proposed project, two additional nearby intersections (Sandy Ridge Road/Kendale Road and Sandy Ridge Road/Clinard Farms Road) were also analyzed in the Build scenario to provide a relative comparison of the traffic redistribution effects caused by the proposed project. The results of the 2030 Build analysis are summarized in Table 3.

Piedmont Parkway Extension Feasibility Study – 2030 Build AADT Volumes

LEGEND

- = PROPOSED ROADWAY
- = EXISTING ROADWAY
- 13700** = AVERAGE ANNUAL DAILY TRAFFIC (AADT)
- = DHV/D/% DUALS-TTST

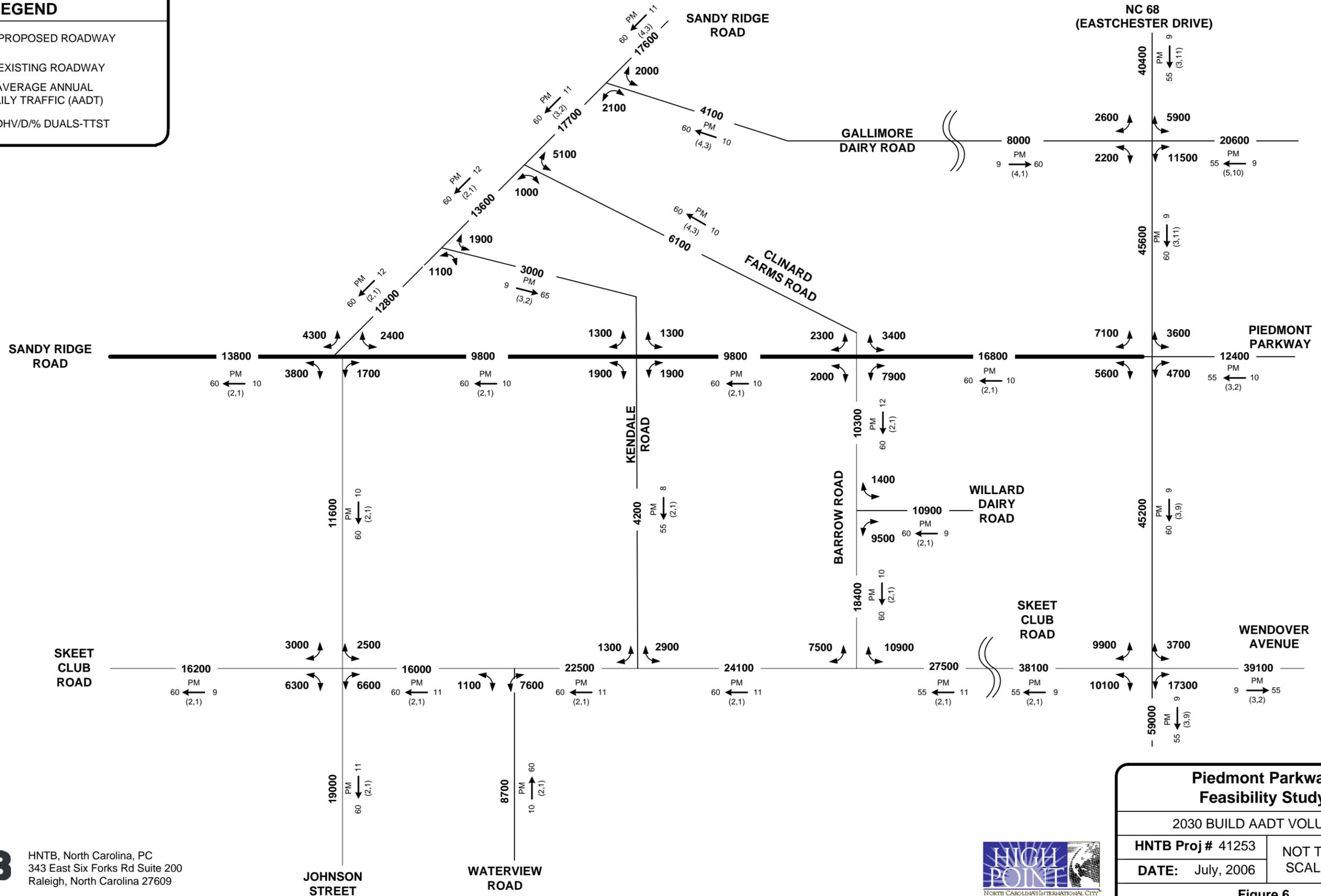




Table 3 – 2030 Build Scenario LOS and Delay Summary

Intersections	Time Period	Delay	LOS
Piedmont Parkway/ NC 68 (Eastchester Drive)	AM	54.5	D
	PM	52.6	D
Piedmont Parkway/ Clinard Farms Road	AM	24.5	C
	PM	26.4	C
Piedmont Parkway/ Sandy Camp Road	AM	(13.6)	(B)
	PM	(14.8)	(B)
Piedmont Parkway/ Walpole Road	AM	(14.3)	(B)
	PM	(14.3)	(B)
Piedmont Parkway/ Kendale Road	AM	(23.8)	(C)
	PM	(23.0)	(C)
Piedmont Parkway/ Sandy Ridge Road	AM	(19.1)	(C)
	PM	(16.5)	(C)
Clinard Farms Road/ Sandy Ridge Road	AM	14.3**	B**
	PM	11.8**	B**
Kendale Road / Sandy Ridge Road	AM	(23.2)**	(C)**
	PM	(17.3)**	(C)**

() – Unsignalized intersection, critical movement LOS/delay shown

** - Assumed improvements to Johnson Street/Sandy Ridge Road included

As shown in Table 3, the study area intersection operations in the 2030 Build scenario appear to operate at acceptable levels of service in both the AM and PM peak hours. Although the Piedmont Parkway/NC 68 (Eastchester Drive) intersection shows an overall Level of Service (LOS) D in the 2030 Build scenario, there are several movements that do not operate at acceptable levels of service (i.e., LOS E or worse) in the design year. It appears that the deterioration of these movements can be attributed to the need for additional capacity on NC 68. Improvements to NC 68 are considered beyond the scope of this project. Consequently, no specific evaluation of them was completed as part of this feasibility study.

Figure 7 shows the 2030 Build recommended lane geometry and traffic controls for the Piedmont Parkway Extension facility necessary to provide adequate peak hour LOS.



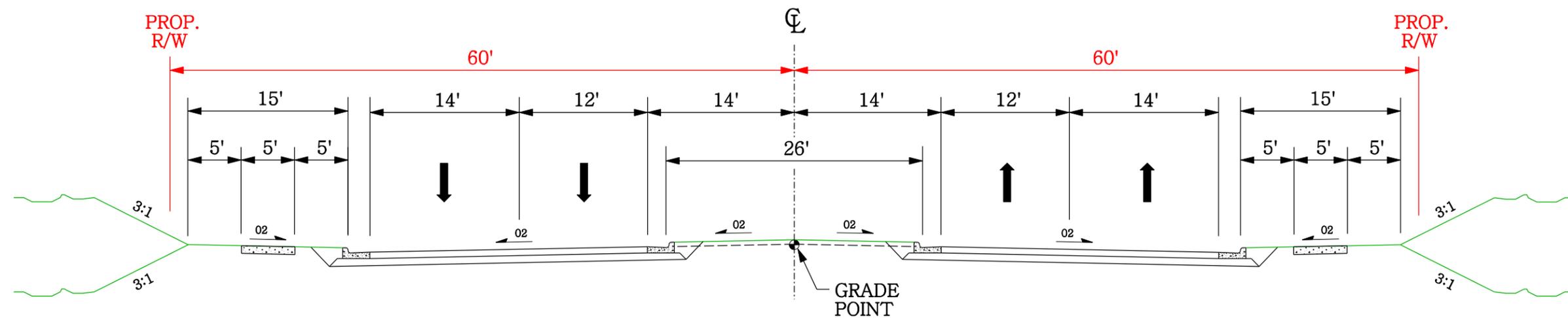
IV. DESCRIPTION OF ALTERNATIVES

The Piedmont Parkway Extension will connect an existing section of Piedmont Parkway located east of NC 68 (Eastchester Drive) to Johnson Street/Sandy Ridge Road (SR 1818/SR 1850) in High Point, North Carolina. Using preliminary alignment corridors provided by the City of High Point as a starting point, detailed discussions were conducted with the City staff to determine the general centerline alignment and typical cross-section of the proposed facility. Based on the City's previous transportation planning efforts, as well as the traffic analyses, it was determined that a four-lane divided cross-section would be the most appropriate for the new facility. This section will include curb and gutter, a 25-foot wide raised grass median (excluding curb and gutter), 12-foot inside travel lanes, 14-foot outside travel lanes to accommodate bicyclists, as well as 5-foot sidewalks on both sides of the corridor. The proposed right-of-way width is 120 feet. The design speed of the facility is 50 miles per hour, and the posted speed limit is expected to be 45 miles per hour.

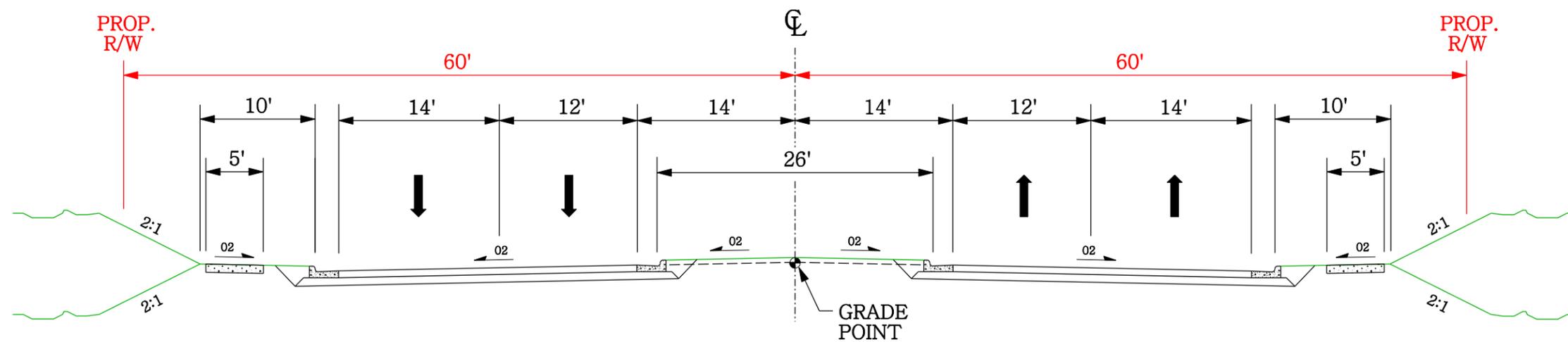
Two typical sections have been created for the proposed Piedmont Parkway Extension (see Figure 8). Both typical sections include the same right-of-way width (120 feet), median width (28 feet) and travel lane widths (12 foot inside and 14 foot outside lanes). However, Typical Section 1 includes outside berm widths of 15 feet with 3:1 cut and fill slopes. Typical Section 2 includes outside berm widths that are 10 feet wide with proposed 2:1 cut and fill slopes. The reduced berm width and steeper slopes in Typical Section 2 were developed to minimize potential impacts to existing residences on Clinard Farms Road between NC 68 and Barrow Road. It is possible that additional design considerations could be evaluated during the project development process to further reduce the overall cross-section and right-of-way requirements as a means of limiting impacts to existing residences.

Generally speaking, the proposed alignment follows the existing Clinard Farms Road alignment to the west of NC 68. At the point where Clinard Farms Road veers to the northwest near Barrow Road, the new alignment portion of Piedmont Parkway Extension would continue due west, crossing Barrow Road, until it meets with an existing section of Sandy Camp Road that runs east-west. From this point, the proposed alignment crosses Kendale Road and continues to the west where it crosses Johnson Street and meets with a section of existing Sandy Ridge Road that runs northeast-southwest. The general alignment is also shown schematically in Figure 1. The total length of the proposed project is approximately 3.2 miles.

Functional design plans were prepared on a scale of 1"=100' as overlays on existing orthophotography and GIS information. The functional design plans show the proposed centerline, horizontal curvature, locations of proposed median breaks, proposed right-of-way limits, estimated cut-and-fill slopes, and estimated construction limits (the construction limits are assumed to extend 10 feet beyond the estimated cut and fill slopes). Profiles of the vertical alignment were prepared using available topographic mapping of the area. The functional design plans were prepared using current NCDOT standards for roadway design.



TYPICAL SECTION NO. 1
 -L- STA. 17+ 00.00 TO 116+ 00.00



TYPICAL SECTION NO. 2
 -L- STA. 116+ 00.00 TO 183+ 00.00

TYPICAL SECTIONS
 PRELIMINARY PLANS
 DO NOT USE FOR CONSTRUCTION

APRIL 2007

N.T.S.

FIGURE 8 - PROPOSED TYPICAL SECTIONS





The proposed alignment will require construction of a new crossing over the West Fork Deep River Tributary No. 2. This crossing will occur within a floodplain regulated by the Federal Emergency Management Agency (FEMA). Two bridge structures approximately 465 feet long are proposed to cross the stream and floodplain. Based on National Wetland Inventory (NWI) GIS data, it is believed that these structures will also minimize impacts to existing wetland areas adjacent to the stream.

Based on the anticipated construction limits, it is estimated that approximately nine (9) existing residences and one existing (1) business will require relocation as a result of the proposed project. This estimate is based on the anticipated construction limits, as well as existing mapping and orthophotography provided by the City of High Point. No relocation reports were completed as part of this study. Additionally, no attempt was made to determine relocations required due to impacts to existing residential septic systems that might render them unusable. The proposed project will also cross two existing natural gas transmission lines. One of the gas transmission line crossings is located approximately 1,100 feet east of the Kendale Road/Sandy Camp Road intersection. This transmission line is owned and operated by Piedmont Natural Gas Company, Inc. The second gas transmission line crossing is approximately 400 feet west of the existing Clinard Farms Road/NC 68/Piedmont Parkway intersection. This transmission line is owned and operated by the Colonial Gas Company.

The functional design plans consider the modifications required to connect existing intersecting streets with the proposed Piedmont Parkway Extension. Approximately 1.3 miles of intersecting street modifications will be required as a part of this project. The intersecting facilities specifically considered include Barrow Road, Clinard Farms Road, Walpole Road, Sandy Camp Road, Kendale Road, Johnson Street, and Sandy Ridge Road. As part of this evaluation, a proposed concept was developed to realign existing Clinard Farms Road to intersect with a future extension of Barrow Road north of the proposed Piedmont Parkway Extension. The majority of the required intersecting street improvements are due to the realignment of Clinard Farms Road to accommodate the Piedmont Parkway Extension. As part of the realignment, the remaining segment of Clinard Farms Road between the extended Barrow Road and the proposed Piedmont Parkway Extension will be provided residential driveway access to Barrow Road north of the Barrow Road/Piedmont Parkway Extension intersection. The realigned Clinard Farms Road/Barrow Road intersection was spaced a sufficient distance north (approximately 1,200 feet) to allow for signalization and/or a future median break.

The development of the functional plans was also coordinated with the site plans for private developments located along the project corridor. This information was provided by the City of High Point. These developments (Alderbrook, Piedmont Crossing, and Smithfield at Piedmont Crossing) all appear to have considered the proposed Piedmont Parkway Extension to some extent. The site plans for Alderbrook and Smithfield at Piedmont Crossing indicate a reserved right-of-way corridor approximately 120 feet in width on the north side of their properties. The corridors indicated on the site plans were dedicated to the project through the City's conditional use rezoning and annexation process. In order to minimize impacts and reduce project costs, the proposed alignment utilizes the reserved right-of-way corridors that are being protected from development. Due to the existing topography in this area, the cut-and-fill slopes and estimated construction limits may extend beyond the reserved corridor. Consequently, additional rights of way or construction easements may be required. This situation should be evaluated as more detailed planning and design studies are undertaken for the proposed project. This situation could be addressed in



a variety of ways, including: shifting the alignment north to minimize impacts to residential lots and utility corridors, reducing the median width, implementing retaining walls to reduce cut and fill slopes, and obtaining temporary construction easements from adjacent property owner(s). It is recommended that future project planning and design activities obtain updated and more detailed mapping to review and refine the functional design. Additionally, due to the dynamic nature of this area, it is also recommended that the City of High Point work closely with future developments to preserve and protect the proposed roadway corridor.

A planning level opinion of probable cost was also prepared for the proposed project. This information was developed using 2006 average unit price information obtained from NCDOT. The opinion of probable cost includes project design, roadway, traffic signals, sidewalk, bridges, signing, pavement marking, and notable hydraulic features. The opinion of probable cost also includes consideration of general improvements required for intersecting roads. Costs for right-of-way land acquisition and major utility considerations (i.e., natural gas transmission line crossings) were provided by the City of High Point.

In order to provide the City with a general understanding of inflationary pressures on construction costs, a trend line analysis of historic data from the Engineering News-Record's (ENR) Construction Cost index (CCI) data was completed. The results of this analysis can be seen graphically in Figure 9. Based on approximately three years of historical data, it is believed that an approximate 4.7% annual increase in construction costs can be expected. However, it is believed that the construction cost increases within approximately the last year have been much higher. Using the CCI trend analysis data, the opinion of probable cost for the project was projected out to assess construction costs for the ten year (2017) and design year (2030) planning horizon. The preliminary opinion of probable cost with current year (2007 build) construction costs, ten year construction costs (2017 build), and design year construction costs (2030 build) is included in Table 4.

**Figure 9 - ENR CONSTRUCTION COST INDEX
3-Year Trend Line (Jan. 2004 to Dec. 2006)**

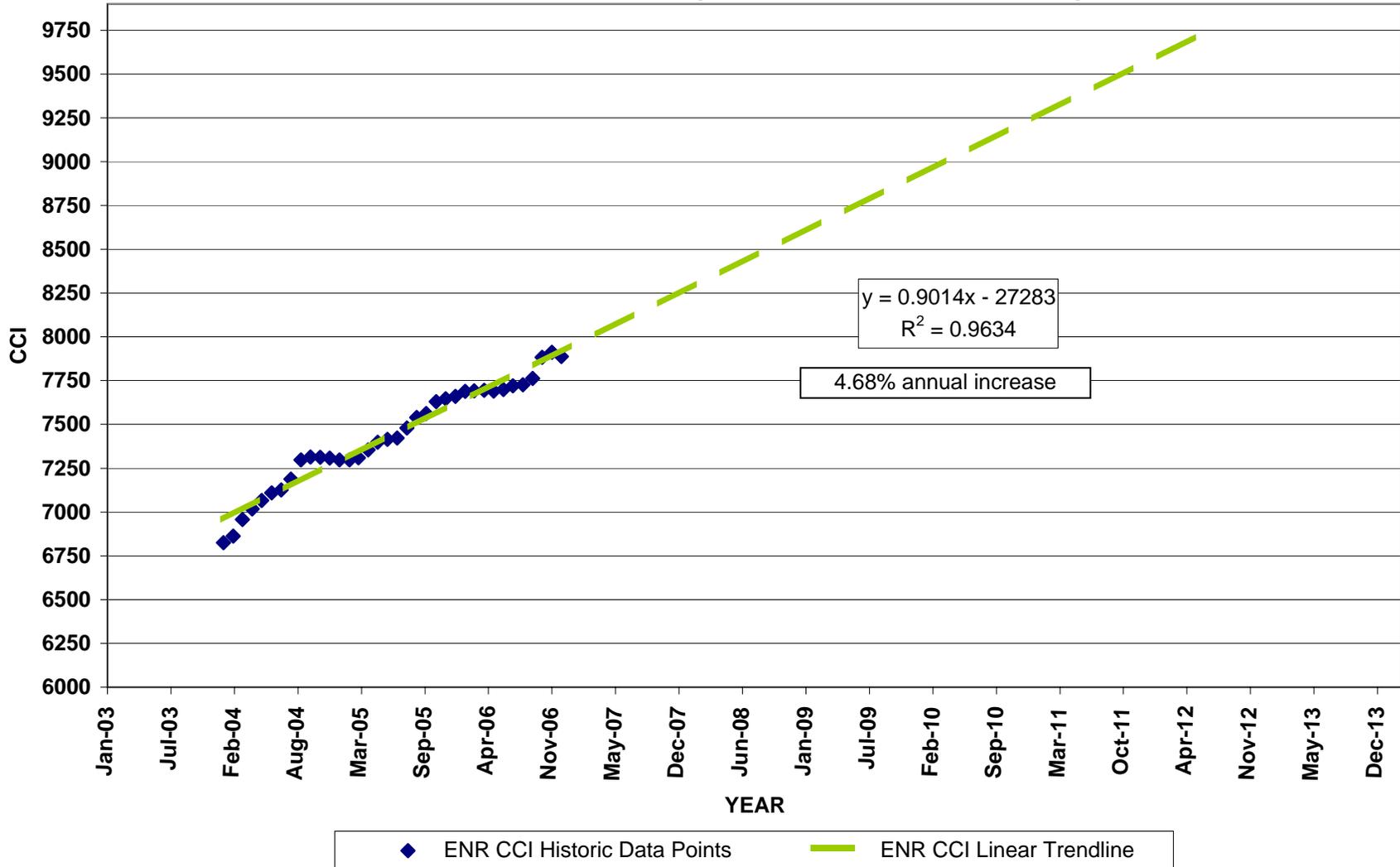


Table 4 - Opinion of Probable Cost for Total Project

Client: City of High Point
 Route: Piedmont Parkway Extension
 Extents: Johnson Street/Sandy Ridge Road to NC 68 (Eastchester Drive)
 Length: 4.88 miles
 -L- Line = 3.54 mi (Sta 10+00 to 197+00)
 -Y- Lines = 1.34 mi
 Typ. Section: 4-Lane Median Divided

Line Item	Des	Sec No.	Description	Quantity	Unit	Price	Amount
			Roadway				
			Earthwork - Excavation	160,000	CY	\$ 8.50	\$ 1,360,000.00
			Earthwork - Fill	330,000	CY	\$ 9.50	\$ 3,135,000.00
			New Pavement	180,000	SY	\$ 60.00	\$ 10,800,000.00
			Clearing & Grubbing	61	Acres	\$ 7,000.00	\$ 427,000.00
			Supplemental Clearing & Grubbing	2	Acres	\$ 2,500.00	\$ 5,000.00
			2'-6" Curb and Gutter	36,000	LF	\$ 20.00	\$ 720,000.00
			1'-6" Curb and Gutter	27,000	LF	\$ 13.00	\$ 351,000.00
			5'-0" Concrete Sidewalks	19,000	SY	\$ 48.00	\$ 912,000.00
			Signals	3	EA	\$ 75,000.00	\$ 225,000.00
			Pavement Markings and Markers	4.88	Miles	\$ 30,000.00	\$ 146,400.00
			Erosion Control	61	Acres	\$ 10,000.00	\$ 610,000.00
			Drainage	4.88	Miles	\$ 200,000.00	\$ 976,000.00
			Traffic Control	1	LS	\$ 75,000.00	\$ 75,000.00
			5" Mono. Concrete Islands	800	SY	\$ 40.00	\$ 32,000.00
			Structures				
			465' L x 37' W x 2 structures	34,410	SF	\$ 90.00	\$ 3,096,900.00
			Sta 67+00 -L-				
			Utility Encroachment & Relocation				
			PNG Pipeline Sta 62+00 -L-	1	LS	\$ 1,000,000.00	\$ 1,000,000.00
			Colonial Gas Pipeline Sta 180+00 -L-	1	LS	\$ 1,000,000.00	\$ 1,000,000.00
			Utility Poles	65	EA	\$ 10,000.00	\$ 650,000.00
			Mitigation				
			Streams	170	LF	\$ 232.00	\$ 39,440.00
			Total				\$ 25,560,740.00

Contract Cost	\$25,560,740
Misc. & Mob. (30%)	\$7,668,300
Subtotal Construction Cost	\$33,229,040
E&C (10%)	\$3,323,000
Construction Cost	\$36,552,040
Right-Of-Way Cost	\$2,225,000
Total Cost Build 2007	\$38,777,040
Total Cost Build 2017	\$61,382,100
Total Cost Build 2030	\$111,518,900



V. COMMUNITY ISSUES

There is one municipal fire station (Fire Station 12) within the project study area (see Figure 10). This facility is located on the east side of Barrow Road south of existing Clinard Farms Road and the proposed corridor. There is one private school (Tri-City Junior Academy) located on the east side of Clinard Farms Road at its intersection with Walpole Road. This school is adjacent to proposed realignment of Clinard Farms Road. There are also three schools located south of the study area and east of Barrow Road (Southwest Guilford Elementary, Middle School, and High School).

Based on existing GIS data and field observations, no parks or recreation areas are believed to exist within the study area.

Based on a cursory review of 2000 U.S. Census Data, (see Table 5) there do not appear to be any special populations within the project study area.

Table 5. Study Area Characteristics

Area	Total Population (2000)	% African American	% Hispanic	% Below Poverty	Median Income	Median Age
Census Tract 162.02, Block Group 1	5,455	8.1%	1.4%	1.9%	\$59,129	35.3
City of High Point	85,839	31.5%	4.9%	13.2%	\$40,137	34.4
Guilford County	421,048	29.0%	3.8%	10.6%	\$42,618	34.9

Source: US Census Bureau (2000 Census)

VI. NATURAL ENVIRONMENT ISSUES

As part of the study, a review of existing databases was completed to identify environmental issues within the study corridor. This review is preliminary in nature and is not intended to substitute for the project planning / environmental documentation process. The purpose of this screening is to identify potential environmental issues early. For the purposes of this screening, a study corridor width of 2,000 feet was used. Potential environmental issues are shown in Figures 10 and 11.

Floodplains

Guilford County is a participant in the National Flood Insurance Program. According to GIS floodplain information provided by the City of High Point, the proposed project corridor will cross the 100-year floodplain of West Fork Deep River Tributary No. 2. The location of this floodplain crossing is shown in Figure 11. The width of the floodplain at the proposed Piedmont Parkway Extension crossing is approximately 375 feet. No formal determination was made as to whether the proposed project will result in a modification to the existing Federal Emergency Management Agency (FEMA) floodplain. All applicable local and state regulations regarding the 100-year floodplain should be followed when constructing the project.

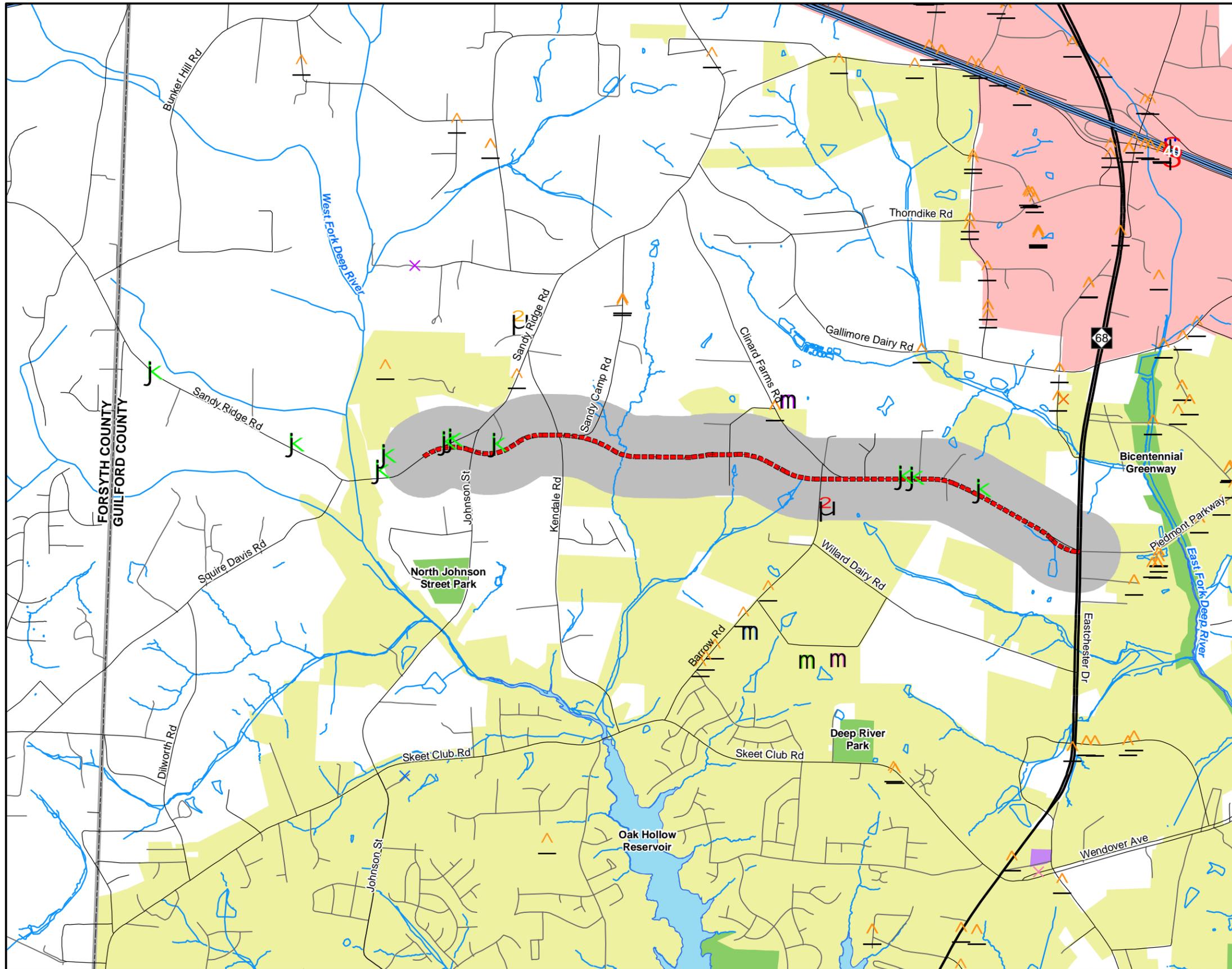


Figure 10 - Environmental Features

- Study Area
- Proposed Piedmont Parkway - Alternative 2
- Interstate
- US Route
- State Route
- Secondary Road
- Local Road
- Streams
- Lakes
- Parks
- High Point
- Greensboro

Public Facilities

- Fire Station 12
- Fire Station 26
- Southwest Guilford Elementary School
- Southwest Guilford High School
- Southwest Guilford Middle School
- Tri-City Junior Academy

Historic Study List Structures

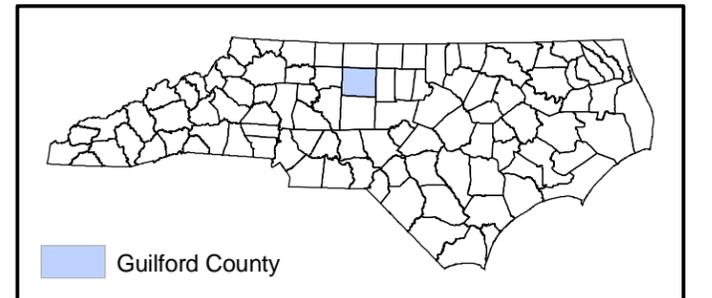
- Elihu Mendenhall House (Blair)
- Stephen Davis House
- Historic Study List Districts

National Register Structures

- Deep River Friends Meeting House
- Col. Isaac Beeson House
- Possible Historic Properties
- Hazardous Materials Sites

0 0.5 1
 Miles

MAP SOURCES:
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 CITY OF HIGH POINT
 GUILFORD COUNTY
 FORSYTH COUNTY
 ESRI
 EDR
 HNTB NORTH CAROLINA, P.C.



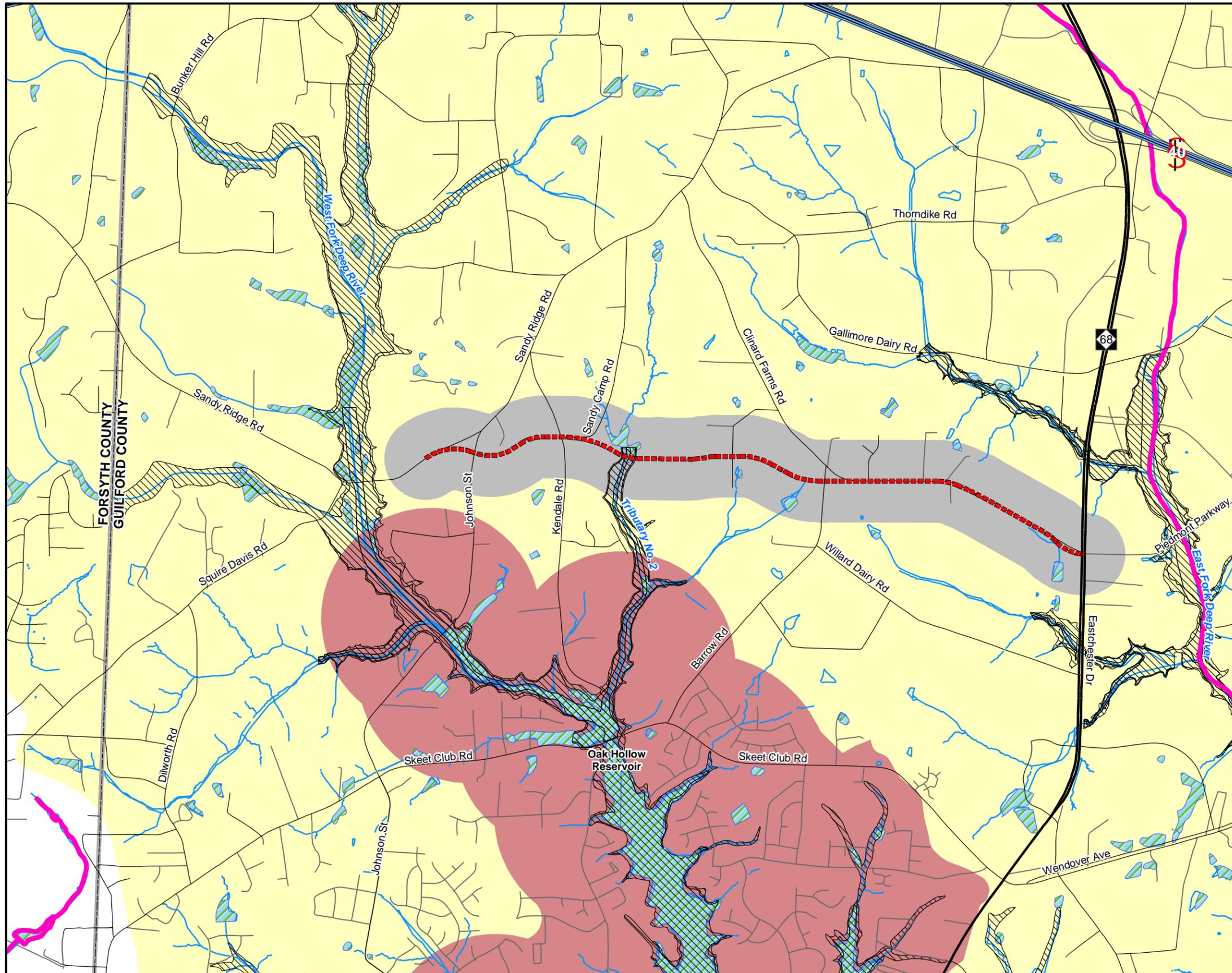
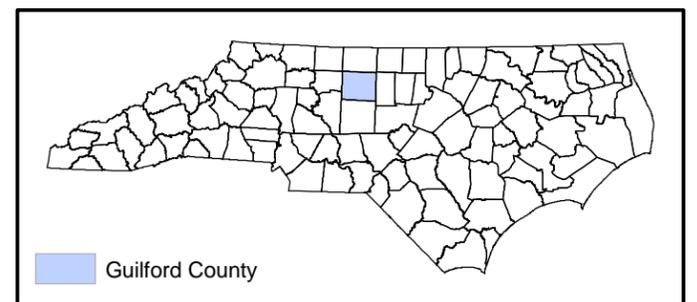


Figure 11 - Water Features

-  Study Area
-  Proposed Piedmont Parkway Extension
-  Interstate
-  US Route
-  State Route
-  Secondary Road
-  Local Road
-  Lakes
-  Streams
-  303(d) Streams
-  National Wetlands Inventory
-  FEMA Floodzones
-  Protected Area Class IV WSW
-  Critical Area Class IV WSW
-  County Boundary



MAP SOURCES:
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 CITY OF HIGH POINT
 GUILFORD COUNTY
 FORSYTH COUNTY
 ESRI
 HNTB NORTH CAROLINA, P.C.





Stream Classification

The proposed project is located in the Cape Fear River Basin. There are two Water Supply IV Watersheds within the study area: West Fork of Deep River and East Fork of Deep River. Waters within WS-IV watersheds are used as sources of water supply for drinking, culinary, or food processing purposes for those users where a WS-I, WS-II, or WS-III classification is not feasible. WS-IV waters are generally located within moderately to highly developed watersheds.

The proposed project will require construction of a new crossing over the West Fork Deep River Tributary No. 2. This will require coordination with the North Carolina Department of Natural Resources (NCDENR) and the US Army Corps of Engineers (USACE) during any environmental study and permitting activities.

Wetlands

National Wetland Inventory (NWI) GIS mapping was reviewed to determine whether the proposed project corridor may impact wetlands. Based on the NWI GIS mapping (see Figure 11), it is believed the proposed project corridor will cross a wetland area along the West Fork Deep River Tributary No. 2 east of Sandy Camp Road. Due to the proposed bridge structures in this area, no impacts to NWI wetlands are expected. It is recommended that during the preparation of the environmental document that these wetlands be surveyed and delineated. Proper permitting from USACE should be obtained before construction of the project and appropriate mitigation measures should be taken, if necessary.

Historic Properties and Archaeological Sites

As part of the environmental screening process, existing GIS databases were queried for the presence of any historic properties and archaeological sites. This information did not manifest any properties or structures within the study corridor that are listed on the National Register of Historic Places or state study lists.

For the purposes of this screening, a field inspection was conducted to identify properties housing structures that had the potential to be older than 50 years. Based on the field review, three houses and three barns were identified as properties potentially eligible for the National Register. The locations of these structures are shown in Figure 10.

Regulations pertaining to historic properties and archaeological sites vary depending on the funding source used to construct the project. It is recommended that a cultural resources review be completed prior to advancing with design and construction activities.

Threatened and Endangered Species

The North Carolina Natural Heritage Program (NCNHP) database was queried to determine the presence of protected species within the study corridor. Table 6 summarizes the results of the NCNHP database query.



Table 6. Potential State and Federally-Protected Species

Common Name	Scientific Name	Federal Status	State Status	USGS Quad Map
Plant:				
Appalachian Golden-banner	<i>Thermopsis mollis</i>	N/A	Significantly Rare – Peripheral	Guilford
Drummond Moss	<i>Orthotrichum strangulatum</i>	N/A	Significantly Rare – Peripheral	Kernersville
Mammal:				
Eastern Small-footed Myotis	<i>Myotis leibii</i>	Species of Concern	Special Concern	Kernersville
Crustacean:				
Greensboro Burrowing Crayfish	<i>Cambarus catagius</i>	N/A	Special Concern	Kernersville Guilford

Source: North Carolina Natural Heritage Program; Kernersville and Guilford USGS topographic quadrangles (February 2007), <http://www.ncnhp.org>

In preparation of an environmental document, a survey for threatened and endangered species may be fulfilled, and if the species is found to be within the study area, additional information may be required.

Hazardous Materials

State and Federal hazardous materials databases were reviewed because of the liability associated with purchasing properties containing hazardous materials. This information was provided by Environmental Data Resources, Inc. (EDR). EDR is a national provider of current and historical environmental risk management information.

Based on the EDR databases, there are no sites within the study area that were determined to contain potential hazardous materials. Figure 10 shows the location of the sites of potential concern in relation to the project study area.

VII. RECOMMENDATIONS

The Piedmont Parkway Extension is an important component in the City’s plan to provide transportation infrastructure that enhances connectivity and east-west mobility in northern High Point and western Guilford County. Additionally, by providing a parallel facility aimed at supporting local trips, it is believed that the Piedmont Parkway Extension will provide localized congestion relief to I-40, Skeet Club Road, and other parallel facilities in the area. Based on the analyses completed as a part of this study, the construction of the Piedmont Parkway Extension appears feasible from an engineering and environmental perspective.

It is recommended that future project planning and design activities obtain updated and more detailed mapping to review and refine the functional design developed as part of this feasibility study. Additionally, due to the dynamic nature of this area, it is also recommended that the City of High Point work closely and proactively with proposed future developments to preserve and protect the identified roadway corridor.



Construction Phasing

Should it be determined that funding is limited, there may be an opportunity for phased construction of the proposed Piedmont Parkway Extension. For example, the project could initially be constructed as a two-lane facility with reservation of the total right-of-way corridor required for the ultimate cross-section. Widening of the facility could then be completed at the appropriate time in the future. Additionally, due to the projected traffic volumes on the proposed facility in the design year, it is believed that the section between NC 68 and Barrow Road can be prioritized due to need.

In order to assist the City in considering options for phased construction of the Piedmont Parkway Extension, the preliminary opinion of probable cost for the feasibility study alternative was further broken down into two sections:

- Barrow Road to NC 68 (Eastchester Drive)
- Johnson Street/Sandy Ridge Road to Barrow Road

The opinions of probable cost for these two sections are provided in Tables 7 and 8.

Table 7 - Opinion of Probable Cost - Barrow Road to NC 68 (Eastchester Drive)

Client: City of High Point
 Route: Piedmont Parkway Extension
 Extents: Barrow Road to NC 68 (Eastchester Drive)
 Length: 2.29 miles
 -L- Line = 1.55 mi (Sta 115+00 to 197+00)
 -Y- Lines = 0.74 mi
 Typ. Section: 4-Lane Median Divided

Line Item	Des	Sec No.	Description	Quantity	Unit	Price	Amount
			<u>Roadway</u>				
			Earthwork - Excavation	70,000	CY	\$ 8.50	\$ 595,000.00
			Earthwork - Fill	150,000	CY	\$ 9.50	\$ 1,425,000.00
			New Pavement	90,000	SY	\$ 60.00	\$ 5,400,000.00
			Clearing & Grubbing	30	Acres	\$ 7,000.00	\$ 210,000.00
			Supplemental Clearing & Grubbing	1	Acres	\$ 2,500.00	\$ 2,500.00
			2'-6" Curb and Gutter	16,000	LF	\$ 20.00	\$ 320,000.00
			1'-6" Curb and Gutter	11,000	LF	\$ 13.00	\$ 143,000.00
			5'-0" Concrete Sidewalks	8,200	SY	\$ 48.00	\$ 393,600.00
			Signals	2	EA	\$ 75,000.00	\$ 150,000.00
			Pavement Markings and Markers	2.29	Miles	\$ 30,000.00	\$ 68,700.00
			Erosion Control	30	Acres	\$ 10,000.00	\$ 300,000.00
			Drainage	2.29	Miles	\$ 200,000.00	\$ 458,000.00
			Traffic Control	1	LS	\$ 50,000.00	\$ 50,000.00
			5" Mono. Concrete Islands	780	SY	\$ 40.00	\$ 31,200.00
			<u>Structures</u>				
			465' L x 37' W x 2 structures	0	SF	\$ 90.00	\$ -
			Sta 67+00 -L-				
			<u>Utility Encroachment & Relocation</u>				
			PNG Pipeline Sta 62+00 -L-	0	LS	\$ 1,000,000.00	\$ -
			Colonial Gas Pipeline Sta 180+00 -L-	1	LS	\$ 1,000,000.00	\$ 1,000,000.00
			Utility Poles	65	EA	\$ 10,000.00	\$ 650,000.00
			<u>Mitigation</u>				
			Streams	170	LF	\$ 232.00	\$ 39,440.00
			Total				\$ 11,236,440.00

Contract Cost	\$11,236,440
Misc. & Mob. (30%)	\$3,371,000
Subtotal Construction Cost	\$14,607,440
E&C (10%)	\$1,460,800
Construction Cost	\$16,068,240
Right-Of-Way Cost	\$900,000
Total Cost Build 2007	\$16,968,240
Total Cost Build 2017	\$25,435,200
Total Cost Build 2030	\$46,210,700

Table 8 - Opinion of Probable Cost - Johnson St/Sandy Ridge Rd to Barrow Road

Client: City of High Point
 Route: Piedmont Parkway Extension
 Extents: Johnson St/Sandy Ridge Rd to Barrow Road
 Length: 2.59 miles
 -L- Line = 2.00 mi (Sta. 10+00 to 115+00)
 -Y- Lines = 0.59 mi
 Typ. Section: 4-Lane Median Divided

Line Item	Des	Sec No.	Description	Quantity	Unit	Price	Amount
			<u>Roadway</u>				
			Earthwork - Excavation	90,000	CY	\$ 8.50	\$ 765,000.00
			Earthwork - Fill	180,000	CY	\$ 9.50	\$ 1,710,000.00
			New Pavement	90,000	SY	\$ 60.00	\$ 5,400,000.00
			Clearing & Grubbing	31	Acres	\$ 7,000.00	\$ 217,000.00
			Supplemental Clearing & Grubbing	1	Acres	\$ 2,500.00	\$ 2,500.00
			2'-6" Curb and Gutter	20,000	LF	\$ 20.00	\$ 400,000.00
			1'-6" Curb and Gutter	16,000	LF	\$ 13.00	\$ 208,000.00
			5'-0" Concrete Sidewalks	10,800	SY	\$ 48.00	\$ 518,400.00
			Signals	1	EA	\$ 75,000.00	\$ 75,000.00
			Pavement Markings and Markers	2.59	Miles	\$ 30,000.00	\$ 77,700.00
			Erosion Control	31	Acres	\$ 10,000.00	\$ 310,000.00
			Drainage	2.59	Miles	\$ 200,000.00	\$ 518,000.00
			Traffic Control	1	LS	\$ 25,000.00	\$ 25,000.00
			5" Mono. Concrete Islands	20	SY	\$ 40.00	\$ 800.00
			<u>Structures</u>				
			465' L x 37' W x 2 structures	34,410	SF	\$ 90.00	\$ 3,096,900.00
			Sta 67+00 -L-				
			<u>Utility Encroachment & Relocation</u>				
			PNG Pipeline Sta 62+00 -L-	1	LS	\$ 1,000,000.00	\$ 1,000,000.00
			Colonial Gas Pipeline Sta 180+00 -L-	0	LS	\$ 1,000,000.00	\$ -
			Utility Poles	0	EA	\$ 10,000.00	\$ -
			<u>Mitigation</u>				
			Streams	0	LF	\$ 232.00	\$ -
			Total				\$ 14,324,300.00

Contract Cost	\$14,324,300
Misc. & Mob. (30%)	\$4,297,300
Subtotal Construction Cost	\$18,622,000
E&C (10%)	\$1,862,200
Construction Cost	\$20,484,200
Right-Of-Way Cost	\$1,325,000
Total Cost Build 2007	\$21,809,200
Total Cost Build 2017	\$32,425,500
Total Cost Build 2030	\$58,910,500



VIII. ADDITIONAL COMMENTS

Access Management Considerations

Access management along the proposed Piedmont Parkway Extension will be a vital element in maintaining safe and efficient traffic flow for the new facility and intersecting roadways. Although the City of High Point has supported access management through the development and implementation of conditional use permits associated with rezoning and annexations, a more comprehensive consideration of access management was completed as part of the feasibility study. The basis for this preliminary consideration of access management was compiled from the City of High Point Driveway Ordinance, thoroughfare planning information provided by NCDOT, the NCDOT's *Policy on Street and Driveway Access to North Carolina Highways* and *Median Crossover Guidelines for North Carolina Streets and Highways*, and information contained in the Transportation Research Board's (TRB) *Access Management Manual*. It should be noted that the City has initiated an access management plan for the Piedmont Parkway Extension through implementation of conditional use permits associated with rezonings and annexations.

The proposed alignment of the Piedmont Parkway Extension and existing/future intersecting roadways indicates that access to the facility may occur at the following locations in Table 9. Table 9 provides recommendations for access control and traffic control at each intersection.

Table 9. Identified Access Points Along Proposed Piedmont Parkway Extension

Intersecting Facility	Access Control	Traffic Control	Distance to Next Existing Intersection (To the East)
Sandy Ridge Road / Johnson Street	Full Movement Intersection	Traffic Signal	2,100 feet
Kendale Road	Full Movement Intersection	Y-Line Stop Control	800 feet
Sandy Camp Road	Right-Turn In/Right-Turn Out Only	Y-Line Stop Control	3,500 feet*
Walpole Road	Full Movement Intersection	Y-Line Stop Control	2,300 feet
Barrow Road/Clinard Farms Road	Full Movement Intersection	Traffic Signal	1,100 feet
Blackberry Ridge Road / Approved TND	Full Movement Intersection	Y-Line Stop Control	5,600 feet**
NC 68 (Eastchester Drive)	Full Movement Intersection	Traffic Signal	N/A

* - One, possibly two additional access locations possible before next intersecting facility

** - Two, possibly three additional access locations possible before next intersection facility

Beyond the identification of a potential access strategy for existing (and currently proposed) facilities, a determination of additional access points was conducted for this report. Based on City of High Point, NCDOT, and *TRB Access Management Manual* standards and guidelines, a schematic of potential access locations and types was developed. This information is shown graphically in Figure 12. Potential access points located between the existing and proposed locations included in Table 9 were also identified. These potential access points were identified based on minimum spacing requirements between full access locations (1/4 mile or 1,320 feet) and signalized intersections (1/2 mile or 2,640 feet). In accordance with *TRB Access Management*



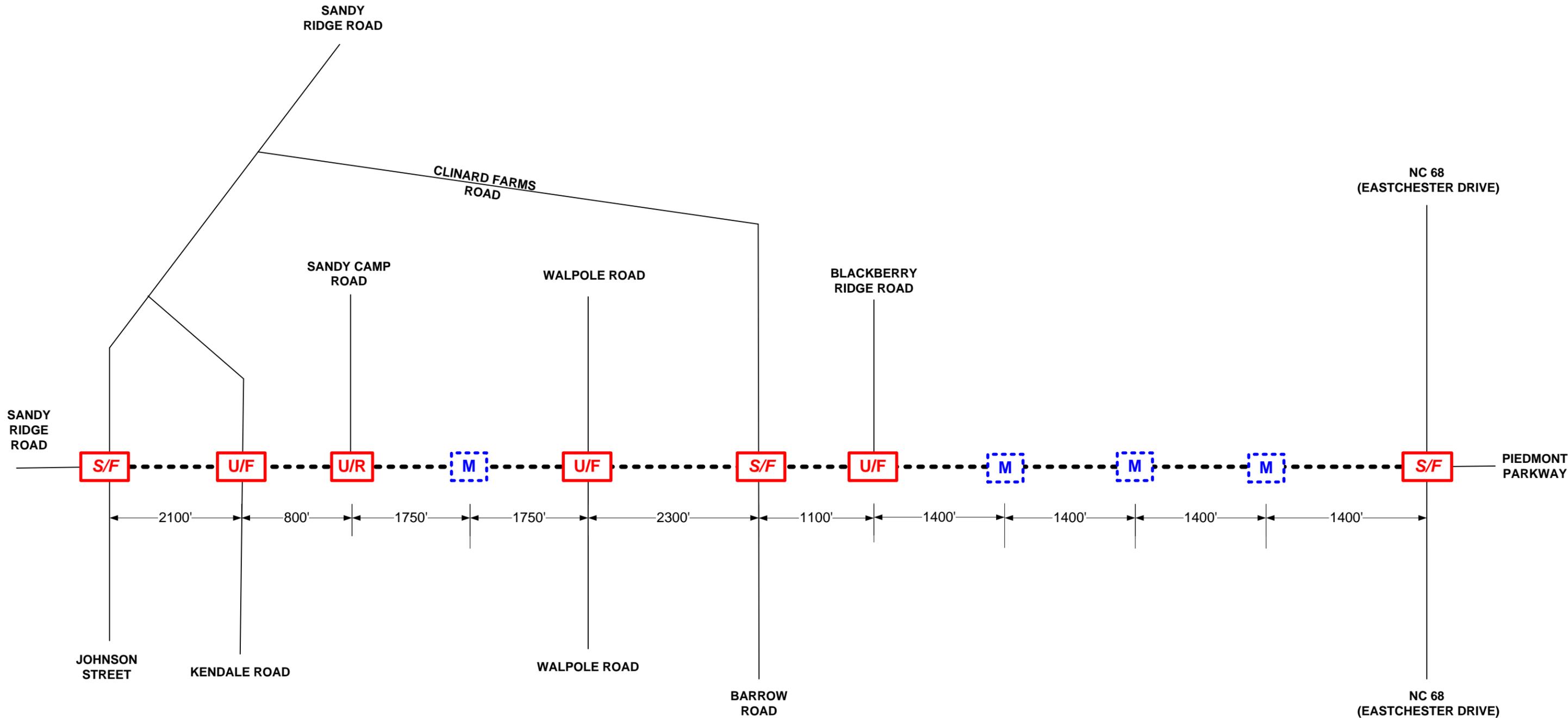
Manual guidelines, full access points are proposed no less than 660 feet from a right-turn in/right-turn out only (RIRO) intersection location. Due to the constraints of the existing intersecting roadway network, not all access points meet the desired minimums (e.g., Blackberry Ridge Road). In order to implement these access points, a design exception will be required. However, most locations come close to satisfying the criteria. Additional RIRO locations along Piedmont Parkway may be added if they meet the minimum criteria as defined by the City of High Point and NCDOT.

Existing driveways with access to sections of the proposed Piedmont Parkway that are on existing alignment (Clinard Farms Road, Sandy Camp Road, Sandy Ridge Road) should not be allowed median breaks for full movement operations. Proper spacing of median breaks in these areas of existing development will be used for u-turn movements, and potential connections from Piedmont Parkway to future proposed developments. U-turn movements will also need to be allowed and accounted for in the geometric design and with respect to traffic signal operations at proposed intersections along the project corridor. Due to uncertainty regarding future traffic volumes, the effects of potential future u-turn movements were not explicitly analyzed in this study.

LOCAL SUPPORT FOR PROJECT

A resolution in support of the proposed Piedmont Parkway Extension project was issued by the High Point Urban Area Metropolitan Planning Organization (HPMPO) Transportation Advisory Committee on June 26, 2007. A copy of this resolution can be found in Appendix C.

Piedmont Parkway Extension Feasibility Study – Recommended Access Points



LEGEND

- S/F = SIGNALIZED FULL
- U/F = UNSIGNALIZED FULL
- U/R = UNSIGNALIZED RIRO
- M = FUTURE MEDIAN BREAK (IDEAL)



HNTB
 HNTB, North Carolina, PC
 343 East Six Forks Rd Suite 200
 Raleigh, North Carolina 27609

Piedmont Parkway Extension Feasibility Study

RECOMMENDED ACCESS POINTS

HNTB Proj # 41253	NOT TO SCALE
DATE: December, 2006	

Figure 12

APPENDIX A

FUNCTIONAL DESIGN PLAN SHEETS (11" x 17")



PIEDMONT PARKWAY EXTENSION FEASIBILITY STUDY

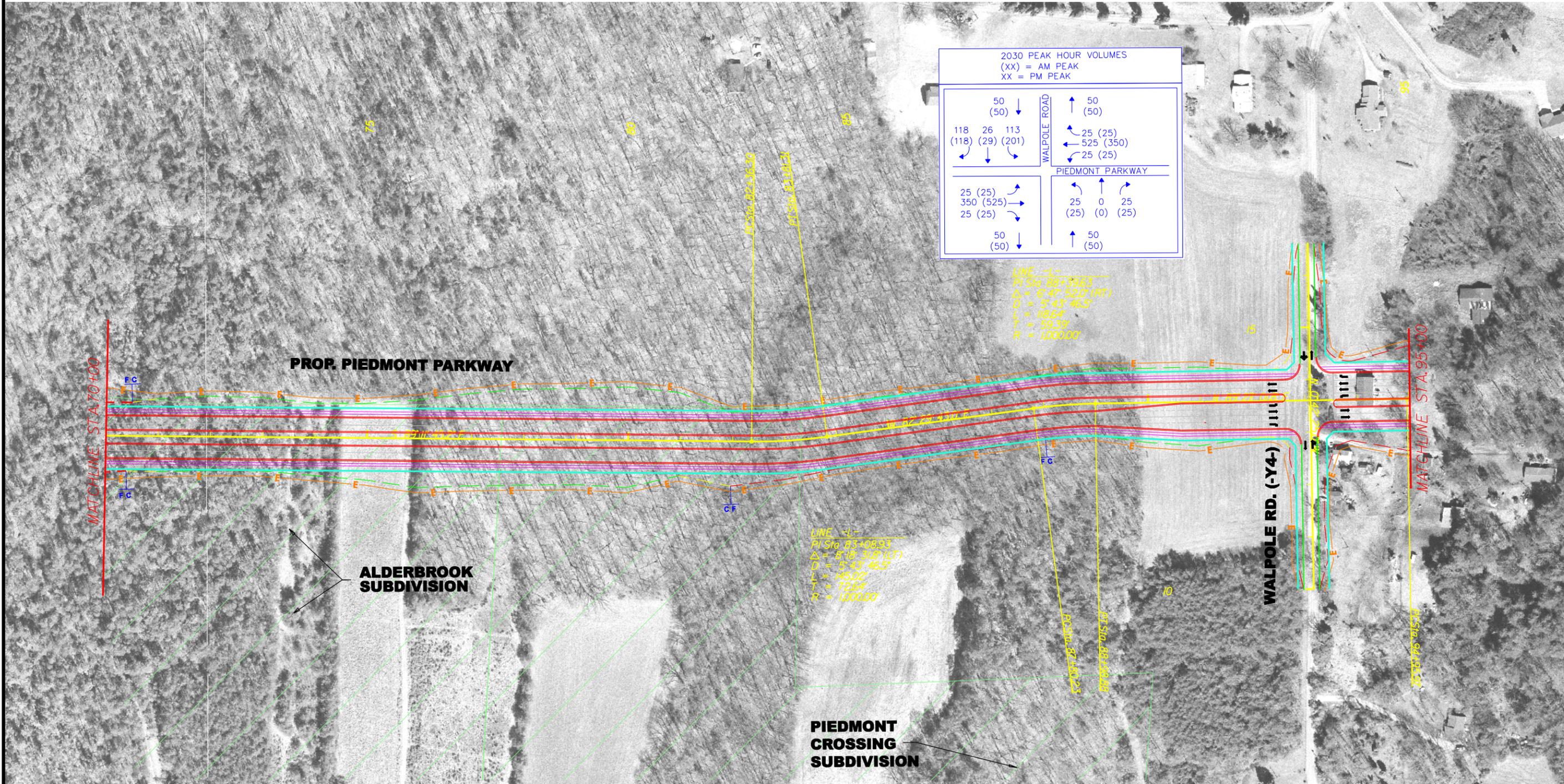
CITY OF HIGH POINT, NC



PROJECT REFERENCE NO. 41253
 PIEDMONT PARKWAY EXT.

HNTB HNTB NORTH CAROLINA, P.C.
 343 E. SIX FORKS ROAD, SUITE 200
 Raleigh, North Carolina 27609

HIGH POINT
 NORTH CAROLINA'S INTERNATIONAL CITY™



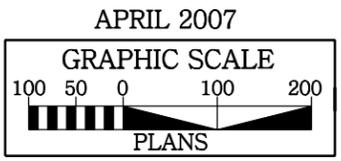
LEGEND

LIMITS OF CONSTRUCTION
 CUT - - - - -
 FILL - - - - -
 TRANSITION - - - - -

PROPOSED ESTIMATED ROW - - - - -
 PROPOSED SIDEWALK - - - - -
 EXISTING ROADWAY - - - - -
 -Y- LINE CONCEPTS - - - - -
 TEMP CONSTR. BASEMENT - - - - -

 NEW DEVELOPMENT AREA

SHEET 3 OF 8
 FUNCTIONAL PLANS
 DO NOT USE FOR CONSTRUCTION



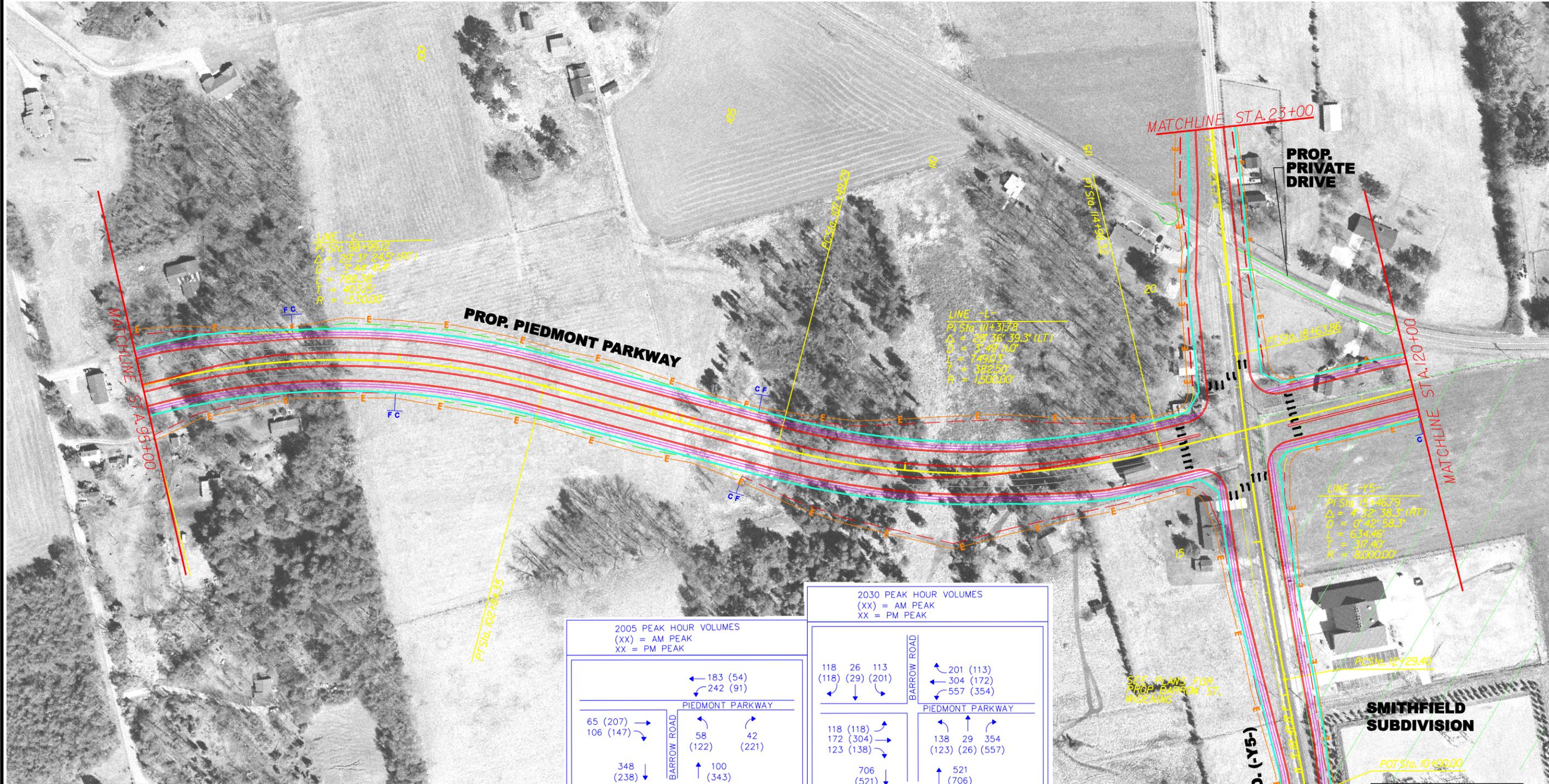


PIEDMONT PARKWAY EXTENSION FEASIBILITY STUDY

CITY OF HIGH POINT, NC



PROJECT REFERENCE NO. 41253
 PIEDMONT PARKWAY EXT.
HNTB HNTB NORTH CAROLINA, P.C.
 343 E. SIX FORKS ROAD, SUITE 200
 Raleigh, North Carolina 27609
HIGH POINT
 NORTH CAROLINA'S INTERNATIONAL CITY™



2005 PEAK HOUR VOLUMES
 (XX) = AM PEAK
 (XX) = PM PEAK

183 (54)	26 (29)	113 (201)
242 (91)	118 (118)	172 (304)
65 (207)	58 (122)	123 (138)
106 (147)	42 (221)	706 (521)
348 (238)	100 (343)	521 (706)

2030 PEAK HOUR VOLUMES
 (XX) = AM PEAK
 (XX) = PM PEAK

201 (113)	29 (26)	354 (557)
304 (172)	118 (118)	138 (123)
557 (354)	172 (304)	29 (26)
118 (118)	706 (521)	521 (706)

LEGEND

- LIMITS OF CONSTRUCTION
- CUT - - - - -
- FILL - - - - -
- TRANSITION - - - - -
- PROPOSED ESTIMATED ROW - - - - -
- PROPOSED SIDEWALK - - - - -
- EXISTING ROADWAY - - - - -
- Y- LINE CONCEPTS - - - - -
- TEMP CONST. BASEMENT - - - - -



SHEET 4 OF 8
 FUNCTIONAL PLANS
 DO NOT USE FOR CONSTRUCTION
 APRIL 2007
 GRAPHIC SCALE
 100 50 0 100 200
 PLANS

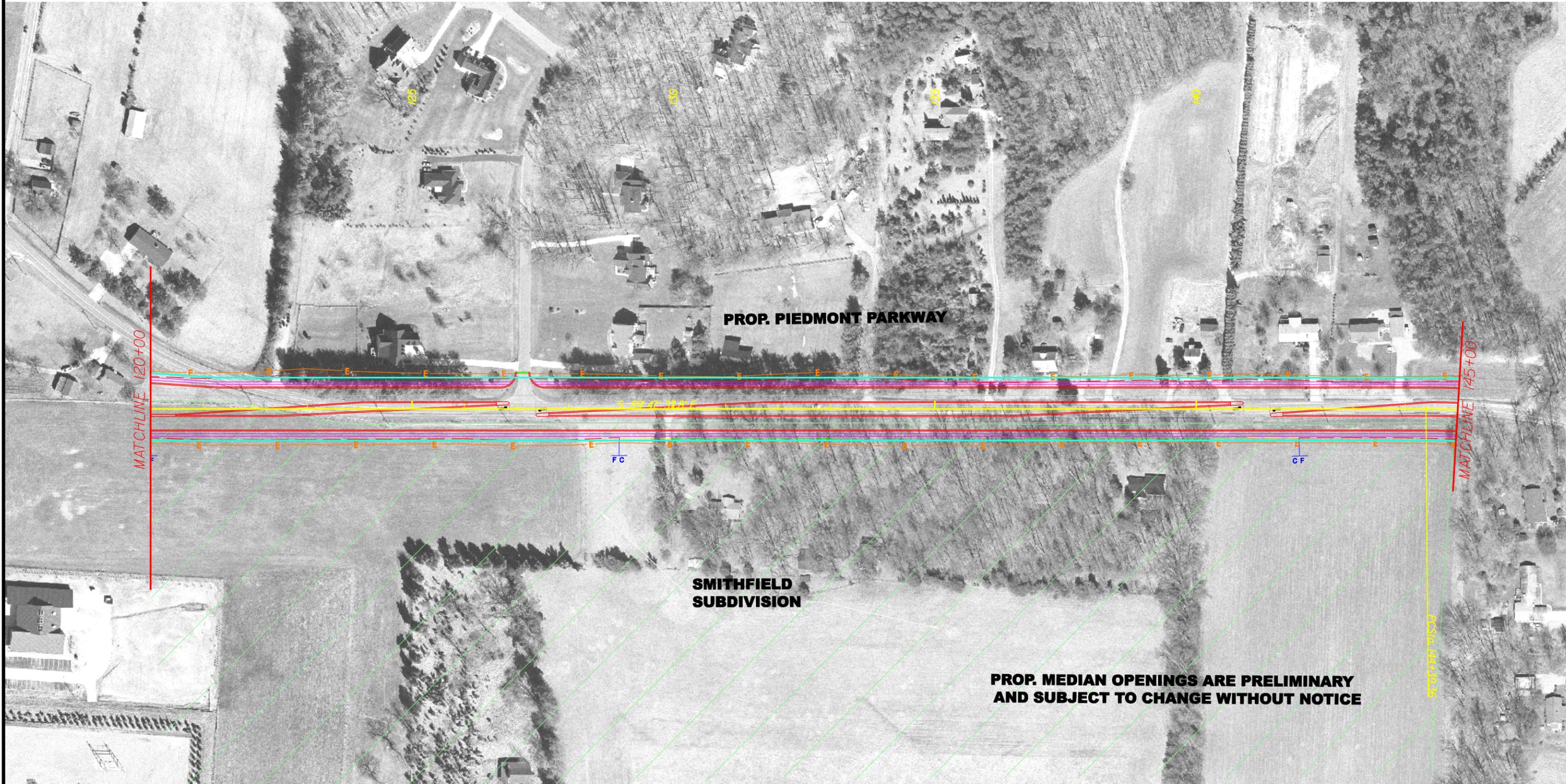


PIEDMONT PARKWAY EXTENSION FEASIBILITY STUDY

CITY OF HIGH POINT, NC



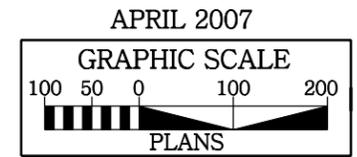
PROJECT REFERENCE NO.	41253
PIEDMONT PARKWAY EXT.	
HNTB HNTB NORTH CAROLINA, P.C. 343 E. SIX FORKS ROAD, SUITE 200 Raleigh, North Carolina 27609	
HIGH POINT NORTH CAROLINA'S INTERNATIONAL CITY™	



LEGEND	
LIMITS OF CONSTRUCTION	
CUT	--- (dashed green)
FILL	--- (dashed red)
TRANSITION	--- (dashed yellow)
PROPOSED ESTIMATED ROW	--- (solid cyan)
PROPOSED SIDEWALK	--- (solid magenta)
EXISTING ROADWAY	--- (dashed brown)
-Y- LINE CONCEPTS	--- (solid green)
TEMP CONSTR. BASEMENT	--- (solid orange)



SHEET 5 OF 8
FUNCTIONAL PLANS
DO NOT USE FOR CONSTRUCTION



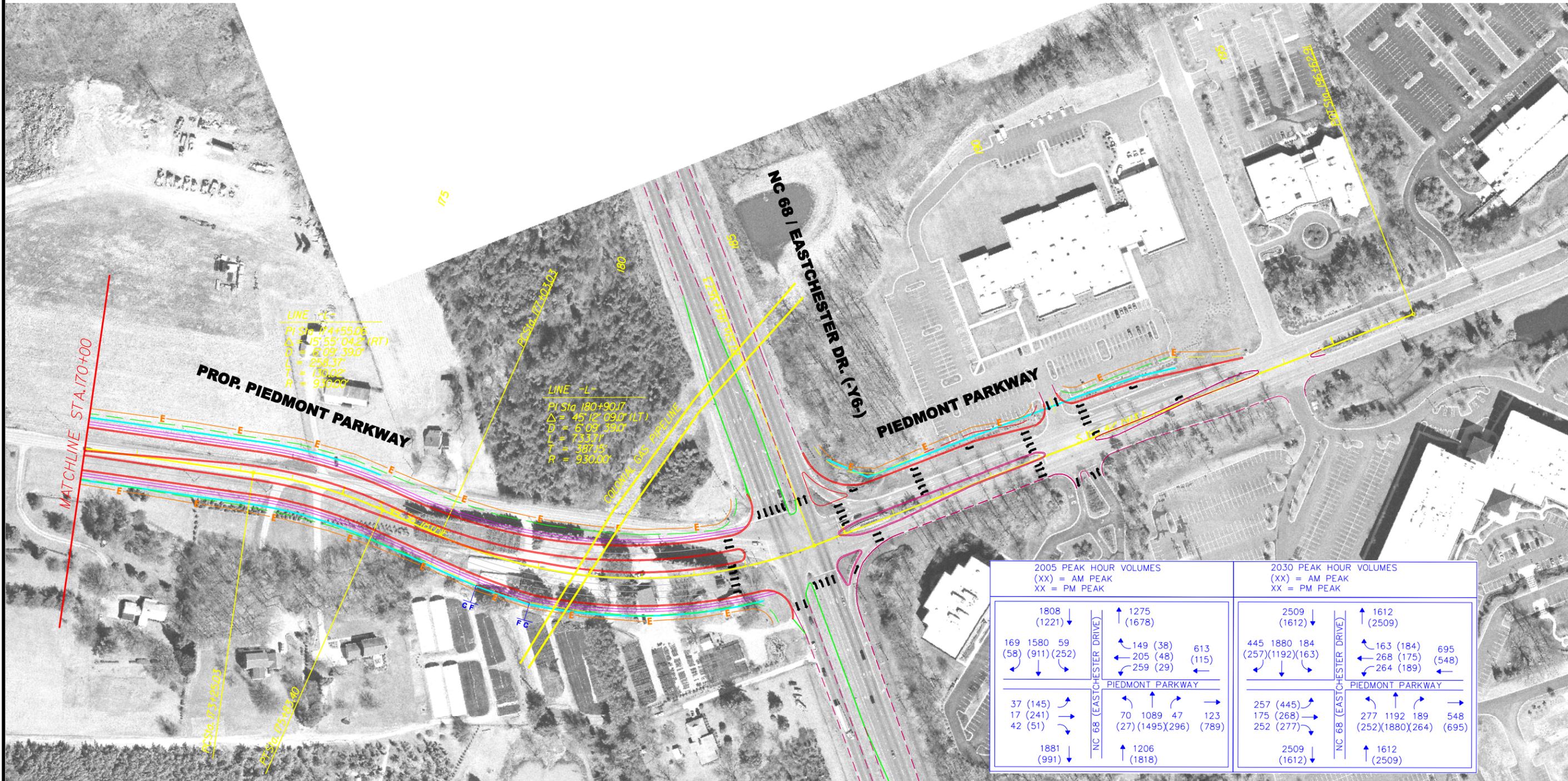


PIEDMONT PARKWAY EXTENSION FEASIBILITY STUDY

CITY OF HIGH POINT, NC



PROJECT REFERENCE NO. 41253
 PIEDMONT PARKWAY EXT.
HNTB HNTB NORTH CAROLINA, P.C.
 343 E. SIX FORKS ROAD, SUITE 200
 RALEIGH, NORTH CAROLINA 27609
HIGH POINT
 NORTH CAROLINA'S INTERNATIONAL CITY™



2005 PEAK HOUR VOLUMES (XX) = AM PEAK XX = PM PEAK				2030 PEAK HOUR VOLUMES (XX) = AM PEAK XX = PM PEAK			
1808 (1221)	↓	1275 (1678)	↑	2509 (1612)	↓	1612 (2509)	↑
169 (58)	1580 (911)	59 (252)	↔	445 (257)	1880 (1192)	184 (163)	↔
37 (145)	17 (241)	42 (51)	↔	257 (445)	175 (268)	252 (277)	↔
1881 (991)	↓	1206 (1818)	↑	2509 (1612)	↓	1612 (2509)	↑

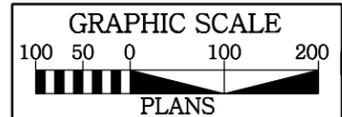
LEGEND

LIMITS OF CONSTRUCTION	
CUT	---C---
FILL	---F---
TRANSITION	---CF---
PROPOSED ESTIMATED ROW	---
PROPOSED SIDEWALK	---
EXISTING ROADWAY	---
-Y- LINE CONCEPTS	---
TEMP CONSTR. BASEMENT	---

SHEET 7 OF 8

FUNCTIONAL PLANS
DO NOT USE FOR CONSTRUCTION

APRIL 2007



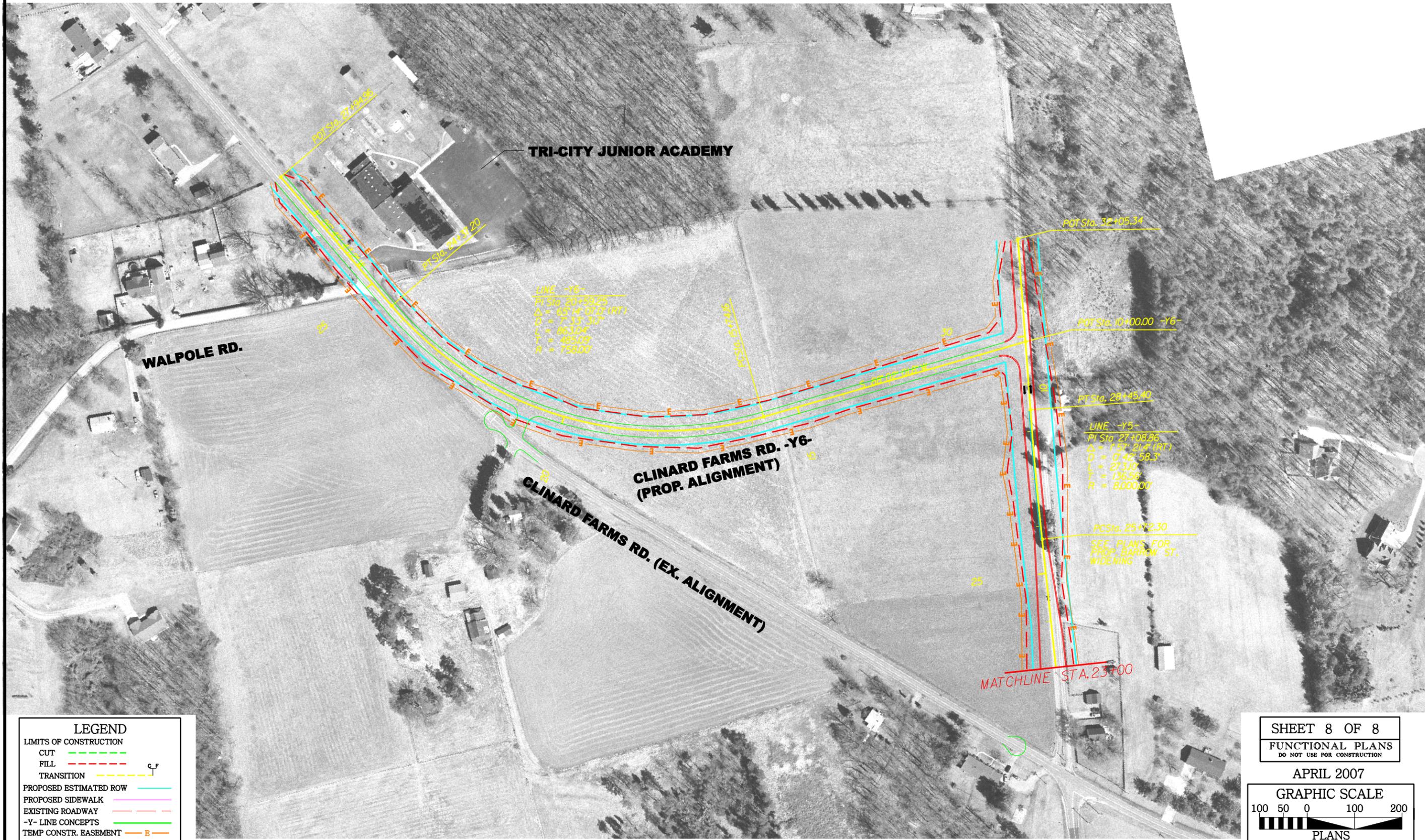


PIEDMONT PARKWAY EXTENSION FEASIBILITY STUDY

CITY OF HIGH POINT, NC



PROJECT REFERENCE NO.	41253
PIEDMONT PARKWAY EXT.	
HNTB HNTB NORTH CAROLINA, P.C. 343 E. SIX FORKS ROAD, SUITE 200 Raleigh, North Carolina 27609	
HIGH POINT NORTH CAROLINA'S INTERNATIONAL CITY™	



LEGEND	
LIMITS OF CONSTRUCTION	
CUT	---
FILL	---
TRANSITION	---
PROPOSED ESTIMATED ROW	---
PROPOSED SIDEWALK	---
EXISTING ROADWAY	---
-Y- LINE CONCEPTS	---
TEMP CONSTR. BASEMENT	---

SHEET 8 OF 8
FUNCTIONAL PLANS DO NOT USE FOR CONSTRUCTION
APRIL 2007
GRAPHIC SCALE 100 50 0 100 200 PLANS

APPENDIX B

**AUGUST 17, 2006
PUBLIC INFORMATION WORKSHOP
COMMENT SUMMARY**

SUMMARY OF PUBLIC MEETING QUESTIONNAIRE AND COMMENTS –
PIEDMONT PARKWAY EXTENSION FEASIBILITY STUDY

Meeting attendance: 72

Number of Questionnaires and Comment Forms received before 9/15/06: 21

Number of Questionnaires and Comment Forms received after 9/15/06: 5

Summary:

Comments received from the citizens can be divided into areas: one east of Barrow Road and the other west of Barrow Road.

East of Barrow Road Citizens Concerns: Most of the citizens who commented live either at Blackberry Ridge or Lichen Court.

- They had concerns about no median openings at the intersection of Blackberry Ridge Drive and proposed Piedmont Parkway extension. They are concerned that the response time of the emergency services since the fire station is located south of the intersection of Barrow Road and proposed Piedmont Parkway. Also if they have to go towards Eastchester Drive they have to go west and then make a U-turn.
- Commenters request that adequate buffers and landscaping should be provided between the proposed road and their subdivision.
- Commenters express the concern that construction of Piedmont Parkway will encourage more growth and therefore overcrowd schools and increase traffic in this area.

West of Barrow Road Citizens Concerns: Most of the citizens who submitted comments have properties near Squire Davis Road or Sandy Ridge Road and are not in favor of the project. Some of their comments are:

- Widen existing Sandy Ridge Road, no new alignment.
- The proposed alignment will destroy farmlands, wildlife habitat and wetlands and increase air and noise pollution.
- The new road will promote new commercial, retail and residential development resulting in urban sprawl
- Widen Sandy Ridge Road from Johnson Street to I-40 and signalize the intersection of Sandy Ridge Road and Johnson Street.
- Destroy the rural/countryside character of the area, negatively affecting their family lives, livelihood and heritage.

Some of the attendees mentioned that the project information was not detailed enough and they should have been provided with the maps before the meeting. They liked the explanation about the project and would like to be informed about the future meetings and progress of this project.

Comments Resolved:

- Possible median break at Blackberry Ridge Drive may be considered. Per NCDOT median break guidelines, the distance should be 1200' between median breaks. The approximate distance between the intersection of Barrow Road and Proposed Piedmont Parkway and Blackberry Ridge Drive and Piedmont Parkway is 1050'.
- Better landscaping near the intersection of Blackberry Ridge Drive and proposed Piedmont Parkway may be considered during the design process.

APPENDIX C

**JUNE 26, 2007
HIGH POINT URBAN AREA MPO
RESOLUTION OF PROJECT SUPPORT**



RESOLUTION IN SUPPORT OF THE PIEDMONT PARKWAY EXTENSION

High Point WHEREAS, the Piedmont Parkway Extension was added to the High Point Urbanized Area Thoroughfare Plan in 1992; and

Archdale WHEREAS, the Piedmont Parkway Extension, from NC 68/Eastchester Drive to Johnson Street/Sandy Ridge Road is an important link in the High Point Urban Area MPO's transportation system; and

Jamestown WHEREAS, a newly constructed segment of Piedmont Parkway was opened to traffic in January, 2007; and

Thomasville WHEREAS, the Piedmont Parkway Extension will provide an alternate east/west facility that is necessary to support new economic development in northern High Point; and

Trinity WHEREAS, the City of High Point conducted a Draft Feasibility Study for the Piedmont Parkway Extension and presented it to the Feasibility Study Group with the North Carolina Department of Transportation;

Wallburg NOW, THEREFORE BE IT RESOLVED that the High Point Urbanized Area Transportation Advisory Committee fully supports the Piedmont Parkway Extension.

Davidson County

A motion was made by PARKS and seconded by FARRICLOTH for adoption of the above resolution upon being put to a vote was duly adopted.

Charles W. Dowdy

Forsyth County

Charles Dowdy, Chair Transportation Advisory Committee

Guilford County

Subscribed and sworn to me this 26th day of June, 2007

Randolph County

Jabatha L. Garrante
Notary Public

My commission expires 5/1/10

