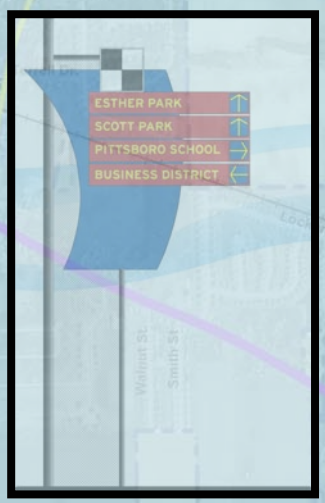
Town of Pittsboro, Indiana

Orderly Growth Plan

December 2006



Credits

The Pittsboro Orderly Growth Plan is funded in part by the Indianapolis Metropolitan Planning Organization (MPO). The Town of Pittsboro would like to thank the MPO for their contribution to the project.

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Introduction

Pittsboro is located in Hendricks County along Interstate 74 at the western edge of the greater Indianapolis metropolitan area. Most of Pittsboro is located within the Indianapolis Metropolitan Planning Area (MPA), the official regional transportation planning area of the Indianapolis Metropolitan Planning Organization (MPO). The community is poised to grow considerably in the next several years as growth from Indianapolis continues to extend westerly along the interstate highway corridor.

This transportation plan update activity is supported by federal transportation funds made available by the Indianapolis Metropolitan Planning Organization (MPO) for planning studies of regional significance by local government agencies.

Plan Purpose

The purpose of the Pittsboro Orderly Growth Plan is to consider future transportation system needs as the community prepares for growth so that actions can be implemented to meet those needs while the best options still exist. Future transportation needs are evaluated in terms of local roadway patterns, interstate interchanges, access management, visual character, land use, and bicycle and pedestrian facilities.

The plan is intended to provide direction for the Plan Commission, Town Council, Indianapolis MPO, INDOT and others by providing information, projections, and recommendations that will allow Pittsboro to meet its future transportation infrastructure needs effectively and efficiently.

Plan Components

While Pittsboro is on the cusp of growth, there is still time to apply sound transportation planning principles to prepare for the changes that are expected to occur soon. In order to prepare for these changes there are a number of components to the Pittsboro Orderly Growth Plan. These components include:

- Travel demand forecast
- Thoroughfare Plan Special Area Studies
- Jeff Gordon Boulevard
- Bicycle/Pedestrian Plan
- Development Standards
- Capital Improvements Plan

Each of these components is described below.

Travel Demand Forecast

The travel demand forecast uses traffic count data from the Town of Pittsboro, Hendricks County, the Indianapolis Metropolitan Planning Organization (MPO) and the Indiana Department of Transportation (INDOT). Supplemental traffic counts were conducted during the summer of 2006 by HNTB Corporation. Land use forecasts based on

the Comprehensive Plan and existing zoning were used to generate future trip estimates included in the travel demand forecast. Future trips were estimated using the Trip Generation Report from the Institute of Transportation Engineers (ITE).

Thoroughfare Plan Special Area Studies

The special area studies consider those areas of the town where there are road jogs, mismatched cross sections, or discontinuities that impact traffic flow. Optional alignments are identified to correct the deficiencies, with accompanying drawings and descriptive materials that define the preferred options. Associated Thoroughfare Plan adjustments are identified for adoption by the Town Council.

Jeff Gordon Boulevard

Jeff Gordon Boulevard is studied both from the perspective of the interchange with I-74 and of the corridor as it leads into the heart of Pittsboro.

Interchange Study

The interchange study evaluates the safety and service level of the existing I-74/Jeff Gordon Boulevard interchange, considering current and anticipated traffic demand. Structural condition and current design guidelines are also considered in the review. It is intended that the findings and recommendations of this review will be presented to INDOT for consideration.

Corridor Study

The corridor study considers the impact of future development on the Jeff Gordon Boulevard corridor, and presents changes needed to accommodate planned land uses. It considers future capacity needs, development standards, access management guidelines and alternative aesthetic/gateway features.

Bicycle/Pedestrian Plan

The existing and planned bicycle and pedestrian facilities were inventoried and mapped as a part of the bicycle/pedestrian plan. A plan to make connections between existing and planned facilities (in and around Pittsboro) and public places is presented for adoption by the Town Council as part of the Pittsboro Transportation Plan.

Development Standards

The development standards make recommendations to update the Town's existing geometric design, pavement design, and other infrastructure design standards for consistency with current industry practice and local needs. Standard drawings and specifications are also provided for these and other infrastructure elements in a separate document that is already in use by the town.

Capital Improvements Plan

The capital improvements plan lists the components of the Orderly Growth Plan that have a public cost associated with them, providing preliminary cost estimates. Potential funding sources are also identified.

Growth Context

The context for growth in Pittsboro is influenced by its location within the Indianapolis region, the trends occurring in the county and in the town, and by the land use patterns and zoning in place in the community.

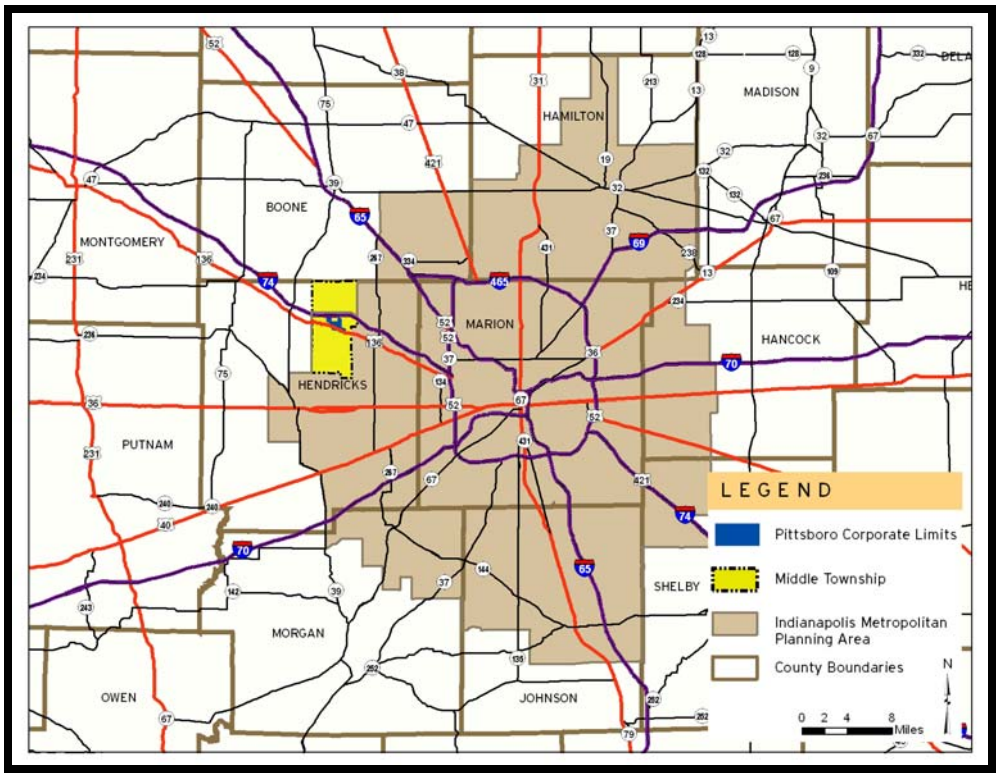
Regional Setting

Pittsboro is a part of the Indianapolis metropolitan planning area (MPA). The MPA includes Indianapolis and the suburban communities in Boone, Hamilton, Hancock, Hendricks, Madison, Morgan, and Shelby counties. While growth to the north of Indianapolis in Hamilton County remains the strongest in the region, Hendricks County communities like Pittsboro, Plainfield, and Brownsburg have also experienced considerable growth in the past five years.

The growth trend has been north and west expansion from Marion County, following I-69 to the north and I-74 and US 40 to the west.

The location of the Indianapolis International Airport and surrounding growth in the advanced logistics sector has created a demand for new housing in Hendricks County communities. The continued expansion of the airport and nearby businesses sets the stage for continued growth in Hendricks County.

Figure 1.1: Pittsboro in the Indianapolis MPA



Demographic Trends

Pittsboro grew more than 40 percent from 2000 to 2005, the fastest of any community in Hendricks County. The 2005 population was estimated to be 2,245. Other growing communities in Hendricks County include Plainfield and Brownsburg, with growth of 27 percent and 24 percent, respectively. The percent change is dramatic in Pittsboro due to its smaller size, but it shows a significant growth trend. In terms of numeric increase, Pittsboro is the fourth fastest growing community in Hendricks County, behind Plainfield, Brownsburg, and Danville.

Pittsboro has annexed approximately 1,500 acres of land since 2000. These annexations were made for the benefit of a combination of residential, commercial and industrial developments. In general, annexations to the Town have complimented nearby land uses.

Land Use and Zoning

The basic land use pattern of the Pittsboro area includes large areas of agricultural land suitable for development. The Town's existing zoning map includes the most recent annexations and zoning changes to accommodate new developments. It is shown on Figure 1.2.

Pittsboro's commercial core is located at the center of town along Maple Street which runs north and south between Wall Street and US 136. Some commercial uses exist along US 136 and near the Interstate 74 interchange. In general, commercial uses along US 136 serve the

residential areas that surround them. The major existing use at the interchange is Love's Truck Stop.

The area of Pittsboro with the highest residential density is located in the northeast quadrant, where planned unit developments have been approved and are currently in different stages of completion. This is a consideration in identifying the appropriate spacing for arterial routes included in the Transportation Plan.

Future development is likely to continue east of Pittsboro along US 136. This is due in large part to the availability of land, and is consistent with the growth pattern of the region. This is considered in the spacing of arterial routes in the Transportation Plan.

Existing Plans

The Town of Pittsboro currently has a comprehensive plan, a zoning ordinance, an annexation study, and a thoroughfare plan. The town also has plans for its other infrastructure components such as water and sewer. These plans were reviewed to provide the context for the Orderly Growth Plan.

Planning Process

The process for the Pittsboro Orderly Growth Plan involved preliminary data collection, traffic forecasting, technical studies, development of a capital improvements plan, and drafting the Orderly Growth Plan.

Opportunities for public and agency input were provided through a series of presentations to the Area Plan Commission and the Parks Board. With one exception, each major activity area involved in the Orderly Growth Plan was addressed in a separate meeting of the Plan Commission, with follow-up at subsequent meetings as required. In all, this study was discussed at eight Plan Commission meetings in 2006. The only element not presented in this manner was the Bicycle and Pedestrian Plan, which was presented and/or discussed at three public Parks Board meetings.

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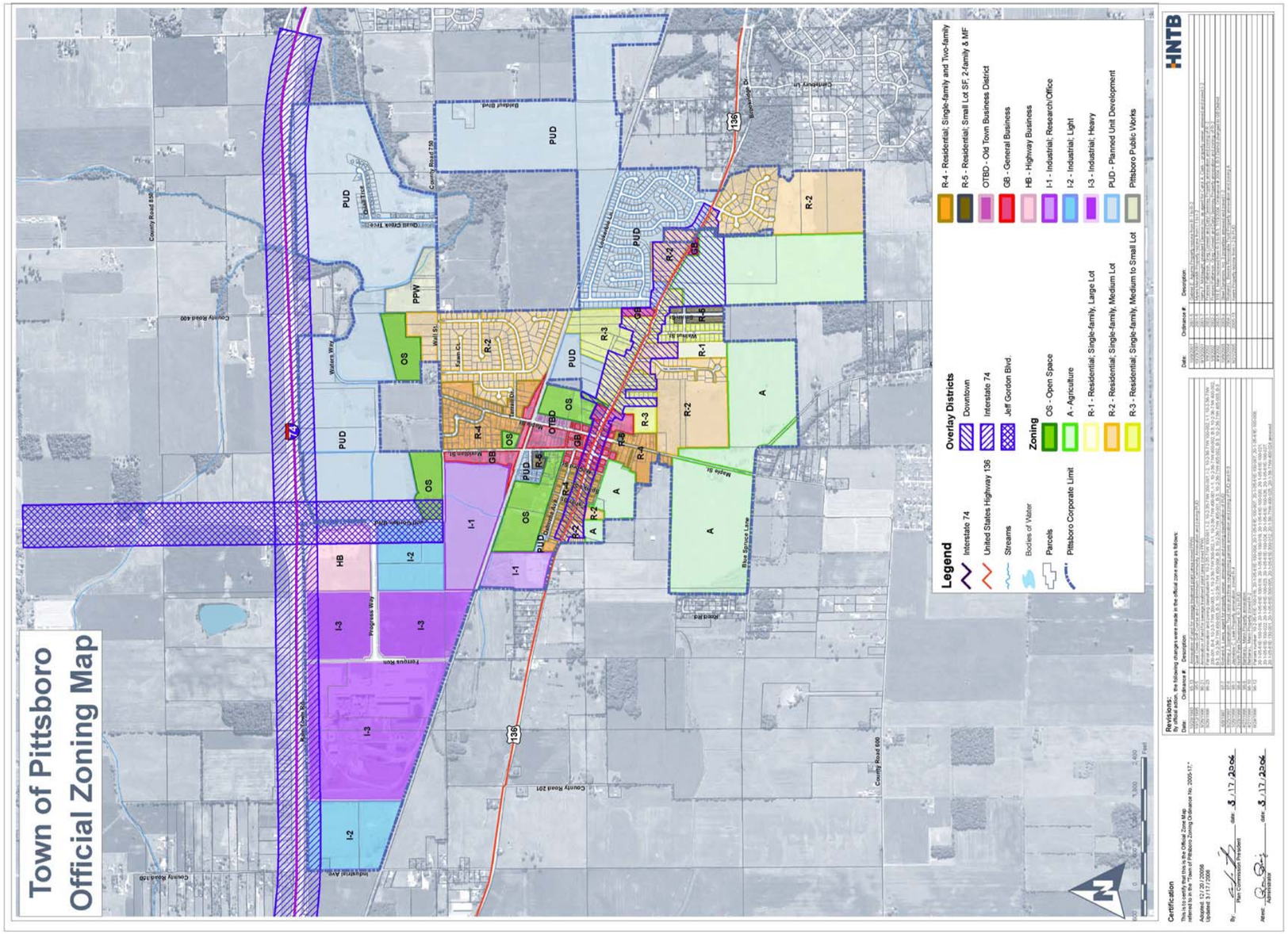
Figure 1.2: Pittsboro Zoning Map



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Chapter 2

Travel Demand Forecast

Anticipating the future demand for travel in and around Pittsboro is an important aspect of planning for appropriate transportation infrastructure. This forecast of anticipated travel demand in 2030 provides the basis of the analyses and recommendations of the Pittsboro Orderly Growth Plan.

Purpose and Approach

The 2030 travel demand forecast for the Pittsboro road network is used to identify locations where roadway capacity improvements will be required over the next 25 years in order to avoid traffic congestions problems.

The Pittsboro forecast was developed using a method common in transportation planning studies. It relies on direct estimates of the traffic expected to be generated by new land uses in the study area. The method uses the following three steps to forecast future traffic demand in the network:

1. Determine existing roadway traffic volumes in the base year of study.
2. Inflate the base year volumes to the horizon year (2030) using an annual growth rate in order to estimate the increase in traffic due to new development outside the study area.
3. Estimate and add the horizon year traffic demand generated by anticipated new land use development within the study area.

Most of Pittsboro is located within the Indianapolis MPA, and a few of the major roads in the Pittsboro area are included in the 25-year travel demand model maintained by the Indianapolis MPO. However, the regional model is not sufficiently detailed to represent traffic conditions in Pittsboro. The forecast information provided by this model is not well suited for determining Pittsboro's local transportation needs.

Existing Traffic Volumes

East-west traffic movements through Pittsboro are principally served by US 136, a primary arterial that links Indianapolis with the study area. The 2002 Average Daily Traffic (ADT) volumes were available from INDOT traffic counts along this corridor. Morning and afternoon peak hour turning movement count information was also available for several intersections in Pittsboro from the traffic impact studies conducted for the Jefferson Park and Reflections developments in 2005. These counts were complemented by peak hour turning movement counts performed by HNTB at several key study area intersections during the summer of 2006.

Existing traffic levels were estimated in the form of average daily two-way travel volumes on various link segments in the roadway network. For roadway segments where only existing peak period traffic counts were available, a 10 percent peak hour factor was assumed to estimate existing daily traffic volumes. This peak hour factor is based on

accepted highway traffic flow research and is commonly used for planning-level traffic estimates.

Future Traffic Volumes

Future traffic volumes on key links in the Pittsboro road network were forecast by adding anticipated growth to the existing traffic volumes. There are two components to this traffic growth—growth from new land use development within the Pittsboro study area and background growth resulting from future land use development outside of the study area.

Background Traffic Growth

An annual growth rate of ½ percent was applied to existing traffic volumes to estimate the traffic growth resulting from development not specifically considered in this study. Although INDOT count data actually show a decrease in volumes on US 136 between 1995, 1999 and 2002, the ½ percent annual growth rate was used to reflect the increased urbanization of Hendricks County expected over the next 25 years. All existing traffic volumes were inflated to the horizon year of 2030 by applying the ½ percent growth rate from the year of the count (2002, 2005 or 2006).

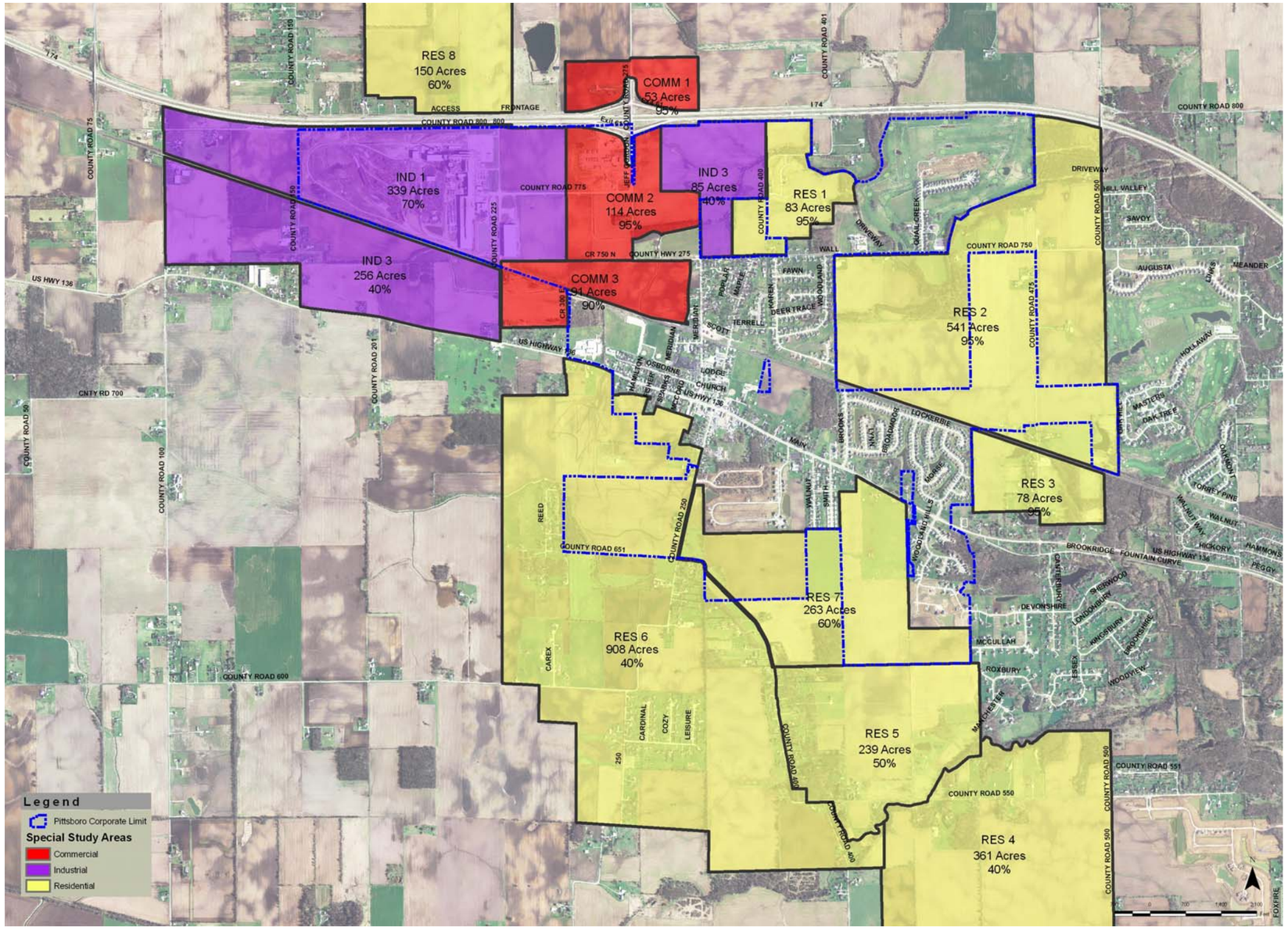
Anticipated Growth Areas

Eleven specific areas were identified in and near Pittsboro where significant land use development is anticipated to occur. Growth areas and development expectations were identified based on the Pittsboro Comprehensive Plan and discussions with the Plan Commission. These areas are shown in Figure 2-1.

Each of these growth areas was classified according to its future land use—residential, commercial or industrial. Future daily trip generation for each growth area was then estimated based on the anticipated intensity of new development in 2030 and trip generation rates for various land use types determined by the Institute of Transportation Engineers. A reduction factor was applied to avoid double-counting trips from new residential areas to new commercial and industrial areas.

New trips generated in the growth areas were assigned to the transportation network based on existing traffic patterns and assumptions regarding future access points for new developments. These new trips were then added to existing volumes and the background growth forecast for each network link in order to estimate 2030 daily volumes.

Figure 2.1: Land Use Growth Areas



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Forecast Results and Future Needs

A map of forecast traffic flow volumes in the Pittsboro area is shown in Figure 2-2.

Most road segments in the area are expected to function adequately as two-lane roads through the horizon year of 2030. The provision of additional through lanes should be a consideration as daily two-way volumes approach 16,000 vehicles per day (vpd).

Traffic volume forecasts of 22,000 vpd to 23,000 vpd clearly indicate that additional lanes will be needed in the future on Jeff Gordon Boulevard between Wall Street and I-74. Additional lanes may also be necessary on Wall Street between Jeff Gordon Boulevard and Meridian Street, as the 2030 forecast on this roadway segment is 16,000 vpd.

Future traffic volumes on US 136 through Pittsboro are expected to be between 10,000 and 15,000 vpd. While this segment of US 136 is not expected to warrant additional through lanes, it may require the addition of turn lanes, driveway consolidation and other spot improvements to maintain traffic safety and capacity.

The analysis of existing and forecast future traffic flows helped to identify the following three specific areas in the roadway where increased traffic volumes are expected to exacerbate problems caused by existing geometric deficiencies or network discontinuities:

- Jeff Gordon Boulevard from I-74 to Wall Street.
- Wall Street from Jeff Gordon Boulevard to Maple Street.
- US 136 from Meridian Street to Maple Street.

In the future, these will be the most heavily traveled roadways in Pittsboro, just as they are today. Specific recommendations are presented in later chapters to correct the alignment problems on these routes. This report also examines Jeff Gordon Boulevard in detail, with recommendations for improving the I-74 interchange and enhancing the routes as a gateway.

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Figure 2.2: 2030 Forecast Traffic Flows

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Chapter 3

Special Area Studies

The existing roadway configuration in Pittsboro and this portion of Hendricks County does not follow a grid pattern typical of most Central Indiana communities. Travel through this network is complicated by jogs and misaligned intersections of major roadways. The primary north-south arterial through town (Meridian Street/Maple Street) is discontinuous, with a one block jog at US 136. The primary east-west arterial on the north side of town (Wall Street) is misaligned at two major intersections. The pattern of arterials and collectors south of US 136 serves east-west travel very poorly, is discontinuous and poorly aligned, and includes several 90-degree turns.

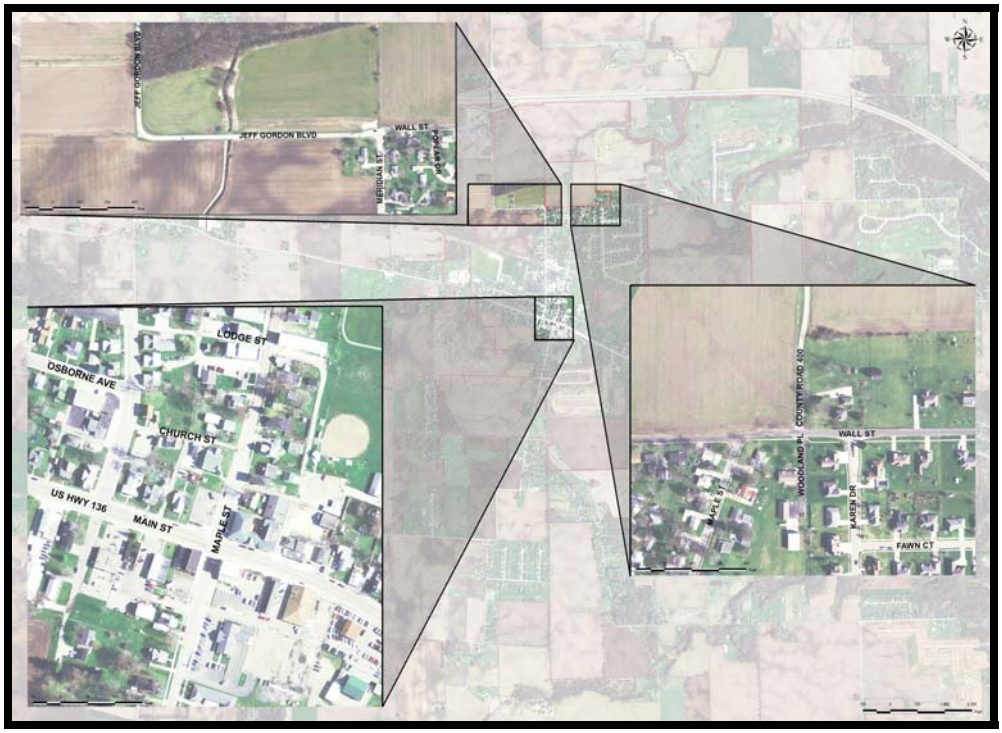
Identifying solutions to these geometric problems now will facilitate correction as development occurs. That is the purpose of these special area studies. Failure to address these problem areas could result in long term systemic problems that will be difficult or impossible to correct after the area is built out.

Purpose and Approach

The purpose of the Special Area Studies is to evaluate alternative geometric improvements at three key problem locations in Pittsboro. It is important to address these roadway design problems now, before increased traffic volumes exacerbate the problems they cause and before adjacent land development further restricts practical solutions. The following three locations were identified for detailed study and are highlighted in Figure 3.1:

- Meridian Street at US 136 (Main Street)
- Wall Street from Jeff Gordon Boulevard to Meridian Street
- Wall Street at Maple Street

Figure 3.1: Special Study Areas



Preliminary design alternatives were developed to correct the deficiencies identified at each of these locations. The alternatives were evaluated, and a recommended alternative for each location was selected based on constructability, cost, and its effectiveness at correcting identified deficiencies. A summary discussion of each of these three Special Area Studies is provided below.

Meridian Street at US 136 (Main Street)

Problem Overview

This location was selected for detailed study because of the opportunity to improve travel patterns in Pittsboro by connecting the key north-south routes through town. Meridian Street is the main north-south route north of US 136, but it is not a through street south of US 136. Maple Street, the next street to the east, is the main north-south route south of US 136, but it is a narrow residential street north of US 136.

An extension of Meridian Street south of US 136 could connect it directly to Maple Street or CR 250 E. and eliminate the jog necessary for north-south traffic at US 136. This connection would decrease traffic volumes on the low-speed residential portion of Maple Street north of US 136, as well as on US 136 between Meridian Street and Maple Street.

Existing Conditions

US 136 is the major east-west arterial through Pittsboro. It provides an important connection with Brownsburg and eastern Hendricks County.

Within downtown Pittsboro, US 136 is a two-lane road with on-street parking, curb and gutter and sidewalks on both sides.

Maple Street is the primary north-south connection between downtown Pittsboro and the agricultural and low-density residential areas south of Pittsboro. Its intersection with US 136 (Main Street) is considered to be the center of downtown Pittsboro and is the town's only signalized intersection. (See Figure 3.2.) South of US 136, Maple Street becomes CR 250 E. North of US 136, Maple Street goes as far as Wall Street, where it ends at a "T" intersection.

Traffic can use Maple Street and Wall Street to travel between downtown Pittsboro and the I-74/Jeff Gordon Boulevard interchange. However, this portion of Maple Street is narrow and residential in character, and its use as a primary through route is discouraged.

Figure 3.2: Main Street looking east toward Maple Street

Meridian Street, which intersects US136 one block west of Maple Street, is the primary route between downtown Pittsboro and areas to the north, including the I-74 interchange at Jeff Gordon Boulevard. Meridian Street is a two-lane road with curb, gutter and sidewalk on both sides. Like Maple Street, Meridian Street also ends at Wall Street, but it provides a more direct route to I-74, is wider, and has fewer driveways than Maple Street. Trailblazer signs direct I-74 traffic to Meridian Street.

Figures 3.3 and 3.4 show Meridian Street at its intersection with US 136 (Main Street). Despite its importance to traffic flow north of US 136, Meridian Street extends only one block south of US 136 before it dead ends.

Figure 3.3: Main Street and Meridian Street, Looking North

Figure 3.4: Main Street and Meridian Street, Looking South

The portion of US 136 between Meridian Street and Maple Street is at the center of downtown Pittsboro. Land use is a mix of residential and small commercial properties. Land use along both Meridian and Maple Streets is primarily residential north of US 136 and agricultural south of US 136, although there is higher density residential development directly fronting Maple Street for approximately ¼ mile.

Improvement Alternatives

Three alternatives were developed to extend Meridian Street south from its existing terminus to connect with Maple Street/CR 250 E. Conceptual drawings showing these alternatives are presented in Figures 3.5 – 3.7.

Each alternative has a two-lane roadway section with curb, gutter and ten-foot multi-use trail on both sides within the 80 foot right-of-way. The intersection of US 136 and Meridian Street would be reconstructed and signalized, with a left turn lane and a shared through-right turn lane in all directions. The existing signal at US 136 and Maple Street would be removed, and would revert to stop control on Maple Street.

Alternative 1

In this alternative, Meridian Street would be extend south of US 136 approximately 300 feet and curve east to connect with Maple Street. The existing segment of Maple Street between US 136 and this connection would be a dead end, providing local access from US 136 only. Total construction length required would be approximately 0.3 miles of proposed roadway. Alternative 1 would require the least amount of constructed roadway among the alternatives, but it would involve the greatest number of residential and commercial relocations. It is estimated that five homes and one business would be impacted.

Alternative 2

In this alternative, Meridian Street would extend south of US 136 about 700 feet and curve east to connect with Maple Street about 0.5 miles south of US 136. Existing Maple Street north of this connection would be used for local access only, with a cul-de-sac constructed at the south end. A “connector” road would be constructed 0.25 miles south of US 136 to accommodate traffic between Meridian Street and this local segment of Maple Street. Total construction length required would be about 0.6 miles of proposed roadway. This alternative would require one residential and one commercial relocation.

Alternative 3

In this alternative, Meridian Street would continue south of US 136 about 0.85 miles and connect with CR 250 East south of the jog with Maple Street. A “connector” roadway would be constructed from Meridian Street to intersect Maple Street opposite Woodridge Drive, 1500 feet south of US 136. The extended Meridian Street would also intersect Blue Spruce Lane (CR 651 North). Construction length is about 1.0 miles of proposed roadway. Alternative 3 proposes the greatest amount of constructed roadway to eliminate the two jogs for north-south through traffic, but would not require any residential or commercial relocations.

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Figure 3.5: Alternative 1

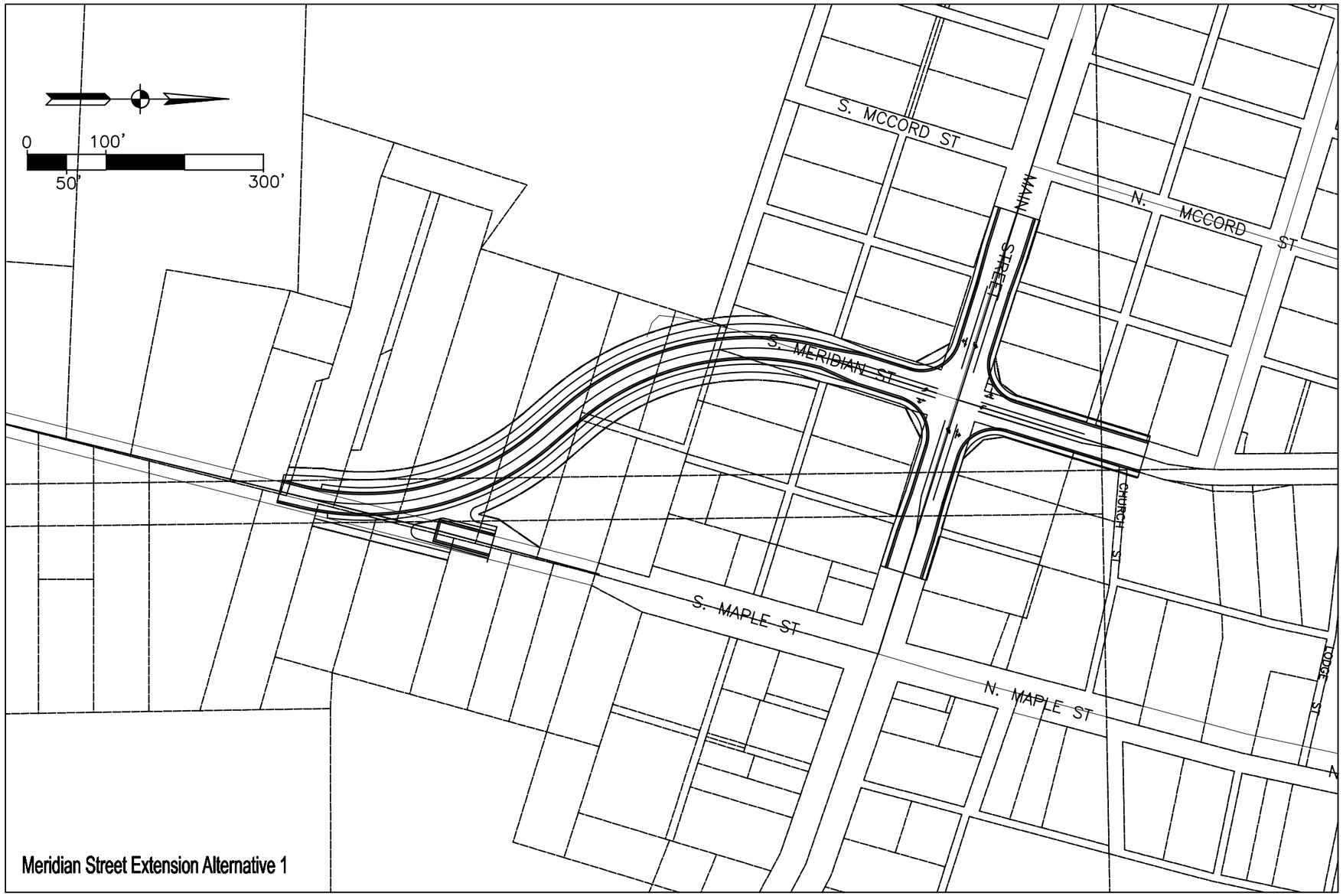

Figure 3.6: Alternative 2

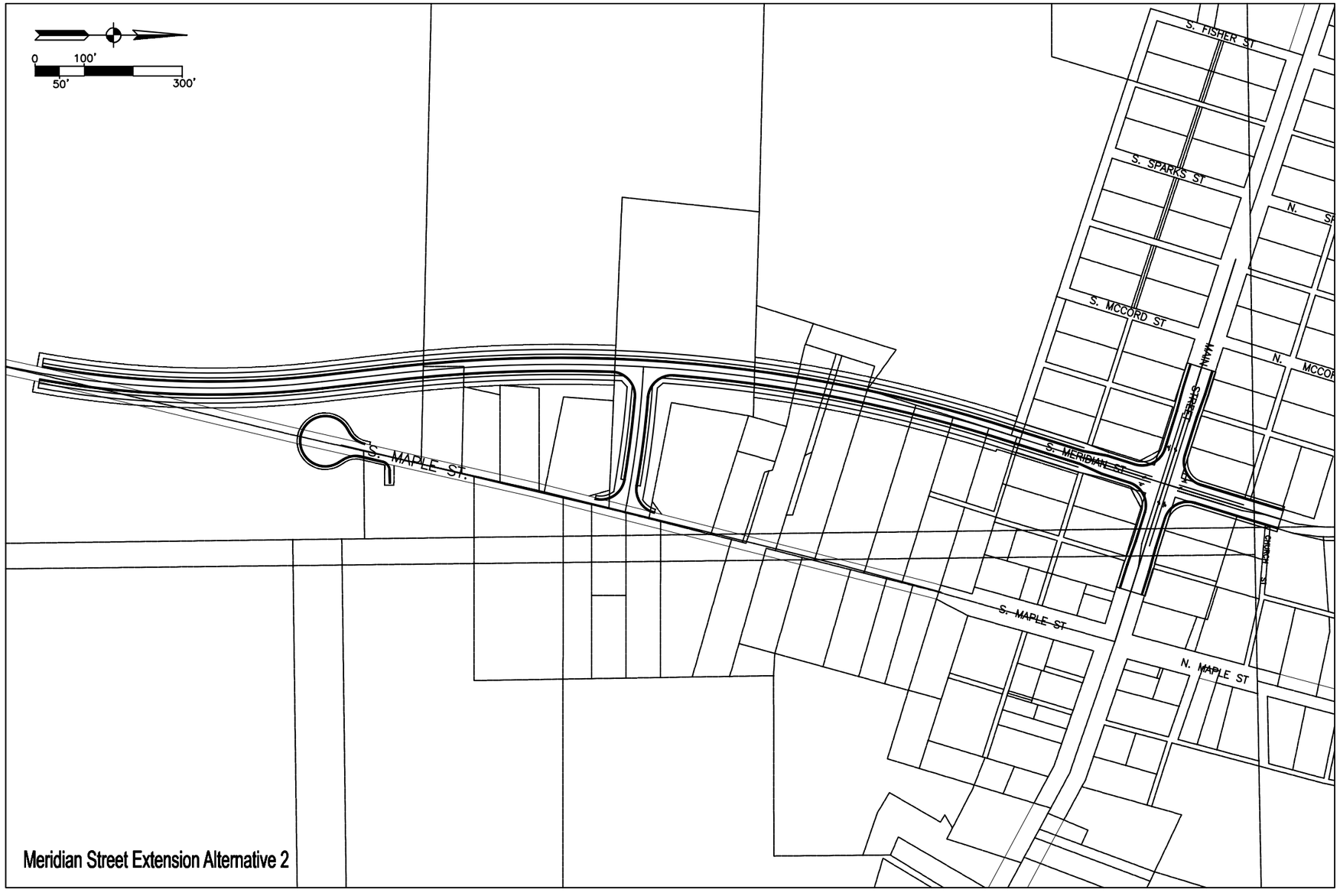

Figure 3.7: Alternative 3

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Recommendation

Alternative 3 is recommended due to its more limited property impact and the improved route it would provide for the long term by eliminating two of the existing jogs required for north-south travel through the town. This change should be reflected in the town's approved thoroughfare plan.

Wall Street from Jeff Gordon Boulevard to Meridian Street

Problem Overview

Wall Street between Jeff Gordon Boulevard and Meridian Street is part of the primary route between Pittsboro and the I-74/Jeff Gordon Boulevard interchange. This roadway segment is expected to experience more traffic growth than almost any other road segment in the Pittsboro area, perhaps requiring four travel lanes by 2030. The intersection of Wall Street and Meridian Street in particular will continue to be critical to smooth traffic flow between Pittsboro and I-74. This is currently a "T" intersection with misaligned approaches along Wall Street. This study examines alternatives for realigning Wall Street to eliminate the shift.

Existing Conditions

The segment of Wall Street between Meridian Street and Jeff Gordon Boulevard has two eleven-foot lanes and three-foot paved shoulders. It is bordered by roadside ditches and has only 30 feet of total right of way. East of Meridian Street, Wall Street has two ten-foot lanes with no shoulder, with a four-foot grass buffer and five-foot sidewalk along the south side. There is a shallow roadside ditch on the north side of the roadway.

Wall Street and Meridian Street form a "T" intersection, with Wall Street at the top. As shown in Figure 3.8, Wall Street is misaligned through the intersection. Wall Street east of the intersection is aligned 25 feet farther north than it is west of the intersection. South of this intersection, Meridian Street consists of two ten-foot travel lanes with on-street parking, concrete curb and gutter and four-foot sidewalks. Right of way width along Meridian Street is 40 feet.

Land use along Wall Street between Meridian Street and Jeff Gordon Boulevard is primarily agricultural. A park is planned on the north side of Wall Street in this area. Land use east of Meridian Street is agricultural on the north Side of Wall Street and residential on the south side.

Figure 3.8: Wall Street at Meridian Street, Looking East

Improvement Alternatives

Two improvement alternatives were developed for this segment of Wall Street. The layouts of these alternatives are shown in Figures 3.9 and 3.10. Under either alternative, the proposed typical roadway section for Meridian Street and for Wall Street east of the intersection would include two twelve-foot travel lanes with curb and gutter, six-foot buffers, and ten-foot multi-use trails on each side within 80 feet of right of way. West of the intersection, four twelve-foot lanes, curb and gutter, six-foot buffers and ten-foot multi-use trails will be provided within 100 feet of right of way. The intersection of Wall Street and Meridian Street would have an eastbound through lane and right turn lane, a westbound through lane, and left turn lane and a northbound left turn and right turn lane.

Alternative 1

This alternative would shift Wall Street north at Jeff Gordon Boulevard. The northern alignment shift would require land from the proposed park along Jeff Gordon Boulevard. Approximately 0.4 miles of new roadway would be constructed, with no residential relocations.

Alternative 2

This alternative would retain the existing Wall Street alignment at Jeff Gordon Boulevard in order to match the alignment of the west approach of the Wall Street/Jeff Gordon Boulevard intersection. Wall Street would maintain its existing alignment for approximately 250 feet east of Jeff Gordon Boulevard before shifting north to match the alignment of Wall Street east of Meridian Street. This alternative would reduce the amount of land required from the proposed park, but would introduce new

curvature into the existing tangent alignment. Approximately 0.4 miles of new roadway would be constructed. Residential relocations would not be required.

Recommendation

Alternative 2 is recommended because it would require less right of way from the proposed park site and because it would not require reconstruction of the west leg of the Wall Street/Jeff Gordon Boulevard intersection. The construction of a modern roundabout at the intersection of Wall Street and Meridian Street may enable the alignment of Wall Street to be shifted even farther, thus reducing the required right of way even more. Roundabouts at this intersection and the intersection of Wall Street and Jeff Gordon Boulevard may also better accommodate the turning volumes expected at these locations.

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Figure 3.9: Alternative 1

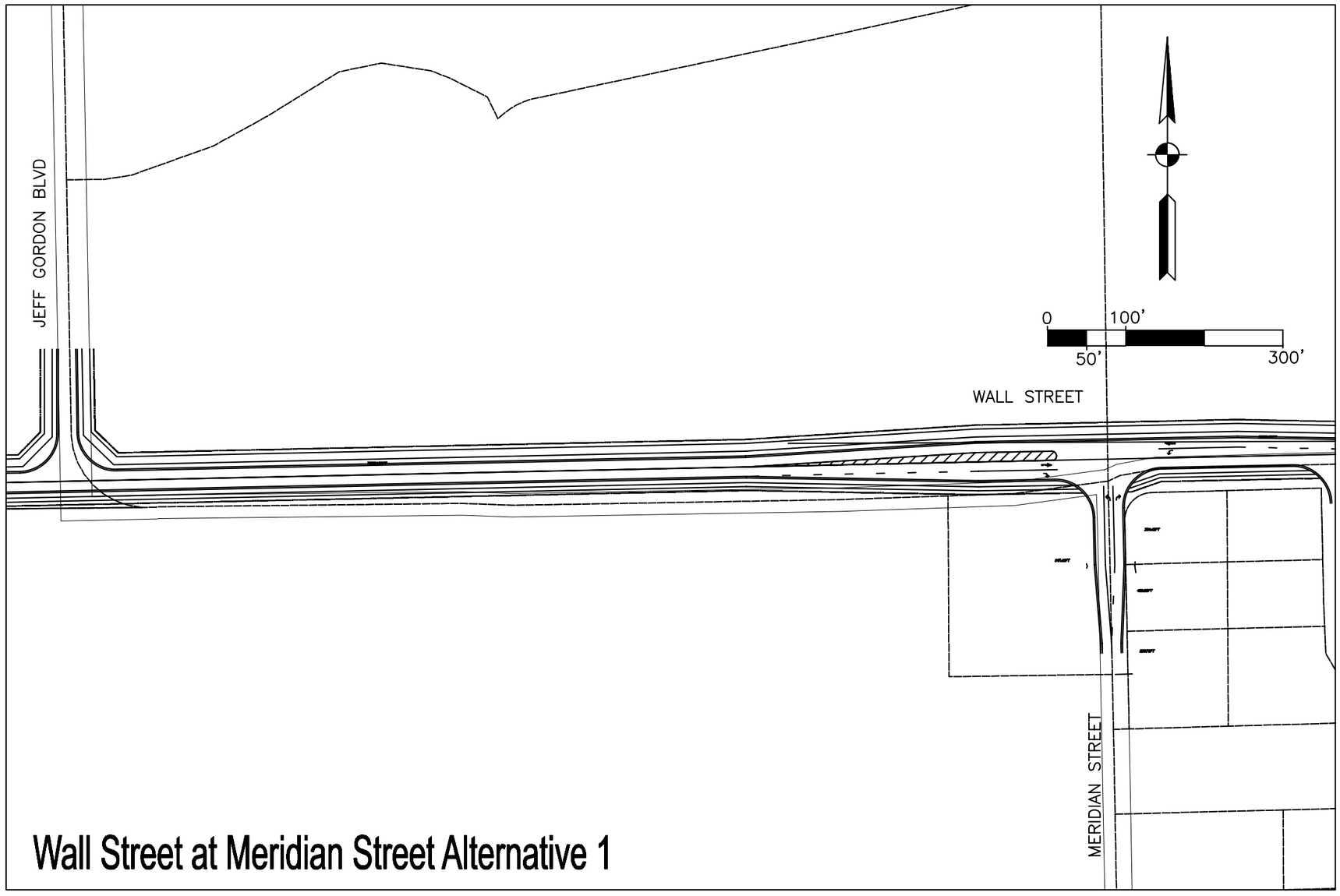
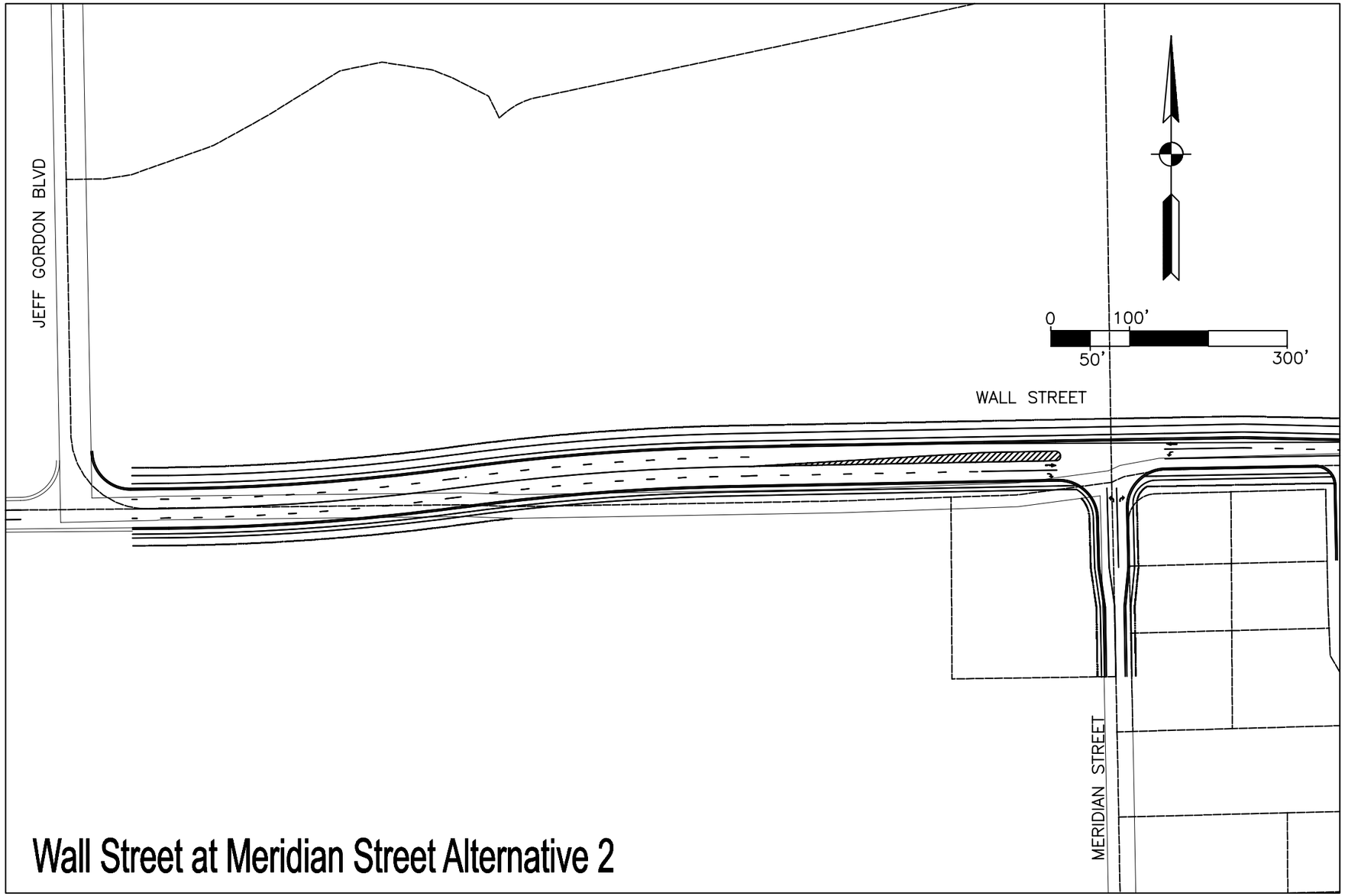


Figure 3.10: Alternative 2



Wall Street and Maple Street

Problem Overview

The segment of Wall Street east of Meridian Street is used to access the central and eastern portions of Pittsboro from I-74. All of the north-south streets that intersect Wall Street currently form "T" intersections, with no continuous north-south street across Wall Street. Development is proposed north of Wall Street between Meridian and Woodland that will increase traffic volumes using this portion of Wall Street. Traffic volumes on Maple Street and Waters Way (CR 401 East) are also expected to increase due to this development. This study evaluated alternatives for realigning Waters Way to connect to the intersection of Maple Street and Wall Street. This would eliminate the jog along Wall Street for north-south traffic and provide a continuous route between downtown Pittsboro and the proposed development area north of Wall Street.

Existing Conditions

The existing roadway cross section of Wall Street consists of two ten-foot travel lanes, with a four-foot grass buffer and a five-foot sidewalk along the south side. A shallow roadside ditch lines the north side of the roadway.

Maple Street has two ten-foot travel lanes with curb on each side. The west side has a five-foot sidewalk and a three-foot grass buffer. The right side has a five-foot sidewalk and a four-foot grass buffer.

Waters Way approaches Wall Street from the north approximately 230 feet east of Maple Street. It has two ten-foot travel lanes, no shoulders and shallow roadside ditches.

Wall Street is misaligned at its intersection with Maple Street. As at Meridian Street, the east approach is shifted north of the west approach. Waters Way intersects Wall Street just east of the Maple Street approach. Figure 3.11 shows the view from Maple Street.

Figure 3.11: Maple Street at Wall Street, Looking North

Existing land use is primarily residential south of Wall Street and agricultural to the north. A gas pipeline substation owned by the Panhandle Eastern Pipeline Company is located on the west side of Waters Way approximately 800 feet north of Wall Street.

Improvement Alternatives

Two alternatives were developed to realign Maple Street and Waters Way. These alternatives are shown in Figures 3.12 and 3.13. In both alternatives, the proposed typical roadway section would include two twelve-foot travel lanes with curb and gutter, six-foot buffers and ten-foot multi-use trails on both sides within 80 feet of right of way. Neither alternative would require residential relocations.

Alternative 1

This alternative would realign Waters Way to intersect with Wall Street at Maple Street. Approximately 1000 feet of new roadway along Waters Way would be required. The existing gas substation on Waters Way would be relocated in order to provide right of way for a smooth connection between Waters Way and Maple Street. Wall Street would be reconstructed approximately 700 feet. Construction would extend to the north to reduce the amount of right of way acquisition from the residential properties. Incidental construction would be required along Maple Street to tie into the existing roadway section.

Alternative 2

This alternative is similar to alternative 1 except that the realignment of Waters Way would begin south of the gas substation in order to avoid disruption to the utility. This option would require only 650 feet of new roadway. A small reverse curve on the realigned portion of Waters Way would require a lower design speed.

Recommendation

Alternative 2 is recommended due to its lower cost and the avoidance of the gas substation.

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Figure 3.12: Alternative 1

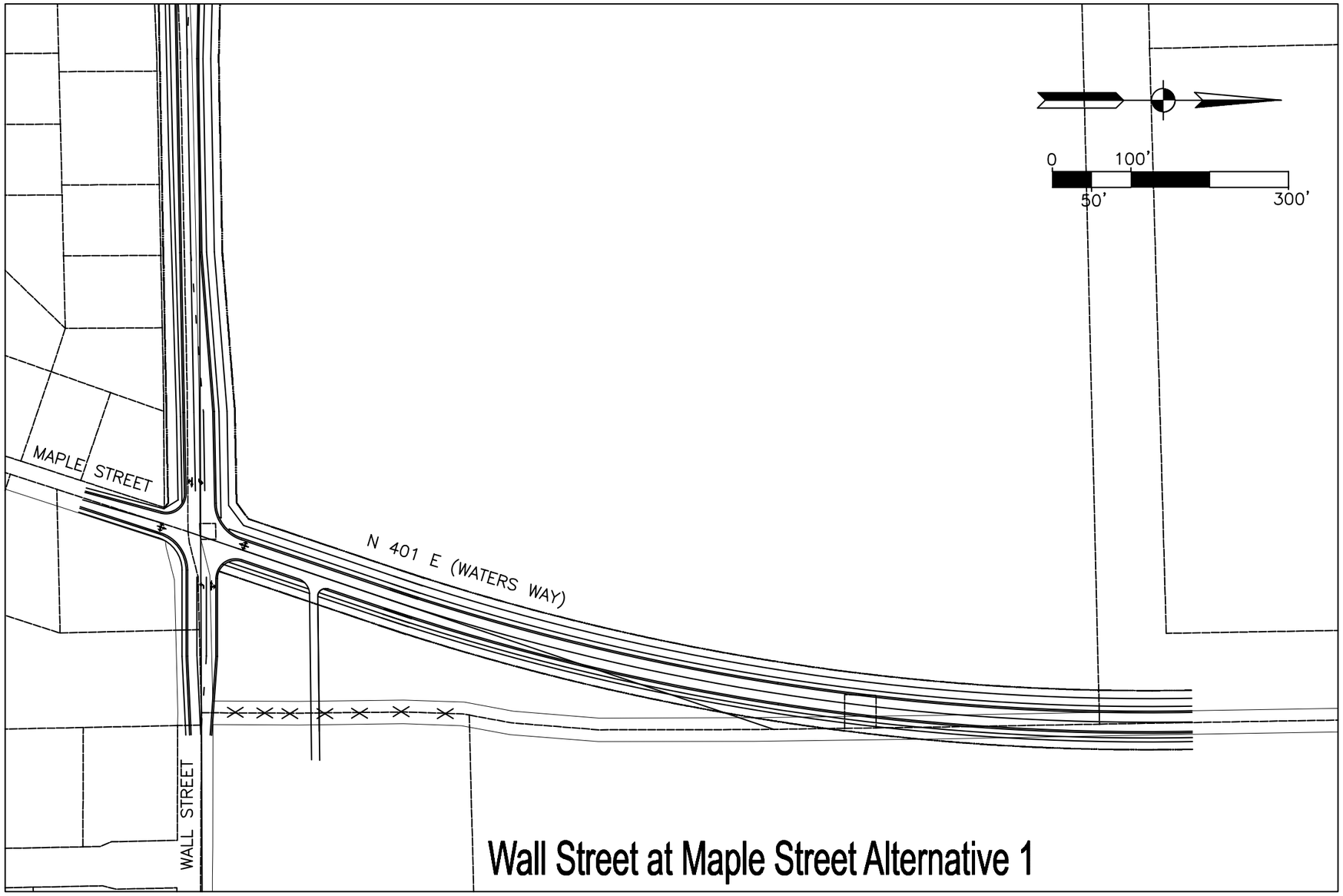
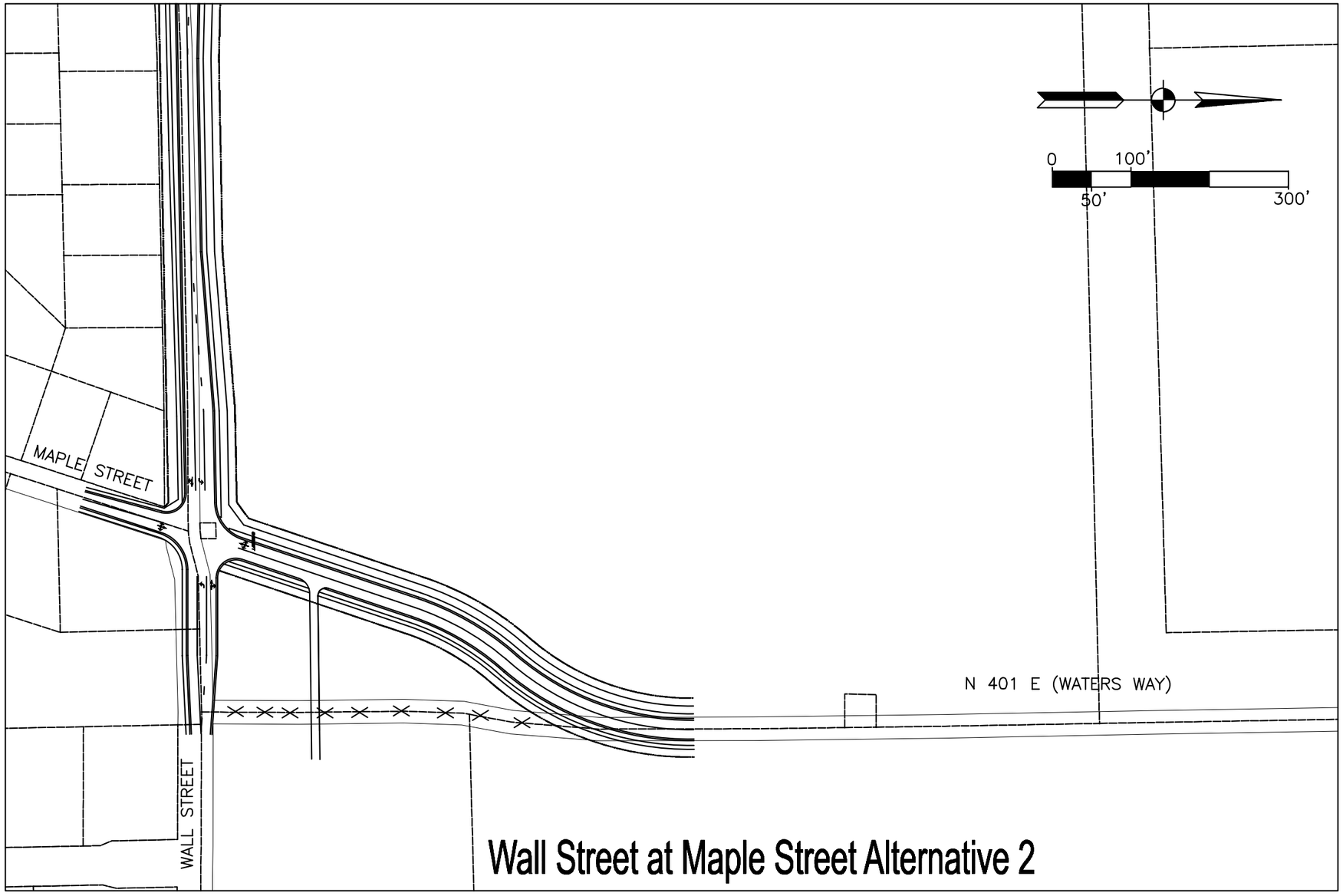


Figure 3.13: Alternative 2



Conclusion

The system changes recommended here are needed if the transportation system of Pittsboro is to function effectively as the town grows. Jogs and misalignments that are an inconvenience now will be come hazardous and congested if the deficiencies are not corrected.

Estimated costs, potential funding sources and implementation steps are identified for these and other recommended improvements in a separate chapter of this report. The first step is to recognize the need for these changes in an update to the Pittsboro Thoroughfare Plan.

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Chapter 4

Jeff Gordon Boulevard Interchange Study

Jeff Gordon Boulevard is the primary gateway to the Town of Pittsboro. It connects with I-74 by means of a diamond interchange designed and constructed 30 to 40 years ago. Jeff Gordon Boulevard extends northward through Hendricks County and southward to Wall Street, an arterial that distributes traffic east and west to access Pittsboro.

Since this is Pittsboro's only interstate access point, virtually all growth in the town will affect the traffic levels on this roadway. Moreover, Pittsboro's comprehensive plan concentrates future industrial and commercial growth in the vicinity of Jeff Gordon Boulevard. Currently, only one quadrant of the interchange is in use (by Love's Truck Stop), but with the adjacent interchange area at Brownsburg nearly built out, additional commercial development is expected in the near term. Orderly development of the Jeff Gordon Boulevard corridor is essential to the future of Pittsboro.

The study area of the Jeff Gordon Boulevard Interchange/Corridor Study is the half-mile section of roadway between the I-74 interchange and Wall Street. The objective is to fully define the future configuration of this roadway so that actions and decisions in the near term will support future needs in this key corridor for Pittsboro. Based on aerial photos and on-site reviews, the following elements are addressed:

- Roadway cross section and future right of way requirements for a four-lane divided gateway arterial.
- Interchange geometrics and operations, particularly with respect to safety, sight distance, and truck movements.
- Modifications to existing drives and access points to reduce motorist confusion (particularly related to the location of the frontage road in the southwest quadrant) and to enhance public safety.
- Access management planning and controls for future development, especially in close proximity to the I-74 interchange.
- Aesthetic plans and development controls suitable for a major gateway to the Pittsboro community.

Recognizing that the interchange itself is a state highway facility, data gathering and planning activities associated with the Jeff Gordon Boulevard Interchange/Corridor Study have been coordinated with the Crawfordsville District of INDOT.

The review of Jeff Gordon Boulevard was conducted (and is presented here) in two parts. The first part, presented in this chapter, includes a detailed review of the I-74/ Jeff Gordon Boulevard interchange. The second part, presented in Chapter 5, reviews future needs and opportunities for an enhanced gateway corridor treatment for Jeff Gordon Boulevard between I-74 and Wall Street.

Purpose and Approach

The interchange of I-74 and Jeff Gordon Boulevard is a primary transportation gateway to the Town of Pittsboro. The existing interchange represents Pittsboro's only direct interstate access point. The community has recognized that the recent rapid growth of

residential, industrial and commercial developments in Pittsboro have affected the concentration of traffic on Jeff Gordon Boulevard and the interchange with I-74. This traffic growth is expected to continue.

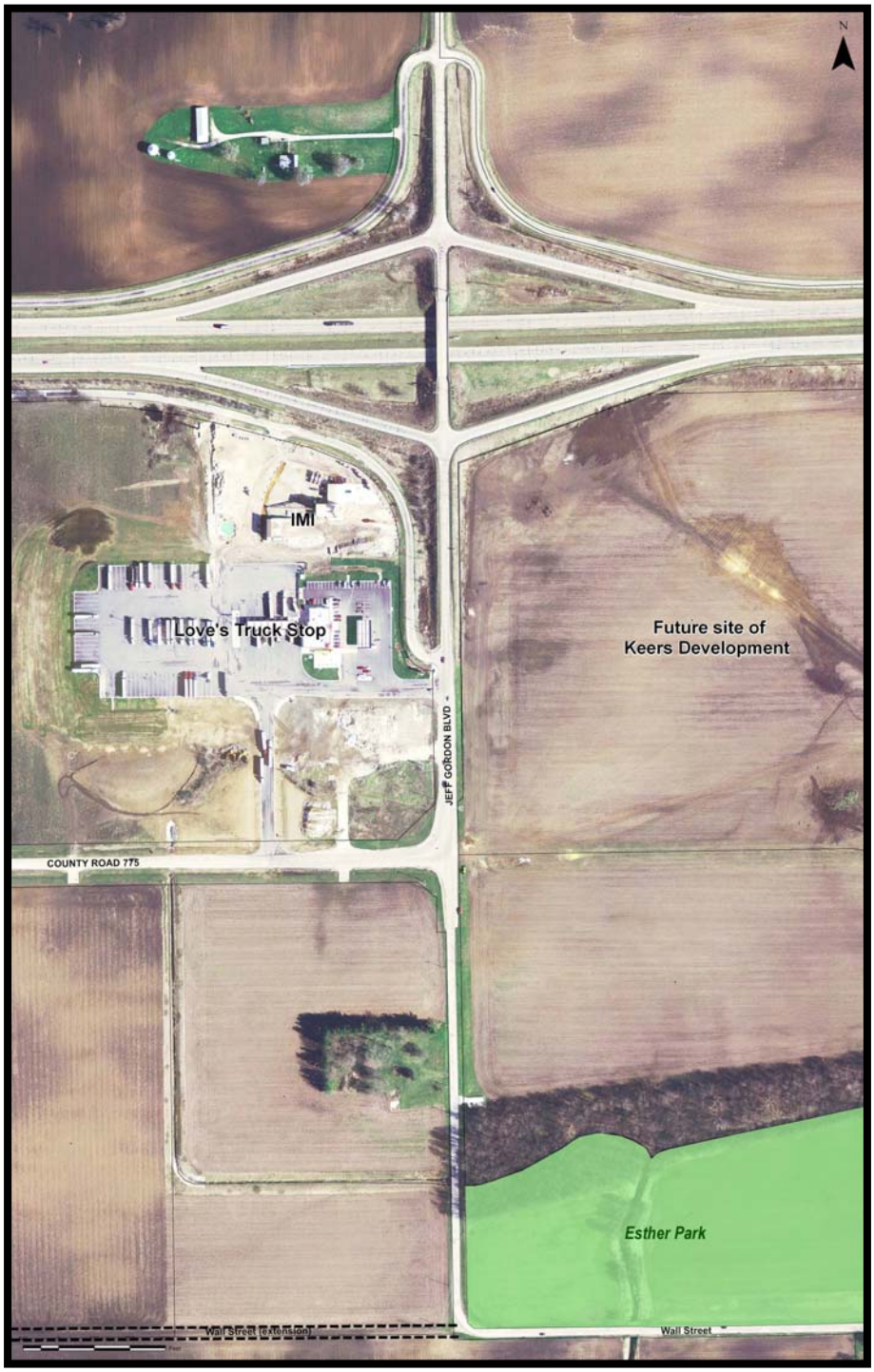
Of particular concern is the amount of truck traffic using this interchange and the difficulty of safely turning onto Jeff Gordon Boulevard from the I-74 ramps, which currently operate under stop sign control.

Traffic volumes on Jeff Gordon Boulevard south of I-74 are expected to grow to four times the current levels by the year 2030. (See Chapter 2.) This growth will cause Jeff Gordon Boulevard to be the highest volume roadway in Pittsboro. Traffic volumes through the I-74 interchange will be much higher than those that exist today. INDOT inspections of the interchange have already identified the existing bridge and ramp configuration as functionally obsolete.

Existing Conditions

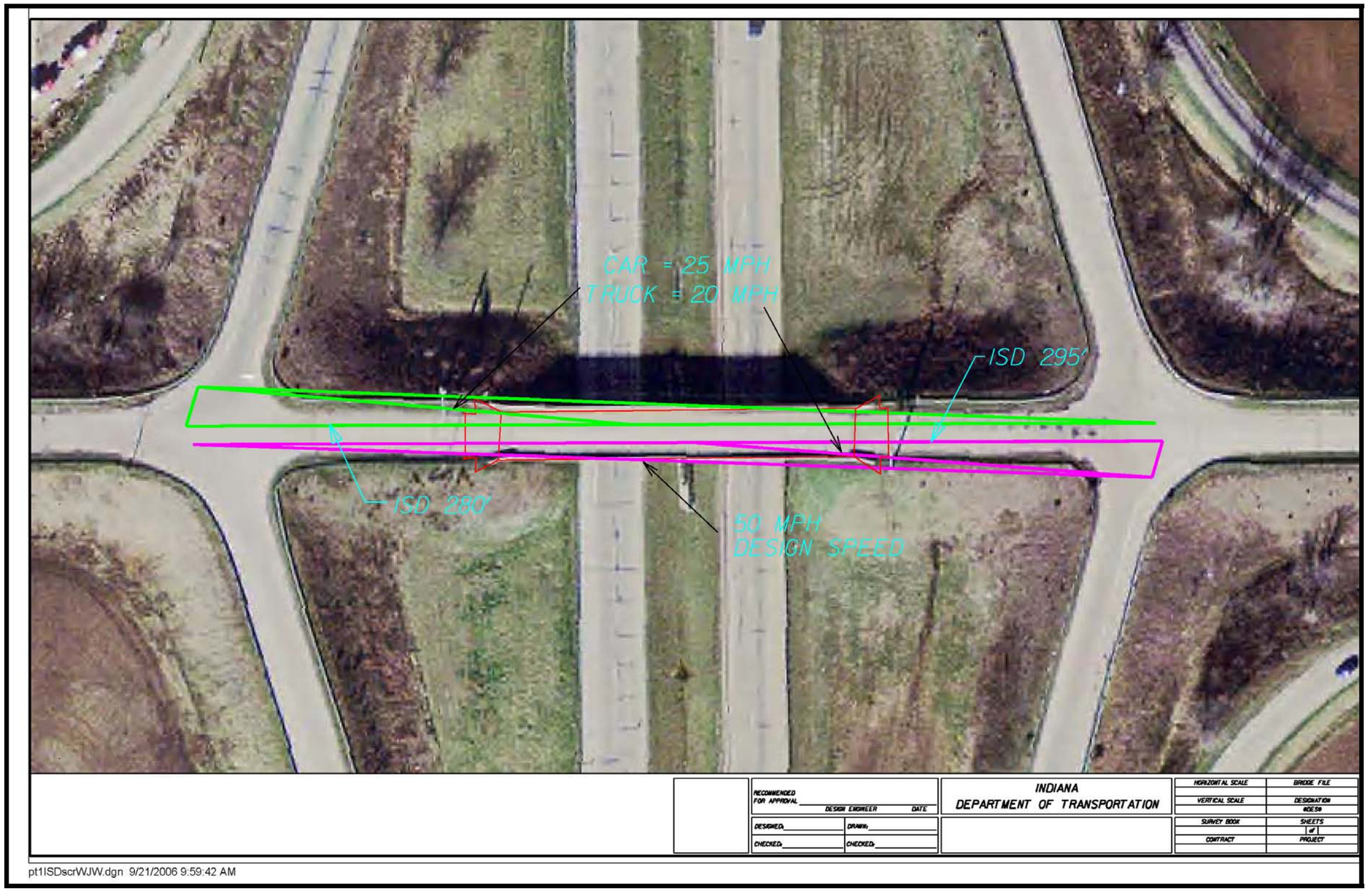
The existing interchange has a diamond ramp configuration with a narrow, two-lane bridge and closely spaced ramp terminal intersections. The ramps approach Jeff Gordon Boulevard at an angle to the cross roadway (See Figure 4.1.)

Figure 4.1: Existing Interchange



The configuration of the ramp terminal interchanges, coupled with the narrow bridge and guard rail of Jeff Gordon Boulevard, make it difficult to see local traffic approaching the interchange. The sight distance from the north ramp terminal intersection is 280 feet and from the south ramp terminal is 255 feet, as illustrated in Figure 4.2. The minimum guideline for this configuration is 630 feet at 50 mph. In the three years from 2003 to 2005, there were 11 reported accidents involving five personal injuries. Although this is not a high number of accidents when compared to statewide averages, the accident frequency will undoubtedly increase as traffic volumes grow.

Figure 4.2: Interchange Sight Distance Triangles



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Future Conditions

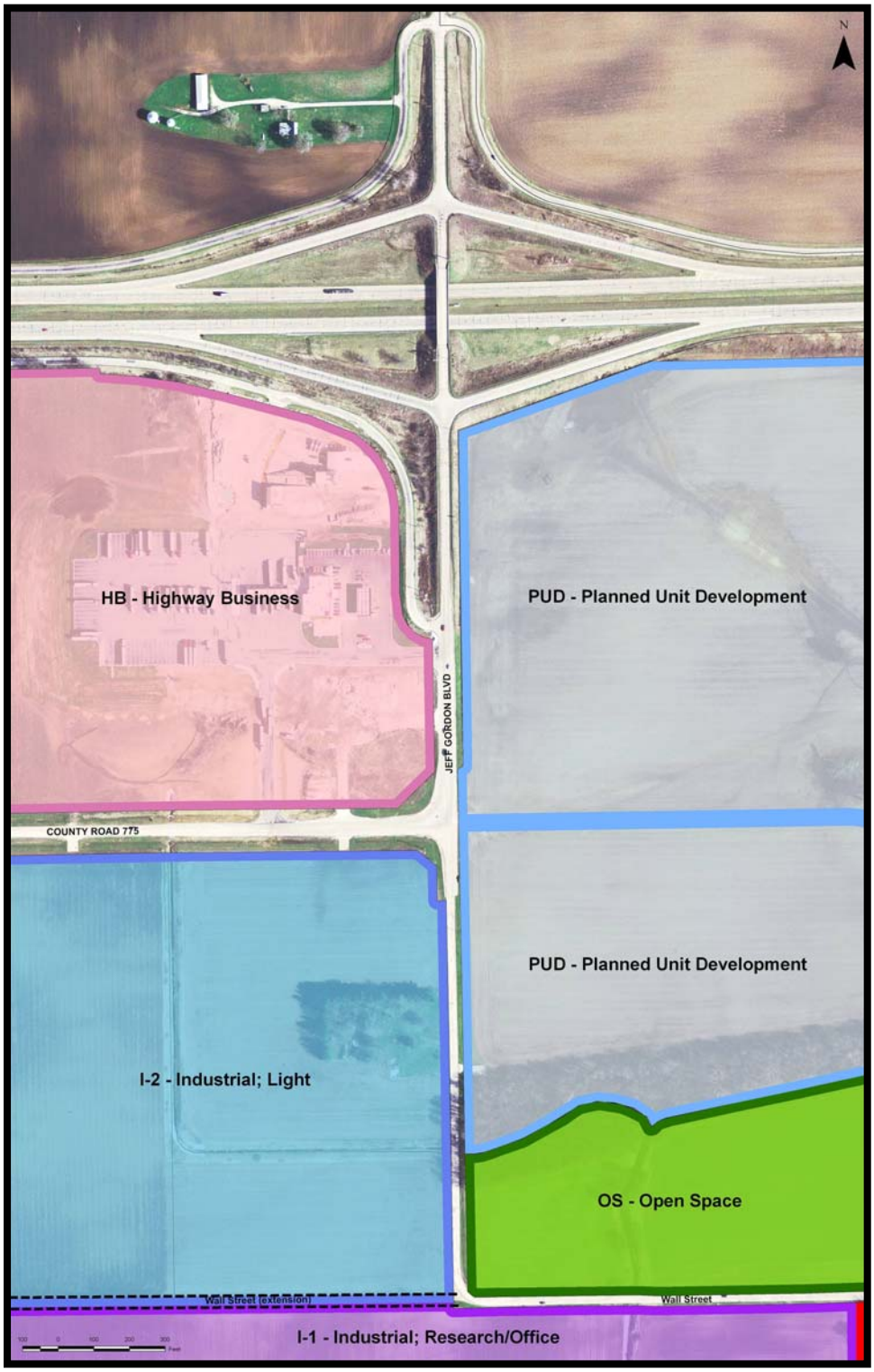
Future traffic levels on Jeff Gordon Boulevard were forecasted by adding traffic from anticipated development to a base condition that included background growth. Forecasts indicate that Jeff Gordon Boulevard will need to be a four-lane facility in the future (See Chapter 2). A boulevard section is planned between I-74 and Wall Street. To meet future capacity needs and provide an appropriate level of safety, this four-lane section should be extended northward through the interchange area before the transition is made back to two lanes farther north.

Adjacent Land Use

The land uses that currently exist adjacent to the interchange are commercial, industrial, and agricultural. Although the area is largely undeveloped, recent growth trends and the proximity of Pittsboro to the urban fringe of Indianapolis suggest that significant growth is likely in the near term. With the exception of an area of park land at the northeast corner of Wall Street and Jeff Gordon Boulevard, adjacent land uses are commercial, industrial, and agricultural.

Figure 4.3 shows the planned land uses along the Jeff Gordon Boulevard corridor.

Figure 4.3: Adjacent Land Use



Access Management

In the long term, access management is important for achieving high quality service at the I-74 interchange and maintaining the transportation function of Jeff Gordon Boulevard. There should be a minimum of ¼ mile between primary access points and 1/8 mile between secondary access points.

Applying this concept between I-74 and Wall Street would provide full primary access at three locations, with all movements accommodated, and secondary access at two locations, with provision for right-turn in and right-turn out access. This is illustrated on Figure 4.4.

Figure 4.4: Future Access Points

Bicycles and Pedestrians

Due to the limited opportunity to cross I-74, the Bicycle and Pedestrian Plan (Chapter 6) includes a multi-use trail along Jeff Gordon Boulevard through the interchange area. The trail should be on both sides of the roadway to enhance connectivity. The bridge over I-74 will need additional space to address sight distance needs, and this additional width could accommodate the multi-use trail.

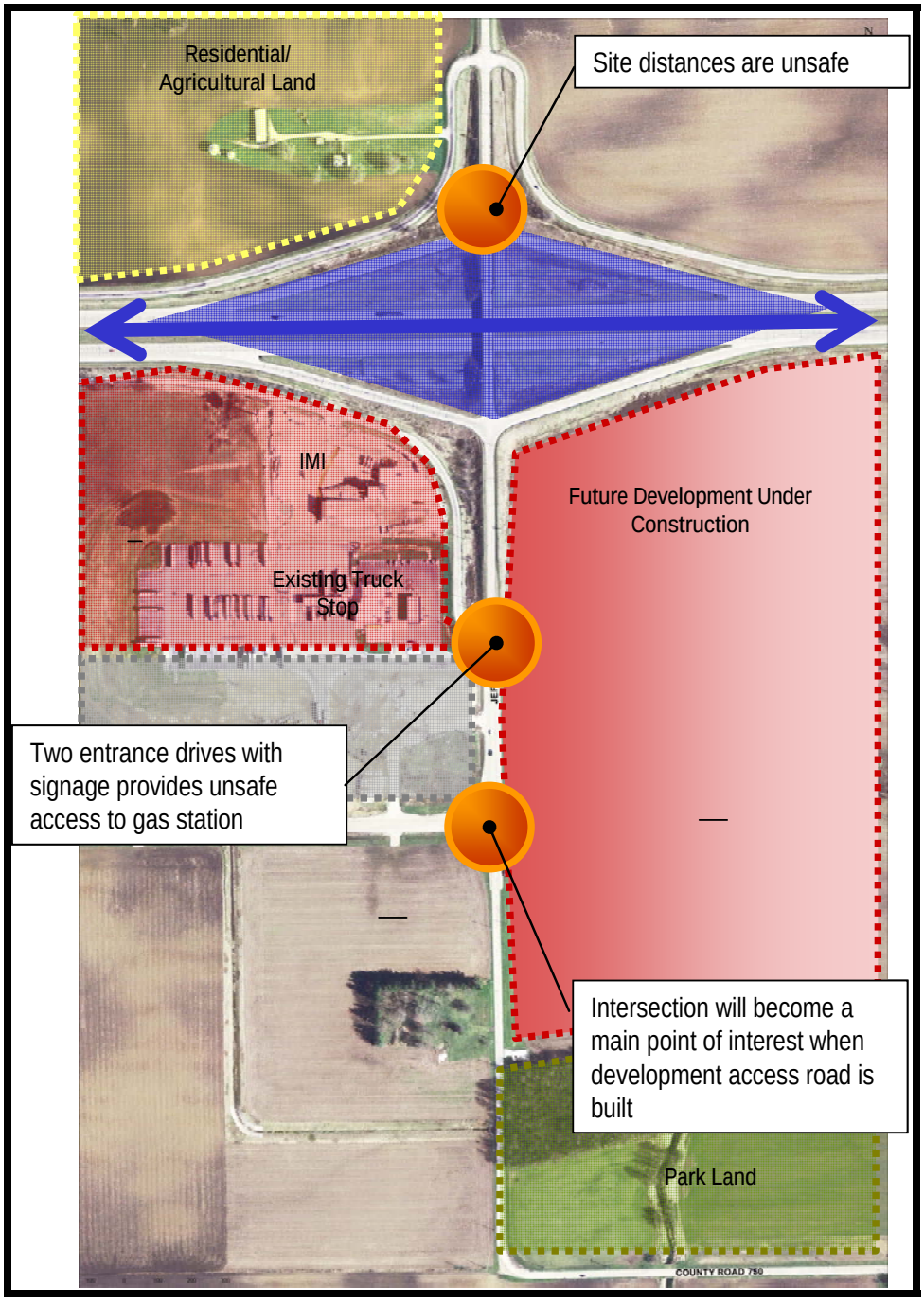
Further south, there would need to be barriers and additional pedestrian treatments added to the bridge over the drainage swale for safety purposes. A common theme from the Jeff Gordon Boulevard Corridor can be carried through the interchange.

Public Safety

Opportunities also exist to enhance operations and safety on Jeff Gordon Boulevard in the vicinity of the interchange. The entrance to CR 800 N and the first entrance to Love's Truck Stop are located adjacent to the southwest interchange ramp. These drives are much too close together to provide for safe and efficient movements. The Pittsboro Thoroughfare Plan calls for the county road to be rerouted to eliminate this entrance. Other access points should be modified in accordance with the access management principles previously described (and more fully addressed in Chapter 5).

Areas of concern with respect to safety are illustrated on Figure 4.5.

Figure 4.5: Safety Concerns



Improvement Options and Recommendations

Two improvement alternatives have been developed to serve forecasted travel demand and to address inadequate intersection sight distance at the ramp terminal intersections and functional obsolescence of the bridge.

The first alternative, shown in Figure 4.6, modifies the existing interchange configuration by utilizing a tight-urban diamond interchange type. The characteristics of this interchange type include closely spaced signalized intersections at the ramp terminals and a special signal phasing system to eliminate vehicle queuing between the intersections.

This interchange type would require the provision of three lanes of traffic in each direction between the intersections and across the bridge to serve forecasted 2030 travel demand. The bridge width would also accommodate multi-use trails on both sides as identified in the Bicycle and Pedestrian Plan (Chapter 6). A ten-foot wide trail would provide adequate sight distance under emergency stop conditions.

One significant advantage of this interchange type would be the reduced right-of-way requirement. Very little or no additional right-of-way should be required for this alternative, except for the expansion of Jeff Gordon Boulevard to four lanes on either side of the interchange.

The second alternative, shown in Figure 4.7, would utilize a two-lane double-roundabout interchange configuration that would incorporate a roundabout intersection at each ramp terminal. Although this interchange type is new in Indiana, it has been successfully implemented at several locations elsewhere in the United States.

Generally, roundabouts are safer and less costly to maintain than signalized intersections. An added benefit at this location is the potential for phased construction using the existing two-lane roadway until traffic volumes or other circumstances warrant expansion to a four-lane boulevard. In the interim, the roundabouts would eliminate the problem of inadequate sight distances due to reduced speeds on the north-south approaches.

Right-of-way requirements for this interchange alternative would be limited to the four corners of the interchange and possibly the ramp exits and entrance junctions with I-74. The ramps may need to be extended to provide an acceptable profile at the roundabout approaches.

The final recommendation of a future interchange configuration, with a more detailed evaluation of the interchange alternatives, should be developed in close consultation with INDOT. However, the double-roundabout interchange (Alternative 2) has several advantages that indicate it is the more desirable of the two.

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Figure 4.6: Alternative 1

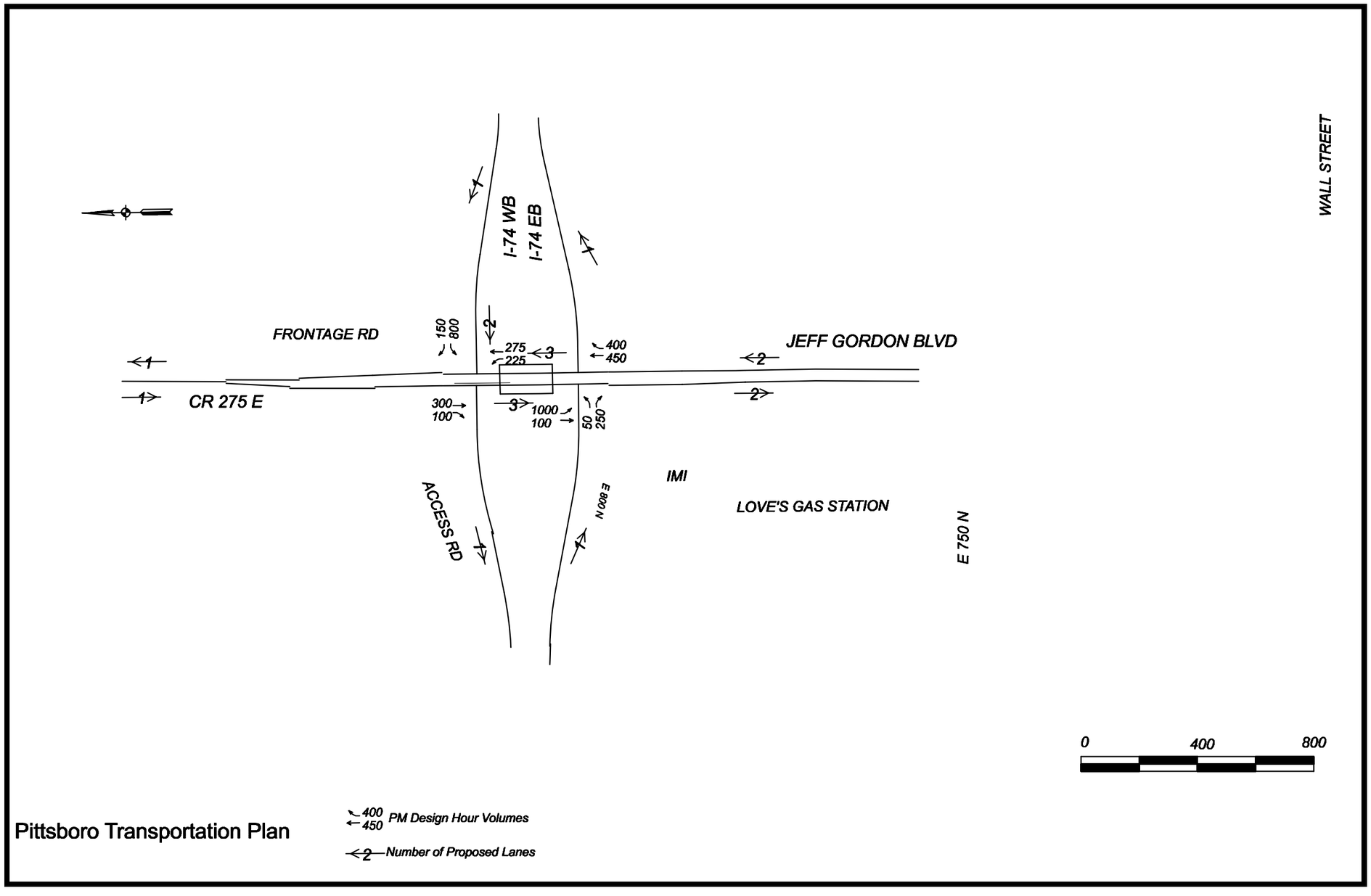
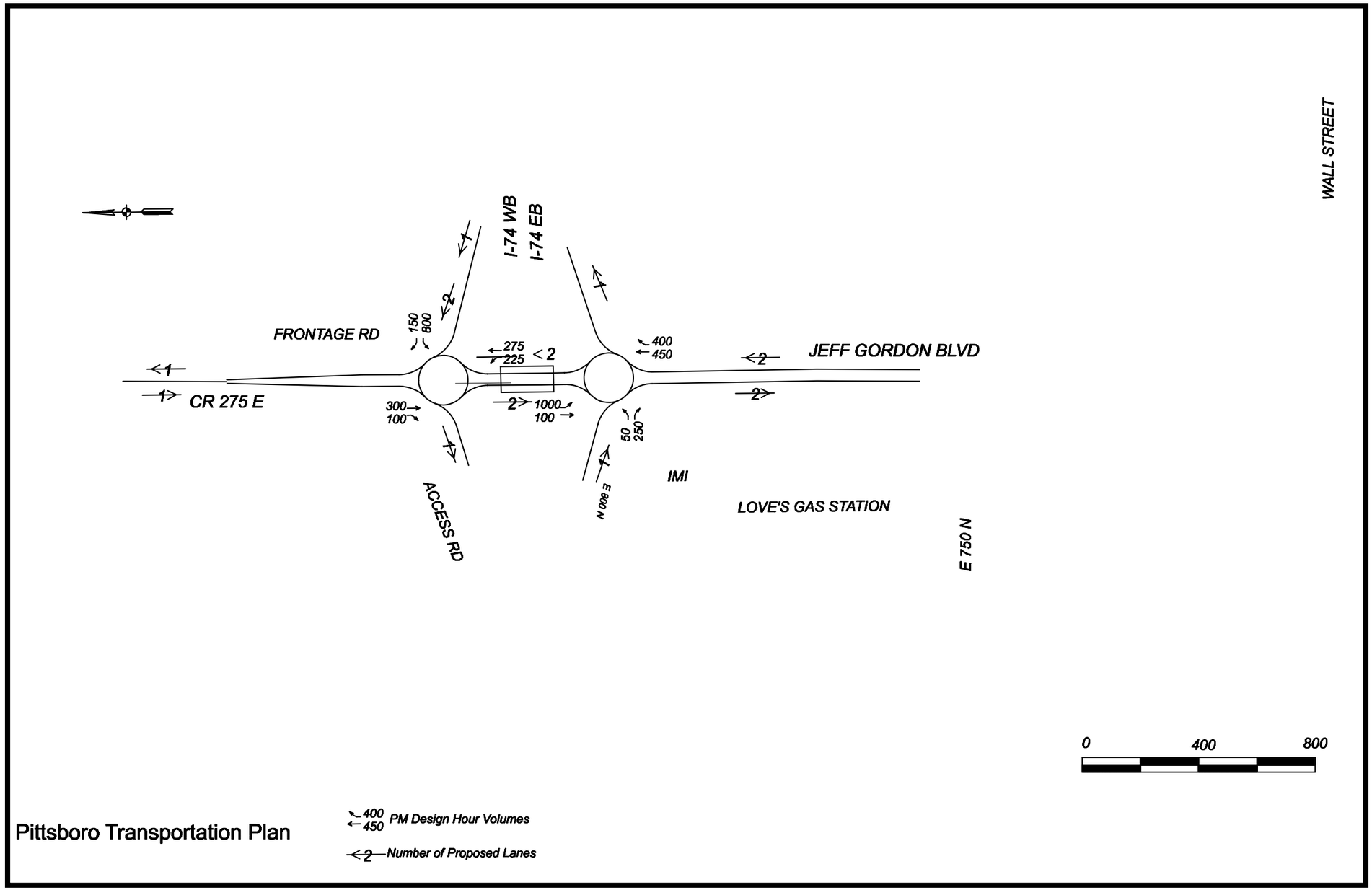


Figure 4.7: Alternative 2



Chapter 5

Jeff Gordon Boulevard Corridor Study

Jeff Gordon Boulevard extends from the I-74 Interchange as the primary roadway entrance to the Town of Pittsboro. The corridor, which includes the road and the right of way, is the "front door" for the Town and presents the first impression of the community.

Purpose and Approach

The purpose of the corridor study is to recommend improvements to the Jeff Gordon Boulevard corridor that will enhance vehicular and pedestrian safety and significantly enhance the visual character of the community's main gateway.

The approach for the corridor study was to review the existing conditions, identify safety and security issues related to the corridor, develop alternatives for improvements to the corridor, and prepare a recommended plan.

Existing Conditions

An overall site analysis was conducted to identify the existing physical conditions along the corridor, beginning north of I-74 and extending south to Wall Street. The analysis helped identify environmental concerns that could effect future development, conditions that could impede the flow of traffic, and areas suited for specific corridor enhancements. In addition, the existing conditions analysis helped identify opportunities and constraints for the application of design treatments and access management elements along the corridor.

A number of components were included in the existing conditions analysis, as described below:

Current roadway- Currently Jeff Gordon Boulevard is a two-lane undivided roadway over its full length. The right of way along the corridor varies. As indicated in Chapter 2, traffic forecasts indicate that the existing corridor will not accommodate anticipated traffic volumes and a four-lane roadway will be needed in the future.

Current Interchange- Currently the I-74 interchange is a diamond ramp configuration with a narrow two lane bridge. While this interchange is dealt with specifically within this report, for purposes of corridor enhancements it is important to note that this bridge is not safe for pedestrians and bicycle traffic. As part of the Bicycle and Pedestrian Plan, a major trail route is planned to cross I-74 and adequate space and protective barriers will be needed for pedestrian safety.

Existing land use- Currently there are four main land uses along the corridor: commercial, industrial, agricultural and park land. Love's Truck Stop is the only active retail business along the corridor, although construction has begun on a new commercial development southeast of the I-74 interchange. The designated park land should be preserved and showcased along the corridor.

Unsafe corridor access points- Currently the entrance drive to Love's Truck Stop is directly adjacent to a county road that leads to developments further west of the corridor. These entrances are not only confusing to vehicular traffic, but also unsafe due to their close proximity to one another. One or both of these drives should be removed and access relocated. (See Figure 5.1.)

Intersection upgrades- The intersection of Jeff Gordon Boulevard and County Road 775 will serve as the main access point for the commercial development currently under construction to the east. In addition to this access point, this intersection also needs to be able to handle the increased pedestrian and bicycle traffic that is proposed along the corridor. A traffic signal should be anticipated at this location in the future.

In addition to the intersection at County Road 775, the intersection at Wall Street will need to be enhanced as well. This intersection currently serves as the transition point between a commercially developed corridor, and agricultural/residential land. Once traffic turns east or west onto Wall Street they enter a different environment, and in order to respect this change, measures should be made to slow traffic in this area. (See Figure 5.2.)

Pedestrian access- Currently there are no provisions for pedestrians along the corridor. However, the recommended Bicycle and Pedestrian Plan presented in Chapter 6 includes a trail system along Jeff Gordon Boulevard. In order to accommodate this trail system, a multi-use path will be needed along one side of the corridor. Pedestrian guardrails and barriers will be needed along the bridge in the south portion of the corridor, and along the I-74 bridge in the north portion. (See Figure 5.3.)

Figure 5.1: Vehicular Access Issues

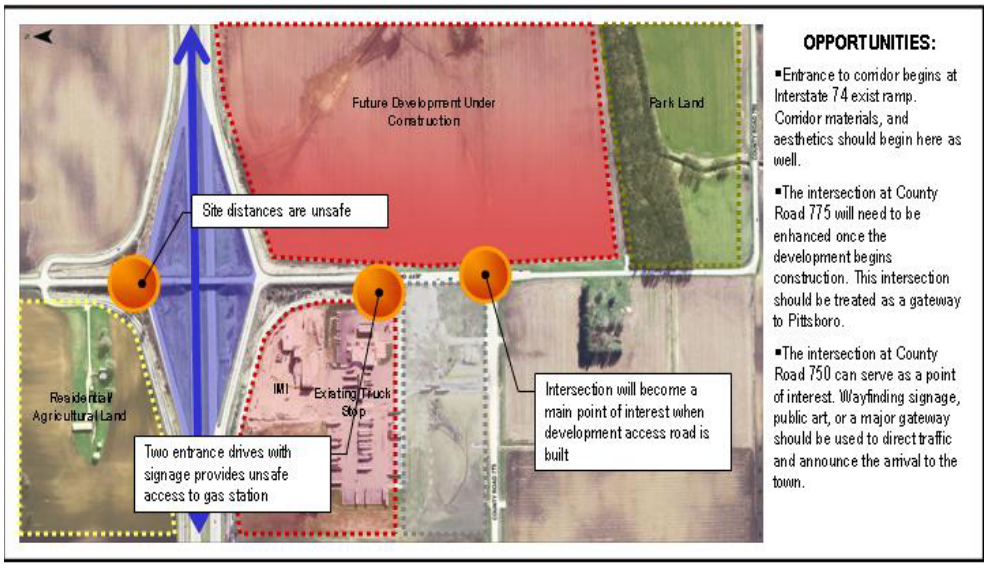


Figure 5.2: Intersection Upgrade Locations

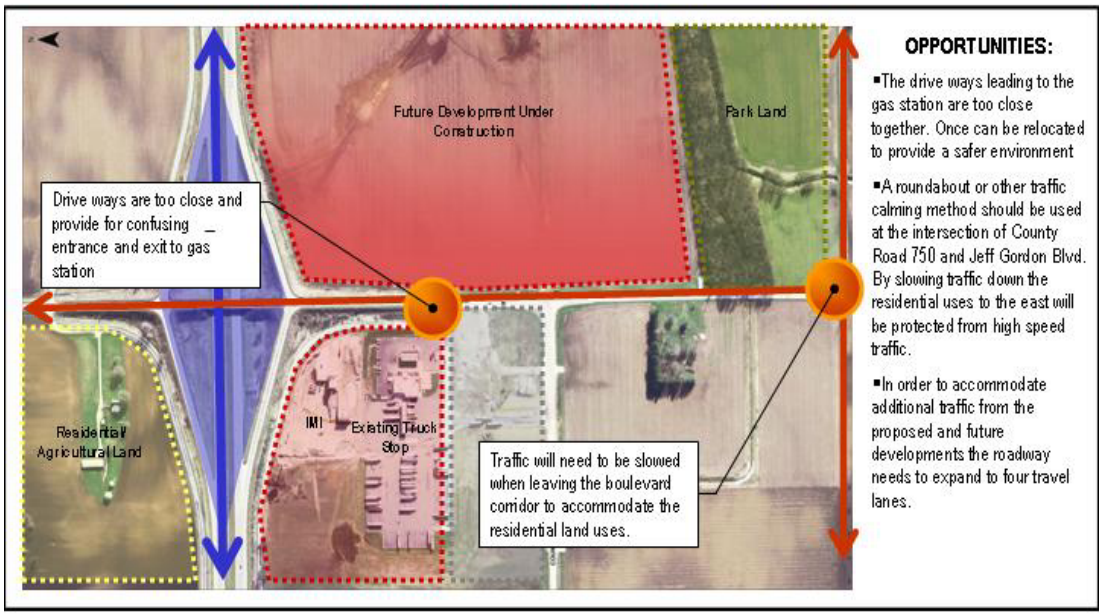
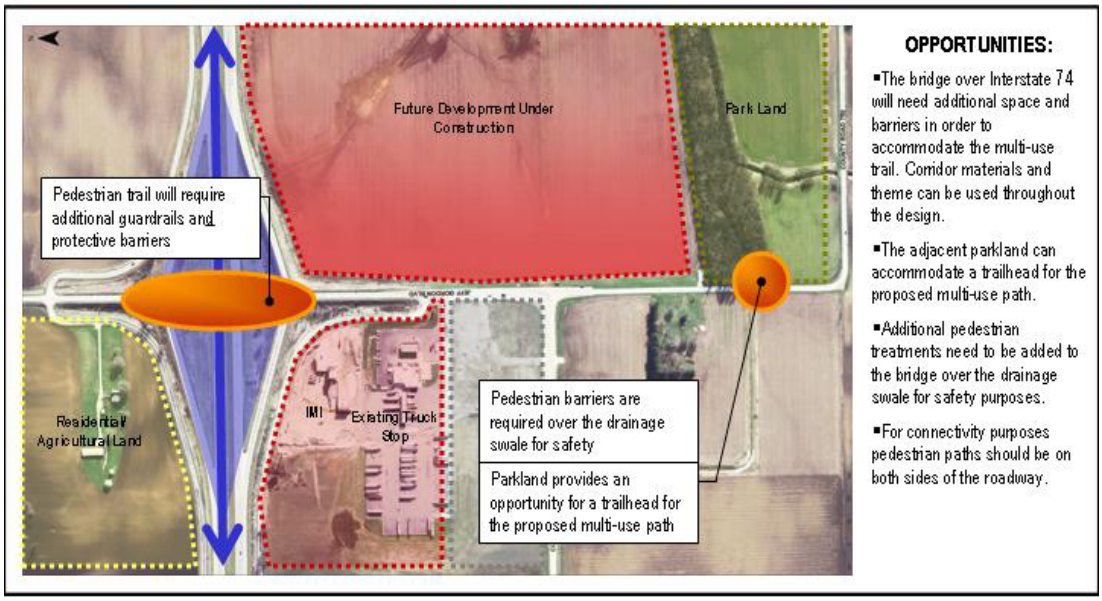


Figure 5.3: Pedestrian Enhancement Locations



Future Needs and Opportunities

As the Town of Pittsboro grows toward I-74, additional commercial, office, and industrial development would be well served by a more robust roadway, with pedestrian amenities, managed access, and improved safety. In this regard, the following opportunities for improvement were identified in the corridor analysis exercise:

- Provide additional site distance at both of the I-74 ramps
- Relocate one of the access points at Love's Truck Stop to establish safe ingress/egress distances, and to encourage vehicular traffic to enter the Town of Pittsboro.
- Create an area of visual prominence at the intersection of County Road 775 and Jeff Gordon Boulevard. This intersection serves as the entry point to the corridor and a secondary entry point to the town.
- Provide pedestrian connections to the park by creating trail heads or areas of refuge for trail users.
- Create a smoother transition at the intersection of Wall Street and Jeff Gordon Boulevard by utilizing a roundabout, rather then a traffic signal.
- Utilize the roundabout at the intersection of Wall Street and Jeff Gordon Boulevard to create a Town gateway. This intersection serves as the first point of entry to the Town, and by enhancing this intersection a visual hierarchy will be created along the corridor.

By incorporating corridor enhancements into the design of the corridor, these opportunities can become a reality. Not only will these enhancements aid in establishing an identity for Pittsboro but they can also be used for attracting new business. Planning for and installing these enhancements may be an opportunity economic development strategies related to motor sports or other thems relevant to Pittsboro.

Corridor Design and Character

When you hear the word 'boulevard', your mind typically drifts towards images of large, curving roadways with sidewalks, landscaping and medians. It is those images that helped identify an overriding theme for the program development and ultimate corridor design for Jeff Gordon Boulevard. (See Figure 5.4.)

Historically, the term "boulevard" has often implied that the type of road is a wide, multi-lane arterial divided thoroughfare, often with an above-average quality of landscaping and scenery. Currently Jeff Gordon Boulevard has none of the typical characteristics associated with a boulevard. It is because of this existing condition that the design team developed a vision statement for the corridor.

Figure 5.4: Historic Boulevard Elements

Vision Statement: *To create a formal entrance into Pittsboro that utilizes historic boulevard elements while also creating an identity for the Town.*

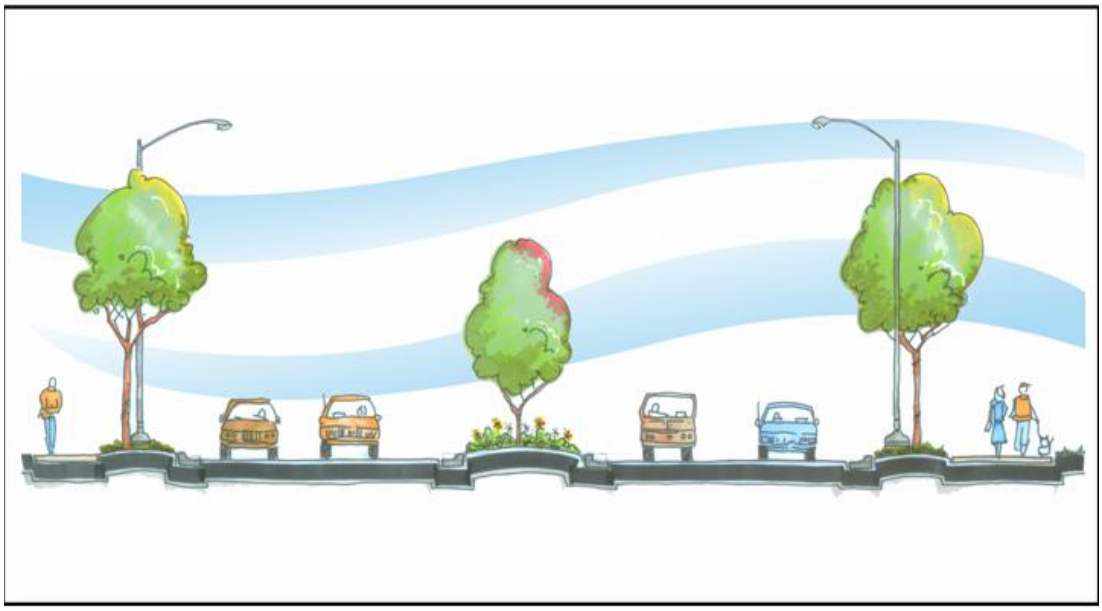
A formal entry into Pittsboro in accordiance with the vision statement can be achieved by applying the following techniques:

- Use raised medians to physically separate the north and south bound lanes of traffic
- Utilize plantings to aid in the linear, formal look of the corridor
- Use ornamental plantings to enhance specific locations
- Emphasize pedestrian connections along the corridor
- Create community specific identifiers that identify the corridor and the town

This vision will be achieved through the creation of a new boulevard cross section for the town that includes landscape medians, pedestrian multi-use paths, along with enhanced pedestrian intersections and ornamental structures placed at key locations. As illustrated in Figure 5.5, The boulevard cross section includes the following:

- Four travel lanes (two lanes in each direction)
- 16-foot raised median
- Eight-foot planted utility strip along each side of the corridor
- Ten-foot multi-use path on the east side of the corridor
- Six-foot pedestrian sidewalk on the west side of the corridor

Figure 5.5: Boulevard Cross Section



Elements of this typical boulevard cross section, although specifically designed for Jeff Gordon Boulevard, could also be applied to other major thouroughfares in the Town, including corridors of all sizes. By continuing the Jeff Gordon Boulevard design theme into the Town, the identity of the community will be strengthened.

While the actual corridor was inspired by historic boulevard elements, the corridor enhancements were inspired by something just as simple. The name Jeff Gordon is synonomous with racing and the Town of Pittsboro takes great pride in the fact that Jeff called it home for several years. The four-time NASCAR Winston Cup winner was born in California, but moved to Pittsboro to take advantage of the racing opportunities for young drivers. The chance he and his family took by moving to Indiana payed off and Gordon is now respected as one of NASCAR's best drivers, particularly because he achieved so much at such a young age.

The design team wanted to use not only Jeff Gordon himself as inspiration but also the idea of racing. Key words such as movement and speed and visions of bright primary colors also fueled the design team. The corridor enhancements are meant to celebrate Jeff Gordon himself, but also the rich heritage of racing in the Town.

Conceptual Corridor Enhancements

When designing the corridor enhancements the project team determined the following design elements were appropriate for the corridor and for future use throughout the Town:

- Raised medians
- Landscape treatments
- Pedestrian Improvements
- Ornamental lighting
- Intersection Improvements
- Corridor gateways
- Wayfinding sigange system

These corridor enhancement design elements were then broken down into two broad categories:

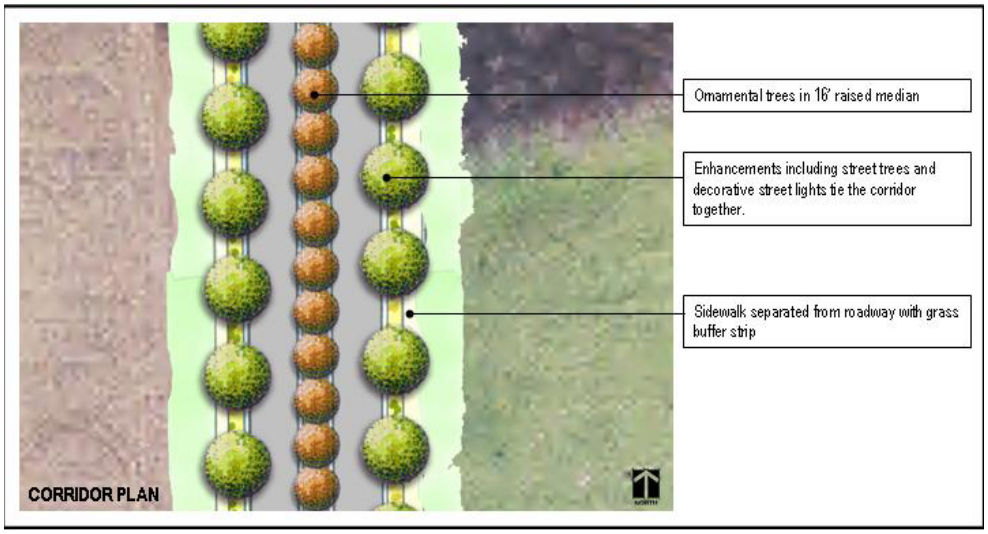
Standard Enhancements deal with specific enhancements applied consistently to the entire corridor. These enhancements affect the look and character of the entire roadway. For this study these included raised medians, landscape treatments, pedestrian improvements and ornamental lighting.

Special Enhancements are those that go beyond the typical roadway applications and provide unique treatments at specific spaces along the corridor. These enhancements reinforce character, create added interest at specific locations and typically provide very specific functions for portions of the corridor. Special enhancements recommended for the Town of Westfield include intersection improvements, corridor and town gateways and wayfinding signage.

Raised Medians

Along the entire length of the corridor a 16-foot raised median has been used to not only offer better access management controls for the roadway, but also to create additional enhancement opportunities. The median areas are reserved for landscape treatments. A consistent pattern for the landscape design of the medians will help to further unify the corridor. The typical boulevard median treatments are illustrated in Figure 5.6.

Figure 5.6: Typical Raised Median Treatment



Landscape Treatments

A moderate treatment of landscaping was selected within the right-of-way, with aggressive treatments being applied to specific areas of interest. To create a more inviting entry to the town from I-74, trees are used to line either side of the corridor. Street trees are placed on 30-foot centers within the eight-foot utility strip. These street trees are underplanted with an evergreen, low maintenance ground cover to provide year round foliage along the corridor.

Trees are also included in the medians. Where shown, ornamental trees spaced on 20-foot centers are used to add color and improve sight lines across the corridor. In areas where sight lines are of specific concern, the ornamental trees plantings are replaced with low growing ornamental shrubs.

Ornamental trees, shrubs and perennial plantings are designated at two specific places along the corridor: the intersection of County Road 775 and the intersection at Wall Street. These two intersections are specific points of interest that contain minor and major gateways and are major access points to the corridor. Ornamental plantings in these areas are

meant to visually enhance the area, while still allowing for appropriate sight distances.

The general landscape treatments are illustrated in Figures 5.7 and 5.8. In addition a list of recommended trees and plant materials is included at the end of this section. Final plant determinations and planting plans would need to be developed during a later design phase.

Figure 5.7: Low Growing Ornamental Plants with Shade Trees

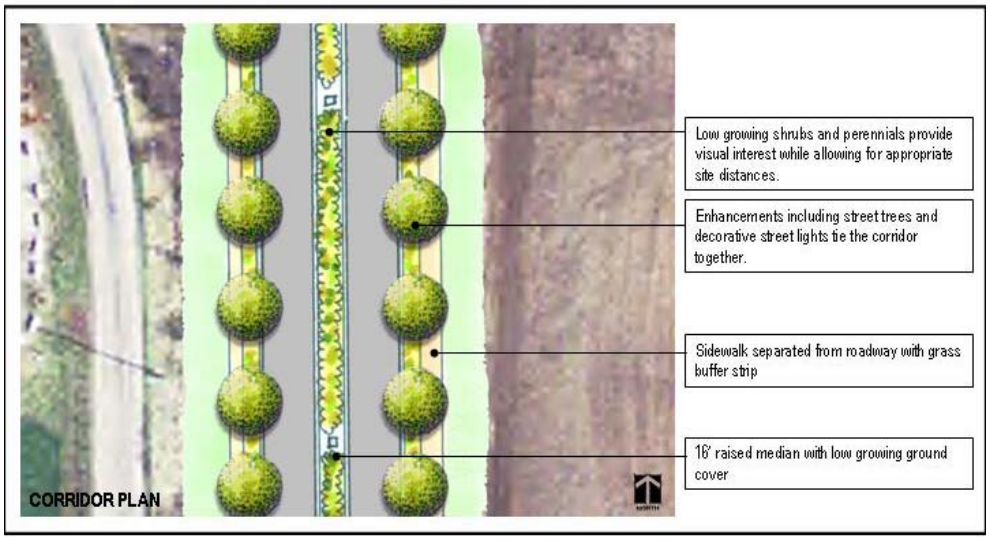
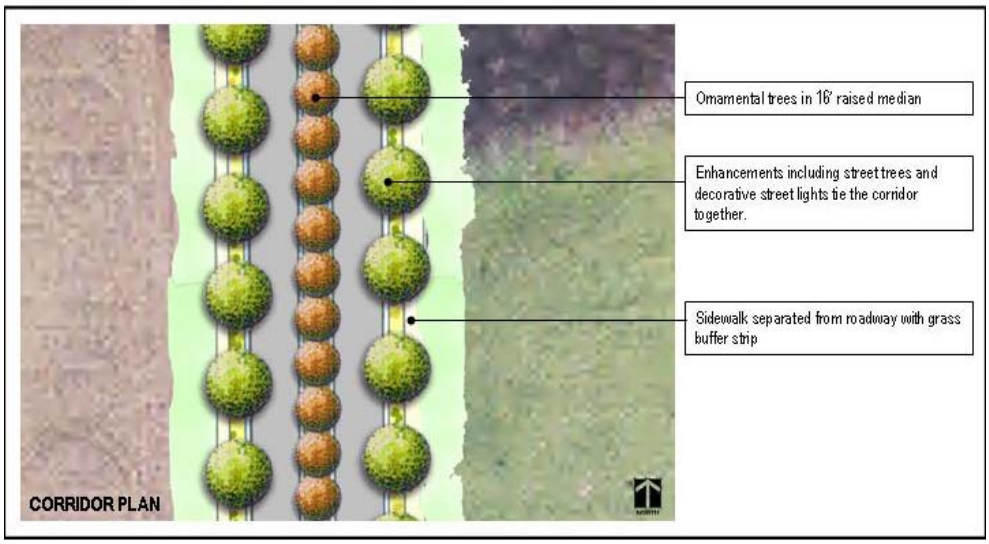


Figure 5.8: Shade Trees and Ornamental Tree Plantings



Pedestrian Improvements

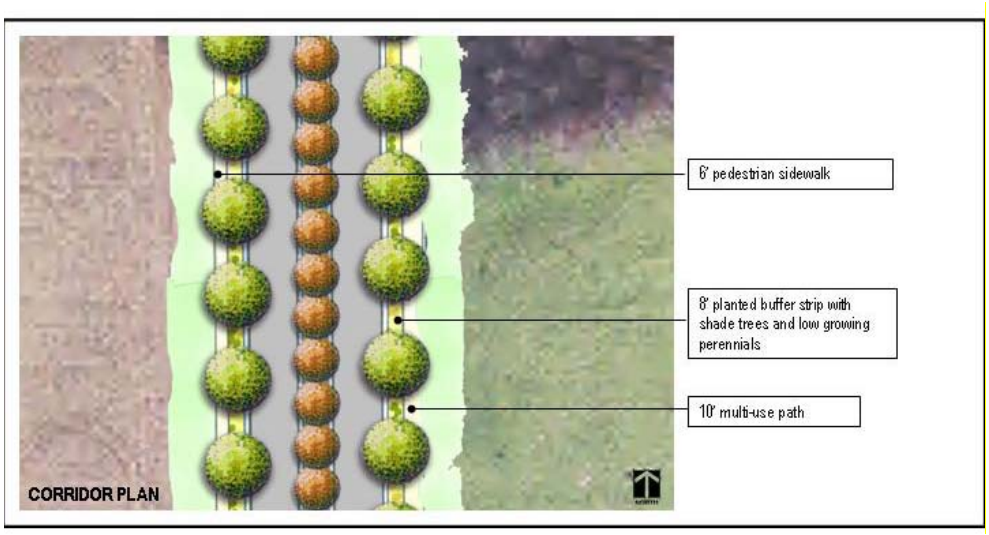
Pedestrian amenitied are integral to the overall transportation network within and beyond the corridor. Not only do these amenities play an important role in establishing a pedestrian-friendly enivronment, but they are crucial in establishing connectivity and a multi-modal facet within the regional transportation network.

As described in the bicycle and pedestrian section of this report, a major trail connection is planned for Jeff Gordon Boulevard. To accommodate this trail recommendation, a 10-foot multi-use asphalt path is included on the east side of the corridor. This path runs the entire length of the corridor and can accommodate pedestrians and bicycle traffic easily. This multi-use path will conform to all accessibilty regulations to ensure safe and efficient use for all.

The construction of a 6-foot sidewalk is recommended for the west side of the corridor. By including an additional pedestrian path on the west side of the corridor, pedestrian connectivity is enhanced and will become an important function of the corridor itself. Due to the overall width of the pedetrian sidewalk, bicycle traffic is not encouraged but can be accommodated. This pedestrian sidewalk would also conform to all accessibility regulations.

Both path systems are separated from the corridor by an 8-foot planted utility strip. Additional right of way should also be incorporated on the outside of each pedestrian path to ensure that pedestrian traffic is buffered from development. Both pedestrian path systems can be seen in Figure 5.9.

Figure 5.9: Pedestrian Pathway Systems



Where pedestrian paths cross a bridge system, additional enhancements were designed to further protect the pedestrian. The I-74 bridge will connect the north and south portions of Jeff Gordon Boulevard and the

multi-use trail. Because of the interaction between vehicular and pedestrian traffic extra precautions are taken to separate the two uses.

A narrower sidewalk is provided across the I-74 bridge, separated from the road by a ornamental guardrail system. This guardrail features the black chainlink fence material and the town identity panel which will be discussed later in this chapter. This guardrail system is also designed to accommodate ornamental light poles. The guardrail treatment for the I-74 bridge can be seen in Figures 5.10 and 5.11.

Figure 5.10: I-74 Pedestrian Pathways

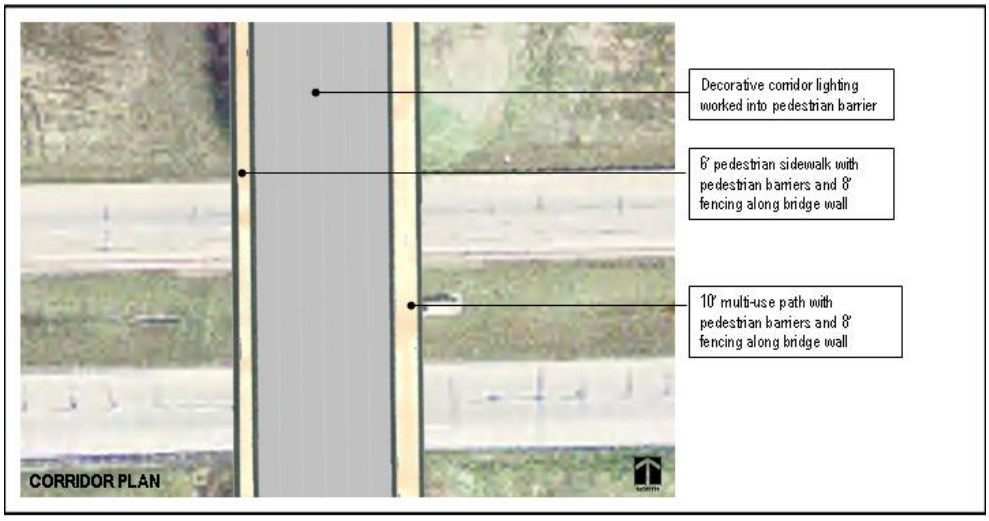
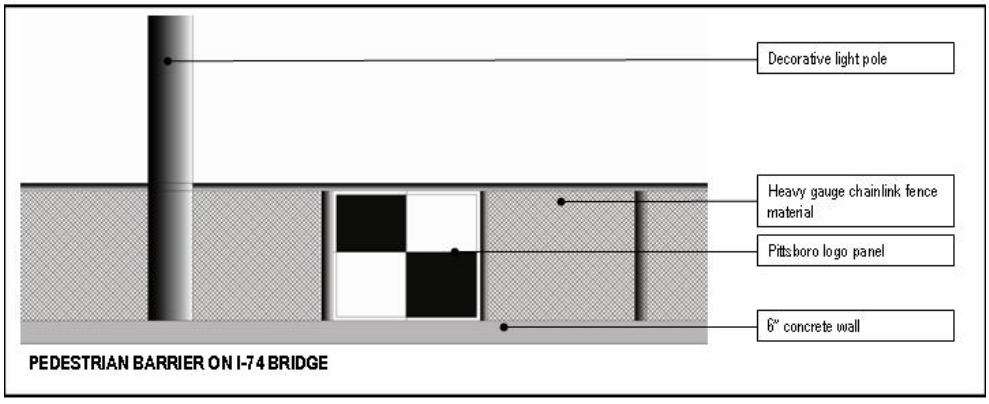


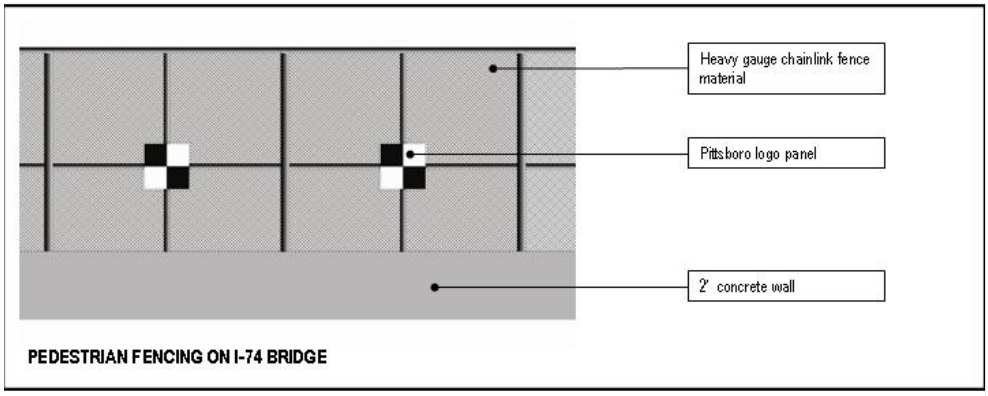
Figure 5.11: I-74 Guardrail Treatment



On the outside of the bridge measures were taken to protect the pedestrian and the vehicular traffic on I-74 beneath the bridge. An eight-foot tall chainlink fence barrier was designed that would again use similar materials and the town identity panel. This chainlink fence

would sit on top of a two-foot concrete wall. This pedestrian barrier can be seen in Figure 5.12.

Figure 5.12: I-74 Pedestrian Barrier Fencing



A similar guardrail treatment would be needed on the bridge in the southern half of the corridor. Currently the road passes over a drainage swale by means of a small bridge with a guardrail. Once the road is widened, the crossing will require additional structures. In order to protect vehicles and pedestrians a 42-inch guardrail should be installed. This guardrail system is similar to that used on the I-74 bridge. This treatment can be seen in Figures 5.13 and 5.14.

Figure 5.13: Pedestrian Guardrail Treatment Location

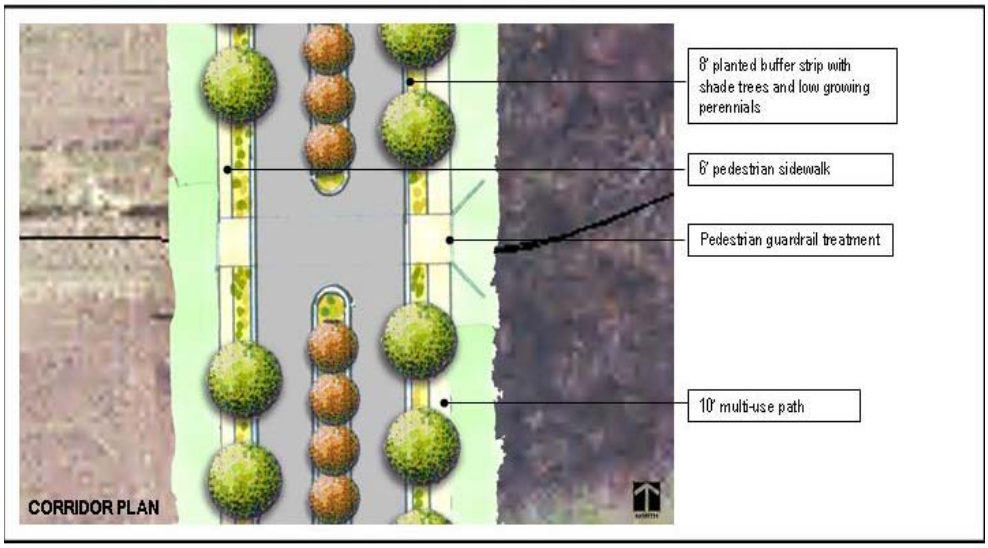
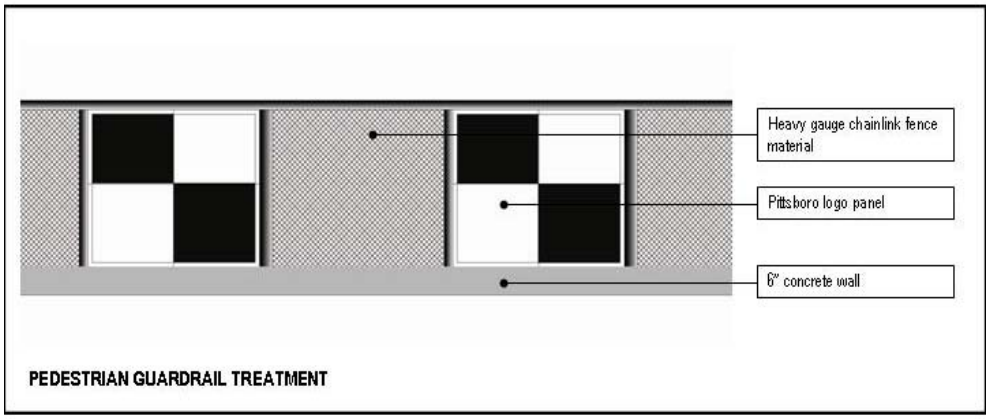


Figure 5.14: Pedestrian guardrail treatment



Ornamental Lighting

Lighting features are a necessary component of any major roadway and provide the opportunity to create a unifed character for the corridor. Ornamental features can be applied to the corridor in a very simplistic manner, yet provide lasting character. The decision to utilize an ornamental light versus a standard light will add cost, but it is a very effective means of establishing a unique visual image for the corridor.

While a specific pole design was not chosen as part of this project, the desired character is a contemporary pole and fixture that reflects the character of the overall corridor.

In addition, matching signal poles can be used to further unify the enhancements. Pole spacing, fixture specifics, fianl selections and lighting calcualtions would need to be completed during a later design phase.

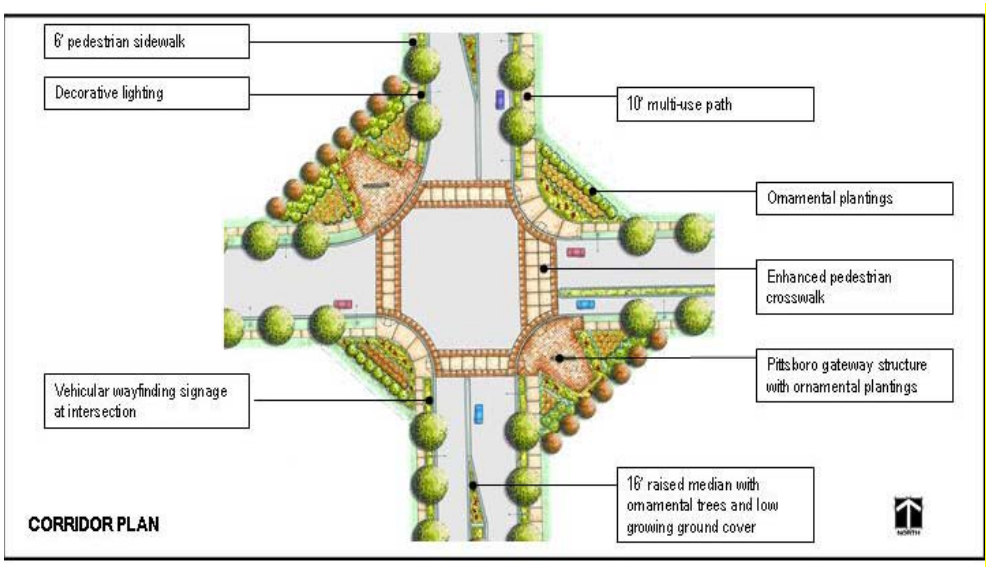
Intersection Treatments

Intersection enhancements are needed to provide safe access points along the corridor, enable pedestrian connections, and reinforce a sense of identity for the town. With the widening of Jeff Gordon Boulevard and the increase of development in the area, two intersections will need to be improved to handle the additional traffic and pedestrian volumes: County Road 775 and Wall Street.

The construction of widened pedestrian crosswalks is recommended to encourage pedestrian connections in the area. These crosswalks should be constructed of colored pavers or concrete to further the visual presence of pedestrian traffic in the area. Additional areas should be obtained at the intersections for pedestrian refuge. The design team has planned for two pedestrian nodes at the intersection which allow for secondary gateways and pedestrian wayfinding

signage. The other corners also have ample room for pedestrian and bicycle traffic. The intersection enhancements are illustrated in Figure 5.15.

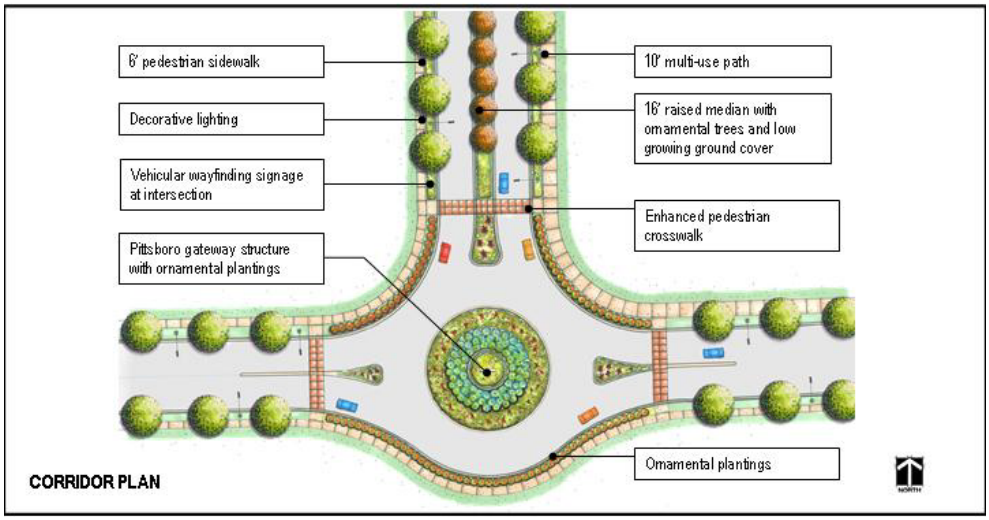
Figure 5.15: Typical Intersection Treatments



Ornamental plantings are also provided at the pedestrian nodes to provide additional color and texture. These plantings, along with the material palette selected will provide year round interest at this specific point along the corridor.

The intersection of Jeff Gorodn Boulevard and Wall Street is handled in a similar way. Widened pedestrian crosswalks are being used to connect pedestrians from surrounding neighborhoods to the corridor and to the adjacent parkland. However, instead of utilizing a signaled intersection, the design team is recommending a roundabout be used. This roundabout would slow traffic and ease the transistion between the commercially developed corridor and the existing residential neighborhoods located nearby. The roundabout intersection is illustrated in Figure 5.16.

Figure 5.16: Roundabout Intersection Plan



This intersection is a critical transition point for the area, and should be considered the official gatway to the town. By utilizing a roundabout at this intersection ample space will be available to provide a “front door” to the community.

Low growing evergreen plantings are used at the roundabout intersection to provide year round interest but also to ensure appropriate sight distance.

Corridor Gateways

As discussed previously there are three main areas along the corridor that serve as “entrances” to the corridor: the I-74 interchange, the County Road 775 intersection, and the Wall Street intersection. While all three locations serve a smililar purpose, a heirarchy of elements is needed to serve each location.

Corridor gateways were developed for the area immediately south of I-74. This location is the first thing seen when entering Jeff Gordon Boulevard and the last thing seen when exiting to I-74. Because of these vsual connectons, a custom corridor gateway panel design was developed to announce the entry to the Jeff Gordon Boulevard corridor.

The panel is a 12-foot tall structure consisting of two black metal posts and heavy guage chainlink fence material. These materials were chosen not only because of their use in the racing field but also their durability. Attached to the chainlink fence materials are two sign panels. The main panel is double sided and spans the majority of the structure. It carries the corridor name. At the top of the structure is

the second sign panel, again double sided, which consists of a simple corridor logo, a black and white checkered board.

Three of these structure sit in the raised median and are accented by low growing shrubs and perennials. The corridor gateway panel and it's location is illustrated in Figures 5.17 through 5.19.

Figure 5.17: Corridor Gateway Panel Locations

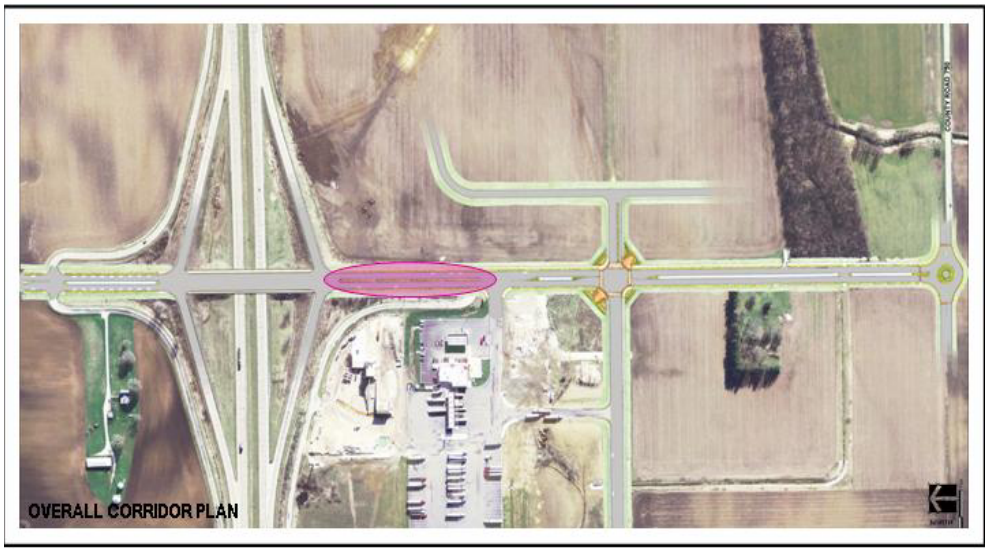


Figure 5.18: Gateway Panel Median Locations

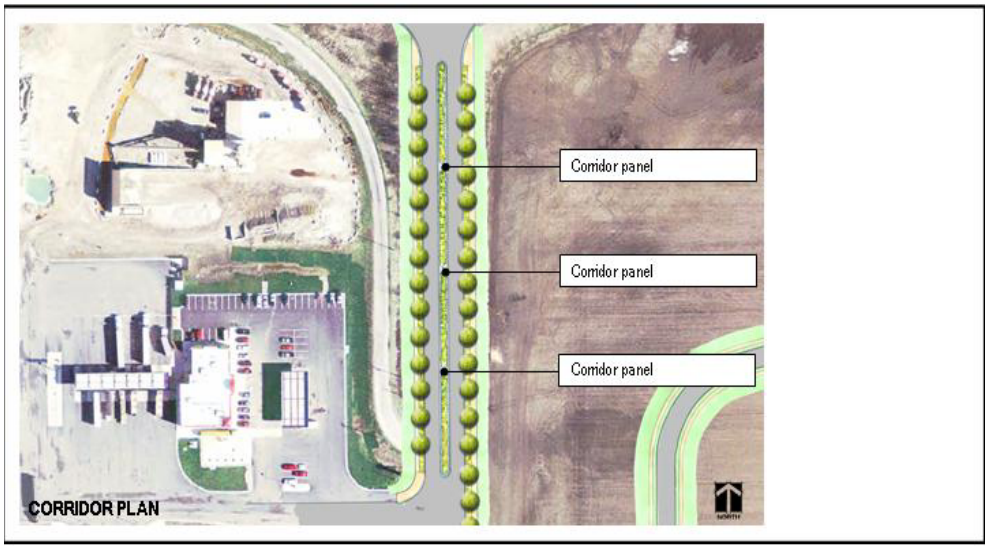
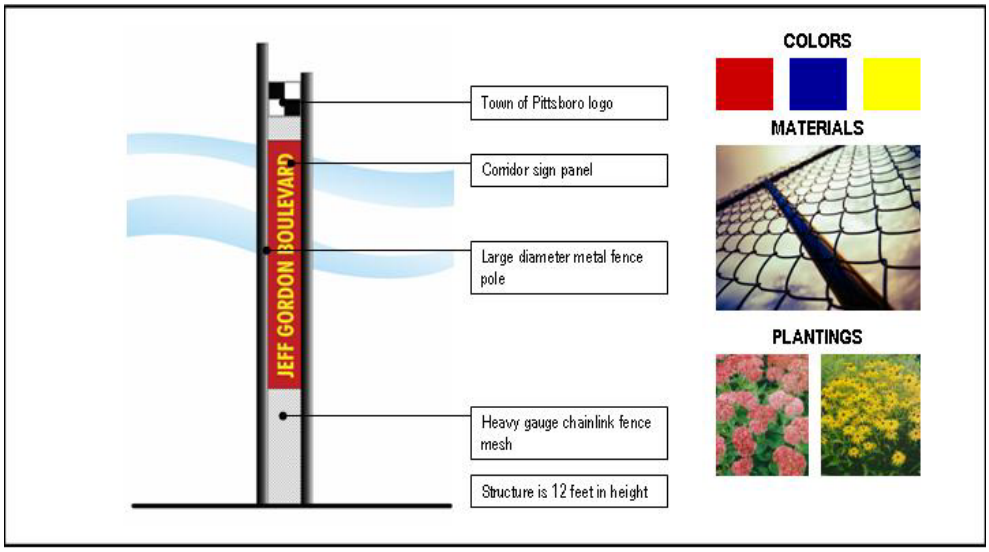


Figure 5.19: Corridor Gateway Panel



Two minor gateway structures are proposed at the intersection of Jeff Gordon Boulevard and County Road 775. Currently this intersection welcomes people to Pittsboro by means of a metal panel sign. In the future, this intersection will serve an important component of the corridor system and its prominance should be reflected in its design treatment.

The minor gateway structure consists of a 16-foot structure that utilizes the same materials as the corridor gateway panel. A red, double sided sign panel announces the town of Pittsboro while also incorporating the corridor logo. A chainlink fence panel sits next to the sign panel. Because of the location of the minor gateway, a wayfinding signage panel is attached to add additional function to the structure. These information sign panels should be located on both sides of the structure.

These gateway structures sit in the pedestrian node and are surrounded with ornamental shrubs and perennials. The minor gateways and their locations are illustrated in Figures 5.20 through 5.22.

Figure 5.20: Minor Gateway Panel Locations

Figure 5.21: Minor Gateway Panel Locations at Intersection

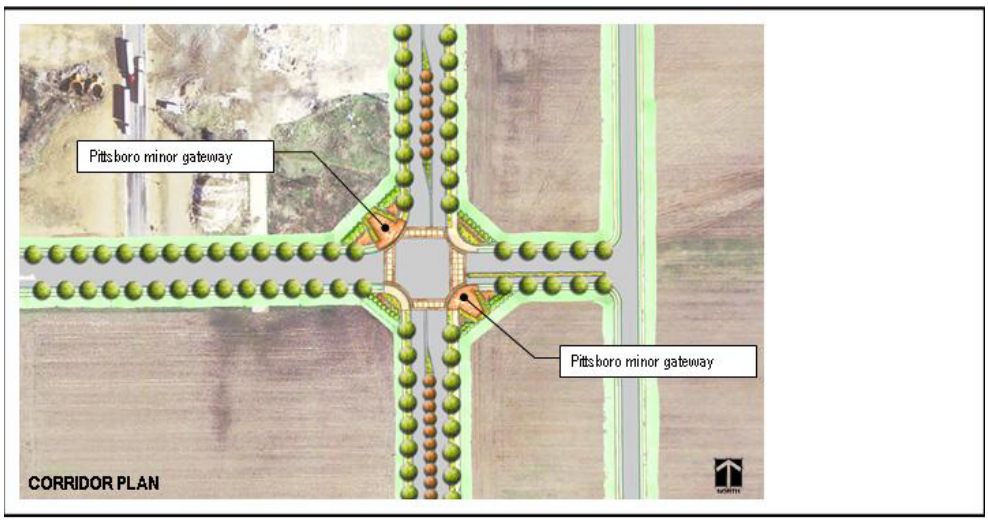
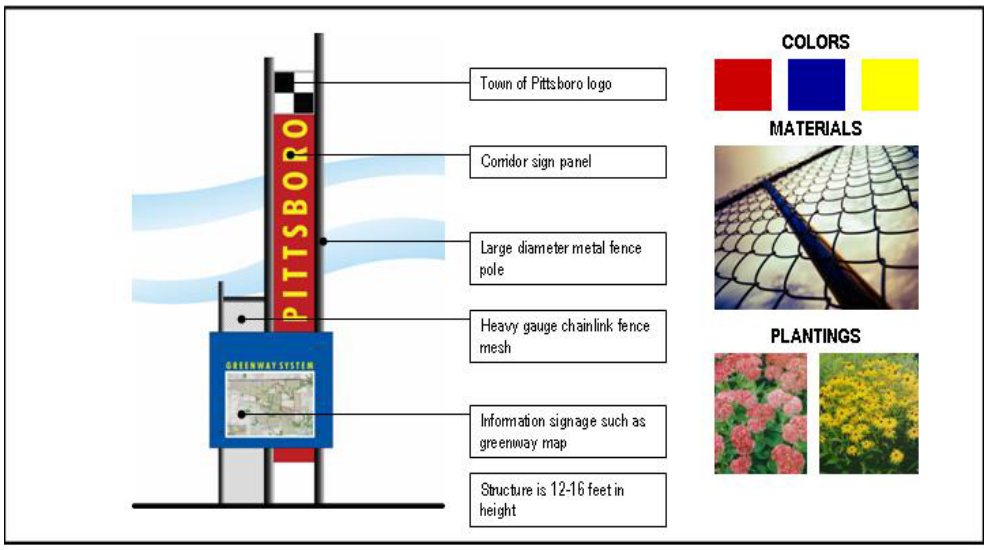


Figure 5.22: Minor Gateway Panel



A major gateway structure is proposed at the intersection of Jeff Gordon Boulevard and Wall Street. This transitional intersection serves vehicular and pedestrian traffic traveling further into the heart of Pittsboro. By utilizing the center of the roundabout, a powerful statement can be made while ensuring the safety of all traffic in the area.

The major gateway structure stands 25 feet tall and is constructed of the same material as the other gateway structures. Unlike the others, the major gateway structure boasts a curved, colored panel as a backdrop for the Pittsboro welcome sign. These curved shapes mimc the idea of movement and speed found in the racing world. Due to the placement of this sign, a welcome sign panel should be incorporated into both sides of the structure. The major gateway structures and their locations are illustrated in Figures 5.23 through 5.25.

Figure 5.23: Major Gateway Location

Figure 5.24: Major Gateway Roundabout Location

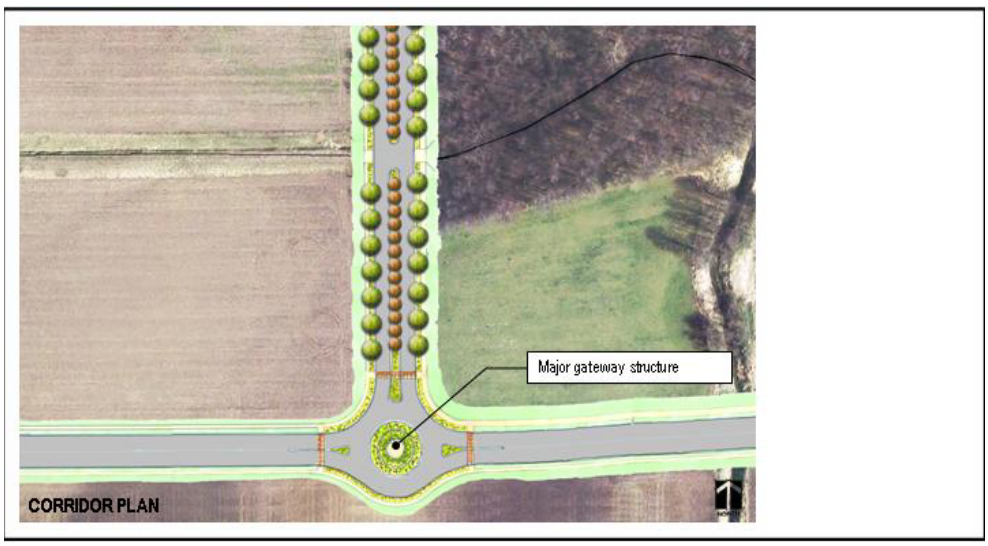
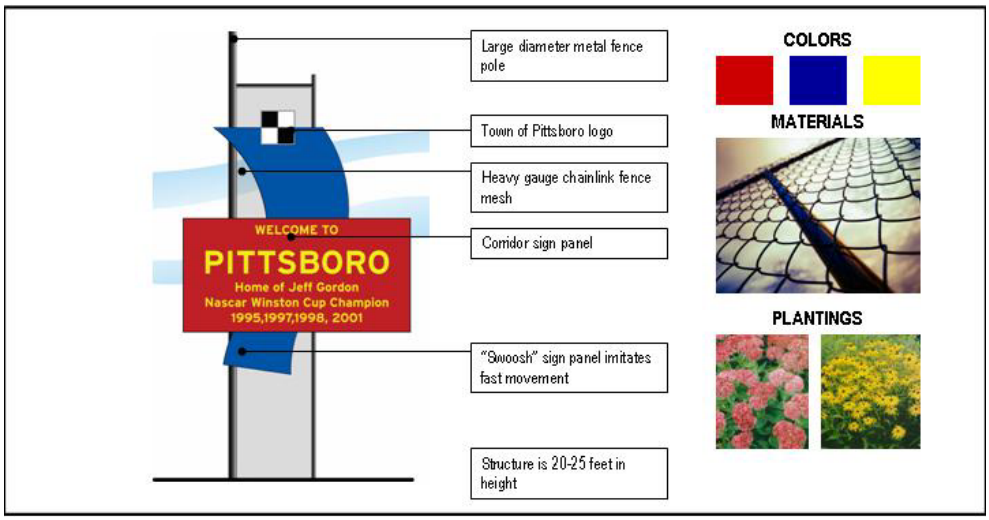


Figure 5.25: Major Gateway Panel



Together the gateway structures create a unifed and unique design feature that establishes an identify for the entire corridor.

Wayfinding Signage

The final component of the enhancement plan is a wayfinding signage system that the town can use in the Jeff Gordon Boulevard corridor as well as other corridors of the town.

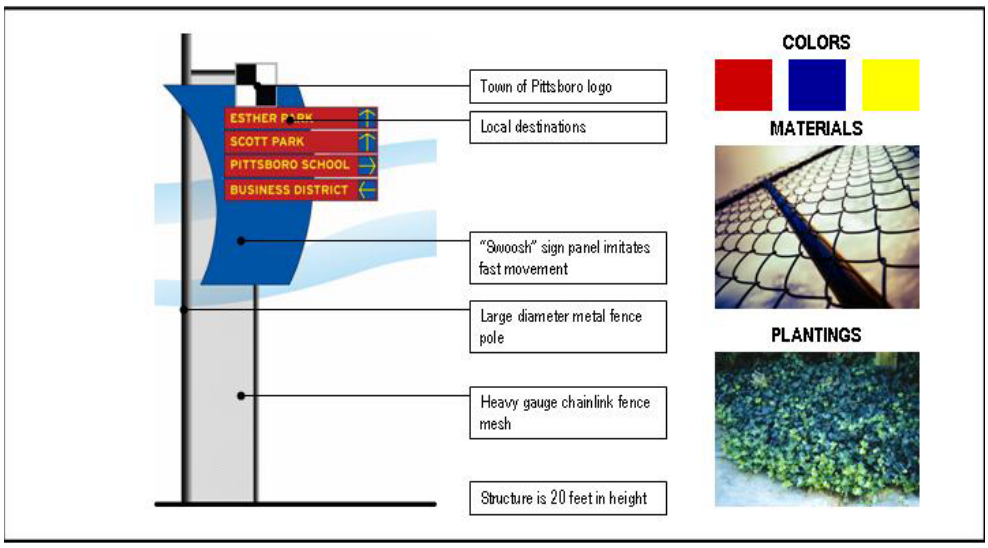
Two different types of signage were created: vehicular signs and pedestrian signs. While the style for both is similar, placement varies for each type.

Vehicular wayfinding signs are proposed at the entrance and exit ramps of I-74. These signs are 16 feet in height and are designed to direct vehicular traffic to destinations both on and off the corridor. The sign system is constructed of the same materials seen in the gateway structures. The signs are located within the right of way and emphasized by additional ornamental plantings.

Vehicular wayfinding signs should also be placed at the intersection of Jeff Gordon Boulevard and Wall Street. Vehicular wayfinding signs are shown in Figures 5.26 and 5.27.

Figure 5.26: Vehicular Wayfinding Sign Locations

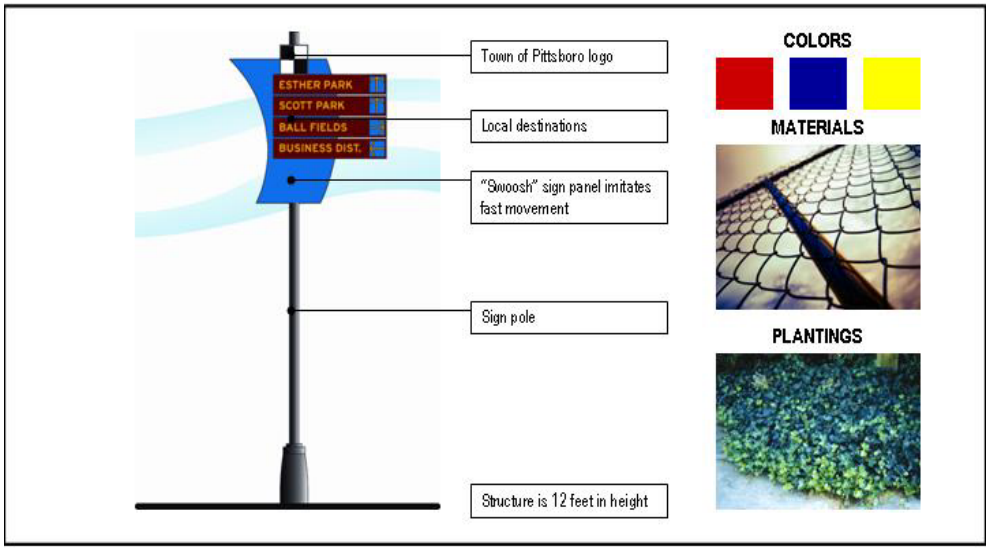
Figure 5.27: Vehicular Wayfinding Signs



At the intersection of Country Road 775 and Jeff Gordon Boulevard pedestrian wayfinding signs are proposed because of their close proximity to the pedestrian nodes. If a future trailhead is developed along the corridor near the park, these pedestrian wayfinding signs can also be incorporated. Pedestrian wayfinding signs are shown in Figures 5.28 and 5.29.

Figure 5.28: Pedestrian Wayfinding Sign Locations

Figure 5.29: Pedestrian Wayfinding Signs



Conclusion

The enhancement portion of the project is intended to establish a long-range vision for how corridor enhancements can be used to create a new front door to the community, and further define the access management mechanisms of the Jeff Gordon Boulevard corridor. These recommendations should be used to not only inspire residents of Pittsboro, but also to welcome those who wish to visit or work in the town.

Chapter 6

Bicycle/ Pedestrian Plan

Alternative transportation facilities are an important component of the overall transportation system in any community. They provide opportunities to eliminate vehicle trips and improve local air quality. Bicycle and pedestrian facilities in particular provide opportunities for recreation and for short local trips to be completed without using a car. They also improve the mobility of youth and in some cases, the elderly.

Purpose and Approach

The purpose of the Bicycle and Pedestrian Plan is to provide a community-wide vision that can serve as a guide to public and private investment in a coordinated system to serve the long term needs of Pittsboro. The process is structured to inventory the existing facilities in the Town and identify those bicycle and pedestrian facilities that are already planned, to recommend new connections, and to provide a planning basis for funding assistance and implementation.

The approach was first to identify existing sidewalks and trails and identify planned sidewalks and trails. Then the overall community was studied for opportunities to link sidewalks and trails to parks, schools, and other community gathering places through a pedestrian network. Finally, opportunities for funding and implementation were considered.

A key element of the plan development process for the Bicycle and Pedestrian system was the participation of the Pittsboro Parks Board. Interim and final plans were presented and discussed at the Board's regular public meetings as the plan was being prepared. Ultimately, the plan presented here was recommended for approval by the Pittsboro Parks Board.

Planning Principles

A series of planning principles was identified and reviewed with the Pittsboro Parks Board at the inception of the trail planning process. Intended to guide the planning process, these principles are listed below:

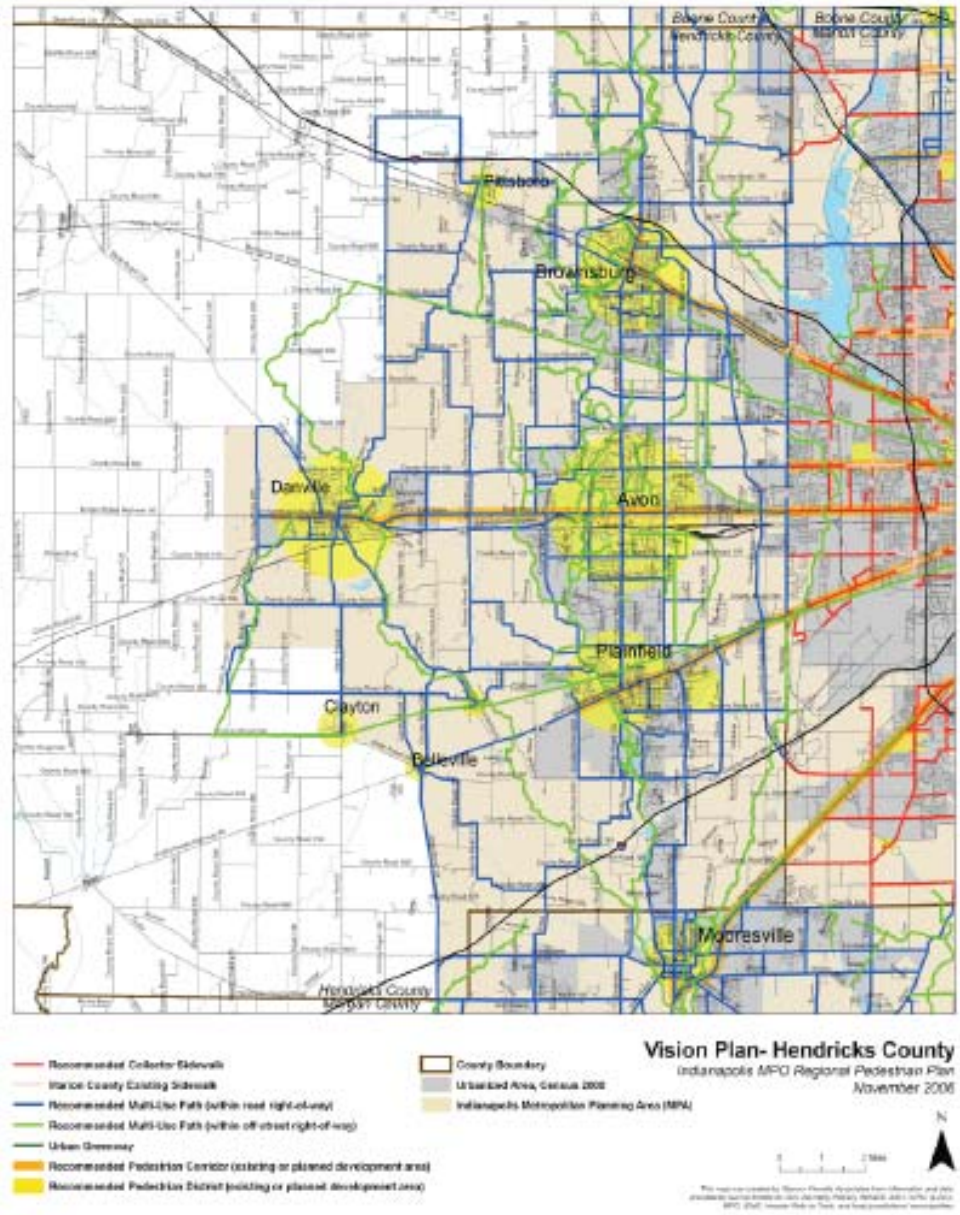
- Link Pittsboro with neighboring communities and their existing or planned trail systems.
- Create opportunities for safe bicycle and pedestrian movement between parks
- Create pedestrian links between neighborhoods and destinations, such as parks and schools
- Establish trail standards to guide construction of new on and off-street trails as development and infrastructure improvements are made in Pittsboro
- Whenever possible, locate trails in and near existing tree stands, flood plains, transportation and utility easements, and other natural or man made areas which are otherwise not suitable for development.

- Develop a trail network that developers will view as an amenity to encourage participation with quality trails through new developments.

Related Studies

Two related studies were reviewed in conjunction with the development of this plan. The first is the trail plan for Brownsburg so that localized connections could be appropriately identified between jurisdictions. The second is the recently completed Regional Pedestrian Plan prepared by the Indianapolis MPO. The Hendricks County portion of that plan is shown in Figure 6.1. Together, these plans provides a regional context for plan development.

Figure 6.1: Hendricks County Portion of MPO Regional Pedestrian Plan



Existing Conditions

Existing sidewalks vary greatly in width and condition throughout the community. Many of the older residential areas have narrow sidewalks if any at all. Newer residential areas conform to the widths prescribed in the town's subdivision control ordinance. There are no existing multi-use trails in Pittsboro, or adjacent to the community.

There are currently no plans for multi-use trails in Pittsboro. The nearest planned trails to the Town of Pittsboro appear in the City of Brownsburg's Trail Plan. The Pittsboro Park Board advocates the need for a trail system and provided valuable input into the planning process.

Trail systems are most effective when they link recreation centers and other destinations that are frequently accessed by youth or others that rely on non-motorized means of travel for local trips. The locations in the community that would be well served by a trail system include:

- Scott Park
- Esther Park
- Scamahorn Park
- Pittsboro Elementary School and Ball Fields

Trail Classifications

Three types of facilities have been identified to serve the needs for bicycle and pedestrian connections in Pittsboro, as described below:

Greenway Trail Corridor– This corridor and trail system is intended to connect destinations via off-street trails through natural areas. In locations where the trail must follow a roadway, as much separation as possible should be maintained between the trail and the roadway. Use of this trail system is intended for pedestrians and non-motorized vehicles, such as bicycles, rollerblades, etc. (Motorized wheelchairs excepted)

Multi-use Trail Corridor– This corridor and trail system is intended to serve as the in-town connector between destinations where off-street trails are not practical. This system, while accommodating a variety of users, generally follows the existing street grid.

Urban Pedestrian Corridor– This corridor system is intended to provide links between the other two trail systems in the urbanized environment where a wider right-of-way is impossible or impractical. This system is intended only for pedestrians due to the narrow width. As a network of sidewalks, this system should be used as the new standard as sidewalks are replaced in areas of Pittsboro designated as Urban Pedestrian Corridor.

Recommended Plan

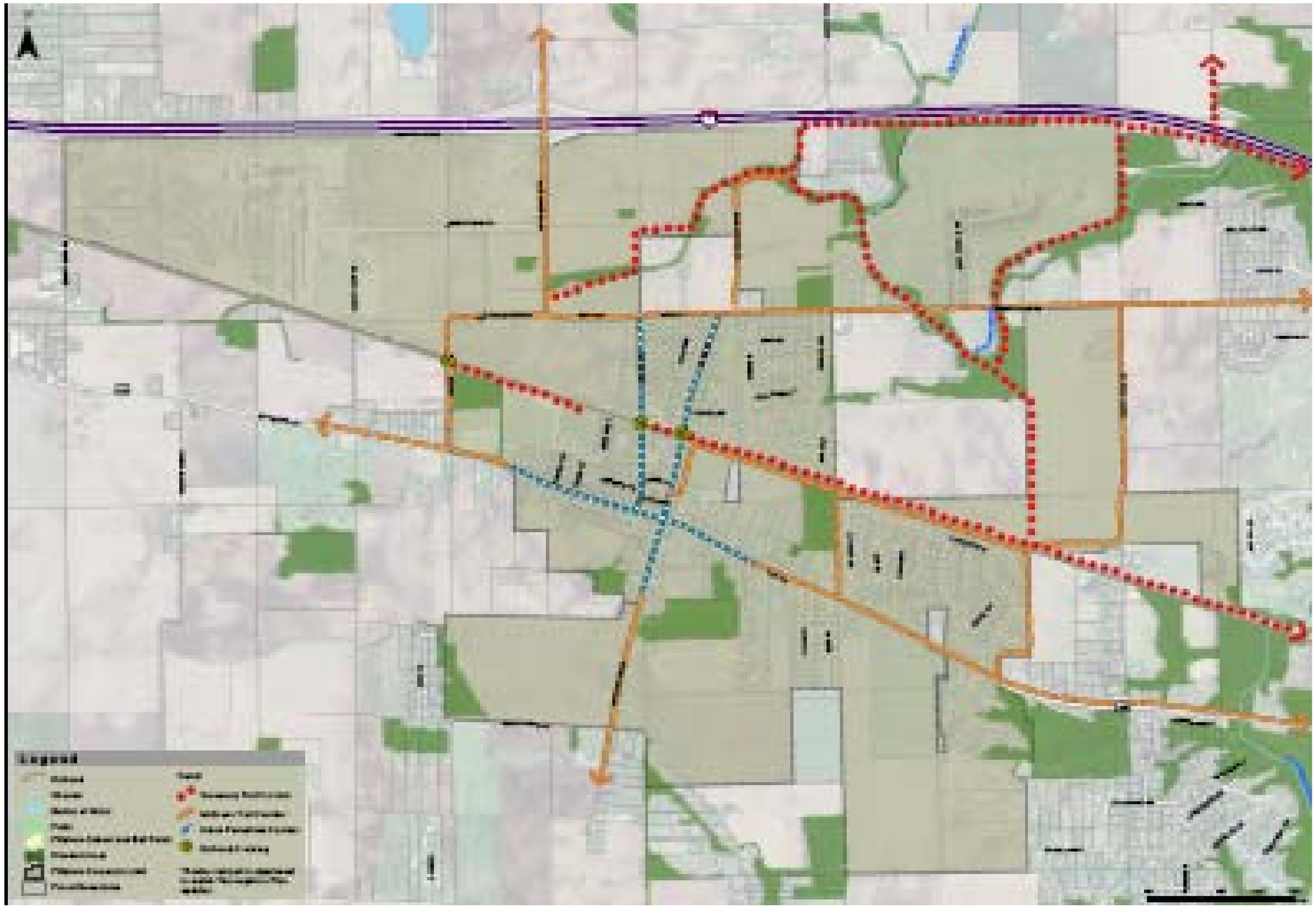
The recommended plan is illustrated in Figure 6.2. The plan identifies the greenway trail corridors, multi-use trail corridors, and

urban pedestrian corridors discussed in the section above. It also illustrates how the recommended trail plan connects key locations in the community such as the schools and parks.

A greenway trail corridor is recommended to follow along the railroad lines through town, and follow natural greenways in the north part of town and along Interstate 74. This system would create a loop in the northeast portion of the community, providing excellent recreation opportunities.

A multi-use corridor is recommended to run the length of Maple Street through town (partially as an urban pedestrian corridor) and extend south to potential development areas. It would also run along Main Street (partially as an urban pedestrian corridor). North-south connections would be made in several locations, including along Jeff Gordon Boulevard, which would extend the multi-use corridor across Interstate 74.

Figure 6.2: Recommended Bicycle and Pedestrian Plan



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Urban pedestrian corridors are recommended for use in existing developed areas that do not have sufficient right-of-way to accommodate a multi-use path. These corridors are primarily along Maple Street and Main Street through the heart of town.

The recommended plan does not currently show the proposed extension of Meridian Street from US 136 to CR 250 East. If this proposed extension is adopted into the Town of Pittsboro Thoroughfare Plan, the Bicycle and Pedestrian Plan should be updated to show this segment as a multi-use trail corridor. Similarly, the proposed realignment of Waters Way north of Wall Street should be reflected in the Bicycle and Pedestrian Plan if this change is adopted into the Thoroughfare Plan.

There are two places where trails would need to cross the railroad tracks to provide north-south connectivity along trails and between facility types. One crossing is on Meridian Street and the other on Maple Street. These areas need special consideration to ensure pedestrian safety in crossing the tracks. Trail connections with properties north of I-74 are planned for locations where existing over and underpasses are located.

In some locations, the proposed trails have been routed through development sites or around the perimeter of sites. In addition to the trails specified in the Hendricks county plan, the Pittsboro plan recommends the development of additional greenway trails in locations where a property owner or developer has expressed interest in participating in the development of the trail system as an amenity for their sites and the community. Trail connections with Brownsburg planned trails have also been included at SR 136, Wall Street and along I-74.

Trail Standards

As a final component of the Pittsboro Bicycle and Pedestrian Plan, a set of trail standards is recommended to guide implementation. The proposed standards are presented in Table 6.1. An adoption process for adopting these standards, as well as an implementation strategy for the plan itself, is presented in Chapter 9.

Table 6.1: Recommended Trail Standards

	Greenway Trail Corridor	Multi-Use Trail Corridor	Urban Pedestrian Corridor
Trail Width	12 feet	10 feet	10 feet
Shoulder	2 feet per side	2 feet per side	N/A
Easement Width	5 feet from edge of shoulder	3 feet from edge of shoulder	N/A – should be included in road ROW
Total Required Corridor Width	26 feet	20 feet	10 feet
Surface Material	Asphalt or Concrete with Compacted Crushed Stone Shoulders	Asphalt or Concrete with Compacted Crushed Stone Shoulders	Concrete

Chapter 7

Engineering Standards

The Pittsboro Orderly Growth Plan includes a range of plan components intended to guide the community's development in a positive direction. These include refinements to the town's Thoroughfare Plan, a new Bicycle and Pedestrian Plan, an enhancement plan for Jeff Gordon Boulevard, and potential interchange improvements.

Although planning is important in providing direction for change, standards are needed to ensure that changes are of the quality necessary to meet long term community needs. In this task, a set of engineering standards is developed to meet the growing needs of Pittsboro.

Design and Construction Standards

Midway through the process of developing the Pittsboro Orderly Growth Plan, a meeting was held with the Pittsboro Town Manager to review the availability and need for design and construction standards for the town. Although standards for some items were in place, they tended to be limited with respect to Pittsboro's growing needs and they were not integrated into a structured document.

In order to best meet Pittsboro's needs, a broad-based set of Design and Construction Standards were prepared for use by the town. These standards have evolved over time based on the experience of other Central Indiana communities, and they are sensitive to legal and regulatory requirements unique to Indiana.

The Design and Construction Standards are divided into two sections; Design Standards and Construction Standards. The Design Standards cover the following:

- Builder Guidelines for Site Development and Building Construction
- Design Standards for Stormwater and Subsurface Drainage
- Sanitary Sewer Design Standards

The Construction Standards are construction specifications that cover the following types of construction:

- Erosion Control
- Earthwork
- Roadways
- Storm Sewers
- Sanitary Sewers, Gravity and Force Mains
- Lift Stations
- Water Lines
- Utilities
- Landscaping

The standards give specific information about the materials, dimensions, methods of construction, inspection requirements and warranties.

The draft Pittsboro Design and Construction Standards were provided to the town as a stand-alone document in August, 2006. They were subsequently adopted by the Pittsboro Town Council and are currently in use by the Town.

An electronic copy of the Pittsboro Design and Construction Standards will be delivered to the Town Manager along with other project materials as the final deliverable of the Orderly Growth Plan.

The cover, table of contents, and “forward” statement from the Pittsboro Design and Construction Standards (as previously provided) is reproduced on the remaining pages of this chapter.

DESIGN AND CONSTRUCTION STANDARDS

TOWN OF PITTSBORO, INDIANA

AUGUST 2006

(Complete document provided separately)

DESIGN AND CONSTRUCTION STANDARDS
TOWN OF PITTSBORO, INDIANA

TABLE OF CONTENTS

DESIGN AND CONSTRUCTION STANDARDS
TOWN OF PITTSBORO, INDIANA

FOREWORD

The "Design and Construction Standards – Town of Pittsboro" have been prepared to identify the Town's minimum criteria for construction within the corporation limits.

All construction projects which are to become part of the Town's system, to be operated and maintained by the Town, shall conform to these standards. Construction drawings and specifications must be approved by the Town and a written permit obtained in accordance with existing ordinances before construction begins. In addition, sanitary sewer projects must be submitted to the Indiana Department of Environmental Management (IDEM) for approval. The Town will not approve a sanitary sewer project for construction until an approval from IDEM is received.

Construction observation shall be provided by the Town. A minimum of 48 hours' notice shall be given prior to starting construction.

These standards were prepared with the intent of obtaining the highest quality of construction possible, consistent with accepted industry practices and specifications. As new materials become available and acceptable, the standards may be revised and updated.

Copies of the standards may be obtained from the Town Clerk's Office - Town Hall, Pittsboro, Indiana.

(Complete document provided separately)

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Chapter 8

Capital Improvements Plan

The Pittsboro Orderly Growth Plan has provided capital improvement recommendations for several critical locations within the Town's transportation network. This chapter provides estimates of the public costs of the recommend infrastructure improvements. It also provides an overview discussion of potential sources of funding those improvements.

Estimated Project Costs

Table 4.1 provides a summary of the preliminary construction cost estimates for the local transportation improvements recommended in this plan. The cost of reconstructing the I-74 interchange at Jeff Gordon Boulevard, as discussed in Chapter 4, is not included in the table. This interchange is under the jurisdiction of the Indiana Department of Transportation (INDOT) and is considered to be functionally obsolete. It is anticipated that INDOT be responsible for the cost of reconstructing this interchange. If the Town of Pittsboro requests special design features or enhancements as part of the interchange reconstruction, INDOT may request that the Town pay for these features.

The costs shown in Table 8.1 are in current year dollars. These estimates include the cost for project design, construction and construction inspection. Right of way acquisition costs are not included, as some of the right of way could be donated when adjacent properties are developed. The cost estimates are based on typical construction costs and are subject to change based on the development of more project specific information.

Table 8.1: Estimated Project Costs

Street	Implementation Cost in 2006 Dollars			
	Design	Construction	Construction Inspection	Total
Meridian Street, US 136 to CR 250 E	$360,000	$ 3,570,000	$ 540,000	$4,470,000
Wall Street, Jeff Gordon Boulevard to Meridian Street	$210,000	$ 2,130,000	$ 320,000	$2,660,000
Maple Street/Waters Way at Wall Street	$ 90,000	$ 850,000	$ 140,000	$1,080,000
Jeff Gordon Boulevard, Wall Street to I-74	$720,000	$ 7,180,000	$ 1,080,000	$8,980,000

Project Funding Alternatives

As the cost estimates in Table 8.1 show, major transportation improvements require significant capital investment beyond the revenue streams generally used for local government operation. Identifying sufficient funds for transportation capital improvements requires careful planning and consideration of many alternatives. Funding alternatives that are commonly used in Indiana include:

- State and Federal-aid Transportation Funds
- Local Option Highway User Tax
- Other Local Option Taxes
- Tax Incremental Financing (TIF)
- Impact Fees
- Negotiated Development Fees (Exactions)

The general characteristics of these funding options are described below. However, more detailed analysis of each funding type is advisable in order to fully evaluate its desirability for any particular project. Each of these funding options has associated advantages and disadvantages, and the choice of one or more funding sources for a particular project may depend on several factors. More information about transportation funding alternatives can be obtained from the Indiana Local Technical Assistance Program, the Indiana Department of Local Government Finance, and INDOT.

Federal-Aid Transportation Funds

Federal-aid transportation funds are a primary source of revenue for large transportation capital improvement projects. The State of Indiana receives an allocation of transportation funds each year from the Federal Government that are used to construct various projects identified by either the state or local governments. Most of the funds available to local government are distributed through one of the following programs:

- Surface Transportation Program (STP)
- Congestion Mitigation and Air Quality Improvement Program (CMAQ)
- Transportation Enhancement Program (TE)
- Highway Bridge Program (BR)

75% of Indiana's Federal-aid funds are retained by INDOT for use on designated state and federal routes. INDOT has the primary responsibility for selecting and prioritizing projects on these routes. Projects are developed in cooperation with the affected local communities, and INDOT will work to help assure that community needs are met by planned roadway improvements. Local governments may be asked to contribute funding to cover the additional costs of design features that they request on state projects. It is anticipated that any reconstruction work at the I-74 Jeff Gordon Boulevard interchange would involve Federal-aid funds programmed through INDOT.

The remaining 25% of Indiana's Federal-aid funds are distributed to local governments for projects that those jurisdictions have identified on approved federal-aid routes. Within urban areas having a population of 50,000 or greater, these funds are allocated by a designated Metropolitan Planning Organization. Outside of these urban area boundaries, Federal-

aid funds for local projects are allocated by the Indiana Department of Transportation. Most of Pittsboro falls within the Indianapolis Metropolitan Planning Area (MPA), and any Federal-aid funding for local transportation projects within this area would be allocated by the Indianapolis Metropolitan Planning Organization (MPO).

Funding for these "Local Public Agency (LPA)" projects typically covers 80% of the qualifying project costs, with the local agency responsible for the remainder. Most funds may not be used on routes with a functional classification of "Local," as determined by INDOT. Bridge funds and Transportation Enhancement funds are two exceptions

Competition for Federal-aid funding is generally keen. Local government agencies that fall within the Indianapolis MPA must submit applications for funding through the MPO and compete for limited funding available for projects in the urban area. In order to receive funding through INDOT, a project must compete with all other projects submitted by local agencies statewide. INDOT and the MPO typically issue a "call for projects" each year to local government agencies, but an agency may have to re-submit a project several times before it is funded. Applications must demonstrate a real need and local support for the project.

Once a project is successfully programmed for federal funding, design and construction are subject to Federal and INDOT requirements. These requirements cover all aspects of the project development process, including design standards and submittal procedures, public involvement, environmental documentation, and construction standards. Meeting these requirements can be costly and normally requires a development schedule that is significantly longer than that for comparable locally funded projects.

State Transportation Funds

The State of Indiana distributes money to county and local governments for use in funding transportation maintenance, operations and improvements. The primary funding mechanisms are the Motor Vehicle Highway Account and the Local Road and Street Account. These accounts are funded through motor vehicle fees, licenses and fuel taxes statewide. The funds are distributed according to formulas based on road mileage and population. Bonds may be issued against future revenue from these funds to pay for capital construction of transportation improvements.

Local Option Highway User Tax

The Local Option Highway User Tax (LOHUT) is an optional tax that can be adopted by Indiana counties to provide funding for roadway capital improvements and maintenance. The intent is to capture some of the costs for maintaining the transportation network from the users. The LOHUT consists of two separate components—a county motor vehicle excise surtax and a county wheel tax—that must be

adopted concurrently. Taxes are collected by the Indiana Bureau of Motor Vehicles at the time of vehicle registration and are then remitted to the county of registration. The revenue is shared among the county and its cities and towns according to Indiana's Local Road and Street (LRS) Formula. At least 43 Indiana counties in Indiana have adopted the LOHUT, including Hendricks County, which has had the LOHUT in effect since 2002.

Other Local Option Taxes

Local Taxes are those that are currently available to be collected by Hendricks County. They include taxes on real and personal property, County Option Income Tax (COIT), and Economic Development Income Tax (EDIT). The County may issue bonds for road and bridge construction against future revenue from COIT and EDIT funds. Local property taxes in Hendricks County are also currently levied for an established Cumulative Bridge Fund. Revenues from this fund can be pledged for road and bridge construction bonds. These sources for assisting in the funding of the future transportation needs of Hendricks County should be considered along with all other alternative funding sources.

Tax Increment Financing

Tax Increment Financing (TIF) is a mechanism to temporarily reallocate new tax revenue generated by development in a specially designated area in order to pay for public infrastructure in that area. The revenues are used either to directly finance public improvements in the designated economic development area or to pay off bonds issued by the local government for this purpose. TIF revenues are generated from real property taxes and some business-related depreciable personal property taxes.

When Tax Increment Financing is used, the additional tax revenue generated by new development within the specific development district remains within the TIF district to pay for improvements or debt service on outstanding bonds. Other tax supported programs that normally benefit directly from property tax revenues, such as local government, schools, libraries, etc., will continue to receive their share of pre-TIF tax revenues for the district, but will not receive the additional tax revenues until the bonded indebtedness is retired. This is often perceived as a negative impact by the schools and libraries. Since TIF is usually implemented in order to initiate development that would not otherwise occur, the additional tax revenue generated by the development is not, in reality, "lost" to these other entities, but is merely delayed. In many cases, it can be argued that without the infrastructure improvements funded through the TIF, there would be no increase in tax revenues for that district.

Impact Fees

Impact fees are allowed in Indiana under IC 36-7-4. Several communities have successfully implemented impact fees to fund transportation improvements or other publicly financed services and programs, such as parks systems and drainage control. A transportation impact fee, for

example, would require all new development, including residential, commercial, and industrial, to pay a fee to the local government based on the impact of that development on the transportation system. These fees can be assessed in a variety of ways, including the square footage of structures, acreage of land, amount of property frontage along roadways, or per dwelling unit.

Impact fees are often viewed as positive by existing residents and businesses, since they require new developments to pay their share of the government costs to provide adequate infrastructure. However, many developers perceive impact fees as a disincentive to their developments. This can be a factor if the atmosphere for new development in an area is marginal, as the impact fees would be considered an added cost to any potential developer. In some cases, however, developers prefer impact fees to negotiated exactions, as they provide a better up-front understanding of development costs.

The Indiana statutes require substantial effort in order to permit a local government to implement impact fees. This includes detailed engineering and financial analyses to document the costs of needed improvements, the fair distribution of costs to various users (i.e. residential, commercial/retail, and industrial), and estimated revenue streams.

Negotiated Development Exactions

Local governments that do not have established impact fees generally negotiate individually with developers to fund or construct new and improved infrastructure within developments. These negotiated exactions have been used primarily for improvements within the developments themselves. However, the exactions can also be used for necessary improvements to the adjacent local roadway network. The impact of new developments on the local infrastructure outside the developments themselves can be substantial in some cases and should be considered for any new development.

The participation of the development community in infrastructure improvements outside the developments can be required, but can lead to inconsistent results. While the concept of new development paying its own way is readily acceptable as both fair and desirable by those outside the development, the exaction of improvements without an overall coordinated system of improvements may appear to be irrational. Exactions for road network improvements should be based on the results of a traffic impact study. Even with a study to identify necessary improvements, however, the question of the developer's fair share of improvement costs remains. It can be argued legitimately that other taxpayers benefit from the improvements and should pay a share of the costs.

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Chapter 9

Implementation

The Pittsboro Orderly Growth Plan is composed of several component recommendations that will together provide an improved transportation network and a strong framework for logical development in Pittsboro.

The first steps in implementing the Pittsboro Orderly Growth Plan will be acceptance of this report by the Pittsboro Plan Commission and a formal presentation of findings and recommendations to the Pittsboro Town Council. The sections below describe actions that the Town should take to implement the recommendations of the plan once it is formally presented.

Thoroughfare Plan Update

The Official Thoroughfare Plan for the Town of Pittsboro should be updated to reflect the recommendations of the Special Area Studies described in this document. The proposed changes are described below, and a proposed thoroughfare map that incorporates these changes is shown in Figure 9.1.

Waters Way

Waters Way should be shown as a proposed collector from the proposed Progress Way extended to the intersection of Maple Street and Wall Street. This involves shifting the south terminus of Waters Way 230 feet to the west to align with Maple Street.

Meridian Street

The proposed segment of Meridian Street that is currently shown on the Thoroughfare Plan south of US 136 should be extended further south to terminate at CR 250 East north of CR 600 North. This segment should be shown as a proposed arterial.

Maple Street

Maple Street south of US 136 should be shown as a collector rather than an arterial. The proposed realignment of Maple Street between CR 375 East and CR 600 North would no longer be required and should be removed from the plan.

Blue Spruce Lane

Blue Spruce Lane should be shown as an arterial between Maple Street and the proposed Meridian Street. This will emphasize Meridian Street as the main north-south thoroughfare connection rather than Maple Street.

Development Standards

The roadway design and construction standards developed as part of the Pittsboro Orderly Growth Plan have been adopted by the Town of Pittsboro and are already in use. These standards are based on design and construction standards that have been developed over the years for other communities in Indianapolis suburban areas. The Town of

Pittsboro may want to modify these standards as they identify changes that would better meet the needs and preferences of the Town.

Bicycle/Pedestrian Plan

The Bicycle/Pedestrian Plan described in Chapter 6 of this document has been recommended by the Parks Board and will require adoption as part of the Pittsboro Transportation Plan by the Town Council. If the proposed modifications to the Meridian Street extension and to Waters Way are adopted into the Thoroughfare Plan, then the Bicycle/Pedestrian Plan should also be updated to reflect these changes. Meridian Street would be shown as a multi-use trail corridor between US 136 and CR 250 East.

The Bicycle/Pedestrian Plan will provide a tool to preserve the necessary rights of way for identified trails as land is developed in Pittsboro. Actual construction of trail facilities will likely require a determined effort by the Town over a long period of time, as funding for bicycle and pedestrian facilities is often difficult to obtain. To the extent possible, trail construction should be incorporated into the development of adjacent roads and properties. The Town should work with developers to include trail connections as an integral part of their land use developments. The Town should also assure that road construction projects contain provisions for the trails designated in the plan.

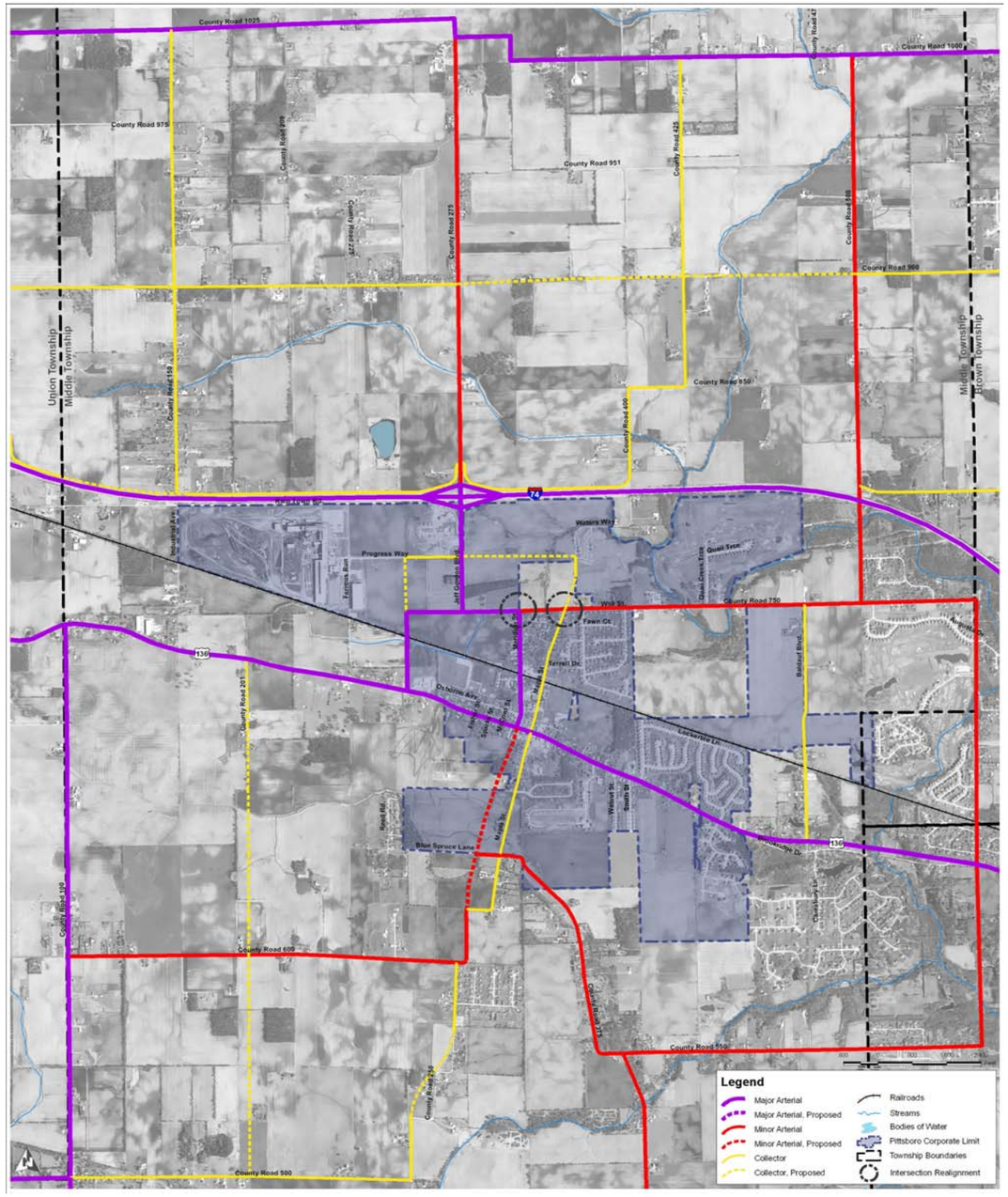
Capital Projects

The Town of Pittsboro should request incorporation of the capital improvement recommendations of the Orderly Growth Plan into the Indianapolis Regional Transportation Plan maintained by the Indianapolis Metropolitan Planning Organization. This would demonstrate the local planning support necessary for consideration of these projects for federal funding.

Modifications to the I-74 interchange will need to coordinated through the Indiana Department of Transportation (INDOT). INDOT will be responsible for programming, designing and constructing these modifications. Early in the project development process, an Interchange Justification study must be approved by the Federal Highway Administration to assure that the requested changes to this interchange are necessary and will not adversely impact I-74.

Construction of the Meridian Street extension will also require coordination with INDOT for changes that impact US 136. In addition, capital projects at the I-74 interchange, Waters Way and Meridian Street would all involve construction outside of the Pittsboro corporate limits. Coordination with Hendricks County will be required.

Figure 9.1: Recommended Thoroughfare Plan



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