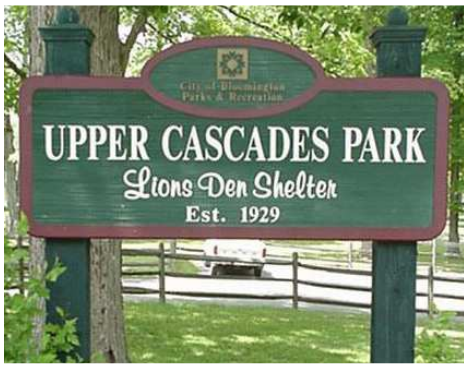
CITY FACILITIES REPORT



CITY OF BLOOMINGTON, INDIANA

Planning Department

October, 2010

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EXECUTIVE SUMMARY

The City Facilities Report was conducted in response to guidance contained in the 2002 Growth Policies Plan (GPP). The GPP contains an 'Implementation Strategy' chapter that outlines the methods and recommended policies for achieving the specific comprehensive planning goals of the community. One of the Implementation Strategies is 'Leverage Public Capital', or LPC. The LPC Implementation Strategy is the foundation for this City Facilities Report. The LPC calls for the Planning Department to conduct the following action:

- Complete a comprehensive public facility analysis, annually update this analysis, and integrate this analysis into the City's capital improvement planning process. (LPC-1)

The goal of this document is to provide a concise report of current and future municipal facility needs, as well as the related service delivery aspects connected with those facilities, that can be integrated into the City of Bloomington capital improvement planning process. Members of the Plan Commission and City Council can also utilize this information within the planning and zoning approval process. This will ensure that City departments continue providing their respective services at ideal delivery levels, without interruption.

For purposes of this report, the term "facilities" include City of Bloomington buildings, real properties and other physical infrastructure. These usually include assets such as fire and police stations, parks, animal shelters, recreation centers, garages, streets, sidewalks, transit centers and utility infrastructure. Additionally, the related public services that these facilities provide are also analyzed. These "public services" include the provision of municipal government activities such as emergency response, recreational opportunities, trash collection, transit routes, animal care, provision of transportation corridors, water and sewer delivery and a host of others.

The facilities and services for six City of Bloomington departments, plus the City's transportation network, were selected for study in the City Facilities Report. Information on facilities and services was gained from a combination of interviews with department heads and other staff members, researching departmental planning documents and the use of detailed Geographic Information System maps.

The specific City of Bloomington departments that were analyzed in the City Facilities Report include the following:

- Bloomington Transit
- Fire Department
- Parks and Recreation Department
- Police Department
- Public Works Department (a summary of its eight divisions)
- Transportation Facilities (a summary of the motorized and non-motorized transportation infrastructure, which spans multiple City departments)
- Utilities Department

The intention of choosing these particular departments was to offer a unique and diverse view of municipal government operations. It spans the range from public safety to utility service provision. These departments also typically receive some of the highest impacts from major planning and zoning land use decisions. Substantial new developments can often translate into new municipal facility requirements or increased public service demands for these departments.

For this report, each City department identified a series of facility needs that will be necessary to provide as Bloomington's population changes over time. Based on these needs, Planning Department staff developed a summary of "Planning and Zoning Considerations" for each department. These are recommendations that are intended to assist the Plan Commission and City Council during the planning and zoning approval process.

The Planning and Zoning Considerations generally fall into one of the following categories:

- Encouraging the dedication of land parcels for use as future municipal facilities. This should be considered in conjunction with the planning and zoning approval process for proposed large-acreage, or high density re-zoning proposals, within the community.
- Phasing major new land use developments in accordance with the construction of new municipal facilities.
- As new municipal facilities are constructed, these may then begin to replace older municipal facilities that are now currently in service. Planning and zoning recommendations are included to assist in guiding redevelopment options for either public or private uses at these sites, should that situation present itself.

- Specific development related recommendations that increase access to municipal facilities and services, allowing for increased municipal service delivery levels.

The City Facilities Report, as well as the included recommendations, will require future updates. The current municipal facility inventory, geographic service delivery area, city personnel levels, government or industry regulations and standards, land use development patterns, and a host of other factors can undergo major changes over time. As a result, the City Facilities Report is intended to be a living document. Future updates can and will occur, as necessary, in order to continue providing members of the Plan Commission and City Council with the most accurate municipal facilities outlook possible.

INTRODUCTION

CITY FACILITIES REPORT

Report Background

The City Facilities Report was created in response to the guidance contained in the 2002 City of Bloomington Growth Policies Plan (GPP). Beginning in late 2007, Planning Department staff began drafting the framework for the City Facilities Report. To start this effort, staff decided to focus on six specific City of Bloomington departments, plus the City's transportation network (for both motorized and non-motorized vehicles). This particular selection was made in order to offer a unique and diverse look into Bloomington municipal operations, especially those that are typically most impacted by major planning and zoning land use decisions.

By no means does this City Facilities Report constitute a complete analysis of all City of Bloomington government facilities, areas of responsibility, or public service delivery. In any potential future updates of this report, a further range of City of Bloomington departments and services could be analyzed to provide an even broader resource to assist the Plan Commission and City Council in their respective decision making processes.

REPORT ORGANIZATION & STRUCTURE

The City Facilities Report utilizes a common structure and format throughout all of the chapters. Several core study areas for each targeted City department are highlighted in the following manner:

Department Function

A summary of the department's mission and purpose. This includes a brief overview of key items such as: organizational structure, personnel strength, geographic service delivery area, inventory of resources and other general items that provide greater insight into the department.

Summary of Existing Facilities

An inventory of all the current physical facilities that a department owns, operates or maintains. If a department utilizes a specific classification or rating system to define their facilities, this inventory will reflect that system.

Service Standards

A summary of national performance standards, federal and state regulations, or best management practices that are applicable to that particular department. These typically are either general operating requirements, or are considered benchmarks for ideal service delivery.

Future Facility Needs

A summary of the future facility plans or other general steps that each department has outlined in order to continue providing ideal service delivery. These are usually based on the applicable performance standards, government regulations or best management practices that are applicable to the particular department. To provide the highest level of service, City departments utilize these standards as the basis for future facility planning decisions.

Planning and Zoning Considerations

This section will provide both the Plan Commission and City Council with an outline of various recommendations that may be implemented during major land use development proposals. These recommendations are based upon the future facility needs for each specific City department. They are meant to assist with the future municipal facility implementation that is necessary to provide the maximum level of public service delivery.

Maps and Graphics

A wide array of GIS maps, bar charts, graphs and photographs are utilized for each department. These visual aids highlight major points that are expressed in the text. Because each City department is unique, the precise maps, graphics and other visual aids that are utilized will reflect the individual operating requirements of that particular department.

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CHAPTER 1

Fire

CITY FACILITIES REPORT

DEPARTMENT FUNCTION

The Fire Department provides fire suppression, emergency medical response to life-threatening situations, rescue services for vehicle accidents and a host of other emergency rescue and response needs. It also provides non-emergency functions, such as fire prevention education to the public, building and occupancy inspections, post-fire investigations and training for both Fire Department personnel and those from other local fire agencies.

The Bloomington Fire Department has a personnel strength of 99 full-time firefighters.

The Fire Department serves the municipal limits of the City of Bloomington. It also provides, through negotiated agreements, fire protection services to Indiana University, Salt Creek Township and Polk Township. The Department is composed of two divisions: Operations and Administration. The Operations Division consists of personnel that are assigned to daily emergency response duties. The Administration Division consists of personnel that are assigned to inspection, investigation and public education duties. To conduct its mission, the Fire Department has a full force of 99 full-time firefighters that operate shifts 24 hours a day, 365 days a year. Additionally, an office staff consisting of eight employees (seven full-time and one part-time) focuses on the administrative and general office tasks for the department.

Under the Public Safety Initiative of Mayor Mark Kruzan, the capabilities of the Fire Department will be expanded in the future with the addition of a Technical Rescue Company. This will allow the Fire Department to perform greater operations in areas that include confined spaces, trench and building collapses, and urban rope rescues. To assist with staffing the future Technical Rescue Company, three additional full-time firefighter positions will be added to the force through Mayor Kruzan's Public Safety Initiative.

The Public Safety Initiative of Mayor Kruzan will add three additional firefighter positions to the Fire Department.

SUMMARY OF EXISTING FACILITIES

Fire Stations

The Fire Department currently operates five fire stations that are utilized for the storage of firefighting apparatus and equipment, as well as housing assigned personnel. Each fire station responds to calls within an assigned geographic area of responsibility (known as a "district") and also may assist or respond to calls for other districts. For specific fire station locations and the corresponding districts, please refer to *Figure 1,* page 16. The current fire stations include the following:

- Fire Station #1: 300 E. 4th Street
- Fire Station #2: 209 South Yancy Lane
- Fire Station #3: 810 North Woodlawn Avenue
- Fire Station #4: 2201 East 3rd Street
- Fire Station #5: 1987 South Henderson Street

Fire Station #1 also houses the Fire Department Headquarters.

Training Facilities

The Fire Department operates a training and tower facility that is located at 3190 S. Walnut Street. It is designed for use by officers, personnel and recruits to have the opportunity to train and practice in a safe, but realistic, environment. The facility allows trainees to practice techniques such as laddering, forcible entry, stand pipe connections and repelling. These training opportunities are available not only for the City of Bloomington Fire Department, but also personnel from neighboring and regional fire departments as well.

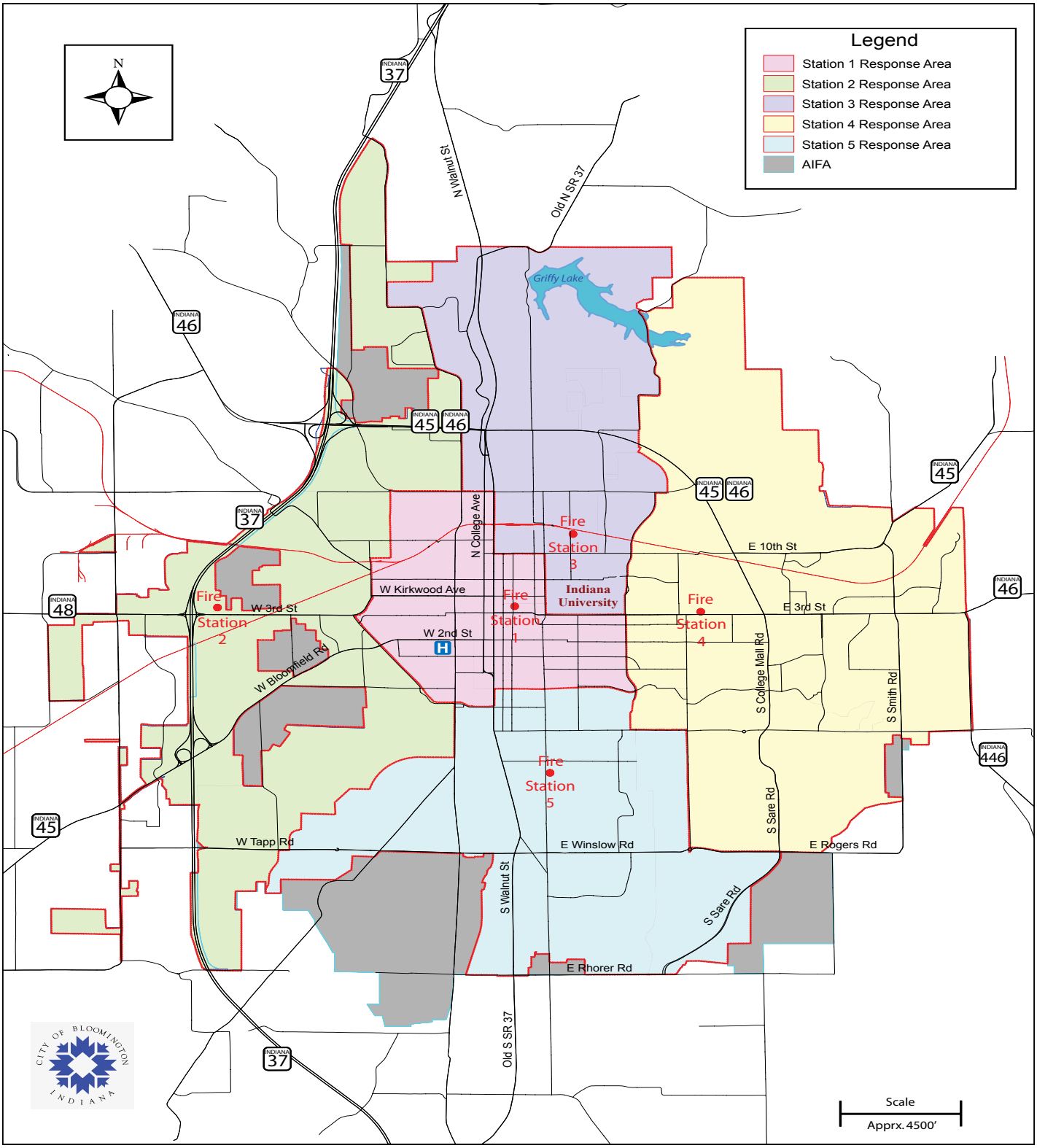
The training and tower facility enhances training opportunities for personnel in a safe, yet realistic, environment.

Other Facilities

In addition to fire stations and the training facility, the Fire Department operates two general office facilities. One is co-located within Fire Station #1 and serves as Fire Department Headquarters. The second is the Rogers Street Administrative Facility, located at 115 S. Rogers Street. This facility houses the Department's fire inspectors and investigators, is home to public education and outreach efforts, and provides storage for miscellaneous vehicles and materials.

A fire protection system is in place to provide a water supply capacity for fire suppression incidents. This system includes fire hydrants and other appurtenances. As of March, 2010, there are a total of 2,944 fire hydrants located throughout the City of Bloomington municipal boundaries and outlying areas. The fire protection system is owned and maintained by the Utilities Department (for more information, please see the *Utilities Chapter*, page 141).

FIGURE 1: CURRENT FIRE STATIONS & ASSIGNED DISTRICTS



The City of Bloomington Fire Department currently maintains five fire stations that are responsible for sending fire and rescue units to emergency situations both within the coverage area of their assigned districts, as well as to other areas within the city when needed.

PUBLIC SAFETY SERVICE STANDARDS

ISO Rating

The Insurance Service Office (ISO) is a national source of information about property and casualty insurance risk. The ISO inspects and ranks fire departments across the United States on their ability to suppress fires. This is done utilizing a set of established criteria that includes an analysis of the following types of key information for a fire department:

- Overview of the central dispatch system and communication gear
- Status of the municipal water supply and distribution network
- Age and inventory of all fire suppression equipment
- Overall personnel strength, training levels and experience
- The geographic distribution and size of each potentially responding unit

The Fire Department currently has an Insurance Service Office (ISO) Class 3 Public Protection Classification (PPC) rating.

After reviewing these criteria, the ISO then assigns a Public Protection Classification (PPC) rating to each fire department. According to the ISO, the PPC rating scale spans between Class 1, which represents "exemplary fire protection", to Class 10, which indicates that an "area's fire-suppression program does not meet ISO's minimum standards." Among other things, the ISO PPC ratings are utilized to help calculate and set the insurance premium rates for communities.

The ISO has analyzed 47,648 fire departments in the United States for the purpose of assigning a PPC rating. Effective March, 2010, the City of Bloomington Fire Department has obtained an ISO PPC rating of Class 3. According to the ISO, of all the fire departments analyzed nationwide, only 2,473 have received a PPC rating of Class 3 or better.

Within the State of Indiana, there are a total of 1,721 fire departments that have been analyzed for a PPC rating by the ISO. Of these, only 37 have received a Class 3 or better PPC rating (currently no fire department within the state has received a Class 1 PPC rating).

Out of a total of 1,721 Indiana fire departments analyzed for a PPC rating by the ISO, only 37 have achieved a Class 3 or better PPC rating.

NFPA Standard 1710

The National Fire Protection Association (NFPA) is an international non-profit organization that advocates fire prevention and public safety. The NFPA develops and maintains life safety codes and standards that are intended to reduce the possibility of fires and other public safety risks.

Adopted by the NFPA on August 5, 2004, Standard 1710 established specific response time objectives for fire suppression, Emergency Medical Services (EMS), special operations, aircraft and marine rescue and fire fighting and wildland fire fighting. According to the NFPA, the term "response time" is measured as being the total amount of travel time between when fire units leave the station after notification of an

emergency incident by the dispatch center to the arrival of the first fire-suppression apparatus and (EMS) unit at the scene.

NFPA Standard 1710 (section 4.1.2.1) provides several specific response time objectives. The following is a general summary of these objectives (for a complete overview of NFPA 1710 definitions and technical terms, please see *Appendix 1: Fire Department*, page 146):

NFPA Standard 1710 requires that fire and EMS units achieve a 8 minute response time to 90% of all emergency incidents.

- 4 (four) minutes or less for the arrival of the *first* arriving engine company (e.g. a fire engine, fire pumper, EMS unit, etc.) at a fire suppression incident.
- 4 (four) minutes or less for the arrival of a unit with first responder or higher level of capability at an emergency medical incident.
- 8 (eight) minutes or less for the deployment of a full first alarm assignment at a fire suppression incident and/or for the arrival of an advanced life support unit at an emergency medical incident, where this service is provided by the fire department.
- Fire departments shall establish a performance objective of deploying an initial full first alarm assignment within an 8 (eight) minute or less response time to 90% of emergency incidents that are described in section 4.1.2.1.

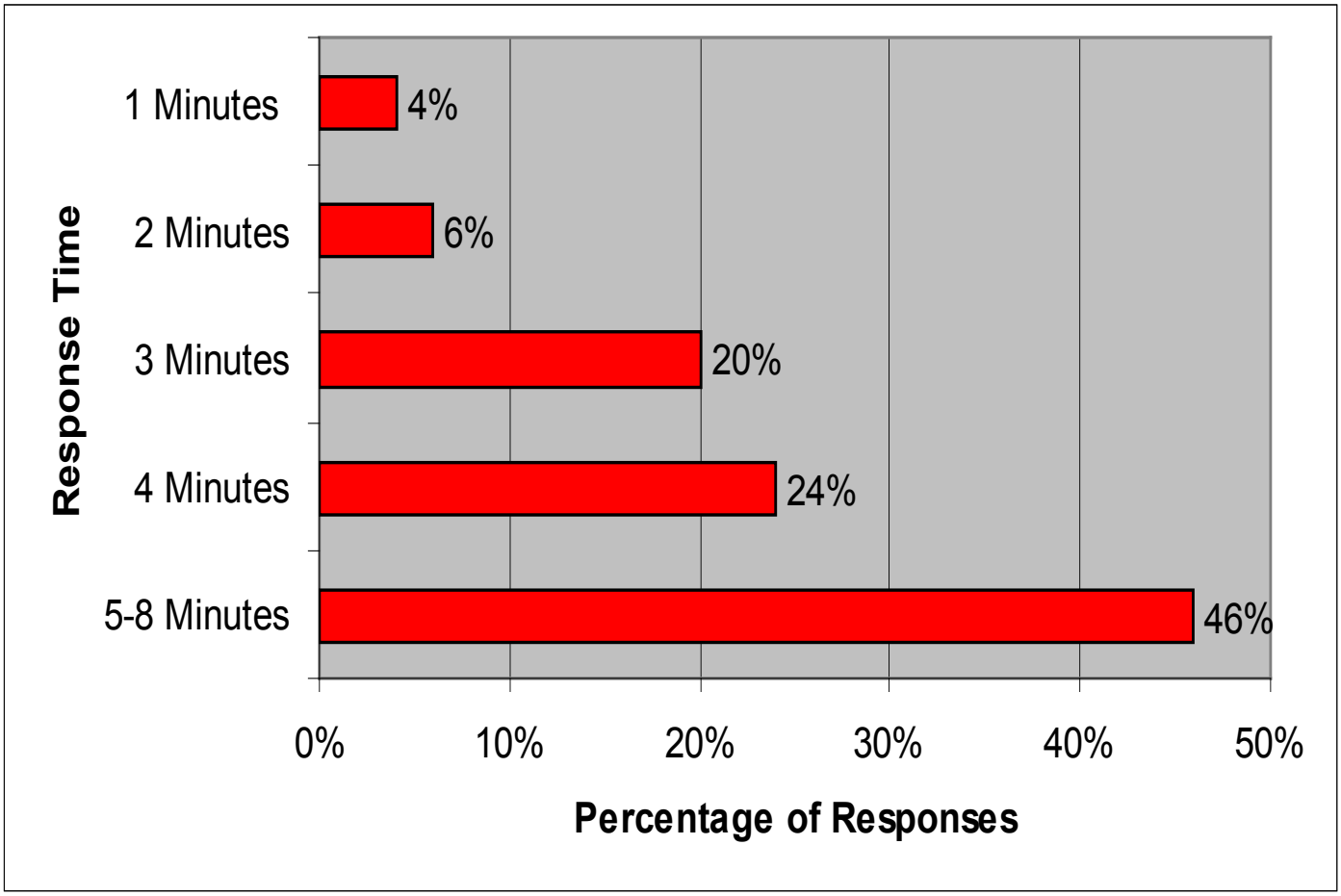
It should be noted that the State of Indiana has not formally adopted the response time objectives that are contained within NFPA Standard 1710 for use by Indiana fire departments. However, NFPA Standard 1710 is considered the nationwide benchmark for fire response times and is utilized by, among other agencies, the ISO for PPC rating assignments. So, although not an official State of Indiana requirement, the Bloomington Fire Department strives to achieve the response time objectives that are contained in NFPA Standard 1710.

All of the 2009 Fire Department emergency responses met the NFPA Standard 1710 performance objectives.

Fire Department Service Distribution

The specific time breakdown for all Fire Department emergency responses in 2009 can be found in *Figure 2,* page 19. As illustrated, over half of the total emergency responses (54%) occurred within four minutes or less. The remainder (46%) occurred between five and eight minutes. All of the 2009 emergency responses by the Fire Department were within the NFPA Standard 1710 performance objective of providing a full first alarm assignment response to at least 90% of all emergency incidents within eight minutes or less. An important issue to note which often can lengthen response time totals is the amount of "alarm time" that is involved in each response. This refers to the total amount of time that is needed at the dispatch center to process an emergency 911 call and deploy the applicable fire department units to the incident scene. Greater alarm time may be a contributing factor in many of the longer five to eight minute Fire Department emergency responses. For a more detailed explanation concerning alarm time, please see *Appendix 1*, page 146.

FIGURE 2: 2009 FIRE DEPARTMENT RESPONSE TIME ANALYSIS



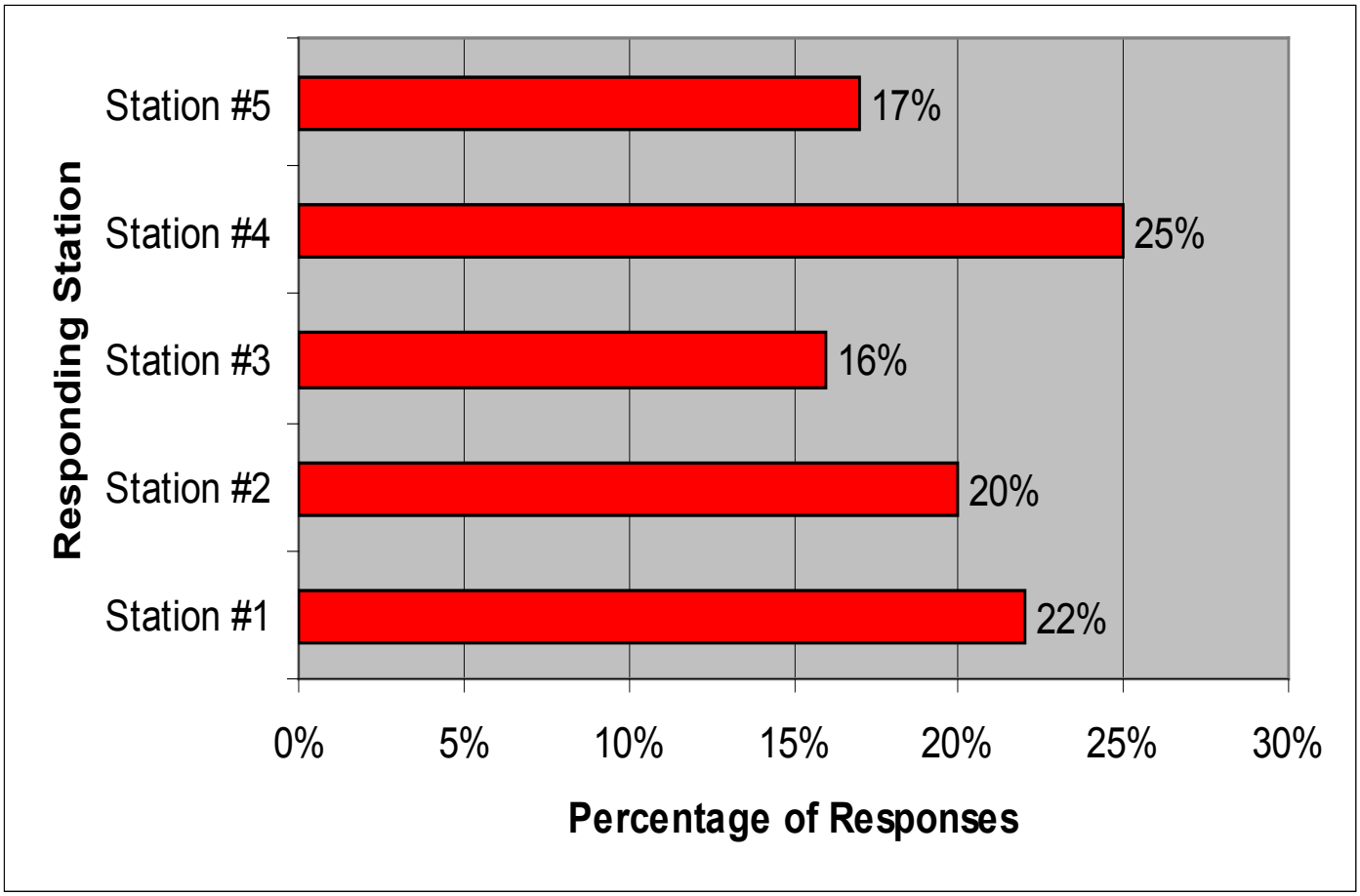
Over half (54%) of the Fire Department emergency responses for 2009 occurred within four minutes or less. The remainder of the responses (46%) were between five to eight minutes. All of the Fire Department emergency responses in 2009 met the performance objectives that are outlined in NFPA Standard 1710.

Fire Department Coverage Areas

The areas within the four minute response time coverage zone for the Bloomington Fire Department are shaded in yellow on *Figure 4,* on page 21. The areas that are within the eight minute response time coverage zone for the Bloomington Fire Department are shaded in light purple on the same figure. For a detailed look at the number of fire runs that each of the five current fire stations participated in for 2009, please see *Figure 3* below.

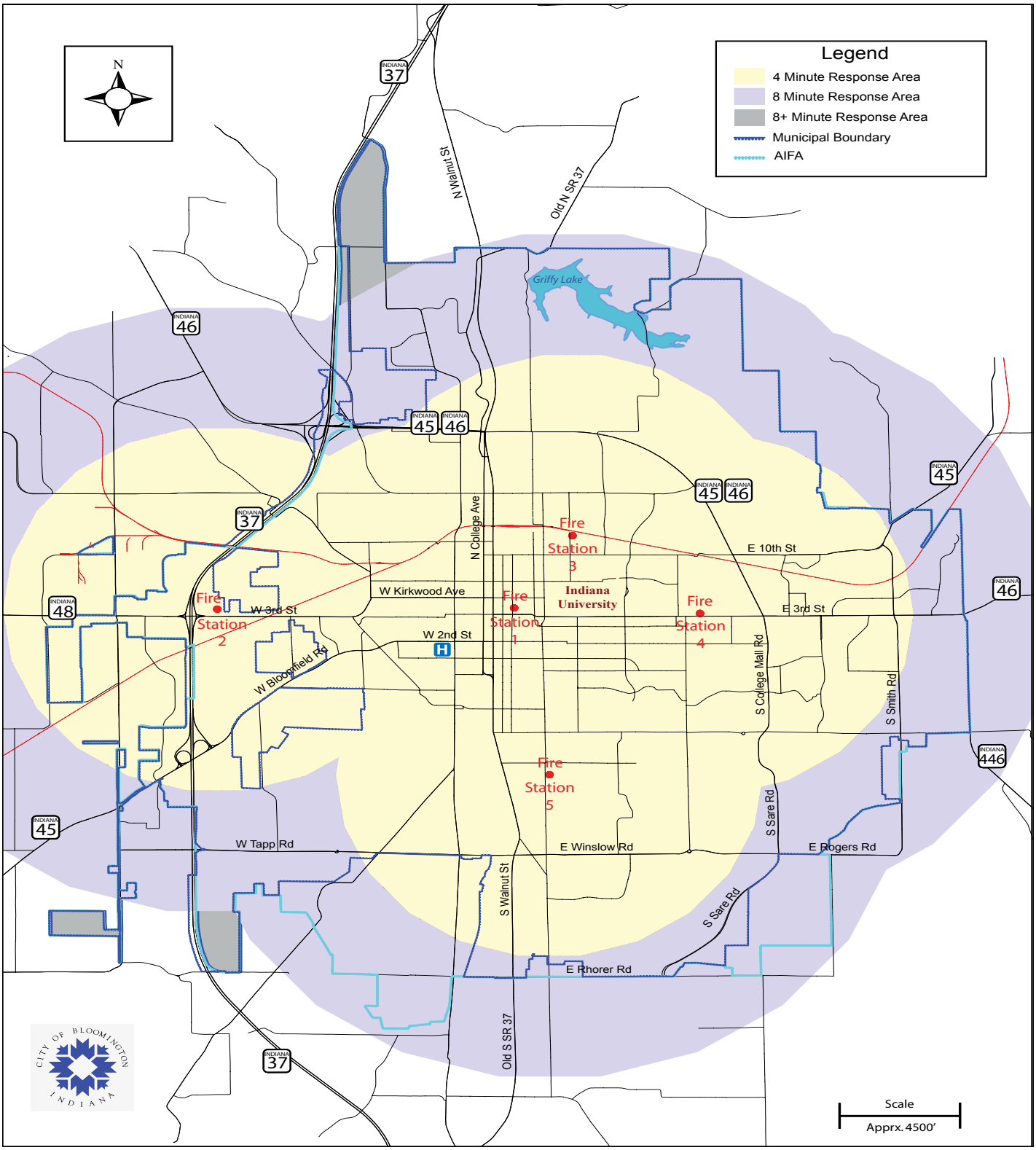
As *Figure 4* helps to illustrate, the current geographic configuration of fire stations throughout the city presents several issues regarding the provision of the ideal four and eight minute response time coverage. As a result of this, additional facilities will eventually be needed in order to address these coverage issues. For more information regarding planned and proposed fire facilities, please see *Future Facility Needs* on page 22.

FIGURE 3: PERCENTAGE OF 2009 FIRE RUNS BY CURRENT STATION



Fire Station #4 participated in the highest percentage (25%) of fire runs in 2009.

FIGURE 4: FIRE DEPARTMENT RESPONSE AREA RADIUS MAP



The four and eight minute response time coverage radius for each of the five current fire stations is illustrated on this map.

FUTURE FACILITY NEEDS

The current locations and configuration of the City's fire stations were originally intended to serve a more traditional downtown and core community. However, as the population of Bloomington continues to grow, there have been changes in the spatial arrangement of this population that present challenges to the Fire Department's ability to provide ideal coverage levels to all areas of the city. Preparing to meet these changing community growth patterns is a focus for long-term facility needs.

Future fire stations will eventually be needed in order to increase ideal fire protection coverage within certain areas of the city.

Because of the way fire stations are currently located throughout the city, there are several areas that present issues regarding the provision of ideal fire protection, as provided by NFPA Standard 1710. These areas of the city are concentrated in the following locations: far north, east, south, southwest and southeast sides of the city (see *Figure 4,* on page 21). Future facilities to increase Fire Department response coverage to these areas will be needed.

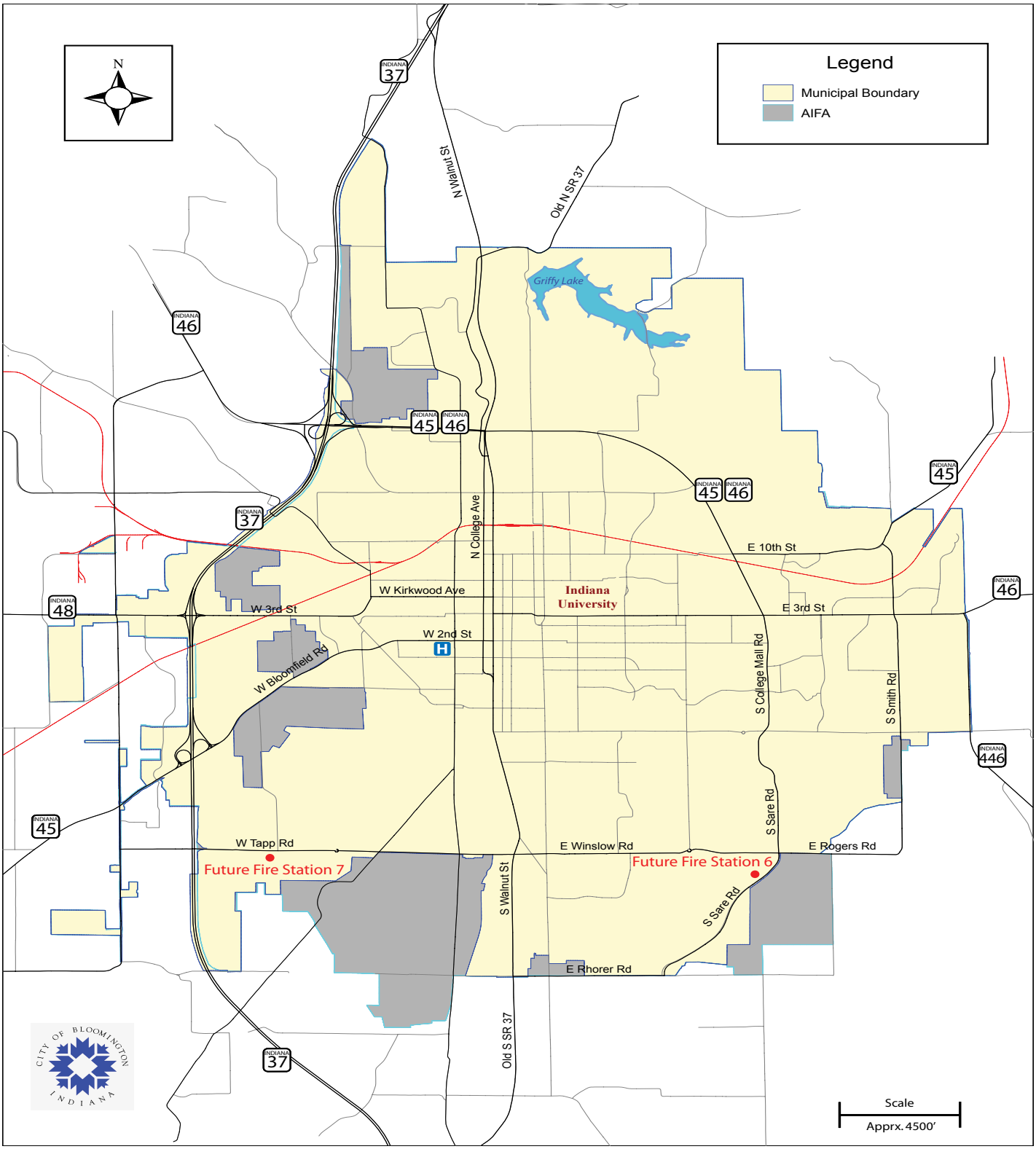
Additionally, the Areas Intended for Annexation (AIFA) will also present issues for future fire coverage needs. AIFA refers to areas that are not currently within the City of Bloomington corporate limits, but are eventually planned to be annexed into the City. Many of the AIFA areas are either directly adjacent to the City's corporate limits, or are essentially "islands" in the fact that they are completely surrounded by City of Bloomington corporate limits. AIFA areas are generally clustered on the north, west, southwest and southeast sides of the city (*Figure 5* on page 23 provides a good overview of both the current AIFA and City corporate boundaries). Because AIFA areas have not yet been annexed by the City of Bloomington, the primary fire response for them is currently provided by their corresponding township fire department. When the City of Bloomington does officially annex an AIFA area, the Fire Department will then assume full emergency coverage responsibilities and will need to provide ideal response times.

Fire Stations

There are several opportunities to further increase ideal fire coverage to the specific areas that are outlined in the previous section. To do so would require the addition of new fire stations to the existing inventory. These opportunities include the following:

- Fire Station #6: A parcel of land located near the intersection of Sare Road and Southern Oaks Drive has been formally dedicated to the Fire Department for use as a future fire station (see *Figure 5*). When a facility is constructed on this site, it will be formally designated as Fire Station #6. This will allow for increased response times for the south and southeast areas of the city (see *Figure 6*, page 25).

FIGURE 5: FUTURE FIRE STATION LOCATIONS



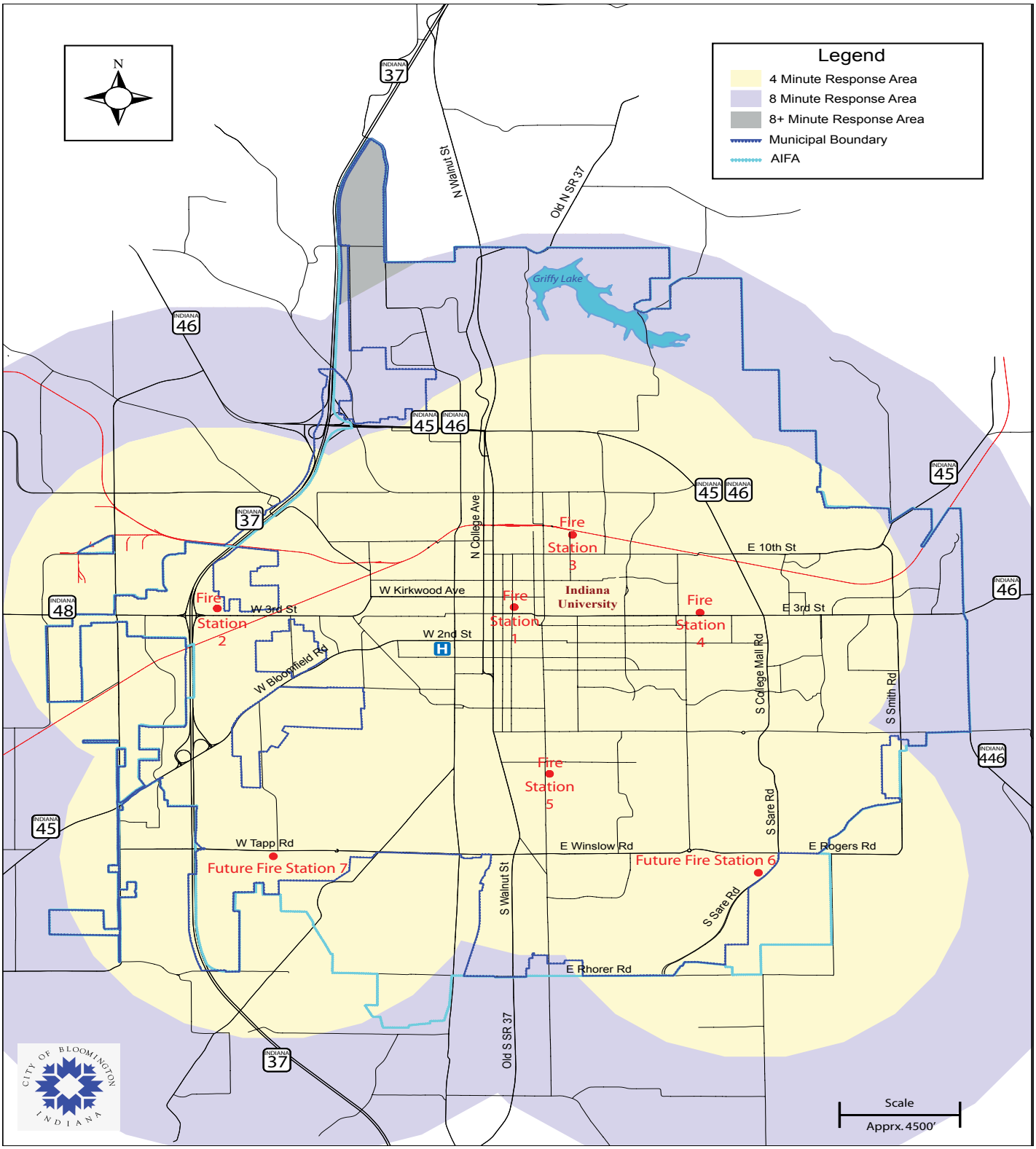
Two additional fire station locations, Station #6 and Station #7, will be sites for future construction.

- There is a long-term potential that Station #5 could be closed and consolidated with Station #6. This move would increase coverage by eliminating duplicate coverage zones between the two stations. Fire Station #6 would also be geographically better situated to provide coverage to the south and southeast sides of the city.

- Station #7: A parcel of land will be dedicated to the City of Bloomington Fire Department for use as a future fire station at the Southern Indiana Medical Park II (SIMP) site. The general site location of this parcel is southwest of the intersection of Tapp and Weimer Roads (see *Figure 5*, page 23). The land dedication requirement was included as part of the SIMP II property rezoning request. As the property further develops, the parcel will be officially dedicated to the City of Bloomington, allowing for Fire Station #7 to be constructed. The location of Fire Station #7 will increase response times for the south and southwest areas of the city (see *Figure 6*, page 25).

- Station #7 could provide an excellent opportunity for a joint-use facility between the Fire and Police Departments (for more information about this opportunity, please see the *Police Department* chapter, page 53).

FIGURE 6: FUTURE FIRE STATION RESPONSE AREA RADIUS MAP



With the future additions of Fire Stations #6 and #7 to the Fire Department inventory, the four and eight minute coverage areas within the city expand considerably.

PLANNING AND ZONING CONSIDERATIONS

- *Future south and southeast side developments*: consideration should be given to the current Fire Department response time coverage in these areas of the community. Capital plans to construct Fire Station #6 should be considered as zoned properties in this area are built out over time. This will ensure that ideal fire response time coverage is maintained for these areas of the community.

- *Southern Indiana Medical Park (SIMP) II site*: implement the land dedication process (and eventual construction) that is necessary for Fire Station #7. This process should correspond with major developments occurring at the following sites: SIMP II, the 90 acre Brown property at the northeast corner of State Route 37 and Fullerton Pike, and the Public Investment Corporation property at the northwest corner of the Tapp Road and Weimer Road intersection.

- *Future north side developments*: any proposed developments for the BP zoned land located between N. Kinser Pike and W. Acuff Road will need to be scrutinized for fire response time impacts. A parcel of land for use as a future fire station may need to be dedicated to the Fire Department during the development approval process (similar to the SIMP II example). This would ensure that ideal fire response time coverage is provided to this area of the community.

- *Fire Station #5*: if this station is eventually consolidated with Fire Station #6, this facility would then no longer be needed by the Fire Department. If this consolidation occurs, the Fire Station #5 site could be redeveloped with a future public, or private, land use.

- *AIFA areas*: future annexations of these areas will transfer the primary fire protection responsibility from various township fire departments to the City of Bloomington Fire Department. Prior to annexation, the City of Bloomington should ensure that ideal fire response time coverage is provided to these areas.

- *Street connectivity*: new developments should provide the maximum level of street network connectivity possible. This will allow for efficient access for Fire Department equipment and personnel, reducing the travel times that are necessary for incident responses.

- *Public street dedication and street addressing*: future developments should include the public dedication of all new streets. Additionally, street addressing should be made as uniform and standard as possible to avoid confusion for Fire Department personnel.

- *Residential sprinkler systems*: encourage the installation of sprinkler systems in new residential developments. The use of residential sprinkler systems has been shown to significantly lower the risk of injuries and damage associated with fire incidents. Due to the immediate fire suppression capabilities that sprinkler systems provide, utilizing them in association with new residential developments would improve fire response time coverage in all areas of the community.

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CHAPTER 2

Parks and Recreation

CITY FACILITIES REPORT

CITY OF BLOOMINGTON
parks and recreation

DEPARTMENT FUNCTION

The Parks and Recreation Department provides essential services, facilities, and programs necessary for the positive development and well-being of the community. Overall, the Parks and Recreation Department has approximately 40 parks sites (see *Figure 7,* page 31) and operates over 1,000 programs and services. There are 2,360.13 acres of total park area that includes 462.36 acres of developed land, 392.99 acres of undeveloped land and 1,504.78 acres of preserved greenspace (which represents over 60% of the total park area). The Parks and Recreation Department is also responsible for maintaining approximately 18,000 street trees and 70 landscape plots, all of which are located throughout the city.

The Parks and Recreation Department has approximately 40 park sites and operates over a 1,000 programs and services.

The physical assets of the Parks and Recreation Department include city parks, natural resource properties, multi-use trails, sports fields, swimming pools, an ice arena, theater, golf course, recreational facilities, community centers and a wide range of other facilities. The Parks and Recreation Department operates under the policy guidance of the Board of Park Commissioners. The Board of Park Commissioners is comprised of 4 members that are all appointed by the Mayor.

SUMMARY OF EXISTING FACILITIES

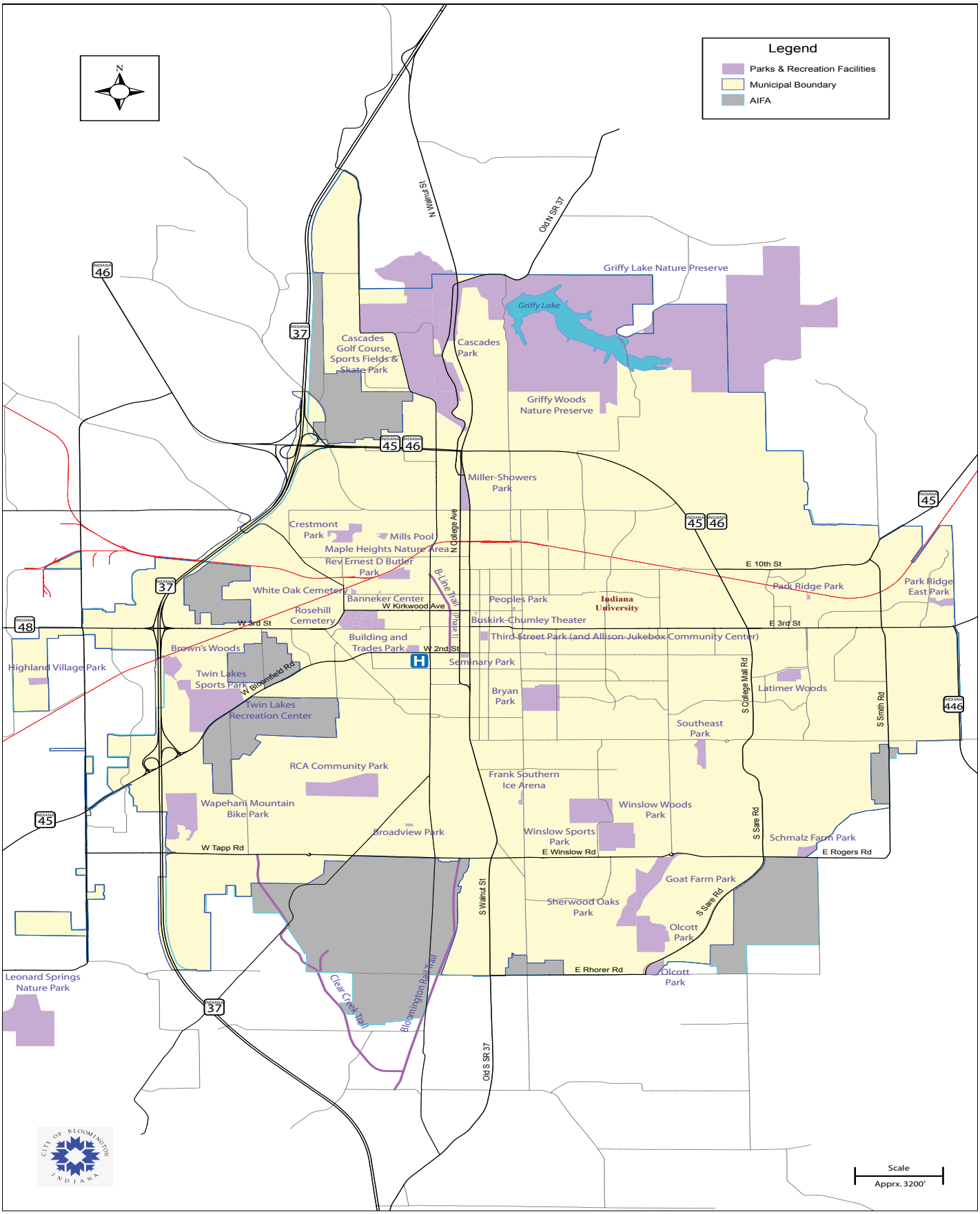
Community Parks

Parks that contain diverse environmental quality and natural beauty that are viewed as destination attractions for many residents. Typically, community parks have a substantial percentage of acreage set aside for intense, active recreational pursuits and sports with commensurate facility development. Some acreage at these facilities is also allocated for passive recreation. Community parks are generally within walking distance to many neighborhoods, but they serve the entire community. The current community parks include the following (also see *Figure 8,* page 33):

Bryan Park is a large community park that has a number of amenities and is centrally located in the community.

- Bryan Park
- Cascades Park (Upper & Lower Cascades)
- Miller-Showers Park (operated in partnership with the Utilities Department. For more information, please see page 135 in the *Utilities Department* chapter.)
- Olcott Park
- RCA Community Park
- Wapehani Mountain Bike Park
- Winslow Sports Park

FIGURE 7: PARKS AND RECREATION DEPARTMENT FACILITIES MAP



The Parks and Recreation Department maintains approximately 40 park sites, with a total park area of 2,360.13 acres.

Neighborhood Parks

Parks that are usually located within, or adjoining, developed residential areas throughout the city. Typical amenities include small shelters, open play fields and hard surfaced athletic courts. The current neighborhood parks include the following (also see *Figure 8,* page 33):

Broadview Park is an example of a neighborhood park.

- Broadview Park
- Building and Trades Park
- Crestmont Park
- Highland Village Park
- Maple Heights Park
- Park Ridge Park
- Park Ridge East Park
- Reverend Ernest D. Butler Park
- Schmalz Farm Park
- Sherwood Oaks Park
- Southeast Park
- Winslow Woods Park

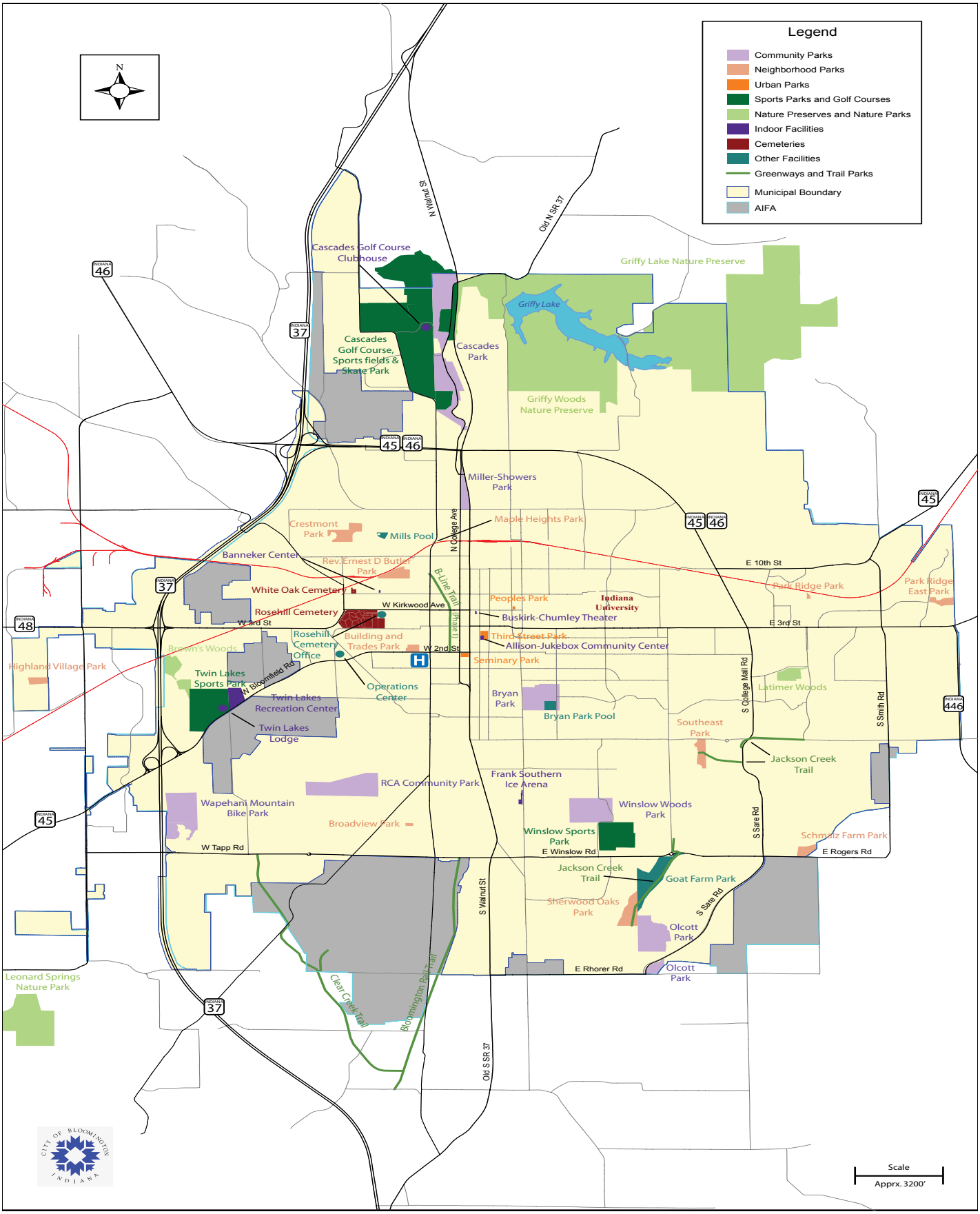
Urban Parks

Parks that are located within the urban core and central downtown areas of the city. Access to them is typically by either pedestrian or bicycle modes of transportation. Urban parks are frequently the site of public performances and gatherings. The current urban parks include the following (also see *Figure 8*):

Peoples Park is located in the core of Bloomington and often hosts public performances and gatherings.

- Peoples Park
- Seminary Park
- Third Street Park

FIGURE 8: PARKS AND RECREATION DEPARTMENT FACILITY CLASSIFICATIONS MAP



Current Parks and Recreation Department facilities fall within nine separate classification categories, all of which are shown here.

Greenways and Trail Parks

Linear parks or corridors of protected land established along rivers, stream corridors, ridges, abandoned railroad right-of-way or utility right-of-way. They link recreational and cultural areas, as well as assist in the preservation and protection of contiguous ecological wildlife corridors. The trail facilities are designed for active and passive non-motorized transportation users (i.e. bicyclists, pedestrians, rollerblade users and etc.). The trails are typically constructed of asphalt, stone, or bark chip surfacing. The current greenways and trail parks include the following (see *Figure 8,* page 33):

An example of a Greenways and Trail Park is the Clear Creek Trail. It is designed for active and passive non-motorized transportation users.

- B-Line Trail
- Bloomington Rail Trail
- Clear Creek Trail
- Jackson Creek Trail

Nature Preserves and Nature Parks

Properties where the protection and management of the natural environment are the highest priorities. If there is a recreational or facility use on these properties, it is a secondary objective. The current nature preserves and nature parks include the following (see *Figure 8*):

- Brown's Woods, which includes the preserved area located at Mueller Park (owned and operated by the Community Foundation, managed by the Parks and Recreation Department)
- Griffy Lake Nature Preserve
- Griffy Woods Nature Preserve
- Latimer Woods (owned and operated by the Community Foundation, managed by the Parks and Recreation Department)
- Leonard Springs Nature Preserve

The priority of nature preserves and nature parks, such as Latimer Woods pictured here, is to protect and manage the natural environment.

Both the Griffy Lake Nature Preserve and Griffy Woods Nature Preserve are operated in partnership with the Utilities Department. For more information about this partnership, please see the *Utilities Department* chapter, page 135.

Cemeteries

Municipally owned and operated facilities that are valued for their urban greenspace and historical significance to the community. The current cemetery facilities include the following (see *Figure 8*):

- Rosehill Cemetery
- White Oak Cemetery

Sports Parks and Golf Courses

Park spaces that are designated and developed primarily for organized and specialized sports, as well as for active recreation activites. The current sports parks and golf courses include the following (see *Figure 8,* page 33):

- Cascades Golf Course
- Cascades Sports Fields (softball complex)
- Twin Lakes Sports Park (softball complex)
- Upper Cascades Skate Park
- Winslow Sports Park (baseball and softball complex)

The Cascades Golf Course is a park space that was developed and designed for an organized and specialized sport.

Indoor Facilities

Buildings which provide space for a variety of recreation uses and indoor programming activities. These include features such as basketball courts, fitness facilities, indoor running tracks, ice rinks, performance stages, classroom spaces, kitchen spaces and meeting areas. The current indoor facilities include the following (see *Figure 8*):

- Allison Jukebox Community Center
- Banneker Community Center
- Buskirk-Chumley Theater
- Cascades Golf Course Clubhouse
- Frank Southern Ice Arena
- Twin Lakes Lodge
- Twin Lakes Recreation Center

The Buskirk-Chumley Theater is one of the indoor facilities operated by the Parks and Recreation Department.

Other Facilities

Includes a mix of public recreational facilities and buildings utilized for the day-to-day operations of the Parks and Recreation Department. These facilities include the following (see *Figure 8*):

- Bryan Park Pool (facility is co-located at Bryan Park)
- Goat Farm Park (this facility is awaiting a master planning process that will explore future park opportunities - as a result, it has no current park classification)
- Mills Pool
- Operations Center
- Rosehill Cemetery Office

PARKS AND RECREATION SERVICE STANDARDS

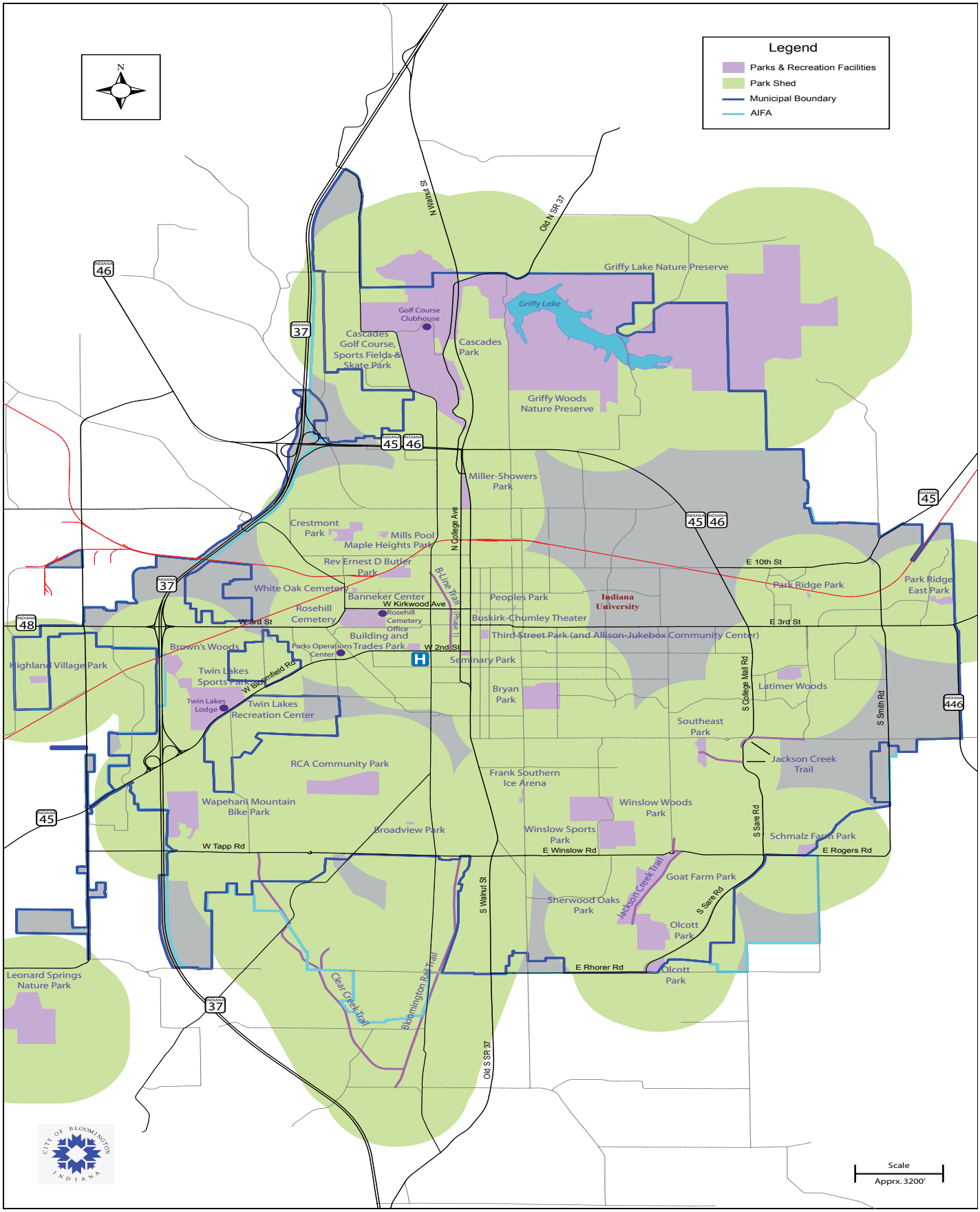
There are a number of national standards and best management practices pertaining to the ideal provision of parks and recreation service coverage. These various standards often look not only at specific park capacity components (i.e. the number of tennis courts, per 1,000 population), but also at the geographic distribution of park spaces and amenities that are located throughout the community. Recent benchmarks now focus on the accessibility of community residents to a park space has become just as important as the formal breakdown of the park assets vs. population ratios.

'Park Sheds' are a performance standard that measures accessibility to park facilities and spaces.

Among other measurements, the new standards often utilize what are known as 'Park Sheds' as a tool in measuring a community's accessibility to park spaces and facilities. These 'Park Sheds' represent a half mile radius (which roughly equates to about a six minute walk), drawn outward from the actual physical boundary of an individual park or facility. This half mile radius illustrates the area that is within the optimal accessibility distance for community residents to access that park by all modes of transportation (walking, biking, transit, personal vehicle, etc.). Those areas that are not within a Park Shed represent sections of the community that may be underserved by park services due to some modes of transportation not being able to access that particular park facility. As a result, these under-served areas should be the primary focus areas for future park facility development. Ideally, the entire community would be within a Park Shed, indicating that every park is accessible by all various transportation means.

As seen in *Figure 9*, page 37, current Park Shed deficiencies are especially concentrated in the following areas of the community: far north, northwest, southwest, southeast, eastern fringes and the core neighborhoods surrounding the Indiana University campus. As a result of these Park Shed coverage issues, additional facilities will be needed in the future. For more information regarding planned and proposed Parks and Recreation facilities, please see *Future Facility Needs*, page 38.

FIGURE 9: PARKS AND RECREATION FACILITIES PARK SHED RADIUS MAP



The half mile radius surrounding a park's actual physical boundary, known as a 'Park Shed', illustrates the geographic areas that are within the optimal range of accessibility by the community for all modes of transportation.

FUTURE FACILITY NEEDS

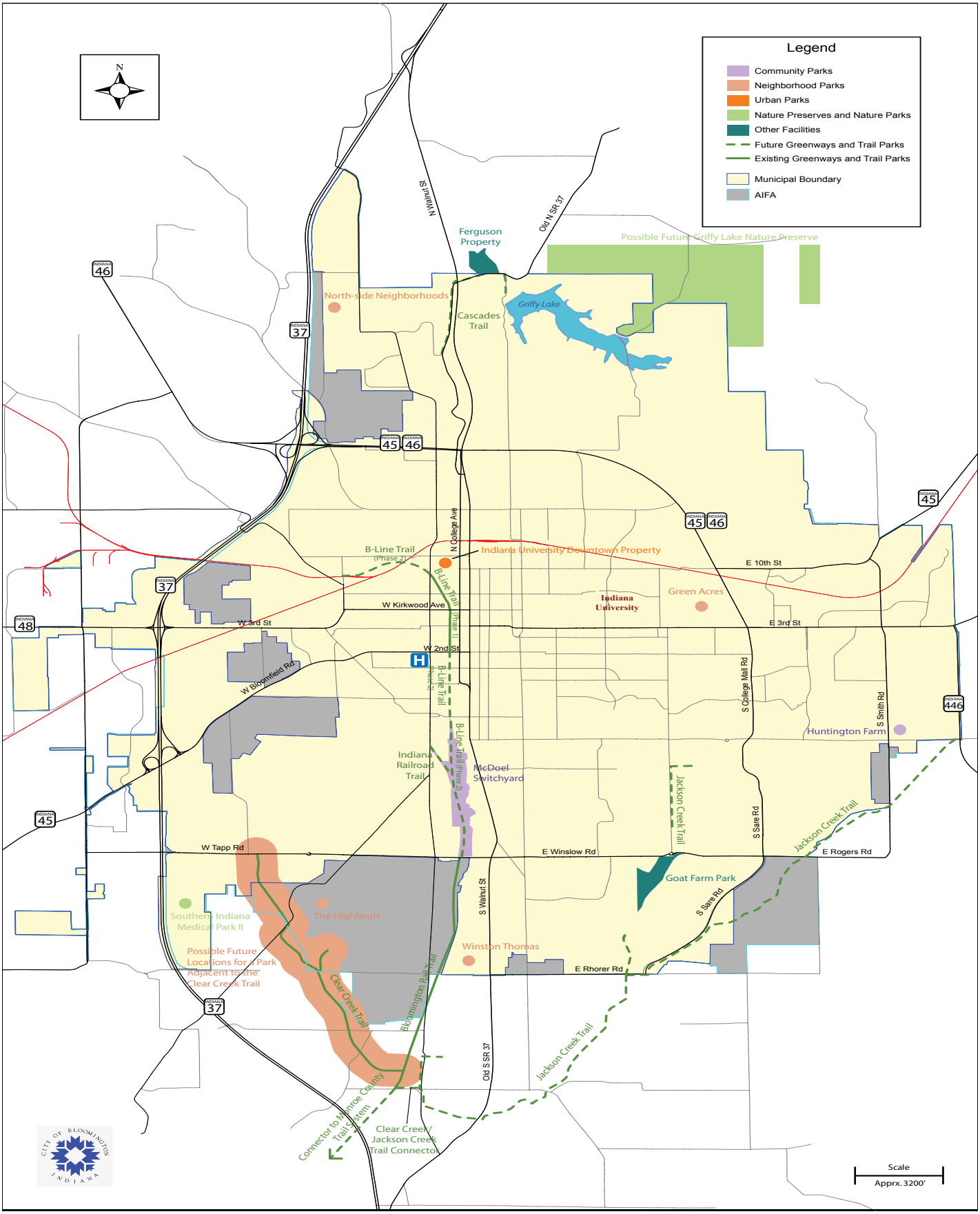
In September of 2007, the City of Bloomington Board of Parks Commissioners officially adopted the 2008-2012 Parks and Recreation Comprehensive Parks and Recreation Open Space Plan. The purpose of this comprehensive plan is to "help meet the needs of current and future residents by positioning Bloomington to build on the community's unique parks and recreation assets and identify new opportunities. The citizen-driven plan establishes a clear direction to guide city staff, advisory committees, and elected officials in their efforts to enhance the community's parks and recreation programs, services and facilities."

A separate citizen survey process being utilized by the Parks and Recreation Department was also folded in as a component of this plan. During November and December of 2006, the Community Attitude and Interest Survey was conducted in order to help establish priorities for the future development of parks and recreation facilities, programs and services within the community. Because it strongly complimented the efforts of the Comprehensive Plan, the survey results were incorporated into the larger comprehensive planning process to provide an even greater look at parks needs in the community.

The 2007 Comprehensive Plan also identified several key areas for future Parks and Recreation Department development and issues directly related to land use development. Parks and Recreation Department administrative staff also offered additional comments and observations concerning not only current deficiencies and needs within the parks system, but also future opportunities.

Specific recommendations from both sources address not only deficiencies in the parks system, but also potential opportunities for expansion to the current parks system that may become available to the community at some point in the future. The following overview is a synopsis of those recommendations, as well as the Park Shed analysis.

FIGURE 10: FUTURE PARKS AND RECREATION DEPARTMENT FACILITIES MAP



Future or potential Parks and Recreation Department facilities, listed by specific classification category.

Community Parks

Future community park facilities are particularly needed in the east, west and southwest sides of the community. An additional community park facility is also needed for the downtown area as well. There are several strong potential opportunity areas where new community park facilities could be constructed in the future to address these needs. These include the following opportunities (also see *Figure 10*, page 39):

The McDoel Switchyard property offers a substantial opportunity for a future community park in the downtown area.

- Huntington Farm subarea: the Growth Policies Plan states that any future developments on this property should include land dedication for a major City of Bloomington park facility.
- McDoel Switchyard: as seen in *Figure 10*, the downtown is currently well served by Park Sheds. However, the park spaces that are located downtown generally contain smaller acreage Urban Parks (i.e. Peoples Park, Third Street Park, etc.), or are indoor facilities (i.e. Buskirk-Chumley Theater, Allison Jukebox Community Center, etc).

  A large, active park space is currently lacking in the downtown. Because of this, the McDoel Switchyard property offers a substantial community park opportunity for the downtown area. The City of Bloomington officially took ownership of this property in December of 2009, which will allow for opportunities to be explored in greater detail through a future master planning process.

Neighborhood Parks

There are several minor deficiencies for neighborhood parks. These locations are generally found in core neighborhoods and the outlying areas of the municipal boundaries (see *Figure 9*). Potential opportunities to address these deficiencies with new neighborhood park facilities exist in the following locations (also see *Figure 10*):

Pursuing additional properties adjacent to the Clear Creek Trail represents an opportunity for adding a new neighborhood park facility in the future.

- Clear Creek Trail: any property located near the Clear Creek Trail and that could be accessed directly from it.
- The Green Acres neighborhood: a potential site located in, or near, the neighborhood, perhaps in partnership with Indiana University (especially with the Hilltop Gardens area).
- The Highlands subdivision: a potential site located in the subdivision, perhaps in the former quarry area.
- Winston-Thomas sub-area: a potential site located adjacent to the City of Bloomington Police Department and Fire Department training facilities.
- North-side neighborhoods: a potential site that could serve the Fritz Terrace, North Kinser Area and Northwood Estates neighborhoods.

Urban Parks

Indiana University currently owns twelve acres located downtown between 10th Street, Morton Street, the Showers Center City Hall and Bender Lumber site. This property has great potential to redevelop as a mixed-use project oriented to serve the City of Bloomington's Certified Technology Park. In association with such future redevelopment, land should be reserved for downtown park, plaza and performance space (similar in usage to the Peoples Park facility).

Greenways and Trail Parks

No clear deficiencies currently exist for greenways and trail parks, but there are opportunities for additional trail development in the future. These include the following potential greenways and trail park opportunities (see *Figure 10*):

- The Jackson Creek Trail: an approximately 12 mile multi-use trail that will connect the Clear Creek Trail with both Clarizz Boulevard and State Road 446. The connecting link between the Clear Creek Trail and the Jackson Creek Trail might be Church Lane to Fairfax Road, although other connection locations could be pursued.
- B-Line Trail: construction of the remaining 2.4 miles of the B-Line Trail is scheduled for completion by the summer of 2011. This includes segments to N. Adams Street and to the north of Country Club Drive from the exis ting B-Line Trail (Phase I). When complete, three trails will connect, totaling of 7.4 miles (Clear Creek, B-Line and Jackson Creek Trails).
- The Cascades Trail: a 1.1 mile multi-use trail that will run adjacent to Old State Route 37, between N. Dunn Street and Club House Drive.
- The Indiana Railroad Trail: a 1 mile multi-use trail that has the ability to serve as a major bicycle and pedestrian entry into the future McDoel Switchyard property.
- Church Lane Connector Trail (west of State Route 37): the potential exists for extending the Bloomington Rail Trail south of Church Lane, under State Road 37 to Dillman Road, then out into Monroe County.

Construction of the remaining 2.4 miles of the B-Line Trail will be completed by the summer of 2011.

Nature Preserves and Nature Parks

No clear deficiencies exist for nature preserves and nature parks, but there are opportunities to aquire additional land for these areas. These include the following locations (see *Figure 10*):

- The Southern Indiana Medical Park (SIMP) II site along State Road 37.
- Purchasing additional properties that adjoin the boundaries of the Griffy Lake Nature Preserve to further enhance that property.
- Obtaining floodway properties along Jackson Creek.

Opportunities to purchase additional properties that adjoin the boundaries of the Griffy Lake Nature Preserve should be pursued.

Cemeteries

An additional cemetery property will be needed in the near future. Currently, the Rosehill Cemetery is at full capacity and the White Oak Cemetery has limited potential and community visibility.

Sports Parks and Golf Courses

Due to the heavy use of the Twin Lakes Sports Park and the inadequacy of the Cascades Sports Fields in meeting current usage demands, an additional softball facility (a four field "quad" complex) will need to be constructed. A new softball facility would provide more field space for both tournament events and regular Parks & Recreation sports leagues within the community.

Indoor Facilities

On April 1, 2009, the City Council formally approved the issue of $6.5 million in revenue bonds in order to purchase the Bloomington SportsPlex indoor recreation building. On May 15, 2009, the Parks and Recreation Department took official ownership of the facility, renaming it as the Twin Lakes Recreation Center. This acquisition of this building is a major addition to the Parks and Recreation Department indoor facilities inventory. It not only provides an indoor recreation, fitness and athletic complex, but also allows additional space to be available for a wide range of classes, events, sports camps and other community programming.

The Parks and Recreation Department formally took ownership of the Twin Lakes Recreation Center on May 15, 2009.

Upon taking ownership of the Twin Lakes Recreation Center, the Parks and Recreation Department began several major renovations to upgrade the facility. These include the addition of new artificial turf for the soccer field, completely renovating two bathrooms and resurfacing the hardwood maple floors of the basketball courts. Additionally, the senior citizen programming activities that were conducted at the former Bloomington Adult Community Center (which was vacated by the Parks and Recreation Department during the summer of 2009) are now hosted at the Twin Lakes Recreation Center. This move allows for a much broader range of class options and active lifestyle opportunities than were previously available at the Bloomington Adult Community Center.

Outside of the Twin Lakes Recreation Center, many of the Parks and Recreation Department's indoor facilities and other physical assets are at, or nearing, the end of their useful life. Many facilities are being used for purposes and capacities that were never part of their original design. One such example is the Banneker Community Center, which originally was constructed as a segregated school building. The Allison-Jukebox Community Center building formerly served as a bath house for the swimming pool located at Third Street Park (which closed in 1968).

In order to maintain a high level of quality and service, many of these facilities will need to be replaced in the near, or immediate, future. There are several potential opportunities to address these issues. These include the following:

- A replacement facility for the aging Frank Southern Ice Arena is needed. For a new ice arena project to be feasible, it would require a site of at least two to three acres of land. It would also ideally be located close to the Indiana University campus in order to maximize facility visibility and usage.
- The Allison-Jukebox Community Center is an aging building that is expensive to operate and no longer fits the modern programming needs of the Parks and Recreation Department. The facility has many activities and programs that could be combined at another indoor facility, at a future date, in order to save on costs, maximize efficiency and better meet current demand and programming needs. The Twin Lakes Recreation Center would be well equipped to host a wide variety of the activities and programs currently being held at the Allison-Jukebox Community Center.
- A future outdoor (or potentially indoor) pool facility will eventually be needed to address the fifty-plus year old Bryan Park Pool. A possible location for a new pool facility could be the Fell Iron site, should that option ever become available in the future. The Fell Iron site is located northeast of the intersection of W. 9th and Fairview Streets and is between both the Reverend Butler Park and the B-Line Trail (Phase II). The central location near downtown, plus the adjacent existing Parks and Recreation Department facilities, makes this an ideal potential site for a possible future pool facility, if the opportunity ever presents itself.
- Future partnerships with Indiana University and the Monroe County Community School Corporation (MCCSC) for public use of indoor facilities is also an option. This could allow for community access to the indoor facilities of Indiana University and MCCSC (e.g. swimming pools, gymnasiums, fitness centers, etc.) without the need for the Parks and Recreation Department to undertake any new construction efforts.

The Frank Southern Ice Arena is an aging facility and will need to be replaced at some point in the future.

Some programs currently located at the Allison-Jukebox Community Center could be moved to the Twin Lakes Recreation Center at a future date.

Other Facilities

Several additional park facility needs, issues and opportunities will need to be addressed or further explored in the near future. These include the following:

- The Goat Farm Park property offers an opportunity for a wide range of potential active recreation or educational uses (potentially including sports activities). A future master planning process will be required in order to further explore these opportunities.
- An official dog park is currently lacking in the Parks & Recreation Department inventory. Capital funds have been budgeted for a stand-alone, approximately 16 acre, dog park. It will be located on a Parks & Recreation Department owned site that is adjacent to the Lake Griffy Nature Preserve, on land known as the "Ferguson Property" (also see *Figure 10*). The future dog park at the Ferguson Property will include multiple amenities for both pets and visitors. Completion of this facility is anticipated to occur in 2011.

The planned improvements at the "Ferguson Property" will add an official dog park to the Parks and Recreation Department's facility inventory.

PLANNING AND ZONING CONSIDERATIONS

- *Huntington Farm sub-area*: a land dedication for use as a community park facility should be encouraged as part of any future development proposal.
- *McDoel Switchyard*: the Parks and Recreation Department has purchased this property of over twenty-seven acres for use as a downtown community park. Any future master planning efforts for the McDoel Switchyard should consider park needs, transportation issues and the possible redevelopment of both adjacent and nearby land parcels.
- *Future southwest side developments or annexations*: opportunities to have land parcels that are located near the Clear Creek Trail dedicated for use as park facilities should be explored. Preferably this would include enough land for a community park (approximately between thirty and a hundred acres). However, if this is not feasible, other facility types would also be beneficial. Examples of potential properties that could provide future City of Bloomington park facilities include the Sudbury Farm, the Golf Course Planned Unit Development and the property located at the northwest corner of the Tapp Road and Weimer Road intersection.
- *Future north-side developments*: any proposed developments for the BP zoned land that is located between N. Kinser Pike and W. Acuff Road could include a land dedication for a future neighborhood park facility (approximately between three and ten acres).
- *Winston-Thomas sub-area*: City of Bloomington owned land in this sub-area could be made available to accommodate a potential future neighborhood park facility.
- *The Southern Indiana Medical Park (SIMP) II site*: as this develops, opportunities for a land dedication for use as a natural area should be explored.
- *Future ice arena*: areas of land located near the Indiana University campus that are considered appropriately zoned to accommodate Institutional uses could be ideal for a future ice arena facility.
- *Indiana University Downtown Property*: future development of this twelve acre property should reserve land for park, plaza or performance space (similar in concept to Peoples Park).

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CHAPTER 3

Police

CITY FACILITIES REPORT

DEPARTMENT FUNCTION

The City of Bloomington Police Department provides law enforcement protection and services to the city. The Department strives to maintain a safe community by providing regular patrols, responding to emergency calls, facilitating the safe and expedient movement of vehicular and pedestrian traffic, coordinating with federal, state and other local law enforcement agencies, and serving as a presence for the deterrence of crime. Additionally, the Police Department responds to citizen requests for information, coordinates activities with community organizations and assists school administrators in support of safer schools.

The Police Department is currently staffed by 92 sworn police officers and 36 civilian employees.

The Police Department employs 128 full-time employees. This includes 92 sworn police officers and 36 civilian employees. Between 2004 and 2005, an additional 10 sworn police officers were added to the force through the Public Safety Initiative of Mayor Kruzan. In 2010, an additional 3 more sworn police officers will be added to the force, bringing the total to 95 sworn officers. Mayor Kruzan's staffing goal for the Police Department is a total of 100 sworn police officers on the force by 2011.

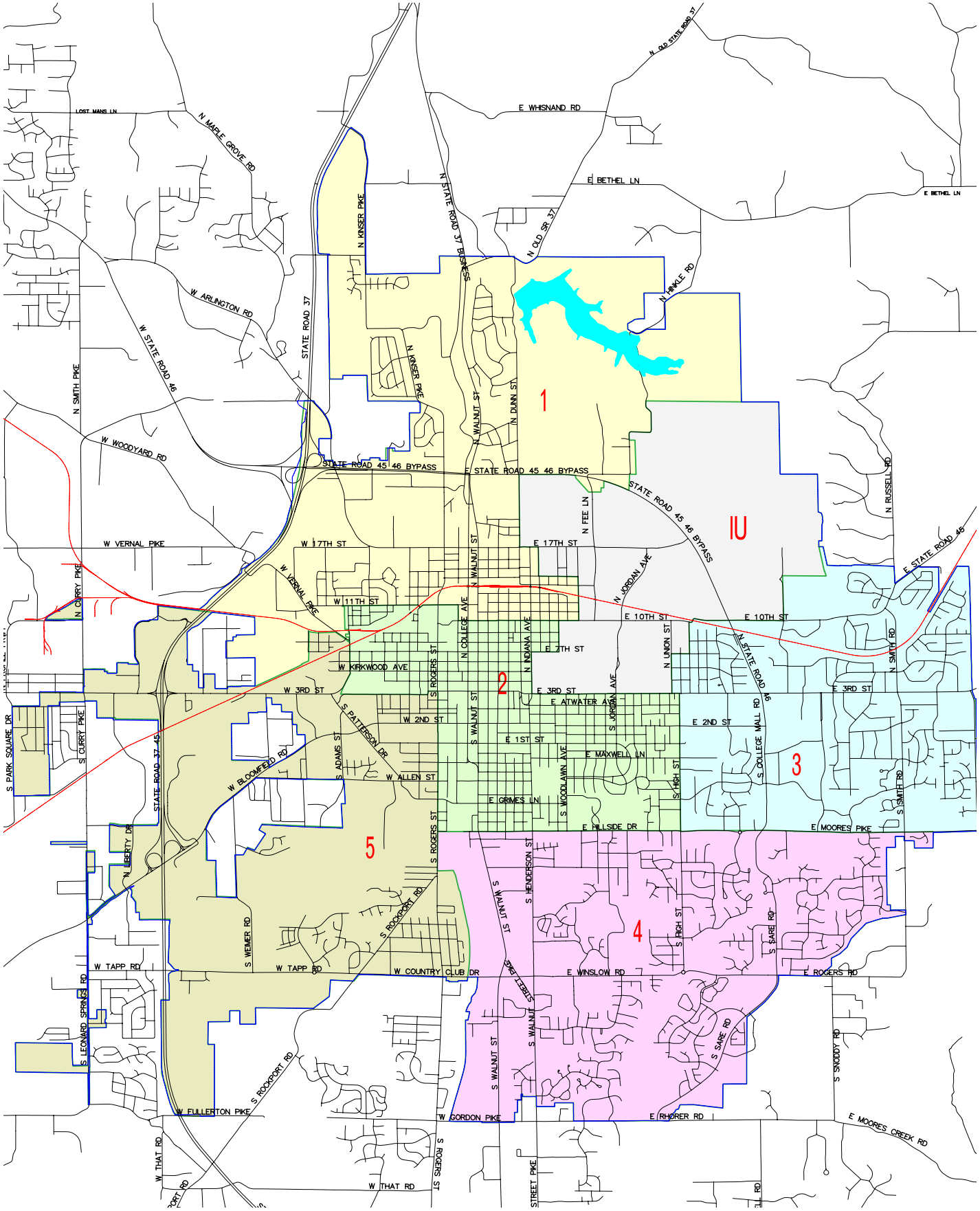
The Police Department operates the following divisions, units and teams: Bicycle Patrol (which includes a Segway Patrol Unit), Critical Incident Response Team, Detective Division, Dive Team, Honor Guard, K-9 Unit, Patrol Division (which includes a Motorcycle Patrol Unit), Property & Evidence Division, Records Division and School Liaison. An additional division of the Police Department is the Central Emergency Dispatch Center (CEDC). The CEDC is responsible for responding to 911 emergency calls within all of Monroe County (excluding the Indiana University campus, which has a separate emergency communications center) and dispatching the appropriate police, fire or ambulance resources necessary for incident responses.

The Motorcycle Patrol Unit is one of several divisions, units and teams that are operated.

The CEDC also maintains communications with law enforcement officers, fire and ambulance crews, and other emergency personnel while they are deployed in the field. Additionally, the CEDC is responsible for activating the Emergency Broadcasting Network in the event of natural or man-made disasters. It further provides support to the Police Department by maintaining law enforcement records, links to state and federal criminal justice networks and doing general operations and maintenance support. The CEDC is staffed jointly by City of Bloomington and Monroe County civilian law enforcement personnel.

The Police Department is the primary law enforcement agency for all areas that fall within the City of Bloomington municipal limits. Police officers are assigned to one of five separate Patrol Districts (see *Figure 11,* page 49) to conduct regular law enforcement patrols, respond to calls for service and perform any other duties as required. As seen by the gray shaded area on *Figure 11,* the Indiana University campus is a notable exception. This is because the Indiana University campus falls under the primary jurisdiction of the Indiana University Police Department.

FIGURE 11: POLICE DEPARTMENT PATROL DISTRICT MAP



The City of Bloomington Police Department currently has five Patrol Districts. The Indiana University Police Department has the primary law enforcement responsibility for the Indiana University campus (shaded in gray).

Law enforcement protection for areas located outside of the City of Bloomington municipal limits are the responsibility of the Monroe County Sheriff's Office. This also includes the Areas Intended for Annexation (AIFA). The AIFA refers to areas that are not currently within the City of Bloomington corporate limits, but are eventually planned to be annexed into the City. Once an AIFA is formally annexed by the City of Bloomington, it becomes the primary responsibility of the Police Department. Until that time, however, they remain within the jurisdiction of the Monroe County Sheriff's Office.

The Police Department works closely with the Indiana State Police, as pictured here during a visit to Bloomington by the Dalai Lama. Close cooperation is maintained with other local, state and federal law enforcement agencies.

Although jurisdictional responsibilities exist, the Bloomington Police Department regularly works in very close cooperation with both the Monroe County Sheriff's Office and Indiana University Police Department to ensure public safety and mission success. Each of these law enforcement departments routinely offer mutual support and assistance whenever the need arises. In addition to local law enforcement agencies, the Indiana State Police (which has a post that serves Bloomington and Monroe County), other state police entities (i.e. Indiana Conservation Police, Indiana State Excise Police, Indiana Gaming Control Division, etc.) and federal law enforcement agencies often work closely with the Bloomington Police Department and provide assistance on a wide range of public safety issues that affect the community.

SUMMARY OF EXISTING FACILITIES

Police Stations

The Police Headquarters Station at 220 E. 3rd Street contains offices, administrative spaces, locker rooms, equipment storage facilities, police vehicle parking, secure weapons storage areas and interview rooms. The Headquarters Station also houses the CEDC.

Training Facilities

The Small Arms Training Facility allows officers to participate in realistic, yet safe, training opportunities.

The Police Department operates the Small Arms Training Facility located at 3230 S. Walnut Street. This facility allows law enforcement personnel (both from the City of Bloomington Police Department and other public safety agencies) the opportunity to train and practice in a safe, yet realistic, environment. It features 12 weapon firing positions, secure weapons storage areas, an advanced ventilation system, moving targets and low-light training capabilities. Furthermore, the facility has a large classroom space for use in training seminars and has an extensive evidence storage capacity.

Other Facilities

The Police Department formerly operated office substations at both the College Mall and Crestmont Housing Authority. However, due to the small size and limited space of these substations, they did not serve the needs of the Police Department very well. As a result, the Police Department no longer maintains any dedicated office substation facilities. There are no plans to reinstitute substations at the present time.

PUBLIC SAFETY SERVICE STANDARDS

There are several national standards and best management practices that apply to ideal police service coverage. Typically, these standards generally deal with the recommended police personnel strength and force distribution, comparative to the overall population size and geographic area of a particular community. Although there are some benchmarks relating to recommended police response times for certain types of public safety incidents, there are no firm national standards regarding specific response times similar to NFPA Standard 1710 that the Fire Department utilizes to measure ideal fire response times and coverage areas (see the *Fire Department* chapter, pages 17-21, for more details). Therefore, no national benchmarking standards relating to ideal police response times will be found in this chapter for use in discussing the future facility needs of the Police Department. Instead, this analysis will focus more on the professional observations and technical knowledge of the Police Department administrative staff regarding future facility needs.

FUTURE FACILITY NEEDS

Areas on the far southeast and southwest sides of Bloomington generally have slower police response times. This is because these areas are distant from the city's core and likewise, the downtown Police Headquarters Station. Additionally, traffic congestion and personnel positioning also are factors in slowing down response times. The best way to address this issue is to increase personnel and potentially make the current patrol districts geographically smaller so that response times may be reduced. Street addressing within City limits typically is not a problem, but is one encountered in the county.

The current Police Headquarters Station was originally built in the 1960's to function as Bloomington's City Hall. The Police Department assumed control of the building in 1998 when all general government functions were moved to the renovated Showers Center building. In 1998, the Police Department had 105 employees; today there are 128 employees. Because of the increase in personnel, both office space and storage areas are in short supply at the Police Headquarters Station.

There is currently no more office space available for any new detectives that are added to the Police Department in the future. As a result, any additional detective staff will require current office spaces to be

reconfigured, or will need to share office spaces that are already occupied. Because of the resources that are available only at the Police Headquarters Station, the detectives must be located at the current location and cannot be stationed off-site.

Additionally, CEDC personnel and a significant amount of essential communciations equipment are located in a small space in the basement of the Police Headquarters Station. Due to this confined space, there is no opportunity to expand the CEDC in its current location. In order to meet future emergency dispatch service needs, the CEDC will eventually need to be moved from the Police Headquarters Station to a new facility.

Additional facility space is needed at the Police Headquarters Station in order to accommodate both current and future staffing levels.

The new S. Walnut Street Small Arms Training Facility will allow for training equipment and some evidence materials, which are currently housed at the Police Headquarters Station, to be stored at this location instead. These moves should allow for some limited additional space at the Police Headquarters Station to be made available.

Police Stations

Due to space constraints and expanding office requirements, there is a need for additional facility space at the Police Heaquarters Station. More space is necessary in order to accommodate the current and future staffing levels of the Police Department. The specific facility needs include the following:

- CEDC: a new CEDC facility could potentially be located anywhere, but to maximize cost and space efficiencies, it ideally would be located at an existing City of Bloomington owned property. The future Bloomington Transit Downtown Passenger Transfer Facility offers an excellent joint-use opportunity (see the *Public Transit* chapter, page 67, for more information about this facility).

  At this time, the Police Department and the Bloomington Public Transit Corporation are actively pursuing a joint-use agreement to utilize the second floor of the future Downtown Transfer Facility for a new CEDC space. This move would free-up the existing CEDC space that is presently located at the Police Headquarters Station, allowing it to be utilized instead for new and much needed office or facility space needs.

Due to space constraints, the CEDC should eventually move from the Police Headquarters Station to a new facility.

- Operations Center: a combined CEDC and Monroe County Emergency Management Agency operations center is a potential facility option to explore in the future.

- A Joint-Use Bloomington Police Department and Monroe County Sheriff's Office Records Storage Area: discussions are underway to potentially combine the records function of these two agencies. This could be located at the Police Headquarters Station in space that the CEDC currently occupies, but would only be available following a relocation of the CEDC.

Training Facilities

There are several additional facilities that are needed by the Police Department in order to maximize officer training opportunities. The construction of these facilities would ideally occur at, or immediately adjacent to, the current S. Walnut Street Training Facility. The reason is that the land surrounding the S. Walnut Street Training Facility is already under the ownership of the City of Bloomington (the Winston-Thomas sub-area, see the *Utilities Department* chapter, page 135, for more information).

The future training needs of the Police Department include the following:

- Tactical Training House (for live-fire exercises).
- Driving Training Course: this facility could also be utilized by civilian City of Bloomington employees (or those from other government agencies) for driving training.

A future Tactical Training House for use in live-fire exercises is a needed facility.

Other Facilities

An excellent opportunity exists for a possible joint-use facility shared between the Police and Fire Departments. This is at the future Fire Station #7, located within the Southern Indiana Medical Park II (SIMP) site, southwest of the intersection of Tapp and Weimer Roads (to see a map depiction, please *Figure 5*, on page 23). A dedicated area within the station could be established that would allow police officers access to secure data networks, office space, telephones, etc. This would negate the need for officers on the south-side of the community to return back to the Police Headquarters Station downtown to access these items, thus allowing them to remain positioned in the field to take further calls.

Installation of computer network "hotspots" around the city that enable police officers immediate and secure access to network connections, directly from their patrol vehicles, would be another "facility" need. Providing these types of connections would also negate the need for police officers scattered throughout the community to return to the downtown Police Headquarters Station, allowing them to remain positioned in the field.

Installation of computer network "hotspots" would enable police officers immediate and secure access to network connections, directly from their patrol vehicles.

PLANNING AND ZONING CONSIDERATIONS

- *Police Headquarters Station*: at a future date, this facility may potentially need to be re-modeled, or slightly expanded, in order to accommodate new office space requirements or records storage areas. As an alternative, other planned or existing City of Bloomington facilities may be used for similar purposes. This particularly applies to the future Bloomington Transit Downtown Passenger Transfer Facility being utilized as a joint-use site for the CEDC, which could then free-up much needed facility space at the Police Headquarters Station.

- *Winston-Thomas sub-area*: sufficient amounts of City of Bloomington owned land within this sub-area should be kept available in order to accommodate any future expansions of the Small Arms Training Facility (or as another potential site for a future relocation of the CEDC). Additionally, future zoning approvals should be encouraged in order to allow for the construction of these facilities to occur.

- *Southern Indiana Medical Park (SIMP) II site*: implement the land dedication process (and eventual construction) that is necessary for Fire Station #7. This will allow for the construction of a facility that can be utilized by both the Fire Department and Police Department.

CHAPTER 4

Public Transit

CITY FACILITIES REPORT

Bloomington Transit

DEPARTMENT FUNCTION

The Bloomington Public Transit Corporation, which is commonly referred to as Bloomington Transit (BT), is a municipal transit corporation that provides fixed route transit services exclusively in areas that are within the corporate boundaries of the City of Bloomington. As of 2009, BT had an annual ridership that exceeded three million passengers, with approximately 14,500 passenger trips on a typical weekday and 4,450 passenger trips during the weekend. A Universal Access agreement, signed between BT and Indiana University in 2000, allows Indiana University students free access to BT buses. As a result, approximately two thirds of the current BT ridership consists of Indiana University students.

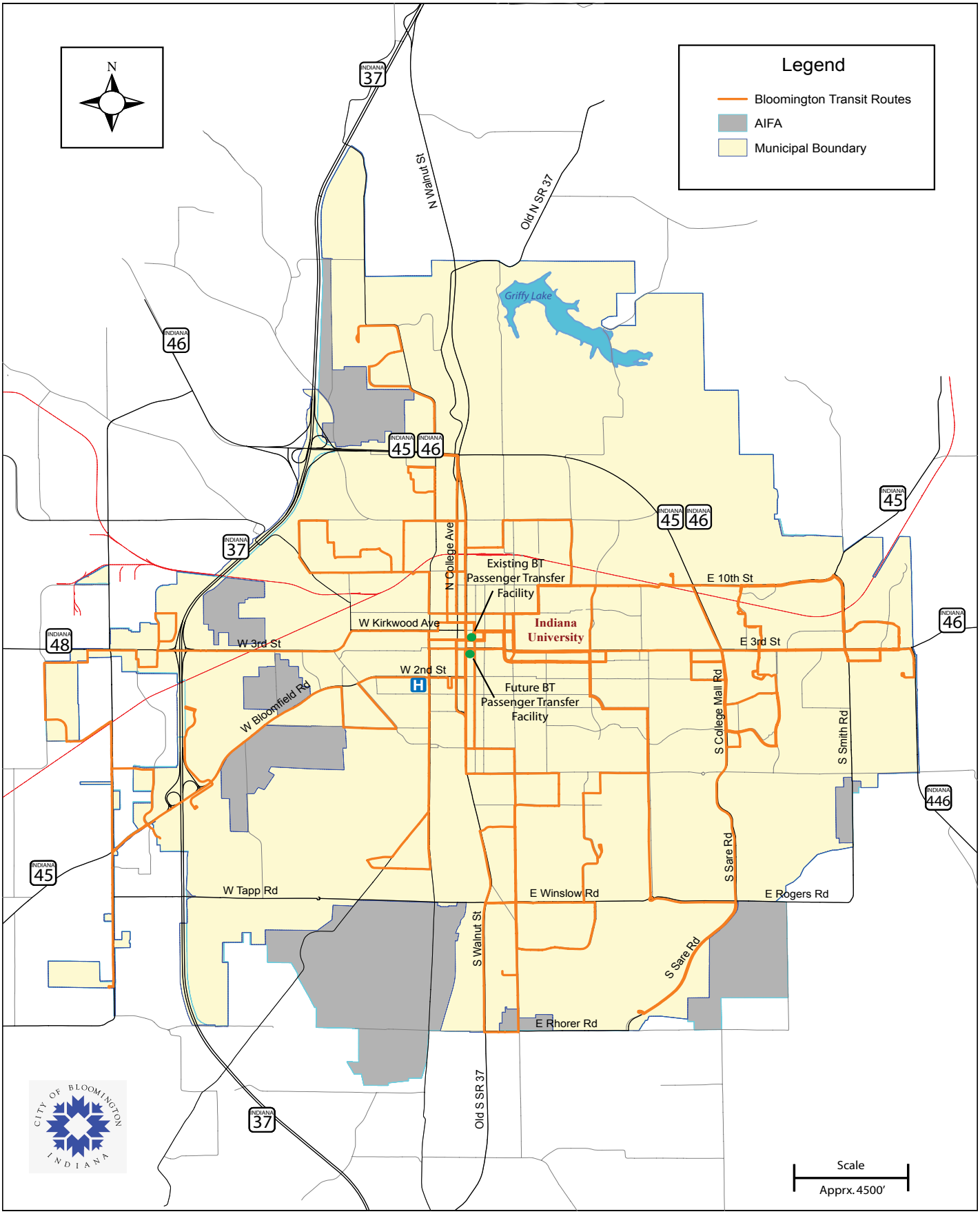
The BT fleet currently operates 46 buses, including 6 hybrid-diesel fuel buses.

The BT fleet consists of forty-six buses, including six hybrid-diesel fuel buses. This fleet serves nine fixed bus routes, which all have portions that focus on either downtown Bloomington or the Indiana University campus (see *Figure 12*, page 57, for the complete BT system map). The base service hours generally are between 6:30 AM to 11:30 PM, Monday through Friday. Most routes operate at a service frequency of a 30 minute or less headway (which refers to the time between buses along the same line). However, the routes serving the Indiana University campus experience a reduction in both service frequency and headway times during the summer months. Saturday service is available on most routes between 7:30 AM to 7:00 PM, with some routes receiving reduced service frequency. Sunday service is limited and available on two of the nine routes.

In addition to the fixed route services, BT also operates a curb-to-curb transportation service known as BT Access. This service is for persons with disabilities, meet eligibility criteria, and are unable to utilize a BT fixed route service. Additionally, all trips must begin in, and have destinations within, the City of Bloomington corporate limits. The BT Access fleet currently has a total of 8 accessible vans. In 2009, BT Access carried 28,826 passengers.

BT operates under the policy guidance of the Bloomington Transit Board of Directors. The Board of Directors is comprised of 5 members; 2 members are appointed by the Mayor and 3 are appointed by the City Council.

FIGURE 12: BLOOMINGTON TRANSIT SYSTEM MAP



Bloomington Transit currently has nine fixed bus routes, all of which have portions that focus on either downtown Bloomington or the Indiana University campus.

SUMMARY OF EXISTING FACILITIES AND SERVICES

Administrative and Maintenance Facilities

BT operates a facility at 130 W. Grimes Lane that houses both office and administrative spaces. This is a joint-use facility that is shared with the Indiana University Campus Bus System (IUCBS). The Grimes Lane facility serves as the maintenance hub for both transit providers. It contains garage space, maintenance bays, fueling area and both covered and open bus parking spaces.

All administrative space and maintenance operations are located at 130 W. Grimes Lane.

Transit Passenger Transfer Facilities

BT also operates a single major transit passenger transfer facility at 125 E. 4th Street (see *Figure 12*, page 57). Passengers can access downtown-oriented routes from the E. 4th Street facility, as well as at bus stops along each route. Routes 1,2,3,4 and 5 connect at this facility to accommodate passenger transfers. It also serves as a joint-use facility, due to it being utilized in the same capacity as BT by Rural Transit. The E. 4th Street facility was constructed in 1987 and utilized Federal Transit Administration funding. The E. 4th Street transit passenger transfer facility contains the following amenities:

- Benches
- Vending machines
- Covered waiting area
- Interior public waiting area and BT employee restrooms

The current transit passenger transfer facility, located at 125 E. 4th Street.

PUBLIC TRANSIT SERVICE STANDARDS

BT strives to achieve specific operating standards and best management practices for transit providers. These include the following service standards:

- Headway Time: this refers to the time between buses along the same route. BT maintains a target headway time of thirty minutes or less on each fixed service transit route. Routes 2,3,6,7 and 9 have frequencies of every 30 minutes or less on weekdays during the Indiana University school year.
- Farebox recovery: this refers to the proportion of the amount of revenue that is generated through fares by paying customers, as a fraction of the cost of the transit agency's total operating expenses. The average farebox recovery amount for public transit agencies nationwide typically is near 15%. BT is currently maintaining between a 20-25% farebox recovery amount, exceeding the national standard.

This higher farebox recovery is almost completely due to Indiana University students. As part of the Universal Access agreement that was signed in 2000 between Indiana University and BT, students pay a transportation fee each semester as part of their tuition. Part of this transportation fee is used by Indiana University to purchase a benefit for students to ride any BT bus for no charge, with the display of a valid Indiana University identification card.

The long range planning documents that BT currently utilizes incorporate these national best management practices and standards into their specific facility and service improvements recommendations. Please see *Future Facility and Service Needs* below for more information regarding the guidance and recommendations that these long range planning documents provide.

Total ridership for BT exceeded three million passengers during 2009. Ridership increases are expected to continue in the future.

FUTURE FACILITY AND SERVICE NEEDS

Total ridership for BT during 2009 exceeded three million passengers and future increases to this total are expected (see *Figure 13,* on page 61, for a more detailed profile of BT ridership numbers and trends). To meet this anticipated future ridership demand, the City of Bloomington Public Transit Board partnered with private consultants to develop several long range planning documents.

These include the Transit Development Program (TDP) update (2009) and a Downtown Passenger Transfer Facility Location Analysis (2006). The purpose of the TDP is to develop a long-term plan for BT to accommodate the changes in transit travel patterns that are expected to occur in the next five to ten years. The goal of the Downtown Passenger Transfer Facility Location Analysis is to identify a replacement site for a new downtown passenger transfer facility location.

In developing the TDP, both the existing BT route system and potential expansion options were analyzed. The basis for potential new routes was formed by studying existing and anticipated transit service gaps, as well as the needs for future service improvements. This analysis was done using data based on the local Bloomington transit market, current BT service performance, ridership survey results, and community stakeholder and public consultations. The resulting information helped form the service strategies that are identified in the TDP.

Several existing and anticipated transit service gaps within City limits were identified. To eliminate these gaps, these identified areas will require either expanded transit service or more direct connections between destinations, and potentially new, or expanded, facilities.

These include the following specific areas (also see *Figure 14* on page 62):

- Henderson Street corridor, north of Grimes Lane
- Commercial areas located on Liberty Drive
- Bloomington Hospital: direct service from all areas of the city is needed
- Tapp Road corridor, including residential developments between Rockport Road and S. Adams Street, as well as the Southern Indiana Medical Park
- Eastside commercial areas of the city (i.e. College Mall, Eastland Plaza, etc.) need direct service from the southside of the city
- The upper Indiana University campus (i.e. Memorial Union, Herman Wells Library, etc.) experiences lengthy travel times from the north, south and west areas of the city that need to be reduced
- Major north-south corridors (i.e. Rogers Street, College Avenue and Walnut Street) experience lengthy travel times that need to be reduced

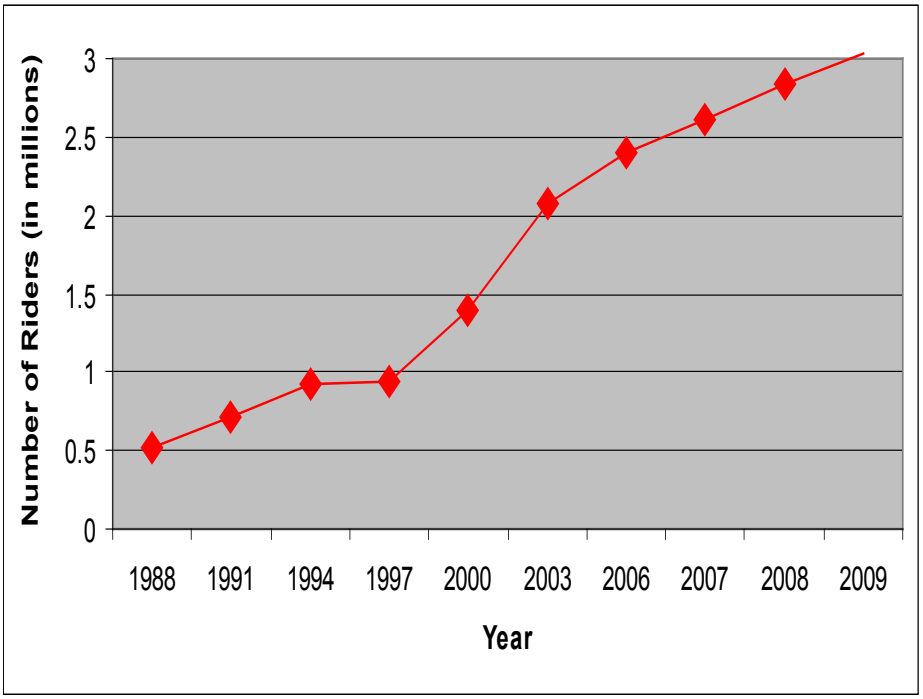
Several specific areas of the city have existing, or anticipated, transit service gaps. Recommendations are in place to eliminate these service gaps.

There are also several potential destinations that are currently located within the City of Bloomington Areas Intended for Annexation (AIFA) or Monroe County jurisdiction that could potentially generate significant transit traffic. Currently BT serves only areas that are located within the City of Bloomington municipal boundaries because only those areas provide property tax revenue. However, annexations of AIFA areas, or any potential future agreements allowing BT to serve areas not within City limits, may require service expansions and additional facilities. These potential destinations include the following (see *Figure 15* on page 63):

- Ivy Tech Community College
- Batchelor Middle School
- The future North Park development
- Large residential areas located on the west and south sides (i.e. Fieldstone, Batchelor Heights, the Highlands, Willow Creek, Eagleview, etc.)

Improving service on Sunday is another area that the TDP recommends. Currently, Sunday service is available on only two routes that serve a very limited area of the city. This means that most transit users are not able to utilize BT for their transportation needs on Sundays. Expanding service on Sundays would provide basic mobility to transit dependent riders, as well as attract people that have other transportation options, but are interested in utilizing public transit.

FIGURE 13: BT TOTAL RIDERSHIP FROM 1985 TO 2009



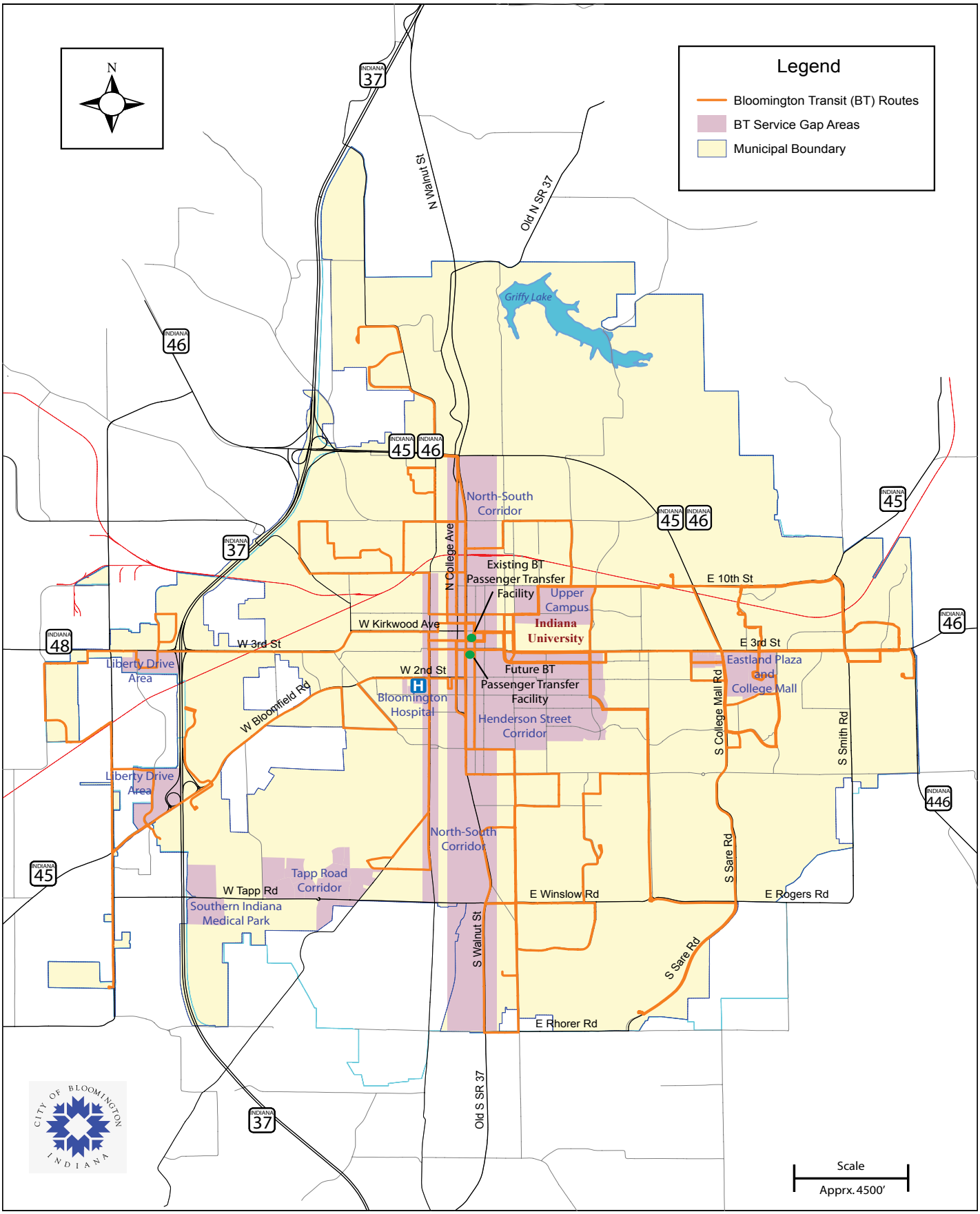
Total ridership on Bloomington Transit has steadily increased over the past twenty-one years. This has been especially true since 2000, when the Universal Access agreement was instituted, allowing Indiana University students free access to Bloomington Transit buses.

The TDP also recommends that Saturday service be more frequent in order to meet the needs of transit users. This would allow BT to better serve passengers for activities such as shopping, socializing and working. To balance the expanded evening service hours to 11:30 PM, passenger feedback recommended also providing more frequent early morning transit options for commuters. A minimum service frequency of 30 minutes for all weekday routes is recommended to increase route attractiveness to potential transit users.

To address the identified service gaps and frequency issues, the TDP highlighted three alternative route structures for BT to consider. Each of these three potential alternative route options were based on the existing BT fixed route network.

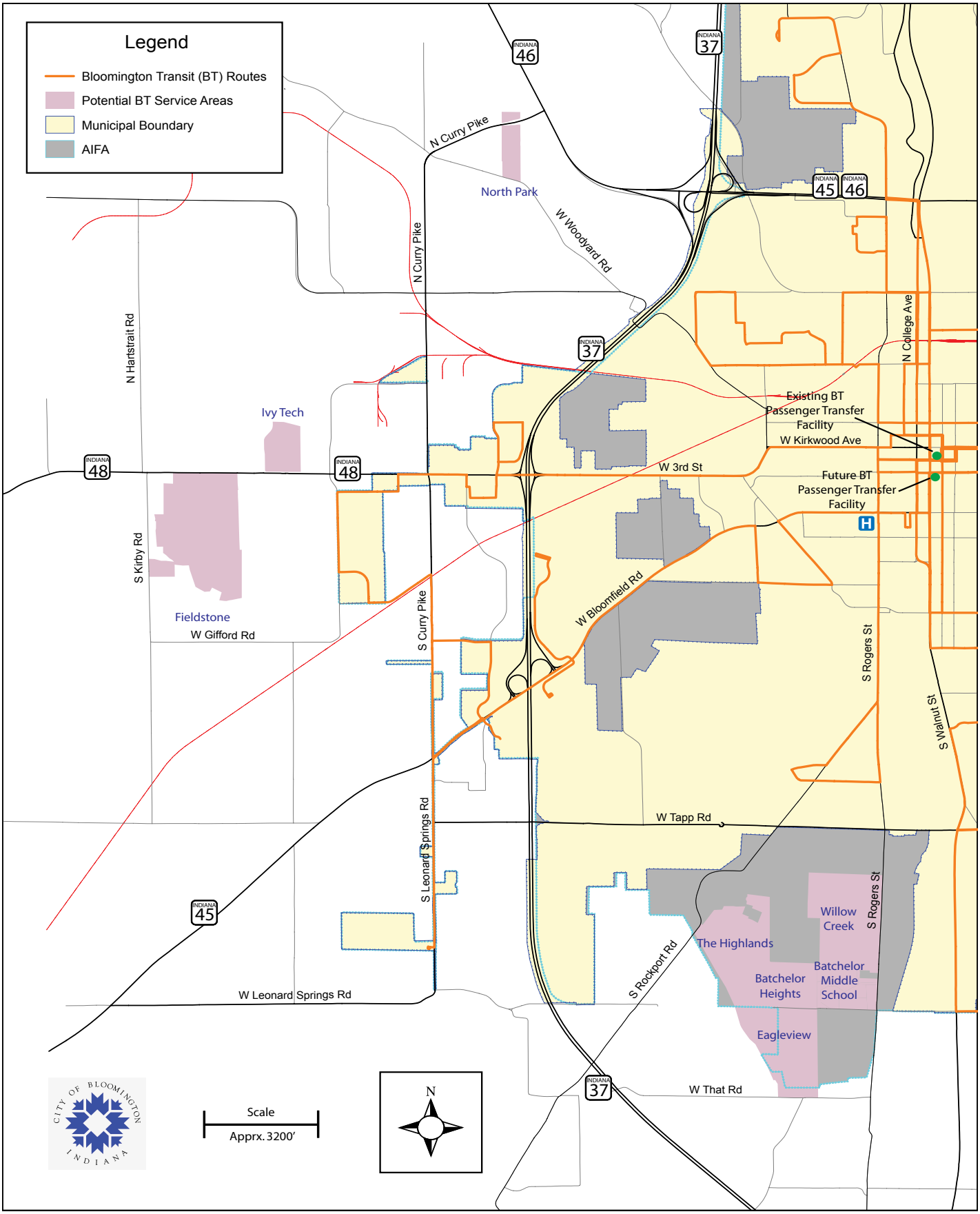
- Option #1: Radial System with Cross-Town Service: essentially maintains the current BT route structure. Downtown Bloomington is still the major focus of transit routes, with the Downtown Transfer Facility remaining as the main transit terminus hub. More direct cross-town routes would connect the downtown and outlying areas. Weekend service would be increased, including greater Sun day coverage, and service frequencies would be 30 minutes for almost all weekday routes.

FIGURE 14: IDENTIFIED BT SERVICE GAPS WITHIN CITY LIMITS



Several areas within City limits have been identified as either being underserved by current BT transit service, or have lengthy and indirect route structures.

FIGURE 15: POTENTIAL SERVICE AREAS OUTSIDE CITY LIMITS



There are many potentially attractive transit destinations that BT currently cannot serve due to being located outside of municipal limits. If BT is allowed to serve them, however, these destinations could see heavy transit demand.

- Option #2: Grid-Like Route Network: this option focuses on the IU campus and provides a grid-like base route network that connects major destinations within the City and outlying areas. To establish this network, the system would require more transfer connections, while some routes would skip the downtown terminal. Weekend service would be increased, including greater Sunday coverage, and a service frequency of 30 minutes for almost all weekday routes.

Three alternative route structures were identified for BT to consider. Each potential route was based on the existing BT fixed route network.

- Option #3: Corridor Based Route Network: this would enhance transit service with direct and frequent service along major north-south and west-east corridors that would connect major destinations in the city. In addition to the corridor services, local services would be provided to cover the rest of the city, as well as the major developments outside of city limits. These local routes would conect residential and employment areas, major shopping centers, educational, medical and recreational facilities to the downtown terminal and the Indiana University campus.

- Preferred Service Improvement Plan - a BT Steering Committee reviewed each of the three transit alternative options and conducted a charrette process to gain public input on the alternatives. Based on the findings of Steering Committee, a preferred service improve ment plan was developed for BT to phase in by 2018. This will not only allow for significant service improvement, but also will address the existing transit service gaps that are noted in this report.

The recommendations of the Preferred Service Improvement Plan would better connect the Indiana University campus and downtown Bloomington with all areas of the city.

The Preferred Service Improvement Plan combines elements of each of the three transit options (see that document for more specific map elements). Downtown Bloomington and the Indiana University campus will be better connected with all areas of the city, as well as potential new destinations outside of the current City limits (including a possible future direct connection to the Town of Ellettsville). This will be accomplished using various elements of the radial, cross-town, grid and corridor network approaches. Another component of the plan is to provide full route service hours and frequencies on Saturdays by 2017, and on Sundays by 2018. It should be noted, however, that any service expansion is subject to the availability of new or expanded public investment.

Current City policy discussions have focused also on the potential for a future downtown shuttle and circulator service. Such a service could provide a way to connect multiple destinations for people accessing the downtown. Multimodal linkages could then be provided, with possible shuttle connections from the new Downtown Transit Passenger Facility to various locations.

These might include the following destinations:

- B-Line Trail
- Bloomington Convention Center
- Indiana University Campus Bus System stops
- City and County civic buildings
- Parks
- Downtown parking garages
- Future BT park and ride lots

Indiana University Campus Bus System stops could be linked via a future downtown shuttle and circulator service.

The TDP further recommends that service coordination increase between BT and the IU Campus Bus System. Future transit system unification is also in-line with the City of Bloomington Growth Policies Plan, which recommends that BT and the Indiana University Campus Bus System pursue an integrated mass transit system through a unification of the two service agencies. A future unification of these two transit systems would maximize transit resources within the community and allow for a "single-brand" of transit provider. This position could then potentially place Bloomington in a much stronger position to capture funding opportunities at both the federal and state levels. Any future transit system unification proposal, however, would require the final approval of the Indiana Department of Transportation.

Additionally, a future transit unification would allow Bloomington Transit to become the second largest transit provider in the entire state in terms of *total* ridership counts (the IndyGo transit system of Indianapolis is currently the largest provider in Indiana, in terms of total ridership counts). The City of Bloomington already enjoys a very strong per capita ridership compared to those of other Indiana communities (see *Figure 16,* on page 66). Since current per capita calculations only include BT ridership figures, a transit unification could significantly further bolster per capita ridership within the community. This combined ridership tally would then easily allow for Bloomington to become the per capita ridership leader within the state.

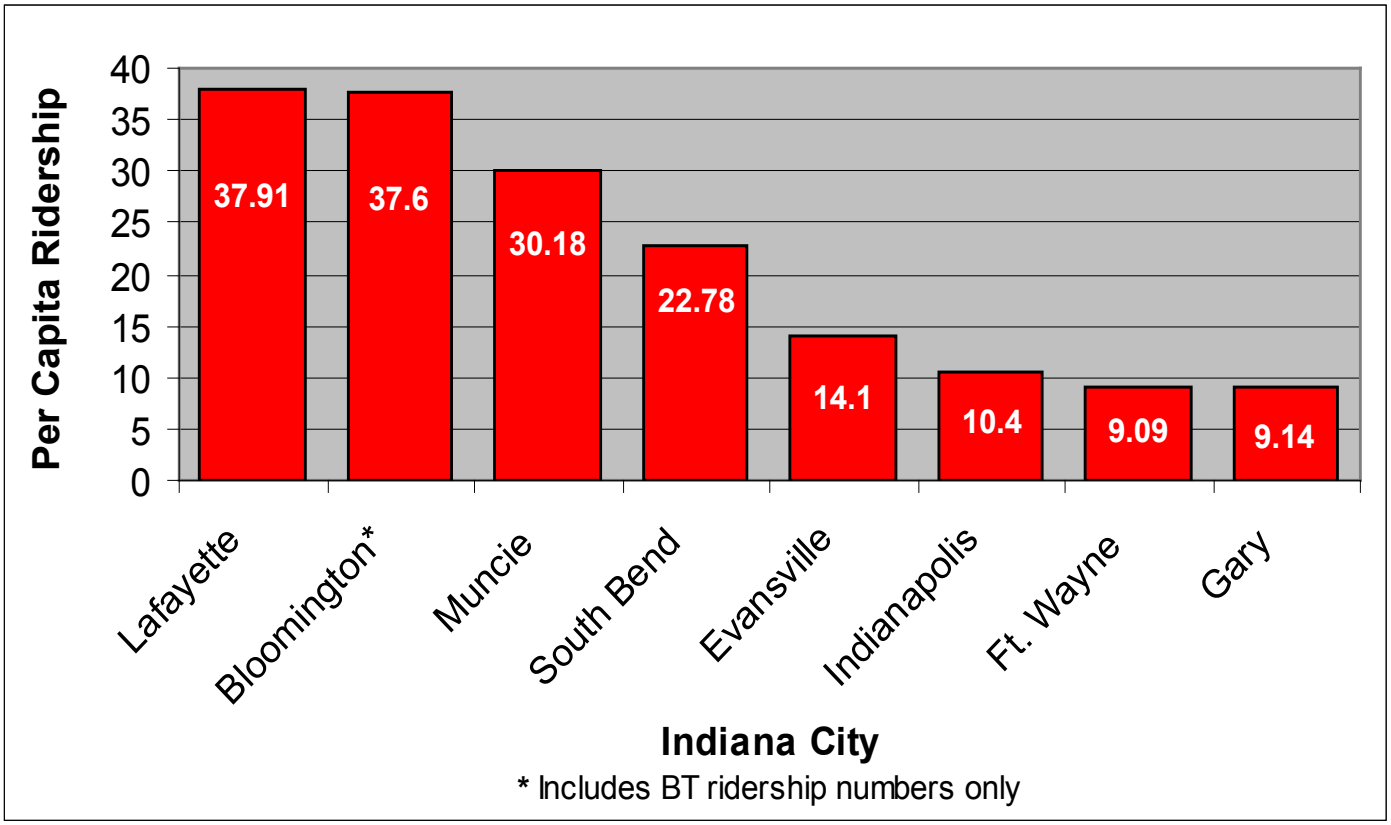
The use of Intelligent Transportation Systems (ITS) on buses will provide a major service improvement for BT users.

Another area of service improvement for BT is Intelligent Transportation Systems (ITS) technologies. According to the U.S. Department of Transportation, "ITS technologies encompass a broad range of wireless and wire-line communications based information and electronics technologies. When integrated into the transportation system's infrastructure, and in vehicles themselves, these technologies relieve congestion, improve safety and enhance productivity".

There are several specific transit orientated ITS technologies that BT plans on investing in, as funding opportunities become available over the coming years. These include the following:

- Next Bus Information: technology that utilizes Global Positioning Systems satelites to provide accurate vehicle arrival and departure information and real-time maps to transit passengers.
- Automatic Stop Announcements: technology that utilizes audio alerts and electronic displays to notify passengers about not only upcoming transit stops, but also general route information as well.
- Automatic Passenger Counting: technology that allows for automatic collection of passenger usage rates on a bus, for each stop, along a particular transit route. The passenger count information can be archived for greater data collection and analysis.
- Enhanced Fare Collection: technology that allows for electronic, cashless, fare collection payment systems that are either located onboard a bus, or at a transit station or stop.
- Safety and Security Systems: technologies such as radio communications systems, video surveillance systems, automated vehicle location systems, and other advanced technologies can increase safety and deter crime both on-board vehicles and in transit facilities.

FIGURE 16: PUBLIC TRANSIT PER CAPITA RIDERSHIP OF INDIANA CITIES



At 37.60 trips per capita, Bloomington Transit has one of the highest ridership rates in the state of Indiana, and surpasses that of much larger communities such as Indianapolis, Fort Wayne and South Bend.

Administrative and Maintenance Facilities

The Grimes Lane facility is currently near capacity in terms of the number of buses that can be efficiently stored, maintained and operated. Additionally, the facility is currently near capacity in terms of the number of employees that can be accommodated. Expansion of the Grimes Lane facility will be necessary to accommodate the planned future growth of transit services. As a result, the Bloomington/Monroe County Metropolitan Planning Organization is funding a $60,000 consultant study in Fiscal Year 2010 that will analyze several expansion options in order to meet future needs.

Transit Passenger Transfer Facilities and Services

The current E. 4th Street transfer facility is aging, has space limitations and lacks passenger amenities (i.e. air-conditioning and public restrooms) that are typically found in modern transit facilities. All of these issues combine to prevent the E. 4th Street transfer facility from fully meeting the needs of the expanded service and bus fleet that BT now provides.

Redevelopment of the former "Royal Dog" restaurant property will be redeveloped to serve as the new Downtown Passenger Transfer Facility.

In response to this need, the Downtown Passenger Transfer Facility Location Analysis recommended a total of thirteen potential downtown sites for the new BT passenger transfer facility. After reviewing the options at each of these sites, the Bloomington Public Transit Board officially selected a parcel located at the southeast side of the E. 3rd Street and S. Walnut Street intersection (the former Royal Dog restaurant site) as the location for the new Downtown Passenger Transfer Facility.

Construction of the new Downtown Passenger Transfer Facility is projected to be completed in 2011. The facility will contain the following features and amenities:

- 15 bus berths (2 berths to be utilized by Rural Transit)
- A 5,000 square foot or greater climate-controlled facility
- Public restrooms
- Plaza space
- Space for a potential shared development or joint-use activity (especially in regards to the Police Department CEDC on the second floor; see page 52 for more information).
- Leadership in Energy and Environmental Design (LEED) features, with the goal of obtaining LEED Silver status for the building

The configuration for the future Downtown Passenger Transfer Facility will incorporate a number of features and amenities that are not available at the current E. 4th Street transfer facility.

Other Facilities and Services

- BT Access Service: BT has implemented several strategies to encourage people to switch from BT Access to fixed route service. Utilizing a fixed route service is more cost efficient for BT and provides greater independence to people with disabilities. These strategies include travel training where BT staff train people with disabilities on how to use fixed route service. Beginning in January of 2008, BT also implemented a free fare on fixed route service for eligible individuals on BT Access. As a result, many people who had previously used BT Access now utilize BT fixed route service instead. This has helped to reduce operating costs for BT.

Several strategies have been implemented to encourage people to switch from BT Access to a fixed route service instead.

There are several TDP recommendations for miscellaneous BT facilities that may need to be explored in the future in order to accomodate growing transit service. These include the following:

- Park and Ride Service: To facilitate transit use by residents living in outlying areas and attract users who prefer to use public transit, potential park and ride locations should be considered (BT currently does not operate a park and ride facility; the IUCBS operates one at the Memorial Stadium parking lot). These would allow for parking facilities, located on the outlying areas of the community, to be linked by a transit express shuttle, to downtown Bloomington destinations. This would help reduce vehicle passenger trips and alleviate congestion on the city's road network. Potential future park and ride locations are identified within the TDP.

Park and ride lots can either be stand-alone facilities that are owned by BT, or be located on existing, privately-owned, parking facilities (such as large retail centers or churches) that are made available to BT via agreement. Potential passenger amenities that would be needed at park and ride facilities include a designated passenger loading/pick-up area and bus shelters. Additional facilities may be needed as the program further develops.

Park and ride facilities preferably should be served by an express shuttle service, with 15 minute headway times. Additionally, based on the TDP route improvement recommendations, most potential park and ride locations would also be well served by BT regular route service. This is especially true if park and ride facilities were located on main transit corridors, such as 3rd Street and Atwater Avenue and College Avenue and Walnut Street.

- Cross-Town and Outlying Services: BT should explore the possibility of providing additional transfer facilities. For example, an east-side or west-side transfer facility could be provided at key locations where several transit routes intersect. Such facilities should be more modest in nature compared to the downtown facility.

- Transit Priority Opportunities: key transportation corridors could be enhanced with various technological improvements that would shorten bus travel times and improving route reliability, making BT service more attractive to passengers.

These technology features include transit signal priority (stoplights that are phased for expediated transit vehicle movements); dedicated travel lanes and lane segments (lanes of a roadway for exclusive transit use); and queue-jump lanes (an additional travel lane at a signalized intersection that is restricted to transit vehicles and allows them to cut to the front of a queue).

The TDP recommends that these Transit Priority Opportunities be investigated for use on the following major corridors:

- E. 10th Street (Woodlawn Avenue to SR 45/46 Bypass, and on to Smith Road).
- E. 3rd Street (downtown to High Street, and on to Smith Road).
- W. 3rd Street (downtown to Curry Pike)
- S. Walnut Street (downtown to Grimes Lane)
- S. College Avenue (downtown to Dodds Street)
- N. Walnut Street (downtown to 17th Street)
- N. College Avenue (downtown to 17th Street)

PLANNING AND ZONING CONSIDERATIONS

- *Grimes Lane Administrative and Maintenance Facility*: the BMCMPO and BT are currently undertaking a study that analyses the future needs of this facility and will provide a strategy for meeting those needs. Once completed, zoning approvals to allow for the completion of the study's final goals should be encouraged. This could include, among other options, the expansion of the current facility.

- *E. 4th Street Transit Passenger Transfer Facility*: once the new passenger transit facility at 3rd Street and Walnut Street is opened, the current E. 4th Street facility will no longer be utilized by BT. As a result, this site could be redeveloped with a future public, or private, land uses. The guidance contained in the Downtown Plan can be utilized to assist with future land use decisions.

- *Park and Ride lots*: at a future point, land parcels that are located at outlying points of the current municipal boundaries (or in areas that may be annexed at a future date) might be considered by BT for use as park and ride lots. Additionally, if new parking areas are constructed by BT, adequate landscaping and design buffers should be provided between adjacent land uses.

- *Planning and zoning*: during the planning approval process, ensure that new high density developments located within the municipal limits have access to at least one BT transit route. Larger scale developments, especially those located in the downtown and see heavier transit use, should install bus shelter facilities and incorporate transit oriented design features.

- *Redevelopment of the "Royal Dog" property*: this is a high priority in order to construct a new Downtown Passenger Transfer Facility that will serve Bloomington for decades to come. Redevelopment plans should include the following design considerations: a building-forward design towards the corner of E. 3rd Street and Walnut Street; utilize multi-story construction; and a possible joint-use activity located on-site with the Police Department (see page 52 for more details about this opportunity).

CHAPTER 5

Public Works

CITY FACILITIES REPORT

DEPARTMENT FUNCTION

The Public Works Department provides leadership, budgetary management, administrative oversight and support to eight separate divisions. These include the following divisions: Animal Care and Control, Engineering, Facilities Maintenance, Fleet Maintenance, Parking Enforcement, Sanitation, Street and Traffic.

The Animal Care and Control Division addresses and responds to all companion animal needs in the community through education, enforcement and support.

The Public Works Department also provides administrative assistance to the Animal Control Commission, Board of Public Works, Traffic Commission and the Bicycle and Pedestrian Safety Commission (see the *Transportation* chapter, pages 101-102, for more details regarding many of these boards and commissions).

The following summaries provide an overview of the current facilities, and future facility needs, for each of the seven Public Works divisions.

ANIMAL CARE & CONTROL DIVISION

The mission of the Bloomington Animal Care and Control (BACC) Division is to address and respond to all companion animal needs in the community through education, enforcement and support in order to build a community where people value animals and treat them with kindness and respect.

The vision of the Bloomington Animal Care and Control Division is that, in the Bloomington community:

A number of programs and services are offered to the community that support the mission of the Animal Care and Control Division.

- All companion animals will be spayed and neutered and will be provided with appropriate food, shelter, medical care and companionship
- No adoptable animals will be euthanized
- The BACC will be viewed as a community resource for all companion animal needs

In support of this mission and vision, the BACC provides the community with a number of programs and services including sheltering stray and surrendered animals; reuniting lost pets with their guardians; providing healthy, family friendly animals for adoption; investigating bite reports and reports of abuse and neglect; and providing emergency food and medical assistance.

The BACC Division serves the municipal limits of the City of Bloomington. It also provides services to Monroe County, through an interlocal agreement, which specifies that the BACC take and dispatch requests for animal control services to Monroe County Animal Management Officers.

The interlocal agreement also specifies that the BACC Animal Shelter facility house and process for disposition all animals that are brought

in by the Monroe County officers. The BACC Animal Shelter also accepts and cares for animals brought to the facility from surrounding counties.

To perform these services, the BACC Division has the following employees: BACC Director, a Shelter Manager four full-time Animal Control Officers, four full-time Kennel Staff and five part-time kennel staff, four part-time Secretaries, a part-time Volunteer Coordinator, and a part-time Outreach Coordinator. There is an Animal Control Officer on call 24 hours a day, 365 days per year, to handle animal related emergencies that occur outside of normal operating hours.

The Animal Shelter is a 9,200 square foot facility, located at 3140 S. Walnut Street.

Existing Facilities

The BACC Division has a 9,200 square foot Animal Shelter facility, which is located at 3410 S. Walnut Street. The building contains 62 dog kennels, 50 cat kennels and 3 cat colony rooms divided between the adoption area and the intake/quarantine areas. The Animal Shelter facility also contains office space, meeting areas, work rooms for laundry and dishes, and the offices of the Monroe County Humane Association.

On the building site, there are several fenced yards for dogs to be exercised, including one large fenced area with a 3-sided barn that can be used for housing livestock. There are also several outdoor storage sheds and an incinerator. The incinerator is used for disposing of animal remains processed through the shelter, as well as disposing of remains from local veterinary offices (for which these offices pay a per pound fee).

Animal Shelter Service Standards

There are no federal or state required performance standards for general animal shelter operations. However, there is a state standard that requires all employees who perform euthanasia to be trained and receive certification. As new employees are hired and complete their probationary period, they are scheduled to attend a two-day training session to receive their euthanasia certification.

The Animal Care and Control Division meets all of the animal shelter guidelines published by the Humane Society of the United States.

Kennel staff conducts temperament tests on all dogs according to a prescribed program called S.A.F.E.R. (Safety Assessment for Evaluating Rehoming), for which they receive training.

The Humane Society of the United States (HSUS) publishes guidelines for the operation of an animal shelter. These guidelines cover the following topics: specifications for housing animals in terms of materials used; size of kennels; exercise requirements and stress reduction; building security; human traffic control for both visitors and staff; diet and feeding requirements; disease control measures; cleaning protocols; euthanasia guidelines; record keeping; and vehicle and equipment availability. The BACC Division meets all of the guidelines recommended by the HSUS.

Best practices in the animal sheltering field recommend implementing volunteer and foster programs. The Animal Shelter has a formalized volunteer program that is managed by a part-time Volunteer Coordinator. At any given time, there are approximately 200 active volunteers, who donate approximately 10,000 hours of service each year. The foster program is also very successful with approximately 50 active foster families who foster over 700 animals per year.

There are approximately 200 active volunteers that donate 10,000 hours of service each year at the Animal Shelter.

Best practices in the field also recommend an open adoption process that seeks to match prospective adopters with an animal that suits their lifestyle and experience level. A "Meet Your Match" adoption counseling tool is utilized at the Animal Shelter, which was developed by the American Society for the Prevention of Cruelty to Animals

Future Facility Needs

The Animal Shelter building has grown in a piecemeal fashion over the years to its current size of approximately 9,200 square feet. In 1968, the Monroe County Humane Association built the first shelter at this location on land rented from the City of Bloomington. In 1977, an education room, kennels for injured and sick animals, a clinic room and a stray dog kennel area were added. In 1984, an additional 1,400 square feet was added, improving animal care facilities and expanding space for Animal Control Officers. The facilities housing cats were expanded in 1991, bringing the facility to 5,200 square feet. In 2004, an additional 4,000 square feet was added for an Adoption Center, which includes housing for adoptable dogs and cats, a meeting room, animal visitation rooms, a work room for laundry and dishes, offices and a staff break room.

The stray dog kennels located at the Animal Shelter are aging and no longer compatible with current best practices.

While this latest addition has allowed the BACC Division to greatly expand and improve upon the services it offers, there are additional facility needs that would improve the level of animal care and increase the efficiency of operations.

- The stray dog kennels, now over 30 years old, are not compatible with best practices for reducing animal stress and disease transmission, due to their design and construction. In addition, due to its age, that part of the building is in need of significant levels of repair and maintenance.
- An eventual goal is to have a veterinarian on staff. However, there is currently no work space for a veterinarian at the Animal Shelter.
- There is no designated space for isolation and recovery of sick animals. This results in a constant need to prevent the spread of upper respiratory infections among both dogs and cats.
- The building has insufficient storage and laundry space.

- There is only one large room in the building that gets used for meetings, demonstrations, temperament testing and visiting with animals. There are often conflicts for use of the room, and using it for temperament testing means that staff must often bring animals of questionable temperament through the adoption area to get to the room.

  To address these needs, the BACC Division plans to conduct a review of the facility to determine whether is it most effective to renovate portions of the building, add on to the existing facility, or tear down a portion of the facility to build a new section.

ENGINEERING DIVISION

The Engineering Division provides civil engineering guidance to the Mayor, boards and commissions, other City of Bloomington departments, and the general public. It oversees the planning, design, construction and maintenance of private and public works projects involving buildings, roads and storm drainage to ensure adherence to the appropriate standards and guidelines.

The Engineering Division provides civil engineering guidance to elected officials, other City departments and the general public.

The Engineering Division employs two registered professional engineers, two managers, and a total of nine full-time employees.

Existing Facilities

The Engineering Division is housed in the Public Works Department at City Hall and shares office space with staff from the Information Technology Services Department, Economic and Sustainable Development Department, Housing and Neighborhood Development Department, as well as other Public Works Department staff. As a result, both office and work space for existing staff is essentially at usable capacity. This situation was compounded by the removal of storage space and media room in early 2010 to make room for office space for another City department.

Storage space for various temporary traffic control devices, appurtenances such as decorative bricks or bollard covers, plats and plans of record (mylars and etc.), and other equipment (surveying, traffic counting, etc.) is now at capacity. The Engineering Division currently utilizes space at the Grimes Lane facility, Whitehall facility, and in two closets in City Hall to meet storage needs.

Engineering Service Standards

Service standards and best management practices for the Engineering Division are outlined in the Transportation Facility Standards section of the *Transportation* chapter (see page 108). The Engineering Division also adheres to local building codes, Americans with Disabilities Act (ADA) standards, and applicable environmental rules and regulations enforced by the Indiana Department of Environmental Management, Indiana Department of Natural Resources and the United States Army Corps of Engineers.

Future Facility Needs

Office work space, technical staff, and storage are the primary needs. As the city grows, more engineering personnel will be necessary in order to meet staffing needs. Currently, one staff member inspects all construction sites for adherence to erosion control standards, and two inspectors are available to inspect new developments for public improvements.

Additionally, the Indiana Department of Transportation is adopting policies which give local public agencies, like the City of Bloomington, more control over their projects. This adds another level of responsibility to the management of every federal aid project. This is in addition to the locally funded infrastructure projects managed by the Engineering Division. While Engineering Division staff are capable of conducting complex tasks, such as right-of-way acquisition and construction inspection for federal projects (which saves the City money), the additional workload costs resources that are normally devoted to other everyday tasks.

FACILITIES MAINTENANCE DIVISION

The Facilities Maintenance Division is tasked to provide quality maintenance and general upkeep of all City owned properties assigned to the Public Works Department. It is responsible for overseeing maintenance issues and upgrading all City facilities to maximize energy efficiency.

The Facilities Maintenance Division is tasked with providing maintenance and general upkeep of all City owned properties assigned to the Public Works.

Existing Facilities

The Facilities Maintenance Division is currently responsible for maintenance of the following City buildings and structures:

- Animal shelter
- Fire stations
- Fleet Maintenance garage
- Outlying storage buildings (2101 and 2541 W. Third Street)
- City-owned parking garages (including the Skywalk at *Garage Art*)
- City-owned parking lots and the Convention Center parking lot
- Police Headquarters Station
- Public safety training facilities
- Sanitation garage
- Showers City Hall
- Street garage
- Traffic garage
- Waldron Arts Center (120 S. Walnut Street)

The day-to-day operations of these buildings include a variety of tasks, including the following:

- Repairs to HVAC, electrical, and plumbing systems
- Janitorial duties and completing maintenance checklists
- Door and lock repairs (both electronic and mechanical)
- Office furniture installations and upgrades
- Security and safety checks
- Maintaining meeting room schedules and audio/visual equipment
- Maintaining the Downtown Area for cleanliness
- A host of other related tasks

The Facilities Maintenance Division also has several public safety responsibilities for City buildings. This typically includes the following types of activities: maintenance for fire alarms and sprinkler systems; fire extinguisher maintenance; elevator maintenance; security badge system maintenance; maintenance for special needs personnel and maintenance of all walking surfaces.

Facilities Maintenance Service Standards

The City of Bloomington Green Building Ordinance was approved by the City Council in March, 2009. It requires that an energy-efficiency analyses be performed on 15 current City of Bloomington buildings and mandates that these buildings be brought up to Leadership in Energy and Environmental Design (LEED) Silver standards (assuming that construction costs will be offset by savings within a 10-year period). It also establishes a minimum of LEED-Silver standards for new City of Bloomington facilities.

The Facilities Maintenance Division is responsible for overseeing the energy-efficiency analyses on 15 current City buildings.

The Facilities Maintenance Division is responsible for overseeing the energy-efficiency analyses on the targeted existing buildings. Additionally, it is charged with meeting, or exceeding, the LEED Silver standards for these buildings. The Facilities Maintenance Division will also be responsible for maintaining the LEED-Silver standards on City buildings constructed in the future.

The Division also maintains municipal buildings to comply with the Americans with Disabilities Act (ADA). The federal law ensures that reasonable accommodations are provided for people with disabilities in public spaces. Reasonable accommodations in this instance include minimum accessibility standards for doors and entrance ways, restrooms, parking spaces, elevator access, counter space, employee work stations, and a host of other related requirements for City buildings.

A regular maintenance schedule has also been established for all City facilities. Basic and routine maintenance, as well as facility checks, are performed on a rotating basis. The maintenance schedules are designed to be completed on a weekly, monthly, semi-annual and annual basis. These include the following specific activities:

Weekly checks include, but are not limited to, the following areas:

- Check all motors and compressors in the HVAC systems
- Check all electrical systems (both normal and emergency systems)
- Check all security systems
- Check for plumbing leaks
- Check the overall conditions of the structures and their operating systems

Monthly checks include weekly checks and the following:

- Check and/or replace filters in the HVAC systems
- Check the status of fire extinguishers and fire alarm systems (to include sprinkler systems, if installed)
- Check the operation of security systems, back-up generators, cameras, recording devices and computer components
- Review utility billing and usages

Semi-annual checks include weekly and monthly checks, as well as the following:

- Clean and repair gutters
- Check condition of light poles, flag poles, handrails, canopies, doors and overhead doors and hardscape areas (i.e. parking lots, sidewalks, ADA ramps, etc.)
- Clean all exterior HVAC units and other exterior equipment
- Complete all back flow preventer checks

Annual checks include all weekly, monthly and semi-annual checks, as well as the following:

- Update all elevator licenses
- Complete all boiler inspections
- Review all annual contracts for renewal
- Complete year-end assessments of all structures

By conducting these ongoing maintenance activities, the number of emergency call-outs to City facilities has been reduced. The overall life span of building equipment and systems has also been extended.

Additionally, the maintenance schedules have allowed building equipment and systems to perform at optimal levels. This has resulted in a reduction in the amount of water, electricity and gas usage for City facilities, helping to achieve the goals of the Green Building Ordinance.

Future Facility Needs

The immediate facility need for the Facilities Maintenance Division is central storage. This includes both conditioned storage for records and unconditioned storage for equipment.

Additionally, staff need a workshop space. Currently, the main storage and shop is located in the boiler room of Showers City Hall. This arrangement does not provide the type of space necessary to maintain City buildings to their fullest potential.

FLEET MAINTENANCE DIVISION

The Fleet Maintenance Division is charged with the duty of maintaining and repairing City vehicles and equipment, as well as providing fuel access. The services that are provided ensure that all City departments have the vehicles and equipment necessary to provide services to the citizens of Bloomington. By providing these services in-house, the Fleet Maintenance Division is able to provide 24 hour services at a considerable savings for the City.

There are ten employees, including the following: Division Manager, Office Manager, Inventory Coordinator, and seven mechanics. The City's vehicle fleet consists of approximately 500 numbered units. Service and parts for small equipment that are not numbered and belong to the various other City departments and divisions are also provided.

In addition to maintenance and repair service, the Fleet Maintenance Division also provides statistics and analysis regarding fuel economy, condition of the vehicle fleet, cost benefit, and input on new vehicle purchases. An agreement with Monroe County Government for fuel access has assisted Monroe County in reducing their fuel consumption by thirty percent.

The Division also coordinates the auction for the disposal of surplus City of Bloomington vehicles and equipment. The auction is conducted in accordance with State and City laws and ordinances.

The Fleet Maintenance Division maintains and repairs City vehicles and equipment, as well as provides fuel access.

Existing Facilities

The Fleet Maintenance Division operates a garage facility located at 800 East Miller Drive. To accommodate all of the various vehicles and equipment in the City fleet, there are a total of eight service bays and one drive-through bay. In addition to the garage area, there are office spaces, parts rooms and a wash bay.

Two fuel sites are also operated to supply the fuel needs for all City departments and are available 24 hours a day, 7 days a week. These include the following locations:

- 1969 South Henderson Street
- 545 South Adams Street

Fleet Maintenance Service Standards

Fleet Maintenance employs seven highly skilled mechanics to provide preventative maintenance and repair services on a wide variety of vehicles and equipment. This spectrum includes police cars, fire apparatus, sanitation vehicles, paving and excavating equipment, dump trucks, pickup trucks and sedans.

Seven highly skilled mechanics provide preventative maintenance and repair services for City vehicles and equipment.

Every vehicle or piece of equipment has a schedule for preventative maintenance that has been designed to extend the life of the vehicle and provide the best possible fuel economy. This provides an opportunity for each City vehicle to be rated in terms of its future need for capital replacement. This rating system allows the City to reliably predict annual vehicle replacement needs.

Future Facility Needs

The current facility was built in the mid 1980's for a transit parking garage and was updated to fit the Fleet Division's needs in 2000. The building is currently at full capacity. Due to the height of the facility, six of the eight bays will no longer accommodate larger vehicles.

Additionally, mechanics will frequently tear down a vehicle and find that parts need to be ordered and will not arrive for several days. Staff then must push that vehicle out of the garage and start a second vehicle, or wait for the parts to arrive. Ideally it would be more efficient to have two or three bays assigned to each mechanic. That way the mechanics could tear down a vehicle and order parts for other vehicles, all while waiting for parts to arrive.

The current garage facility is at full capacity and cannot fully accommodate many of the larger vehicles in the City fleet.

In the future, an expansion of the current facility, or the construction of a new facility, will need to occur. Fleet Maintenance Division staff are utilizing space from another Public Works division to store parts and tires. To further utilize space at the current facility, some parts are stored in the wash bay.

The dispensers at both fuel sites are obsolete. Currently two dispensers are inoperable due to parts not being available to repair them. As a result, the two fuel sites will need to either be upgraded, or new fuel facilities constructed to replace them.

PARKING ENFORCEMENT DIVISION

The function of the Parking Enforcement Division is to enforce the City of Bloomington's parking ordinances and to provide School Crossing Guards for elementary schools. The Division strives to provide accessible parking while being aware of changing parking needs that are occuring in the downtown, as well as within near-downtown neighborhoods.

Daily operations of the Parking Enforcement Division include the following responsibilities:

- Officer patrol and enforcement of assigned areas
- Assurance that elementary school crossings within the municipal limits of the City have guards for child safety
- Sale of permits for ten neighborhood zoned areas, daily downtown garage and surface lot spaces, construction and special event parking (approximately 13,000 permits are sold yearly)
- Processing citation payments
- Record keeping for all parking related items
- Assistance to the Legal Department concerning Parking Enforcement Division related issues

Parking Enforcement Division officers patrol and enforce assigned areas for compliance with City parking ordinances.

Existing Facilities

Areas of enforcement include the following:

- Downtown Enforcement: this area consists of time restricted on street parking. The approximate area covered is from 3rd Street to 11th Street and Rogers Street to Indiana Avenue.
- Neighborhood Enforcement: the City has ten Neighborhood Residential Zoned parking areas. Permits are required to park in order to park in these zones.
- School Crossing Guards: are provided at all of the elementary schools located within the municipal limits of the City of Bloomington.
- Parking Garages: enforcement at the three City owned and operated parking garages located downtown. These include the following:
    - "*Garage Art*" located at 4th Street and Walnut Street
    - "*Garage Band"* located at 7th Street and Walnut Street (Parking regulations are enforced in this garage 24 hours a day, 7 days a week)

School Crossing Guards are provided at all of the elementary schools located within the municipal limits of the City.

- "*Garage Market*" located at 7th Street and Morton Street
- Surface Parking Lots: enforcement at the four City owned and operated surface parking lots located downtown. These include the following:
    - Lot # 1 located at 4th Street and Dunn Street
    - Lot # 3 located at 4th Street and Washington Street
    - Lot # 5 located at 6th Street and Lincoln Street
    - Lot # 6 located at 3rd Street and Washington Street
- Parking Garage Management: in 2008, the City of Bloomington contracted with the REI Company (Real Estate Services) to manage the three City owned downtown parking garages. REI operations for these facilities include the following:
    - Permit billing and sales
    - Daily REI personnel to provide parking assistance
    - Monitor permit parking areas
    - Monitor pay station and change machines
    - 24/7 patrol, assistance and cleaning of garages
    - Assistance with Hilton Garden Inn guest parking
    - Contacts the proper City departments when service is needed on the garages

The City of Bloomington contracted with the REI Company in 2008 to manage the three City owned downtown parking garages.

Parking Enforcement Service Standards

A number of parking technologies and data control methods are utilized to assist Parking Enforcement Officers. These help in lowering operating costs to the City, while maximizing enforcement efforts. Each Parking Enforcement Officer is issued a handheld computerized unit for use in the field. This unit tracks and records parking usage information, which can then be utilized for citation issuance. Additionally, the Parking Enforcement Division has software programs in place that allow for parking information to be tracked and recorded (i.e. times and areas of peak usage, enforcement records, etc). This information can then be used for greater analysis, research and study.

If a parking citation is issued, it can be paid in person, through the mail, or via an on-line option at the City of Bloomington's website. Most fines increase if not paid within seven calendar days of the date of issuance shown on the ticket. If necessary for legal action, Parking Enforcement Division staff has access to license plate registration information from the State of Indiana's Bureau of Motor Vehicles. This information is used to direct legal correspondence to the vehicle's

owner. For non-Indiana licensed vehicles, a third-party database program is utilized to obtain vehicle registration information (through a pay-per-use agreement between a private vendor and the City of Bloomington).

Because Parking Enforcement Officers patrol the downtown and large areas of the city during the day, they often interact with members of the public. As a result, each Parking Enforcement Officer is required to become certified in Cardiopulmonary Resuscitation (CPR), as well as learn basic first-responder aid techniques. These skills allow Parking Enforcement Officers (who sometimes become the first responders at an incident scene) to assist during medical emergencies or accidents until Fire Department personnel arrive.

Future Facility Needs

The Parking Enforcement Division is constantly researching new and improved methods to manage parking in the city. This primarily includes new technologies that can increase efficiency, while at the same time, are cost effective solutions for City government. Other communities are often contacted to exchange parking information and to learn from their experiences with parking technology. These communities typically include the City of Indianapolis and the cities that are home to Big Ten universities. Additionally, other cities that use a specific technology that the Parking Enforcement Division is interested in pursuing for local use are contacted as well (these have recently included the City of Chicago, Illinois, City of Muncie, Indiana, City of Portland, Oregon and Texas A&M University).

Some of the specific parking equipment that is being researched for use in the future include the following:

- Pay and Display Technology: a single parking meter that is capable of managing multiple parking spaces and accepts credit and debit card payments. It provides a paid receipt that must be displayed inside the vehicle on the dashboard. The receipt displays the time that the parking space expires and is used for enforcement purposes. Because this technology can eliminate the need for multiple 'single-head' parking meters (the traditional parking meters) at a location, it can assist in reducing enforcement and maintenance costs.

- Pay-to-Park Technology: allows users to pay for parking at an automated station, which also accepts debit and credit card payments. These stations are often utilized in parking garages and are responsible for a large number of parking spaces. They eliminate the need for installing parking meters at every space within a garage.

- Smart Meters Technology: parking meter devices that can take credit or debit cards for payment (including payment via cellphone). Additionally, these meters can be linked by wireless networks and may be remotely controlled to alert Parking Enforcement Officers about parking violations. They can also provide detailed reports regarding usage rates, times of peak parking, etc.

Two new Temporary Part Time (TPT) Parking Enforcement Officers are needed. These TPT officers would replace full time officers who are off work for vacation or leave purposes. This would reduce loss of revenue and assure that all assigned areas are fully enforced.

With the growing number of bicyclists in the community, the City of Bloomington needs a process to control bicycle parking. An ordinance is needed that would designate areas to park bicycles and provide for a method to deal with abandoned or stolen bicycles.

In addition to the implementation of new technology resources and staffing needs, other potential best management practices are being explored to further improve parking in the city. In 2007, Walker Parking Consultants was retained by the City of Bloomington to provide a professional parking study for the downtown. The final report contained several recommendations to further improve parking operations, fees and enforcement actions. Some of these included the following:

- Implement an overall public relations and marketing campaign for parking services. Coordination of this effort with existing City of Bloomington departments is encouraged. Parking should be promoted in various media outlets and coordinated with known special events.

- Evaluate parking rates, based on demand and location. Keep rates current with market influences.

- Implement a graduated parking fine to deter repeat violators and change parking behavior, thus freeing parking space in the downtown for the intended users.

- Utilize incentive based fines (for which the maximum fine is reduced somewhat in the event of prompt payment).

SANITATION DIVISION

The Sanitation Division is charged with the duty of removing solid waste, yard waste, appliances and heavy trash from the residential homes located within the municipal limits of the City of Bloomington. The Sanitation Department receives funding from the Common Council general fund and sanitation fund. These funds are then allocated within the Sanitation Division, with the end result being the successful accomplishment of its charged duties, goals, and objectives.

The Sanitation Division removes solid waste, yard waste, appliances and heavy trash from homes located within the municipal limits of the City.

Existing Facilities

Highlights of the Sanitation Division for the completed year of 2009 include the following:

- 6,878 tons of trash collected
- Trash and recycle services provided on average to 7,000 to 8,000 homes per week
- 1,230 tons of co-mingled materials (multiple types of recyclable items placed in a single container) collected through curbside recycling
- 1,764 tons of fiber collected through curbside recycling
- 2,994 tons of material diverted from the waste stream that leads into landfills
- 61 loads, approximately 1,708 cubic yards of yard waste, collected and diverted from the landfills
- 10 solar-powered trash compactors, located in the downtown, were installed in 2010. These were purchased by the Sanitation Division by utilizing American Recovery and Reinvestment Act funding (federal government stimulus funds). Due to the technology and efficiency of these compactors, the Sanitation Division has been able reduce both labor costs and greenhouse gas emissions

The Sanitation Division currently has a very successful residential recycling program. It allows for the removal of recyclable items from residential homes on a bi-weekly basis and has a participation rate that often reaches higher than fifty percent. The bi-weekly approach of the recycling program allows for the Sanitation Division to properly service residents, while also keeping the cost of manpower and equipment down at a reduced rate.

The residential recycling program currently has nine staff members, three route trucks and one support vehicle. There currently are six residential recycle routes. These routes utilize the manpower and equipment of only three routes. This is accomplished through bi-weekly curbside pickup for the recycling routes.

The area to be serviced is spread across a two week period for pickup (in lieu of attempting to service each customer on a weekly basis). This drastically reduces the overall operating expense. Operating in an efficient manner such as this allows the Sanitation Division to give a quality of service that surpasses that of many other municipalities, while keeping the cost of operations to a minimal.

The residential recycling program removed a combined total of 2,994 tons of materials from the solid waste stream in 2009.

In 2009, the residential recycling program removed 1,764 tons of 'news' products from the residents of Bloomington. The 'news' category includes all paper and cardboard products that are placed at the curbside. Additionally, 1,230 tons of commingled materials was collected during curbside collections. This includes all plastic, aluminum, and glass products.

The tonnage of material removed through curbside collection is not only indicative of the participation rate, but also serves as an indicator of the success of the recycling program. In 2009, the Sanitation Division, through residential recycling, removed a combined total of 2,994 tons of material from the solid waste stream. This translates into a reduction of the amount of solid waste that Bloomington residents placed into landfills.

Sanitation Service Standards

Daily operations are regulated by Title 6 of the City of Bloomington Municipal Code. The Municipal Code specifically addresses the following issues:

- Pre-collection practices: the proper preparation and separation of trash, recyclables and yard waste items for pick-up by Sanitation Division personnel
- Refuse containers: the acceptable size and weight of containers that hold trash and yard waste items for pick-up. Also specifies the price of trash and yard waste tags, which must be included on these items in order to be collected
- Recycling procedures: the proper sorting of appropriate recyclable materials, such as paper products, alumnium or steel cans, glass containers and plastic materials. All recyclable materials are collected without a tag and no fees
- Large items and appliances: outlines the procedures for pick-up of large items (i.e. couches, tables, mattresses, box-springs, tables, chairs, etc.) and appliances (washing machines, refrigerators, freezers, etc.). These items also require that two trash tags be affixed to them in order to be picked up
- Collection procedures: sets the hours of collection, defines which residences the City will collect trash and recyclables from and establishes the methods of collection

- Enforcement: establishes violations, legal procedures and fine schedule for any necessary sanitation enforcement action

Outside of the Municipal Code, another standard is that the Sanitation Division will not collect hazardous or toxic materials. This includes items such as gasoline, antifreeze, oil filters, batteries, mercury, pesticides, fluorescent bulbs, used motor oil, cleaners, paint, ballasts, herbicides, electronics (i.e. televisions, computers, computer parts, etc), or construction debris. These materials must be sent to either the Monroe County Solid Waste District's facility, or to another authorized facility.

The strategic plan examines current operating practices and explores opportunities to make future enhancements to Sanitation Division operations.

Future Facility Needs

A short term goal is to seek out and implement strategies aimed directly at establishing new ways to generate revenue. Once implemented, these strategies will help to form a sustainable base from which the Sanitation Division can operate.

The Division's strategic plan calls for an examination of current operating practices and to explore opportunities to make enhancements. These enhancements may come from many varied angles, with the end result being a better municipal operation. With that in mind, the following points can be considered as an outline of the initiatives that will be looked at in the short and long term:

- Automated collection service for both recyclables and solid waste. An automated collection system requires a special vehicle and a wheeled waste cart for residential users

  This specialized vehicle is equipped with a lifting mechanism that reaches out to the waste cart, lifts it, empties the contents, and returns the waste cart back to its original position. The driver controls the entire process from the cab of the vehicle and does not leave the vehicle, allowing for greater operating efficiency and personnel safety

- A new and improved education program for the public, with specific goals and accomplishments

- A stronger effort towards solid waste reduction, through viable and profitable recycle programs

- Provide a system to service smaller commercial customers on the current routes, which will lead to better financial stability

- Re-route with efficiency and productivity as key concerns

- Provide a system that recognizes and receives profit from the recycling commodities. One potential option for the future includes adding a single-stream recycling program.

  A single-stream recycling program is a system in which all

recyclable materials are mixed together by the resident in a single container (as opposed to separating recylcable materials into different bins for processing, as is currently done). This single container is then collected and sent to a Materials Recovery Facility for processing.

The advantages of a single-stream recycling program include greater efficiency and lower processing and operating costs for the Sanitation Division. Additionally, it provides a greater convenience to consumers, as well as an opportunity to further increase recycling participation in the community. In order to begin single-stream recycling in Bloomington, an agreement with a Materials Processing Facility would need to be finalized.

STREET DIVISION

Well maintained streets are basic essentials for all communities, and without well-conditioned roadways, travel becomes haphazard and treacherous. The Street Division is committed to serving the citizens of Bloomington by utilizing a variety of essential services to provide roadways that are safe and free of hazards.

The Street Division consists of thirty-four personnel, which includes the following: Street Commissioner, Assistant Street Commissioner, Sidewalk Supervisor, Account Clerk, Clerk Typist and twenty-nine combined Operators, Laborers and Crew Leaders. The Street Division is responsible for maintaining 237 miles of roadway (as of 2007).

Routine operations for the Street Division include resurfacing streets and alleys.

Routine operations for the Street Division include the following:

- Minor street repairs and pothole patching
- Resurfacing of streets and alleys
- Leaf collection
- Snow and ice removal
- Street sweeping
- Grass mowing along City right-of-way
- Sidewalk repair and construction
- Tree removal and limb pickup
- Grading of alleys
- Special Projects
- Sidewalk Assistance Program to residential locations (see the *Transportation* chapter, page 110, for greater details on this)

Street Division personnel are responsible for removing snow and ice from streets during the winter months.

The Street Department is in charge of keeping the City of Bloomington's streets free of ice and snow during inclement weather. Whenever there is a danger of icy or snowy conditions on roadways, the Street Division will monitor conditions and respond accordingly. When snow or ice begins accumulating on the streets, plowing and/or salting operations will commence.

The Leafing Program provides curbside removal of leaves. This includes keeping the leaves picked-up from curbs and gutters, which helps with proper drainage flows. During the fall and winter, the Street Division strives to complete two pickups for the entire city, without incurring any overtime costs.

The Street Division also provides care and maintenance of trees in the public right-of-way; safeguards against accidents and helps keep the

City's trees looking their best. By continuing to work with Lee Huss, the Urban Forester in the Parks and Recreation Department, the Tree Maintenance Program has reduced the number of traffic accidents caused by damaged or dying trees. Emergency tree and limb removal after major storms has kept roadways and walkways safe. The Street Division continues to have quick responses to fallen tree and limb reports, as well as conducting ongoing maintenance to improve the City's overall tree inventory.

The Street Division provides quick responses to fallen tree and limb reports in order to keep roadways and walkways safe.

Existing Facilities

The Street Division has a garage facility located at 1981 S. Henderson Street. The area consists of one pole barn that was converted into an office building. The facility has three garage bays for storage and a canopy that provides an overhead cover and electric plug-in for dump trucks that are being stored during the winter months. There is also one storage barn for small equipment and concrete supplies.

The Street Division also has two salt barns. The newest one was installed in 2008 and has helped with the efficiency of snow control by providing more storage. There currently is a total storage capacity of 7,000 tons de-icing salt at the two salt barns.

Street Service Standards

The largest tasks for the Street Division are the resurfacing of streets, the repair and construction of sidewalks and curbs, snow removal, sweeping of City streets during spring cleanup and leaf removal.

The Street Division utilizes the Infrastructure Management Plan for Public Streets to schedule street resurfacing. Adopted by the Board of Public Works in 2007, this Plan develops and implements a comprehensive assessment and paving schedule for all public streets. A formal evaluation process and scoring mechanism is used, based upon a set of national standards and criteria. For more information concerning the details of the Infrastructure Management Plan for Public Streets, please see the *Transportation* chapter, page 109.

A similar system is utilized for assessing the need for sidewalk repair and maintenance. A Sidewalk Inventory program is in place to analyze the condition and functionality of all City of Bloomington sidewalk segments. Based on the condition of each sidewalk segment, a rating is assigned. These ratings are produced from a set of professional engineering criteria. The specific sidwalk segments that receive the poorest scores are targeted for attention first. For more information regarding the Sidewalk Inventory, please see the *Transportation* chapter, page 110.

Future Facility Needs

The current Street Division facility was transformed from a storage building to office space in mid 1985. This facility has become outgrown, especially in regards to storage areas for equipment and supplies. Personnel do not have wash bays for the snow removal equipment and this has proven to be problematic. In the future, a new facility will be necessary.

Additionally, another salt barn is needed on the city's north side. This new facility will help in providing more efficient services for snow control.

An additional salt barn is needed on the north side of the city in order to provide more efficient services for snow control.

TRAFFIC DIVISION

The Traffic Division manages the planning, maintenance and operation of traffic and street name signs, pavement markings, street lights and traffic signals within the municipal limits of the City of Bloomington. The primary objective of the Traffic Division is to achieve a safe, orderly and efficient movement of pedestrians, bicyclists, and motor vehicles within the community. It receives oversight from the Board of Public Works.

The Traffic Division manages the planning, maintenance and operation of traffic and street name signs, such as these examples.

Traffic Division staff seek to minimize potentially hazardous conflicts through the assignment of vehicular or pedestrian right-of-ways at specific locations. The Division also provides maintenance for the City's parking meters and street lighting throughout the city. It also locates fiber optic, Bloomington Digital Underground, traffic signal and street light wiring.

As of 2008, there are ten employees. This includes eight full-time and two temporary full-time staff members. It utilizes seven vehicles, two trailers and a digital message board (utilized for displaying traffic safety information).

Existing Facilities

The Traffic Division is housed at 121 West Allen Street in a building constructed by the Works Progress Administration in 1938. The building originally served as the City of Bloomington Municipal Building. It is located within the Jordan River floodplain.

The building has served as the Traffic Division's facility for over 20 years. The facilities are antiquated (if not obsolete), both structurally and operationally. In fact, a stone retaining wall at the site partially collapsed during a major rain event in 2008 (it was subsequently repaired). The site is spatially constrained and does not meet current demands. Additionally, expansion of the building in a delineated floodplain would be very difficult. As a result, new facilities are necessary to serve the future needs of the Traffic Division.

Also located at the West Allen Street property is the Traffic Division's Traffic Management System. The Traffic Management System houses six radio interconnects, which coordinate 58 traffic signals (there are 78 total traffic signals) in the City's inventory. A 100-foot radio tower is an integral part of the System. The Traffic Management System requires line of sight communication from the radio tower to the six master controllers.

Relocation of this radio tower would be both difficult (due to its current centralized location) and expensive (due to the necessary equipment upgrades, labor, etc). The Traffic Management System is used on a daily basis and is vital to daily operation of the Traffic Division. As a result, it is critical to the operation of the City's traffic flow and must be factored into any future facility.

The Traffic Division maintains all 78 traffic signals in the City's inventory, many of which have reached the end of their functional lives. Three new signalized intersections will be added in the next year (between 2010 and 2011). These include the following locations:

- W. 3rd Street and Cory Lane
- W. 3rd Street and Kimble Drive
- Henderson Street and Atwater Avenue

The Traffic Division also produces signs in the Allen Street building. This operation would be better housed in a clean facility, rather than in the current garage, where dust is disruptive to the sign production process. Additionally, signs, posts, marking material, signal equipment and striping paint are all stored on-site and storage space is often difficult to find.

As of 2010, the Traffic Division maintains a total of 78 traffic signals. There will be 3 new traffic signals added to the inventory by the end of 2011.

Traffic Service Standards

The Manual for Uniform Traffic Control Devices (MUTCD), produced by the Federal Highway Administration, is the national standard for all traffic control devices on any street or highway open to public travel in the United States. The MUTCD requires signs to be either illuminated or made with retro-reflective sheeting materials. Most signs throughout the nation are made with retroreflective sheeting materials. This sheeting degrades over time and therefore the signs have a limited life span.

Local public agencies, such as the City of Bloomington, have until January 2012 to establish and implement a sign assessment or management method to maintain minimum levels of sign retroreflectivity. The compliance date for meeting the minimum retroreflectivity requirements on regulatory, warning, and ground-mounted guides signs is January 2015. For overhead signs and street name signs, the compliance date is 2018.

The City of Bloomington has until January, 2012, to establish and implement a sign assessment method to maintain minimum retroreflectivity levels for traffic signs.

Steel traffic signal poles have an approximately 20 year life span. Currently, the Traffic Division has the capacity to upgrade four signalized intersections per year. So, with the current number of signals in the City's inventory, it will take twenty years to upgrade all the existing signalized intersections.

Additionally, emergency repairs to signal equipment every year are necessary (due to damage from vehicle accidents, weather events, etc.). These are largely unplanned and require the immediate attention and direction of resources from the Traffic Division.

Future Facility Needs

Indoor storage and a clean environment for operating sign production and signal equipment operations are the biggest needs for the Traffic Division. This cannot be accomplished in the existing facility. Other future needs include the following:

- Ample storage space for sign materials
- Clean facilities for signal maintenance operations and sign production
- Personal work space
- Employee parking
- Equipment parking
- Maintenance of an increasing number of new signals and upkeep of existing signals
- Signage replacement plan

PLANNING AND ZONING CONSIDERATIONS

- *Future annexations:* the number of service calls dispatched to Animal Control Officers will increase with any land area that is added via annexation. The potential effects on staffing and response times should be thoroughly evaluated during any future annexation process.

- *Future annexations*: roads that are located within a dedicated public right-of-way will become public streets that are maintained by the City of Bloomington. Some capital road improvements may be necessary in order to bring these roads to the same infrastructure standards as public streets that are currently located within the municipal boundaries.

- *Future annexations*: areas that are annexed in the future will require curbside refuse collection, yard waste collection and recycling collection. Additional costs for personnel, operating supplies and landfill fees will be incurred by the Sanitation Division to provide these services.

- *New streets*: additional non-capital expenses for any future streets, from either new construction or an annexation, will increase. This will include operational expenses for materials and services will be necessary to properly maintain these roads in the future (i.e. for activities such as repaving, snow and ice removal, sign and signal maintenance, sweeping, leaf removal, etc.)

- *Combined Public Works Division facility*: with both the BACC and Traffic Division facilities clearly needing additional operating space, the Public Works Department has been investigating the possibility of constructing one combined-use facility that would house all of the multiple Public Works divisions at a single location. Although no specific site has been identified at this time, locating this facility on an existing City of Bloomington owned property would maximize cost and space efficiencies. Future zoning approvals may be required to allow for this facility to be constructed.

- *Green Building Ordinance*: the construction of any new municipal facilities will require that that the policies of the Green Building Ordinance be followed. Additionally, new facility spaces may require additional staff for maintenance.

- *Parking facilities*: as the city continues to develop its parking assets over time, an outside audit of parking facility usage, or a review of overall parking supply and demand, may be warranted.

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CHAPTER 6

Transportation

CITY FACILITIES REPORT

TRANSPORTATION FUNCTION

For purposes of this report, transportation facilities will be divided into two categories: motorized and non-motorized. Users of motorized transportation facilities primarily include passenger vehicles, freight operators, transit vehicles and emergency responders. Typical motorized transportation facilities include streets (although streets also include a non-motorized transportation element as well).

The City of Bloomington maintains transportation facilities for both motorized and non-motorized users.

For non-motorized transportation, users are primarily bicyclists and pedestrians, but also include other transportation modes as well (e.g. rollerbladers, joggers, skateboarders, etc.). Non-motorized transportation facilities typically include sidewalks, sidepaths, bicycle lanes and signed bicycle routes.

The League of American Bicyclists first recognized the City of Bloomington in 2003 with a "Bronze" rating as part of its Bicycle Friendly Communities Program. This award was based on the efforts made by the City of Bloomington to make the community both safe and comfortable for bicycle commuting and recreational bicycling. The City's rating was further raised to "Silver" in 2010. The Bicycle Friendly Communities Program is an initiative by the League of American Bicyclists to provide incentives, hands-on assistance, and award recognition to communities that actively support bicycling.

It is important to note that both multi-use trails and transit are very important components within the City of Bloomington's transportation network. However, the responsibility for these specific facilities lies respectively with the Parks and Recreation Department (Chapter 2) and Bloomington Transit (Chapter 4). For more information regarding the transportation facility aspects of these entities, please reference those respective chapters.

The Public Works Department has three divisions that have specific responsibilities for the implementation and maintenance of transportation facilities.

Transportation Oversight

A number of professional departments and organizations are primarily responsible for the long-range planning, implementation, construction and maintenance of the City of Bloomington transportation network. These include the following:

- The City of Bloomington Public Works Department: is responsible for the implementation, construction and ongoing maintenance of the transportation infrastructure network within the municipal boundaries of the City of Bloomington. The Public Works Department has three divisions that each are assigned to a specific transportation responsibility.

These include the following:

- The *Engineering Division*: oversees the overall planning, design, construction and maintenance of private and public works projects which involve the transportation infrastructure network.

- The *Street Division*: oversees street resurfacing, the repair and construction of sidewalks and curbs, snow removal and street sweeping.
- The *Traffic Division*: manages the planning, maintenance and operation of all traffic and street signs, pavement markings, street lights and traffic signals that are related to the transportation infrastructure network.
- The City of Bloomington Planning Department: provides short and long range transportation planning for the City of Bloomington. This is primarily accomplished through the development of transportation planning and strategy documents, as well as development review. The Planning Department also provides the staff support for the BMCMPO.
- The Bloomington/Monroe County Metropolitan Planning Organization (BMCMPO): is responsible for regional long-range transportation planning. A metropolitan planning organization is a regional transportation planning group that is required by federal legislation for areas that exceed a population of 50,000 people. The BMCMPO was officially designated by the Governor of Indiana in 1982 and serves the City of Bloomington, the Town of Ellettsville and parts of Monroe County.

The Bloomington/Monroe County Metropolitan Planning Organization is tasked with regional transportation planning.

For the City of Bloomington, the BMCMPO allows for local input and prioritization regarding major transportation projects that utilize federal, state and local funding. All of the transportation projects that the BMCMPO commits to funding are required to be 'fiscally constrained', which means that estimated project expenditures must be balanced with expected funding revenues. Additionally, each particular source of transportation funding must be used in a manner that is consistent with its designated purpose (i.e. federal highway funds, transit funds, bridge improvement funds, specific grant funding, etc.)

Transportation Policy Coordination

The following public bodies provide policy guidance and support for the City of Bloomington transportation network. These include the following:

- The Board of Public Works (BPW): consists of three members that are appointed by the Mayor. The BPW has the responsibility of directing policy and controlling the day to day operations for the Public Works Department. The BPW has the authority to approve contracts, equipment purchases, capital expenditures, claims and the use of City of Bloomington right-of-way.
- The City of Bloomington Common Council: provides a mechanism for public input, and also some policy oversight, for locally funded and administered transportation projects.

- The Common Council Sidewalk Committee (CCSC): funds the design and construction of new sidewalks, using a set of analyzing criteria and an annual appropriation. The CCSC is comprised of four Common Council members. Staff from both the Planning and Engineering Departments provide the CCSC with professional assistance.

- Bicycle and Pedestrian Safety Committee: is a citizen commission that is charged with developing safety programs; serving as a citizen's forum concerning safe access for cyclists, pedestrians, and runners; encouraging the hosting of cycling, walking and running events in a safe manner; and reporting and recommending to the Mayor, Common Council and the Public Works Department regarding cyclist, pedestrian and runner issues. The Commission is comprised of seven members (four appointed by the Mayor and three by the Common Council).

- The Greenways Committee: is comprised of professional staff members from the City of Bloomington Planning, Engineering, Parks and Recreation, Public Works and Housing and Neighborhood Development departments, as well as the Office of the Mayor. The Greenways Committee assists in setting funding priorities and construction guidance for greenway facilities.

- The Monroe County Safe Routes to School (SRTS) Task Force: is a local non-motorized transportation resource with the aim of improving school accessibility. The SRTS is comprised of members of area government agencies, school officials, the health community, parents, and interested citizens.

- Traffic Commission: is an advisory board established to coordinate traffic activities, to carry on educational activities in traffic matters, to supervise the preparation and publication of traffic reports, to receive complaints having to do with traffic matters, and to recommend to the Common Council and to appropriate City officials ways and means for improving traffic conditions and the administration and enforcement of traffic regulations.

Transportation Policy Guidance

There are several City of Bloomington plans and documents that provide technical and policy guidance on both the development of future transportation facilities, as well as the specific construction standards that are required of each different transportation facility. These transportation plans and documents include the following:

- Master Thoroughfare Plan (MTP): defines five specific street classification functions for use in City of Bloomington land use and transportation planning purposes. These classifications are used to manage and prioritize necessary public right-of-way, facility features and cross-section standards for each street. Additionally, the MTP classifications are utilized for many different planning and zoning requirements (e.g. setback distances, driveway location options, etc.).

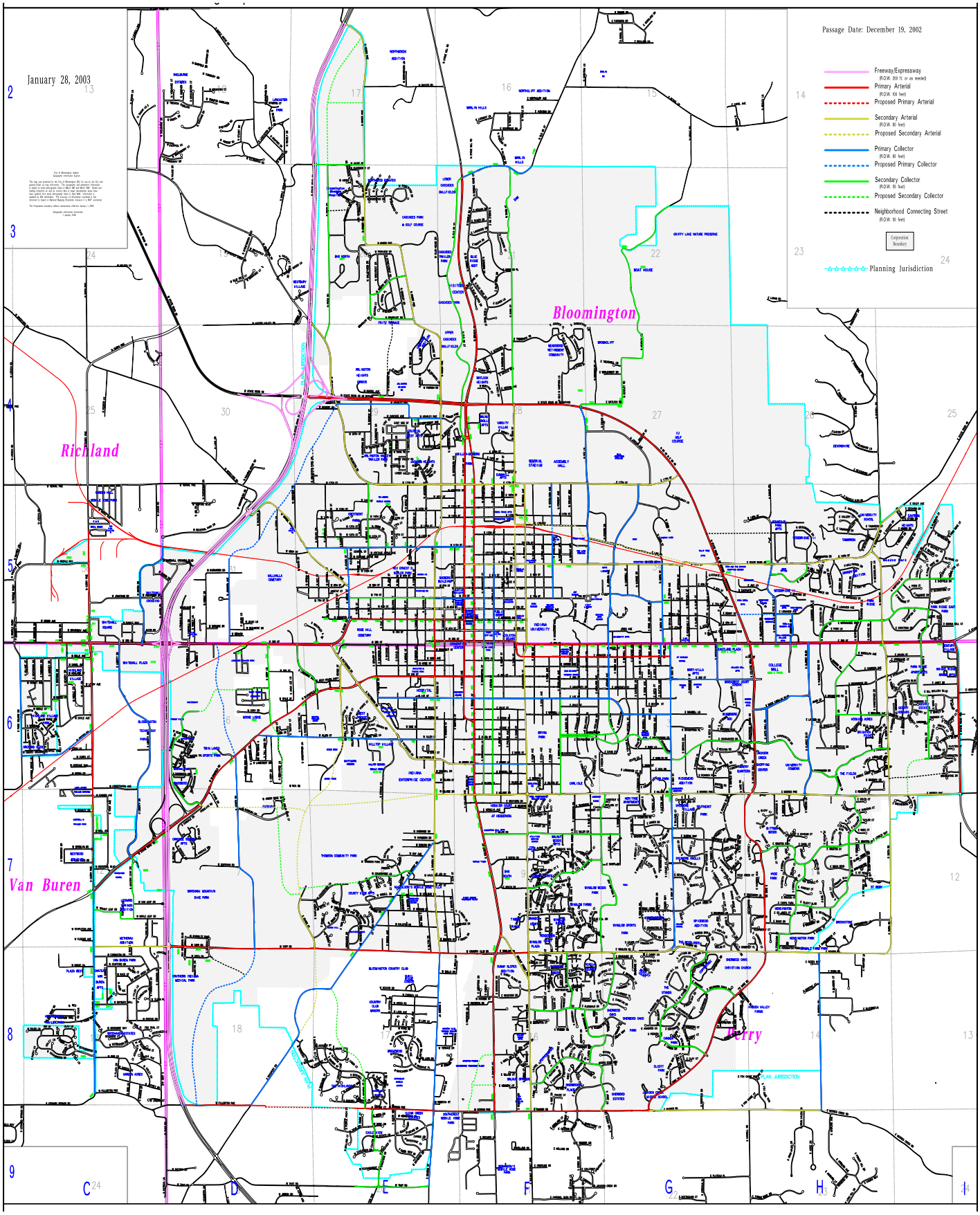
- 2030 Long Range Transportation Plan (LRTP): primarily serves as a means to predict future, long-term (20-25 years), regional transportation needs and to illustrate a plan of action to meet them. Specifically, it provides a menu of transportation projects to be implemented within the BMCMPO over the next 25 years that will alleviate projected congestion points, safety hazards, and connectivity limitations. The 2030 LRTP contains targeted improvement recommendations for public transit, alternative transportation and the overall street network.

- Transportation Improvement Program (TIP): is a strategic capital planning and budgeting document that is utilized by the BMCMPO to program funding for upcoming transportation projects (1-4 years). The TIP utilizes projects that are outlined in the 2030 LRTP as a foundation. It includes a list of priority projects, which all must be fiscally constrained. The TIP covers at least four fiscal years and is updated annually.

- Bicycle and Pedestrian Transportation and Greenways System Plan (BPTGSP): provides guidance relating to the priority, design, location, maintenance of bicycle and pedestrian facilities that are utilized for both commuting and recreational purposes. The BPTGSP also contains further transportation standards that are written expressly for these types of facilities.

- Unified Development Ordinance (UDO): outlines the required construction standards for bicycle, pedestrian and vehicular transportation facilities for use with private developments, or land uses, that need zoning approval.

FIGURE 19: MASTER THOROUGHFARE PLAN MAP



The Master Thoroughfare Plan defines five specific street classification functions, which are for use in City of Bloomington land use and transportation planning.

- Complete Streets Policy: adopted in 2009 by the BMCMPO Policy Committee, the Complete Streets Policy provides guidelines which ensure that roadways that utilize federal funding sources are designed and built to safely accommodate all users (this would include the projects that are programmed by the BMCMPO).

  Transportation 'users' include pedestrians, bicyclists, mass transit users, people with disabilities, the elderly, motorists, freight providers, emergency service providers and adjacent land users.

  Road projects that are submitted to the BMCMPO by the City of Bloomington must demonstrate compliance with the Complete Streets Policy where applicable. The Policy Committee then certifies, through resolution, that applicable projects are either compliant with, or exempt from, the Complete Streets Policy.

The BMCMPO's Complete Streets Policy provides guidelines that ensure roadways are designed and built to safely accommodate all transportation users.

SUMMARY OF EXISTING FACILITIES

Streets

The primary purpose of streets is to connect destinations and carry through traffic of both vehicles and bicyclists. Streets must facilitate the safe movement of transportation users. Additionally, streets also help to define urban environments through their impacts on neighborhoods, commercial corridors and civic institutions. As of 2007, the City of Bloomington maintains a total of 237 miles of streets (also see *Figure 19*, page 104).

Streets are assigned a functional classification that is based on the character of service they are intended to provide. These include the following major classification types:

- *Arterial Streets*: provide a high degree of mobility and most often serve longer trips within the city.
- *Collector Streets*: carry low to moderate traffic volumes and provide a greater balance between access and traffic circulation within residential, commercial and industrial areas.
- *Local Streets*: provide local access and promote community livability, while generally exhibiting low traffic volumes.

Streets connect destinations and carry both vehicle and bicycle traffic. The City of Bloomington currently has 237 miles of streets.

Sidewalks

Sidewalks are concrete paths, typically buffered from vehicle traffic, that allow for pedestrian transportation. Sidewalks are typically built in conjunction with new land use developments, as part of large transportation improvement projects, or by City the Bloomington as discrete capital projects. State law designates that sidewalks are for pedestrian use only. Per municipal ordinance, responsibility for the proper maintenance of sidewalks rests with the adjoining property owner. The City of Bloomington currently has 241 miles of sidewalks.

Sidepaths are hard surfaced paths that are physically separated from the road by a grass or tree plot.

Sidepaths

Sidepaths are hard surface paths (typically asphalt, but could also be concrete) that are physically separated from the road by a grass or tree plot. These facilities are located within the public right-of-way and used by bicyclists, pedestrians and other non-motorized transportation users. As of 2007, the City of Bloomington has 13.5 miles of sidepaths (also see *Figure 20*, page 113).

Bicycle Lanes

Bicycle lanes are portions of a roadway that have been designated and designed for bicycle use. Bicycle lanes allow for more predictable movements of both vehicles and bicyclists because they have a channelizing effect on traffic. As of 2007, the City of Bloomington has 11 miles of bicycle lanes (also see *Figure 20*).

Bicycle lanes are portions of a roadway that are designed and designated for bicycle use.

Share-The-Road Arrows, also commonly referred to as 'Sharrows', can be used where bicycle lanes are not feasible. Sharrows are pavement markings that are painted in vehicular travel lanes. They send a visual cue to alert both motorists and bicyclists that bicyclists are present in the travel lane. Sharrows also encourage bicyclists to ride clear from roadway edges and parked cars. This positioning is intended to promote safe and predictable riding practices. It should be noted that Sharrows do not legally change the rights or responsibilities of either motorists or cyclists. They have also not been officially adopted into the Indiana Manual on Uniform Traffic Control Devices (MUTCD).

Sharrow markings are currently in place on some streets located throughout the City, with an emphasis on the downtown area. It should be noted that Sharrows are not considered to be an adequate substitute for separate and dedicated facilities for bicycles, such as bicycle lanes, sidepaths and multi-use trails. These types of facilities are considered by transportation engineers to be safer for bicycle use.

Signed Bicycle Routes

Signed bicycle routes are comprised of lower traffic streets that are safe for both vehicle and bicycle use, without having a dedicated bicycle facility (e.g. a bicycle lane, sidepath, etc.). These routes have designated informational and directional signage prominently posted at various locations throughout the route. As of 2007, the City of Bloomington has 35 miles of signed bike routes (also see *Figure 20*).

Bicycle Boulevards

Currently, no bicycle boulevards exist in the City of Bloomington transportation network. However, they are called for as future facilities in the BPTGSP.

Bicycle boulevards are defined as a combination of both on-street (i.e. bike route, bike lane) and off-street (multi-use paths and trails) facilities, where modifications are made to improve bicycle safety, convenience and connectivity. They typically utilize pavement markings, traffic calming, vehicle diversion, signage, and other methods of improving the safety, comfort and efficiency of bicycling. Bicycle boulevards do not prohibit vehicle travel, but may limit access in some manner. Futhermore, bicycle boulevards do not restrict emergency vehicle access.

Bicycle boulevards, such as this example from Berkeley, California, present an innovative strategy for Bloomington to pursue.

Connector Paths

Connector paths are defined as being a hard-surface linkage (or shortcut) between key destinations that is not accessible by automobiles. Connector paths provide opportunities to link neighborhoods, entertainment destinations, commercial areas, and schools with nearby bicycle and pedestrian routes. Utility easements could provide great connection opportunities between neighborhoods and other destinations (see *Figure 20*).

A few examples of current connector paths include the following:

- E. 4th Street, between Roosevelt Street and Jefferson Street.
- Maxwell Lane to Nota Drive.
- Maxwell Lane connection to Binford and Rogers Elementary Schools property.
- Maxwell Lane to Clifton Avenue.
- Hunter Avenue, between Mitchell Street and Eastside Drive.
- Weatherstone Lane to Southdowns Drive.

Connector paths, like this one on E. 4th Street, provide hard-surface linkages between key destinations.

TRANSPORTATION FACILITY STANDARDS

City of Bloomington policy boards and professional staff both utilize a number of federal and state standards and best management practices that apply to motorized and non-motorized transportation facilities.

Design Standards

A number of federal and state standards are utilized by licensed professional engineers for the design of motorized and non-motorized transportation facilities.

The following standards are considered acceptable practice in the design of public improvements for both motorized and non-motorized facilities by licensed professional engineers:

Motorized Transportation

- Indiana Department of Transportation: *Indiana Manual for Uniform Traffic Control Devices*
- American Association of State Highway and Transportation Officials: *A Policy on Geometric Design of Highways and Streets* (also known as the "AASHTO Green Book")
- Institute of Transportation Engineers Manual: *Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities*
- Institute of Transportation Engineers Manual: *Urban Street Geometric Design Handbook*
- Institute of Transportation Engineers Manual: *Traffic Engineering Handbook*
- Institute of Transportation Engineers Manual: *Traffic Signal Timing Manual*
- Indiana Department of Transportation: *Design Manual*
- Indiana Department of Transportation: *Standard Specification*
- *Roundabouts: An Informational Guide* (published by the Federal Highway Administration)

For changes in zoning and larger-scale projects that require a traffic impact study, the following standards are typically utilized:

- The most recent edition of the Institute of Transportation Engineers *Trip Generation Manual*
- Institute of Transportation Engineers Proposed Recommended Practices: *Transportation Impact Analyses for Site Development*

Non-Motorized Transportation

The standards that are listed above for motorized transportation facilities also apply for non-motorized facilities. Additionally, the following standards are utilized by professional engineers as acceptable practices for non-motorized transportation facilities.

- Federal Highway Administration: *Bikesafe: Bicycle Countermeasure Selection System*
- American Association of State Highway and Transportation Officials: *Guide for the Development of Bicycle Facilities*

An additional design standard that applies to both motorized and non-motorized transportation facilities is the Americans with Disabilities Act (ADA). This is a federal law that prohibits discrimination against qualified people with disabilities in the areas of employment, state and local government services, public accommodations, transportation and telecommunications.

For transportation facilities, these accomodations are required to be provided in the public right-of-way during new street construction, or for projects that alter either an existing motorized or non-motorized transportation facility. These requirements include providing curb ramps with detectable warning devices for pedestrian access on both sidewalks and other street access points. In order to assist with the scheduling and implementation of ADA requirements, the City of Bloomington has an ADA Transition Plan that is utilized during the planning and development of transportation projects.

ADA compliance for transportation facilities is required to be provided in the public right-of-way during new street construction, or with alterations to existing facilities.

Conditions

- Infrastructure Management Plan for Public Streets: approved by the BPW in 2007, the Plan develops and implements a comprehensive assessment and paving schedule for all public streets. The current conditions of each street segment is inventoried and evaluated based upon specific criteria from the Asphalt Pavement Surface Evaluation and Rating Manual (other specific manuals are used for the concrete and brick streets). The evaluation focuses on four major types of pavement surface conditions:

    - Surface Defects (raveling, flushing, polishing)
    - Surface Deformation (Rutting, distortion, rippling and shoving, settling and frost heave)
    - Cracks (transverse, reflection, slippage, longitudinal, block, and alligator cracks)
    - Patches and potholes

    Based upon this evaluation, a 1-100 Overall Condition Index (OCI) rating is assigned to each street segment (1 being extremely poor condition and a complete functionality failure; 100 being perfect condition and high functionality). The Public Works Department actually considers a rating of 50 to be failing. The OCI rating for all street segments is then entered into a database system that helps the Public Works Department manage and track all inspection data. Paving schedules for street segments are based upon their specific OCI rating and assigned functional classification.

The Infrastructure Management Plan for Public Streets, adopted by the Board of Public Works in 2007, assesses the surface condition of all public streets.

- Sidewalk Inventory: is utilized by the Public Works Department to analyze the condition and functionality of all City of Bloomington sidewalks. Sidewalk segments are measured per individual property lines, in accordance with applicable City of Bloomington ordinances. A score of 0-100 is assigned to each segment (0 being extremely poor condition; 100 being excellent condition).

The Sidewalk Inventory is used by the Public Works Department to analyze the condition and functionality of all City of Bloomington sidewalks.

These sidewalk scores are based on the condition of the following criteria:

  - Sidewalk Grade
  - Sidewalk Cross-Heave
  - Sidewalk Heave (vertical displacement)
  - Sidewalk Surface Condition
  - Sidewalk Ramp Condition (ADA facilities

The Public Works Department uses these sidewalk scores for proactive maintenance. The specific segments that receive the poorest scores are targeted for attention first. Because the responsibility for sidewalk maintenance rests with the adjacent property owner, the Public Works Department will contact those owners who have sidewalk segments with the lowest inventory scores.

For residential property owners that receive a low sidewalk inventory score, the Street Division offers a Sidewalk Assistance Program. This allows for the property owner to pay only for the concrete that is used for replacement of the hazardous sidewalk segment. Street Division crews then provide the actual labor, equip ment and incidental material that is necessary to complete the particular sidewalk replacement. Based on available funding, the Street Division attempts to complete as many residential assistance projects as possible during the year.

The Common Council Sidewalk Committee utilizes a number of criteria in determining its annual sidewalk appropriations.

- Common Council Sidewalk Committee Criteria: the following criteria are used by the CCSC during its annual sidewalk appropriations:

  - Safety considerations
  - MTP roadway classifications
  - Pedestrian usage
  - Proximity to destination points
  - Linkages
  - Costs and feasibility

The criteria of the CCSC is well defined, but generally are somewhat subjective in nature and thus it is difficult to use an objective methodology for their evaluation. In order to address this situation and enhance the CCSC methodology, a web-based tool known as “walk score” was utilized, beginning in 2008.

The walk score provides an analysis of the walking distance to various destinations (e.g. shopping, recreation facilities, schools, restaurants, public facilities, etc.) from a fixed address. This allows for the CCSC to receive a more robust and concrete determination regarding the potential walkability of a particular location.

- Pedestrian Level of Service (P-LOS) score: is a non-empirical method that is used to determine a rating, which measures how well current conditions support walking in a specific geographic area.

  The P-LOS score primarily focuses on infrastructure design factors, road functional classification and other facets (e.g. street trees, safety issues, crosswalks, etc.). It is important to note that the P-LOS is a new evaluation tool and has not been officially adopted as a City of Bloomington transportation facility standard. However, the P-LOS rating has provided an effective tool in aiding and enhancing the CCSC decision-making process for sidewalk prioritization and selection.

The Pedestrian Level of Service (P-LOS) is a method that is used to measure how well current conditions support walking in a specific geographic area.

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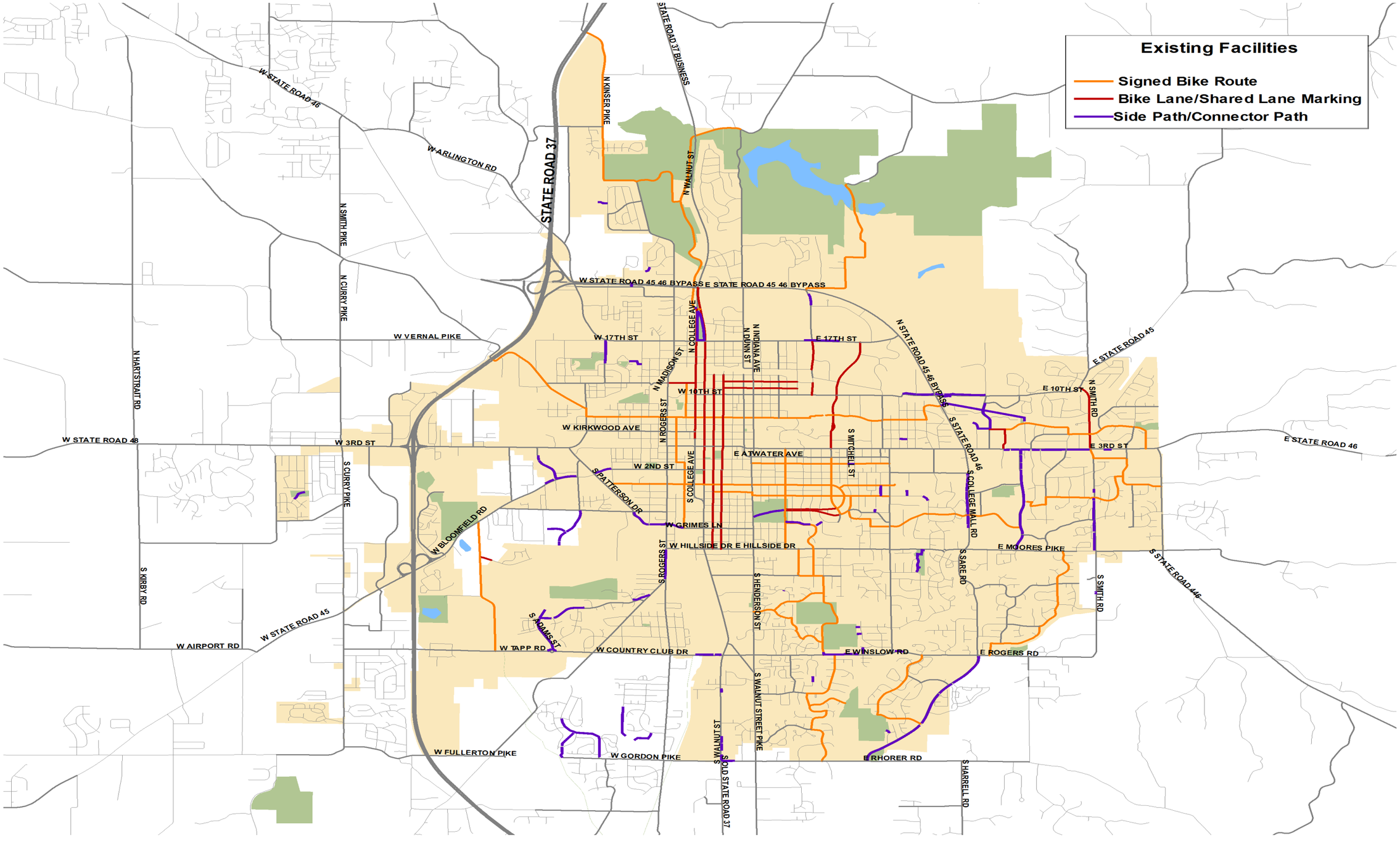
Existing Facilities
Signed Bike Route
Bike Lane/Shared Lane Marking
Side Path/Connector Path
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STATE ROAD 37 BUSINESS
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W ARLINGTON RD
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N SMITH PIKE
N CURRY PIKE
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S CURRY PIKE
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E MOORES PIKE
S ROGERS ST
S HENDERSON ST
S SARE RD
S STATE ROAD 446
S SMITH RD
S KIRBY RD
W STATE ROAD 45
S ADAMS ST
W AIRPORT RD
W TAPP RD
W COUNTRY CLUB DR
E WINSLOW RD
E ROGERS RD
S WALNUT STREET PIKE
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S OLD STATE ROAD 37
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W GORDON PIKE
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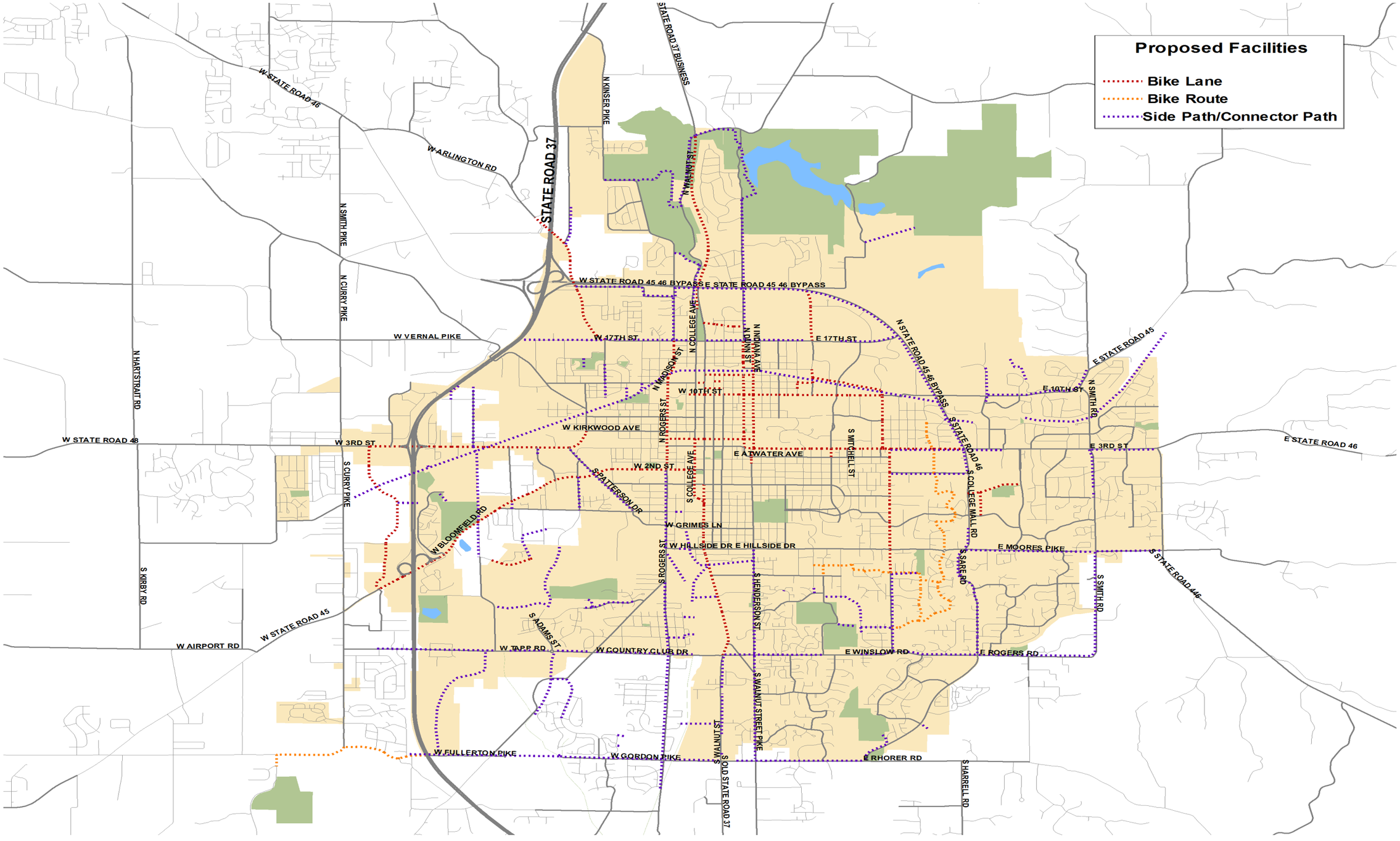
Proposed Facilities
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Bike Route
Side Path/Connector Path
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STATE ROAD 37 BUSINESS
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FUTURE FACILITY NEEDS

Committed & High Priority Transportation Projects

A comprehensive summary of the City of Bloomington street, sidewalk and sidepath projects that are either committed to be constructed, or are considered to be a high priority for implementation, can be found in *Figure 22* (pages 118-119). Additionally, a summary of committed Indiana Department of Transportation (INDOT) projects that affect state roads located within the City of Bloomington is also included (*Figure 23*, page 120).

Committed projects represent those that already have funding allocated, or have a funding source that is reasonably available. These projects are identified either in the current TIP, CCSC, or SRTS.

High priority transportation projects are those that are identified in the BPTGSP. Although funding for each of these projects are not allocated on a yearly basis (such as the TIP, CCSC, etc.), when project opportunities and the necessary funding do become available, they should be completed as soon as possible. Typical funding sources that can be utilized for these projects include Community Development Block Grants (CDBG), Community Development Block Grant - Recovery (CDBG-R), Tax Increment Financing (TIF) funding and other federal and state grant programs, as well as private development requirements.

FIGURE 22: COMMITTED AND HIGH PRIORITY TRANSPORTATION PROJECTS

Project	Description	Street	Sidewalk	Sidepath	City Location	Policy Support
Traffic Signal Modification	Traffic signal upgrade at the intersections of 4th Street and College Avenue and 4th Street and Walnut Street	Yes	No	No	Downtown	TIP
S. Walnut Streetscape Project	Road rehabilitation, sidewalk rehabilitation and installation of landscaping between 1st Street and 3rd Street. Utility infrastructure improvements between 2nd Street and Smith Avenue	Yes	Yes	No	South	Downtown TIF
Intersection of Old State Route 37 and N. Dunn Street	Improve visual geometry and sight distances at both the intersection and intersection approaches	Yes	Yes	No	North	TIP
Intersection of W. Arlington Road, W. 17th and N. Monroe Streets	Construction of a modern roundabout facility to replace the current "K" three street intersection configuration in order to improve safety and better facilitate traffic flow	Yes	Yes	Yes	Northwest	TIP
W. 3rd Street	Road reconstruction, channelized intersections, drainage improvements, landscaping and signalization from State Route 37 to S. Landmark Avenue	Yes	Yes	Yes	West	TIP
W. 2nd Street Sidepaths: Phase I	Sidepath installation on the northside from S. Patterson Drive to S. Weimer Road	No	No	Yes	West	Adams Crossing TIF
E. 3rd Street	Sidepath installation between S. High Street and S. Kingston Drive; sidewalk installation on the north side between S. High Street and the State Road 45/46 Bypass	No	Yes	Yes	East	BPTGSP
Intersection of E. 17th Street and N. Jordan Avenue	Improve visual geometry and sight distances at both the intersection and intersection approaches	Yes	Yes	Yes	East	TIP BPTGSP
Intersection of E. Atwater Avenue and N. Henderson Street	Installation of a traffic signal and other intersection safety improvements	Yes	No	No	East	TIP
E. Marilyn Drive	Sidewalk installation from S. Nancy Street to S. High Street	No	Yes	No	East	CCSC
S. Rogers Street	Safety improvements, including bituminous pavement, sidewalks and sidepaths, curb and gutter, drainage appurtenances and improvements from W. Rockport Road to W. Watson Street	Yes	Yes	Yes	South	TIP

FIGURE 22: COMMITTED AND HIGH PRIORITY TRANSPORTATION PROJECTS (CONT'D)

Project	Description	Street	Sidewalk	Sidepath	City Location	Policy Support
S. Rogers Street and W. Gordon Pike	Installation of 700 feet of sidewalk and improved pedestrian crossings at Batchelor Middle School	No	Yes	No	South	TIP
Intersection of S. Sare Road and E. Rogers Road	Upgrade the current 4 way stop-sign controlled intersection to a modern roundabout design	Yes	Yes	Yes	Southeast	TIP
Intersection of W. Tapp Road/Country Club Drive and S. Rockport Road	Modernize the current 4 way stop-sign controlled intersection with either a traffic signal or modern roundabout facility	Yes	Yes	Yes	Southwest	TIP
W. Tapp Road	Sidepath installation from State Route 37 to the B-Line Trail	No	No	Yes	Southwest	BPTGSP
W. Country Club Drive*	Sidepath installation from S. Milton Drive to S. Rockport Road	No	No	Yes	Southwest	BPTGSP
S. Weimer Road/W. Second Street Sidepaths: Phase II	realignment of intersection for the installation of a traffic signal and construction of sidepaths	Yes	No	Yes	Southwest	Adams Crossing TIF
S. Henderson Street	Sidepath installation from E. Hillside Drive to E. Rhorer Road	No	No	Yes	South	BPTGSP

* Committed project due to 2009 CDBG-R funding

FIGURE 23: COMMITTED INDOT TRANSPORTATION PROJECTS

Project	Description	Street	Sidewalk	Sidepath	City Location	Policy Support
State Road 45/46 Bypass	Pavement rehabilitation from N. Monroe Street to N. Kinser Pike	Yes	No	No	North	TIP
State Road 45/46 Bypass	3.1 mile roadway widening project from N. Kinser Pike to S. Pete Ellis Drive	Yes	Yes	Yes	Northeast	TIP
Intersection of State Road 46 and Smith Road	Intersection and safety improvements	Yes	No	No	East	TIP
Interstate 69	Road widening and new road construction for a limited access highway, including a four lane profile in rural areas and a six lane profile in urbanized areas	Yes	No	Yes	West	2030 LRTP

Long Range Transportation Projects

The 2030 LRTP provides a list of long range transportation projects. These represent the future street projects, along with the associated sidepaths or sidewalks, which are forecast to be constructed over the next twenty-plus years. Unlike the committed transportation projects, long range projects have no allocated, or reasonably obtainable, funding sources. Long range transportation projects do not necessarily represent high priorities for implementation and are typically utilized for long-term planning and design outlooks. However, each project has been identified, through the use of transportation modeling and forecasts, as requirements to address future anticipated transportation needs. Therefore, long range transportation projects represent significant improvements that may become committed transportation projects at some future point.

The 2030 Long Range Transportation Plan provides a list of future street projects, along with any associated sidepaths and sidewalks.

For a central reference point and description for each of the recommended improvement projects that are listed in the 2030 LRTP, please see *Figure 24* (page 123-124). The project descriptions provided are starting points for design at the time of project implementation, subject to future funding and other constraints.

Future Bicycle Facility Transportation Projects

Outside of the street, sidewalk and sidepath projects, there are additional high-priority transportation projects identified in the BPTGSP for future implementation. These include bicycle lanes, bicycle boulevards and connector paths.

Bicycle Lanes

The BPTGSP contains the following key elements (also see *Figure 21*, page 115):

- Walnut Street Bicycle Lanes: from E. 1st Street to E. Winslow Road.
- College Avenue Bicycle Lanes: from W. 4th Street to Walnut Street.
- Liberty Drive Bicycle Lanes: from State Route 45 to State Route 48.
- W. 3rd Street Bicycle Lanes: from Liberty Drive to W. Kirkwood Avenue.
- Sharrows: opportunities to install additional Sharrow pavement markings on both new and existing streets, when feasible, should be explored.

A number of bicycle lanes are targeted as high priorities for future implementation in the BPTGS.

Bicycle Boulevards

The BPTGSP calls for bicycle boulevards to be given a high priority for implementation. These include the potential following facilities.

- E. 6th and 7th Streets/Longview Avenue Bicycle Boulevard: from Adams Street to Smith Road.
- Allen Street and Covenanter Drive Bicycle Boulevard: from Adams Street to Smith Road.
- Highland Avenue Bicycle Boulevard: from Winslow Road to Sheridan Drive.
- Hawthorne Drive Bicycle Boulevard: from Sheridan Drive to E. 3rd Street.
- Fess Avenue Bicycle Boulevard: from E. 7th Street to E. 17th Street.
- Clifton Avenue/Union Street: from Maxwell Lane to E. 10th Street.

Connector Paths

There are a number of connector paths that are identified as being a high-priority for implementation in locations throughout the City of Bloomington. See *Figure 21* for a representation of the potential connector paths that have been identified as being a high priority for future implementation, should the opportunity arise.

FIGURE 24: LONG RANGE TRANSPORTATION PROJECTS

Project	Description	Street	Sidewalk	Sidepath	City Location	Policy Support
W. 17th Street	Construction of a new 2 lane road connection between N. Crescent Road and W. Vernal Pike (crossing State Road 37); 8 intersection modernizations/ improvements between State Road 37 and the State Road 45/46 Bypass	Yes	Yes	Yes	West	2030 LRTP
W. 2nd Street / Bloomfield Road (Phases I, II, and III)	Various roadway improvements from N. Walnut Street to State Route 37	Yes	Yes	Yes	West	2030 LRTP
Basswood Drive	Construct a connection of Basswood Drive to Johnson Avenue; will require a crossing of the railroad tracks	Yes	Yes	No	West	2030 LRTP
E. 10th Street/ E. Law Lane (N. Campus Study)	Various improvements for all modes of travel from N. Dunn Street to the State Road 45/46 Bypass that will increase mobility	Yes	Yes	Yes	East	2030 LRTP
N. Dunn Street	Construction of a new 3 lane road connection with railroad crossing; extension of N. Dunn Street and N. Indiana Avenue 1-way pair to E. 17th Street	Yes	Yes	No	East	2030 LRTP
E. Moores Pike	Road widening to 3 lanes from S. College Mall Road to State Road 446	Yes	Yes	Yes	East	2030 LRTP
Smith Road (Phases I and II)	Road widening to 3 lanes from E. 3rd Street to E. Rogers Road	Yes	Yes	Yes	East	2030 LRTP
Liberty Drive	Extend Liberty Drive to connect W. 3rd Street and Jonathan Drive	Yes	Yes	No	Northwest	2030 LRTP Whitehall TIF
S. Adams Street	Construction of a new 2 lane road to complete the connection between S. Rockport Road and W. Allen Street (to be implemented by future private developments)	Yes	Yes	Yes	Southwest	2030 LRTP
W. Sudbury Drive	Construction of a new 2 lane road connection between Weimer Road and S. Rogers Street (to be completed by future private developments)	Yes	Yes	Yes	Southwest	2030 LRTP
Tapp Road/Country Club Drive/Winslow Road/Rogers Road	Road reconstruction to 2 lanes (divided) from Weimer Road to S. Rogers Street; road widening to 4 lanes (divided) from S. Rogers Street to Henderson Street; road reconstruction to 2 lanes (divided) from Henderson Street to Smith Road	Yes	Yes	Yes	Southwest	2030 LRTP

FIGURE 24: LONG RANGE TRANSPORTATION PROJECTS (CONT'D)

Project	Description	Street	Sidewalk	Sidepath	City Location	Policy Support
Tapp Road (Phase III)	Road widening to 2 lanes (divided) from Deborah Drive to east of Weimer Road	Yes	Yes	Yes	Southwest	2030 LRTP BPTGSP
Weimer Road	Reconstruction for 2 lanes from W. Bloomfield Road to Wapehani Road. Realignment of roadway and installation of sidepaths and sidewalks between Wapehani Road and Tapp Road. Installation of an improved intersection at Tapp Road	Yes	Yes	Yes	Southwest	2030 LRTP

PLANNING AND ZONING CONSIDERATIONS

- *Sidewalks and sidepaths*: ensure during the planning and zoning approval process that all new land use developments contain either sidewalks or sidepaths. Locations and standards need to be consistent with the BPTGSP, the UDO and other applicable Planning Department documents.
- *Street connectivity and dedication*: new developments should provide the maximum level of street network connectivity possible. Additionally, new streets should be made public and dedicated to the City of Bloomington in order to allow for standardized street dimensions and the installation of bicycle and pedestrian facilities.
- *Capital projects*: major resurfacing projects involving arterial roads should incorporate bicycle lanes, sharrows and narrower travel lanes to allow for on-street parking.
- *Connector paths*: if a proposed land use development is located along a high priority connector path route, as identified by the BPTGSP, then a land or right-of-way dedication to the City of Bloomington should occur during the planning and zoning approval process. This should also include the actual construction of the connector path as well.
- *Easements*: if a cul-de-sac street is approved as part of a new development, an easement should, where applicable, be dedicated in order to accommodate future connector path installation.
- *Right-of-way*: during major land use developments, the dedication or acquisition of City right-of-way for use in conjunction with future streets (or the expansion of current streets) is extremely important. The recommended right-of-way standards from the MTP should be followed for the functional classification of any planned street improvements at a specific geographic location.
- *Bicycle Boulevards*: Implementing the bicycle boulevards that are identified in the BPTGSP with capital improvement funds is strongly encouraged.

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CHAPTER 7

Utilities

CITY FACILITIES REPORT

CITY OF BLOOMINGTON INDIANA

utilities department

DEPARTMENT FUNCTION

The Utilities Department is a water, wastewater and stormwater utility that is owned by the City of Bloomington. It is responsible for the treatment and distribution of drinking water; the collection, treatment and disposal of wastewater (sanitary sewage); managing and collecting stormwater and providing fire protection. Typical operations include an average daily demand for the water system of approximately 16.1 million gallons per day. The average daily total flow for wastewater is 16.2 million gallons per day at two wastewater treatment plants.

The Utilities Department is a water, wastewater and stormwater utility that is owned by the City of Bloomington.

The Utilities Department is a licensed public water system by the State of Indiana. In order to provide these utility services, there are approximately 170 full-time and part-time personnel. It operates under the policy guidance of the Utilities Service Board, which is comprised of nine board members. Four are appointments of the Mayor and three are City Council appointments. The remaining two are ex-officio appointments that include a City Council member and the City of Bloomington Planning Director.

The Utilities Department provides both drinking water and sanitary sewer services to customers within Bloomington, the Indiana University campus and areas located outside of the City of Bloomington municipal boundaries (see *Figures 25 & 26*, on pages 130-131, for maps of the service areas for these respective functions). Stormwater services are currently only operated within the municipal boundaries of the City of Bloomington.

Lake Monroe is the source of raw water for the Utilities Department water system.

The source of raw water that is supplied to the Utilities Department is the surface water from Lake Monroe (also known as the Monroe Reservoir). Located approximately seven miles southeast of Bloomington, Lake Monroe was constructed in the 1960's by the United States Army Corps of Engineers to provide flood control, recreation and water supply. Lake Monroe is owned by the United States Army Corps of Engineers. Under the terms of a cooperative agreement, the Indiana Department of Natural Resources oversees and manages the water resources of Lake Monroe.

The Utilities Department purchases raw water from Lake Monroe through the provisions of an agreement with the Indiana Department of Natural Resources and the United States Army Corps of Engineers. This agreement allows the Utilities Department to utilize an average of 24 million gallons of raw water daily from Lake Monroe.

In addition to the customers located in Bloomington, the Utilities Department also has contracts in place with ten other public water systems to supply drinking water. This water is supplied to these public water systems for a negotiatied fee. There currently are contracts with the Town of Ellettsville, the Town of Nashville and eight separate rural public water systems that serve areas of Monroe County and Brown County.

SUMMARY OF EXISTING FACILITIES

Utility Service Center

The Utility Service Center is the main adminstrative hub and is located at 600 East Miller Drive (see *Figure 25*, page 130). The Utility Service Center allows customers to access various service components. This includes bill payment, requests for service connections or disconnections and general customer support activities. The facility also acts as the headquarters for the Utilities Department and provides office and logistical support (e.g. meeting spaces, employee work stations and fleet vehicle storage).

The Utility Service Center serves as the main administrative hub for the Utilities Department.

Water Intake and Treatment Facilities

- The Monroe Low Service Pumping Station, located on the shore of Lake Monroe (see *Figure 25*), intakes raw surface water from Lake Monroe. Placed into operation in 1967, the capacity of the Monroe Low Service Pumping Station was expanded in 1990 to handle a rated capacity maximum of 24 million gallons per day (MGD) of water. The water pumped from the Monroe Low Service Pumping Station is sent to the Monroe Water Treatment Plant.

- The Monroe Water Treatment Plant (WTP) is located at 7470 Shields Ridge Road (see *Figure 25*). At the Monroe WTP, the raw water is filtered and disinfected for public distribution. This treated water is then referred to as 'potable water'. Placed into operation in 1967, components of the Monroe WTP have been upgraded and modified, the most recent being in 2008. The current treatment capacity of the Monroe WTP is 24 MGD.

The Monroe Low Service Pumping Station is located on the shore of Lake Monroe and intakes raw water.

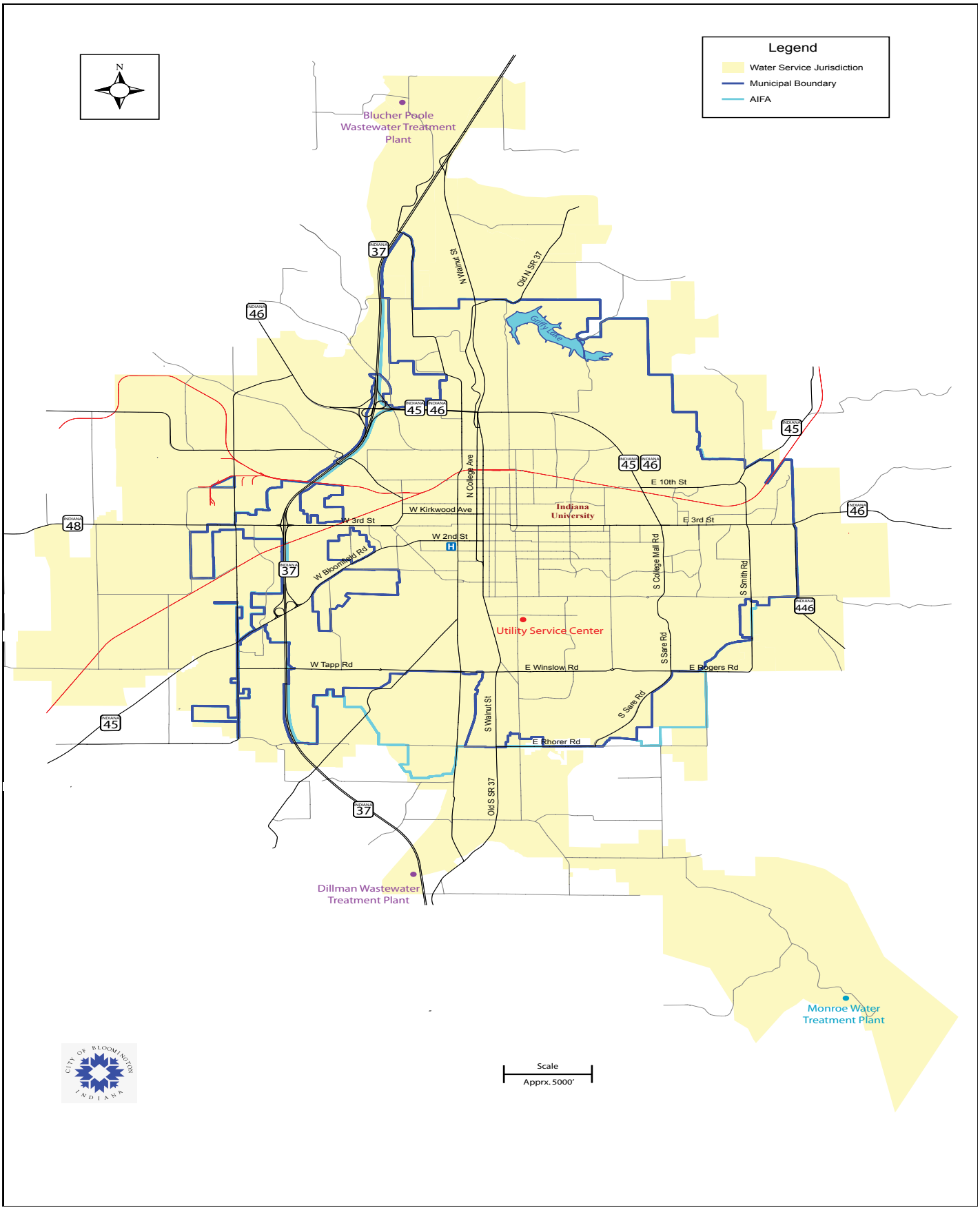
Water Distribution System

The water distribution system allows potable water to be sent directly from the Monroe WTP to Utilities Department customers. Water pumping stations distribute water to storage tanks. These water storage tanks then distribute the potable water through a system of pipes and valves to customers.

The water distribution system includes the following facilities:

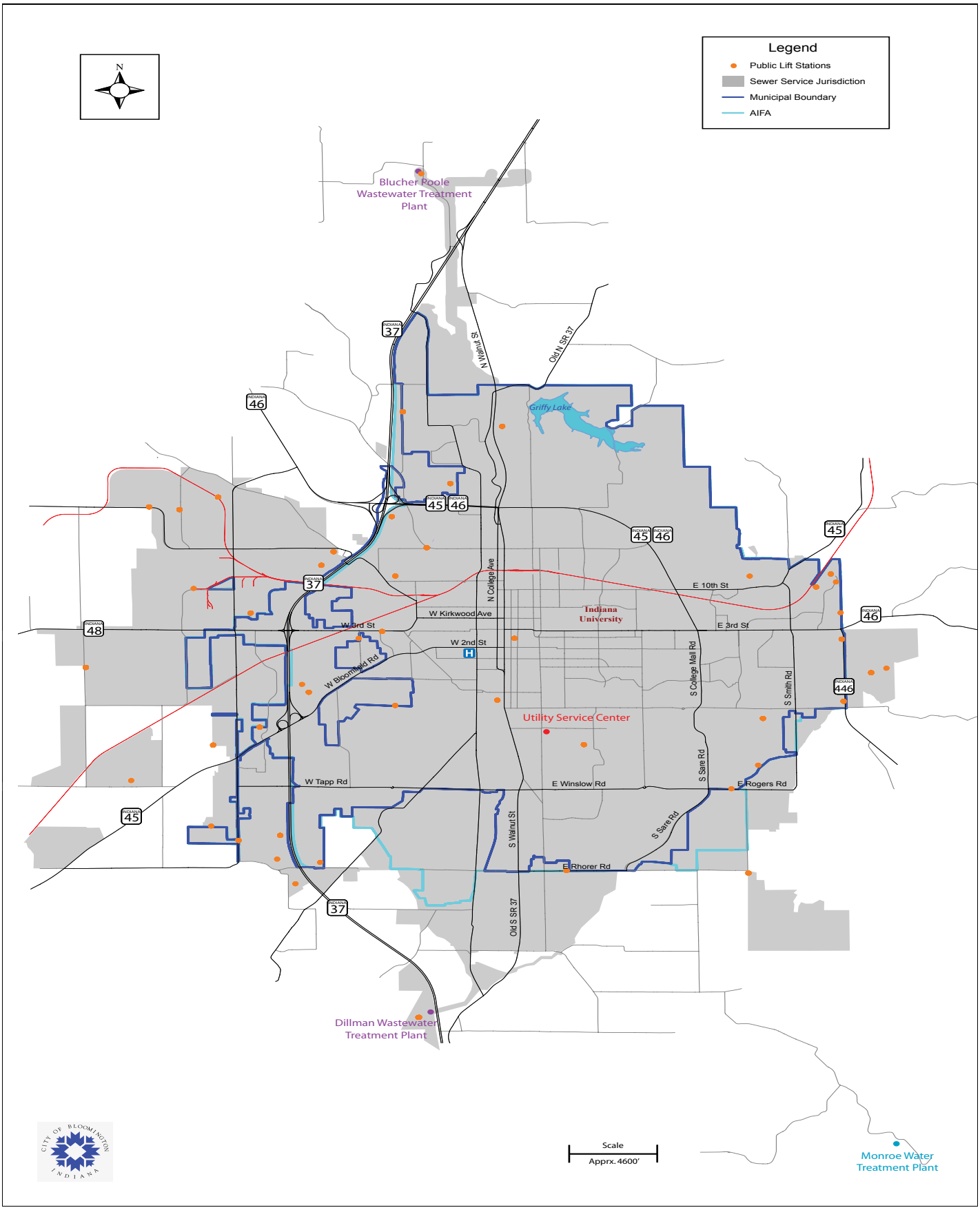
- 6 water pumping stations.
- 8 water storage tanks.
- Approximately 408 miles of various sized water pipes, valves and other miscellaneous components (as of March, 2010). The age of all these pipes, valves and other components range in age from 1 to 121 years old.

FIGURE 25: WATER SERVICE AREA AND UTILITIES DEPARTMENT FACILITIES MAP



The Utilities Department provides water service within the geographic area that is shaded on this map. Major facilities that are operated by the Utilities Department are also shown on the map as well.

FIGURE 26: SEWER SERVICE AREA MAP



The Utilities Department provides sanitary sewer service within the geographic area that is shaded on this map. As of March 2010, there are 47 lift stations operated as part of the sanitary sewer system.

Fire Protection System

The Utilities Department provides and maintains water supply capacity for fire suppression. Fire hydrants and other appurtenances that are connected to the water distribution system provide the needed water flows when required by the Fire Department. There are approximately 2,944 fire hydrants owned and maintained by the Utilities Department. The hydrants are located throughout the Water Service Area.

The approximately 2,944 fire hydrants owned and maintained by the Utilities Department provide the needed water flows for fire protection.

Wastewater Treatment Plants

The Utilities Department owns and operates two wastewater treatment plants (WWTP). The wastewater treatment process removes physical, chemical and biological contaminants. The end result is processed wastewater (also referred to as treated effluent) that is suitable for discharge. The treated effluent is then returned directly back to the natural environment.

The two wastewater treatment plants include the following (also see *Figure 25*, page 130):

- The Blucher Poole WWTP, located at 5555 N. Bottom Road: placed into operation in 1970, it has received various upgrades and modifications in 1997, 2005 and 2007. It processes an average daily total flow of 4 MGD of wastewater. The Blucher Poole WWTP has an annual average design capacity of 4.6 MGD, a maximum monthly capacity of 6 MGD and a peak capacity of 12 MGD for wastewater. Treated effluent from the Blucher Poole WWTP is discharged to Bean Blossom Creek.

- Dillman WWTP, located at 100 W. Dillman Road: placed into operation in 1982, it handles an average daily total flow of 12.2 MGD of wastewater. The Dillman WWTP has an annual average design capacity of 15 MGD, a maximum monthly capacity of 15 MGD and a peak capacity of 47 MGD of wastewater. Treated effluent from the Dillman WWTP is discharged to Clear Creek.

The Utilities Department owns and operates two wastewater treatment plants.

Sanitary Sewers

The Utilities Department owns and maintains a system of public sanitary sewers that transports raw sewage to the two wastewater treatment facilities. In total, the Utilities Department is responsible for 305 miles of sanitary sewers (which range between 6 and 48 inches in diameter) and a total service area of 21.2 square miles. The sanitary sewer pipes span in age between 1 and 100 years old. It should be noted that the Utilities Department is not responsible for the sewer connections that are located between buildings and the main public sewer lines. The ownership and maintenance of these fall to the private property owner.

The sanitary sewer system is divided into six different sewer basins (see *Figure 27*, page 134). Each sewer basin sends wastewater to a specific wastewater treatment plant for cleaning and treatment. These sewer

basins contain the 305 miles of sanitary sewer lines and cover the 21.2 square mile area.

Sanitary sewers are one of two types: gravity sewers or force mains. Gravity sewers convey raw, untreated sewage through pipelines to a treatment facility. Typically utilized on flat terrain, these sewer lines are straight and installed on specific horizontal and vertical alignments. Conversely, force mains use lift stations (see below for more information concerning lift stations) to convey wastewater from a lower to higher elevation where the terrain is not conducive to the use of gravity sewers.

The current sanitary sewer system includes the following facilities:

- 305 miles of gravity sewers.
- 22 miles of force mains.

Lift Stations

Lift stations are used to collect untreated sewage from low elevation sewer drainage areas and pump the wastewater up to the main sewer collection system. The sewage is then sent via gravity sewers to the wastewater treatment plant.

As of March, 2010, there are a total of approximately 47 lift stations (see *Figure 26*, page 131). These are located at various sites throughout the Sewer Service Area. In addition, there are also a number of privately-owned lift stations in the Sewer Service Area. The Utilities Department is not responsible for the operation or maintenance of these privately-owned lift stations. However, they do still feed into the public sanitary sewer system.

There are a total of approximately 47 lift stations located throughout the Sewer Service Area.

Storm Sewers

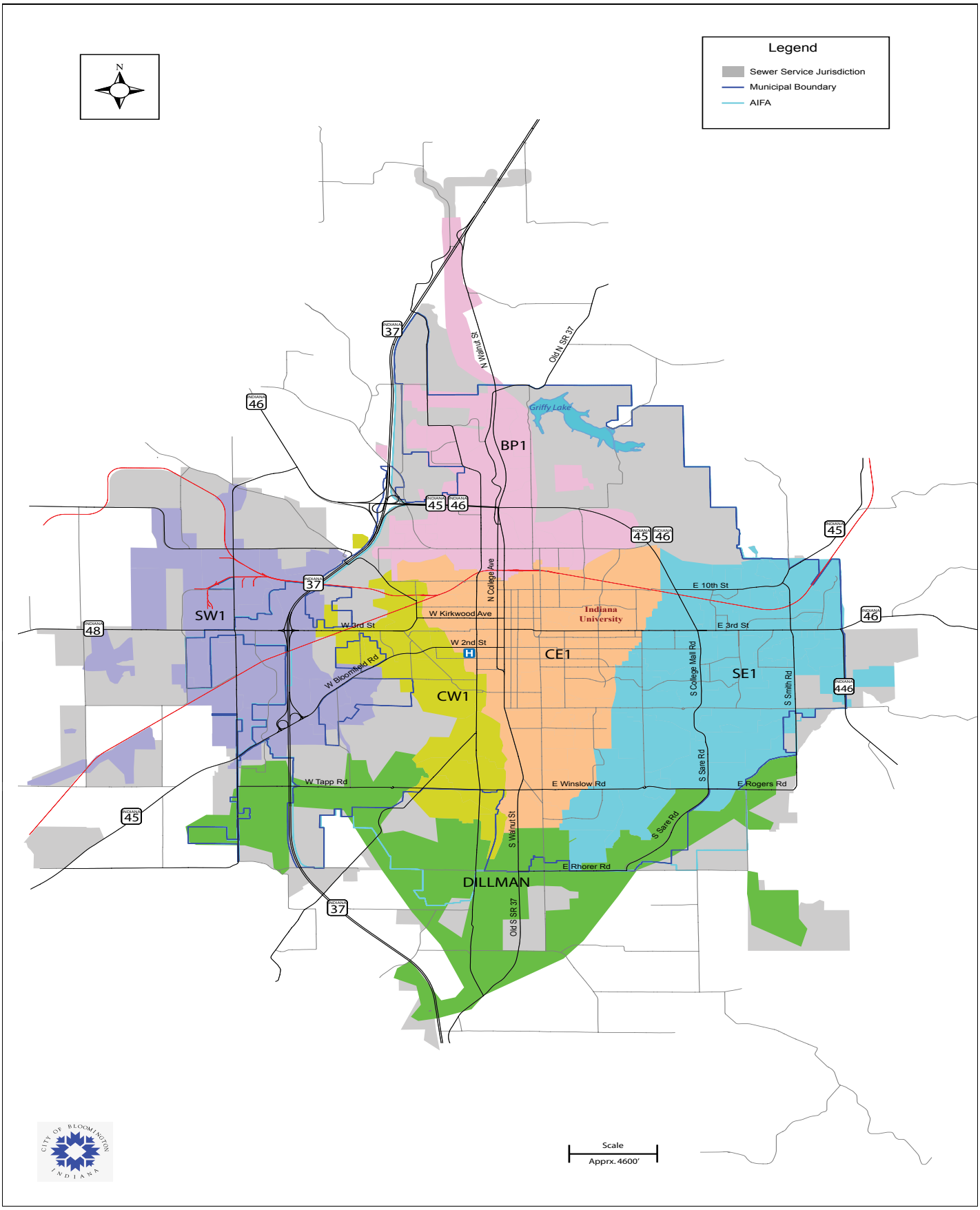
The Utilities Department manages the collection and disposal of stormwater for areas that are located within the City of Bloomington municipal boundaries. Storm sewers facilitate the flow of surface water that originates during precipitation events, snowmelt, or from other water runoff situations. This water is channeled into storm sewers and discharged, without treatment, directly into area surface waters (which locally, includes streams and creeks).

The current storm sewer system network includes the following facilities:

- 25 miles of open ditches.
- 79 miles of storm sewer pipes.
- 4 miles of box culverts (these allow water to flow underneath roads, railroad tracks, embankments, etc.).

Storm sewers facilitate the flow of surface water. Water is channeled into storm sewers and discharged into local streams and creeks.

FIGURE 27: SEWER BASIN MAP



The sanitary sewer system is divided into six different sewer basins. These basins send wastewater to a specific Wastewater Treatment Plant for cleaning and treatment.

- 1,144 manholes (above ground openings that are used to access buried utilities).
- 4,716 storm sewer inlets (structural openings in a curb that collect surface water runoff for conveyance into a storm sewer system).
- Numerous detention and retention ponds (utilized to manage stormwater) that were required during the planning and zoning process. Located on private property, the ownership and maintenance of these ponds is the responsibility of the private property owner and not the Utilities Department.
- Jordan River Culvert System: the main water drainage channel that serves downtown Bloomington. Approximately 3,900 feet is enclosed as a major storm sewer in the downtown area.
- Miller-Showers Treatment Facility: co-located at the Miller-Showers Park, this facility is operated in partnership with the Parks and Recreation Department (also see the *Parks and Recreation Department* chapter, page 30). The Miller-Showers Treatment Facility comprises 2 acres of surface water in 5 ponds that provides stormwater retention and treatment. The facility serves a 170 acre watershed north of downtown Bloomington. Waters from this facility are discharged into Cascades Creek.

The Miller-Showers Treatment Facility is operated in partnership with the Parks and Recreation Department.

Other Facilities

Griffy Lake was created in the early 1900's with the construction of a dam across Griffy Creek. That dam was raised in 1954 to create the present surface lake area. The Utilities Department is currently responsible for operating both the dam and the various related structures that are still located at Griffy Lake. The Parks and Recreation Department is responsible for operating and maintaining the adjacent park facilities located at Griffy Lake (see *Parks and Recreation Department* chapter, page 34).

All of the former utility facilities still remain in place at Griffy Lake.

The Griffy Water Treatment Plant (WTP), located at Griffy Lake, was a facility that was formerly operated by the Utilities Department. Due to water capacity constraints, facility age, water quality issues and regulatory requirements, the Griffy WTP was decommissioned in 1996. However, all of the Griffy WTP facilities still remain in place at Griffy Lake.

Another asset is the formerly operated Winston-Thomas Wastewater Treatment Plant (WWTP), located at 300 W. Gordon Pike (as identified in the 2002 Growth Policies Plan, this property is located within the Winston-Thomas sub-area). The Winston-Thomas WWTP was closed in 1982 when it was replaced by the Dillman Road WWTP. Although no longer in operation, several buildings and other facilities remain intact on the twenty-six acre property. The site is currently used for equipment storage. Additionally, the Fire Department and Police

Department have constructed training facilities on portions of the Winston-Thomas WWTP property (see pages 15 and 50, respectively, for more information concerning the current Fire Department and Police Department training facilities).

The Bean Blossom Reservoir, which is more commonly referred to as Lake Lemon, is located approximately nine miles northeast of Bloomington. Lake Lemon was constructed in 1953 for use as a primary water source. Replaced by Lake Monroe, Lake Lemon served as a secondary water supply source until the Griffy WTP was decommissioned in 1996. The operation and maintenance responsibilities of Lake Lemon were transferred, by legal agreement, to the Lake Lemon Conservancy District (LLCD) in 1995. The Utilities Department manages the agreement with the LLCD and assists with property matters on an as-needed basis.

The operations of the Utilities Department must comply with federal, state and local regulations, standards and procedures.

UTILITY SERVICE STANDARDS

Rigorous federal operating standards, procedures and regulations have been established to govern municipal utility providers nationwide. These are in place to ensure public health and safety, as well as to protect environmental resources and features. These apply to all of the water, wastewater, storm and sanitary facilities that the Utilities Department operates. The United States Environmental Protection Agency (EPA) and the Indiana Department of Environmental Management (IDEM) are tasked with overseeing these federal standards and checking for compliance.

Safe Drinking Water Act

In order to comply with SWDA standards, water samples are collected and tested by professionally certified staff.

The public water system that is operated by the Utilities Department is regulated under the federal government's Safe Drinking Water Act (SDWA). The SDWA authorizes the EPA to set standards for public drinking water systems that protect against both naturally occurring and man-made contaminants. The SDWA standards set enforceable maximum levels for various particular contaminants and requires certain water treatment methods to address them. In Indiana, IDEM is tasked with the management and enforcement of all SDWA standards.

In order to comply with the SDWA standards and ensure proper safety, water samples are collected and tested every hour at the Monroe WTP. This is done by specially trained and professionally certified staff. Water is also constantly sampled throughout the Monroe WTP, 24 hours a day, via a network of automated monitoring systems.

SDWA standards require that a community's primary water source receive an annual assessment to identify significant or possible sources of contamination. For Bloomington, this annual assessment is the Monroe Reservoir Source Water Assessment, which is conducted by IDEM. The 2009 Monroe Reservoir Source Water Assessment identified a total of 13 contaminants in the raw water that is supplied by Lake Monroe. These

include naturally occurring minerals, bacteria, substances resulting from the presence of animals or human activity, and in some cases, radioactive material. The 2009 Monroe Reservoir Source Water Assessment found that all contaminant levels present in the potable water supplied by the Utilities Department were well within allowable SDWA levels. In fact, the City of Bloomington's potable water exceeds the SDWA water quality standards.

National Pollutant Discharge Elimination System

Another service standard involves the permit program associated with the National Pollutant Discharge Elimination System (NPDES). Authorized by the Clean Water Act of 1972 and administered by the EPA and IDEM, these permits are intended to control water pollution. This is done by regulating 'point sources' (such as pipes, drainage ditches, etc.) that discharge pollutants into water sources. Water treatment plants and wastewater treatment plants must obtain NPDES permits if there is a direct discharge into surface waters. The Utilities Department currently has NPDES permits for the Monroe WTP, Dillman Road WWTP and Blucher Poole WWTP.

Water treatment plants and wastewater treatment plants must comply with NPDES regulations.

A major issue in obtaining NPDES permits is the occurrence of Sanitary Sewer Overflows (SSOs) events. These are unintended discharges of raw, untreated sewage from municipal sanitary sewer systems into the environment. SSOs are caused by a system overload due to stormwater inflow and infiltration. Often times, SSOs occur during 'wet weather events', which refers to storms that feature heavy and sustained rainfall amounts. This large amount of incoming water infiltration cannot be adequately sustained by the sanitary sewer system and occasionally results in untreated sewage flowing from problem areas in the system (which are known as 'output points').

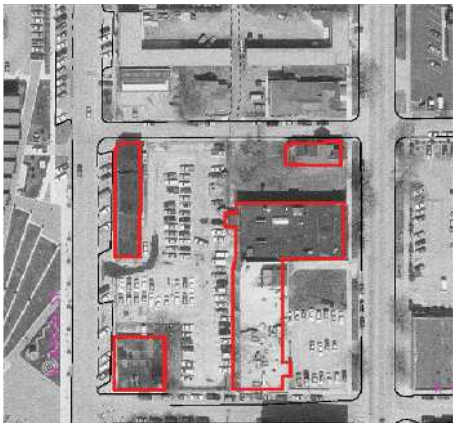
The EPA estimates that there are at least 40,000 SSOs in communities across the United States each year. The untreated sewage from these SSOs can contaminate surface and ground water, damage property, harm the environment and threaten public health and safety. Due to these concerns, the reduction and elimination of SSOs is a high priority for the EPA and municipal utility operators around the nation.

To begin addressing the problem of SSOs at the local level, a Wet Weather Program was developed in 1997. The goal of this a program is to reduce, and in the future completely eliminate, SSOs within the Utilities Department service area. Since the Wet Weather Program began in 1997, approximately $22 million has been spent on sanitary system improvements, rehabilitation and repairs. This effort has resulted in the number of SSO output points in the sanitary sewer network being significantly reduced.

In 1997, there were 16 SSO outflow points within the sanitary sewer system; by 2009, this number had been reduced to 6. Additionally, in 1997 there was roughly 35 million gallons of untreated sewage released

into local creeks during wet weather events. In 2009, this amount was reduced to 15 million gallons, representing a 60% reduction.

In 2005, IDEM and the Utility Service Board entered into an agreement that continues to aggressively mitigate the damages caused by SSOs. This agreement, known as the Compliance Plan, establishes a sanitary sewer improvement plan that will assure protection of the environment.



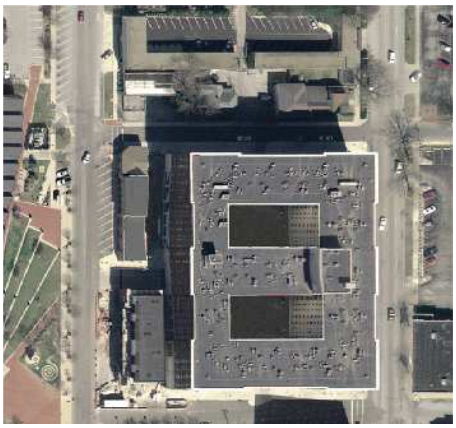
The downtown Smallwood Plaza site, as seen in a 1998 aerial photo. The buildings that were present in 1998 are outlined in red.

Security Programs

The federal government has also initiated a program to proactively address the risk of intentional contamination of municipal drinking water distribution systems across the nation. As a result, all of the water intake and treatment facilities comply with current EPA, IDEM, U.S. Department of Homeland Security and professional municipal water industry association standards concerning security, surveillance and access control. Both the Monroe Low Service Pumping Station and Monroe WTP facilities feature cameras, alarm systems, layers of locked gates, razor-wire tipped fences, secured areas and other relevant precautions that comply with current federal government public water system security standards.

FUTURE FACILITY NEEDS

To continue towards the goal of complete elimination of SSOs, there are $29 million of planned improvements to the sanitary sewer system. The specific outlook to phase in these improvements will be determined through an agreement between IDEM and the Utilities Department.



Contrast the above image with this aerial photo from 2008. Two large new buildings, with over 200 apartment units and 17,000 square feet of commercial space, have since been built on the same site.

Outside of SSOs, there are a number of other future facility needs. Like many municipal utility providers across the nation, the City of Bloomington has been faced with the situation of experiencing growth in the demand for services. At the same time, this new demand often faces an existing utility infrastructure network that is not capable of incorporating additional service needs. This is generally due to utility infrastructure that was never intended or designed for high intensity infill developments, or aging infrastructure that needs to be rehabilitated or completely replaced (some of the oldest water pipes in the distribution system are 121 years old).

On top of these issues, there is a limited budget to undertake major capital improvements. All new facilities and upgrades will need to be prioritized. This will be done based on health and safety factors, service capacity needs and available funding opportunities. As continued development occurs throughout the community, the utility infrastructure system will need to be modernized in order to meet the increased demand for services and continue to comply with all government safety standards.

This is especially true with the City's goal of directing new, high density, developments in the downtown. Many of these new developments are being constructed on sites that previously had very limited density (such

as the Smallwood Plaza example that is illustrated on page 138). As a result, upgrades of the corresponding water, sewer, and storm utility infrastructure to adequately serve these new high density developments is a priority. Additionally, developers that are constructing new downtown buildings should incorporate the replacement of aging infrastructure costs within their development proposals.

To proactively prepare for future service demands and plan for major capital upgrades, the Utilities Department partnered with several consultants to prepare long-range planning documents and management programs. These were subsequently adopted by the Utilities Service Board.

To proactively prepare for the future, there are a number of long-range plans that address future utility service demands and necessary capital upgrade projects.

These include the following:

- 1997 Wet Weather Management Program - addresses SSOs.
- 2003 Stormwater Program Update - further guides SSO elimination efforts.
- 2003 Long Range Water System Capital Improvement Plan (LRWSCP) - provides a long-range plan for improving and expanding water treatment facilities and distribution system.
- 2007 Water Supply Evaluation Plan (WSEP) - provides short-term and long-term water needs and how to best meet those needs with respect to the Lake Monroe raw water supply.
- 2009 Water Conservation Plan - guides efforts to increase efficiencies and modifying consumption behaviors to reduce the loss of treated water.
- 2009 SSO Corrective Action Plan - provides the plan of action for the elimination of Bloominton's SSOs.

Drinking Water Intake and Treatment Facilities

The maximum raw water intake capacity from Lake Monroe for the Monroe Low Service Pumping Station and Monroe WTP facilities is currently 24 MGD. Normal usage for these facilities typically hovers around 16 MGD. However, both facilities have been seeing more regular occurrences of operating at the full 24 MGD maximum peak capacity. Forecasts that were developed as part of both the 2003 LRWSCP and 2007 WSEP indicate that by 2010, these facilities may see peak usage of 24 MGD.

To address the current peak operating demand, as well as adequately meet future water consumption, the Utilities Service Board approved a $41 million package of major upgrades. This includes an expansion of the Monroe WTP and the installation of an additional water transmission line from the intake facility to the water distribution system.

This investment will significantly increase the water treatment capacity at the Monroe Low Service Pumping Station and Monroe WTP. It will also provide for a greater redundancy and better reliability for both facilities. In order to reduce forecasted impacts to future demands and relieve consumption pressure on the water intake and treatment system, the Utilities Department has also developed a water conservation plan.

A number of future upgrades to the Monroe WTP will allow for the community's water needs to be adequately met through the year 2025.

The Utilities Service Board approved a recommendation to the City Council to implement a water rate increase on March 24, 2010. The City Council approved a 54% water rate increase on May 17, 2010. The water rate increase will be utilized to finance these facility improvements and will save the City of Bloomington approximately $9.5 million in debt service. This financial investment, along with other planned initiatives, will allow for the community's water needs to be adequately met through the year 2025.

The specific recommended and planned upgrade actions include the following:

- Install an additional pipe between the Monroe Low Service Pumping Station and Monroe WTP and increase the current filter capacity on-site. This will allow for the maximum capacity of the Monroe WTP to expand from 24 MGD to 30 MGD. There would be a long-term option to further expand to a maximum of 36 MGD at a future date, if warranted.
- Construct a new 12 MGD pumping station (which could be expandable to 24 MGD in the future). This pumping station will be located near the intersection of E. Rhorer and S. Harrell Roads.
- Construct a new 2 million gallon water storage tank that will be located adjacent to the pumping station at E. Rhorer and S. Harrell Roads.

Water Distribution System

- Coordinating upgrades of the water distribution system with Public Works Department street projects. This includes major improvement projects, as well as the annual street paving schedule. When streets are receiving capital projects or undergoing routine repaving maintenance, the Utilities Department will pursue opportunities to simultaneously access underground infrastructure in need of replacement or repair (this infrastructure also includes sanitary sewers and storm sewers as well). This coordination helps to maximize municipal efficiencies, reduce construction costs and minimize traffic delays.

- Construct an additional main water pipeline to connect the Monroe WTP to the City's water distribution system. This will allow for additional system capacity and redundancy.

- Installing a twenty-four inch water line along Grant Street, between Smith Avenue and University Street. This will increase water distribution service to the downtown area.

- Relocation of a major water main (as well as sanitary sewer and storm sewer infrastructure) will be required as part of the Indiana Department of Transportation's planned State Road 45 and 46 Bypass widening project.

The coordination of water distribution system upgrades with planned street improvements maximizes efficiencies and reduces construction costs.

Fire Protection System

The investments that have been made to improve the fire protection system over the past ten years played a significant role in the Fire Department achieving an ISO rating of 3 (see *Fire Department* chapter, page 17). Since 1996, a total of 1,256 new fire hydrants have been added to the fire protection system.

A number of further upgrades to the fire protection system are currently underway, which include the following:

- Line Replacement Program: coordinating with the Public Works Department paving schedule, buried 4 inch water lines are being replaced with 8 inch water lines as funding allows. These larger lines allow for greater water flows for fire suppression incidents.

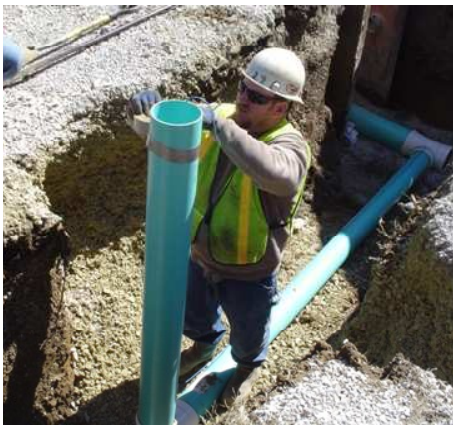
- Fire Hydrant Replacement Program: older fire hydrants are being replaced with newer models that are more compatible with the larger hoses that the Fire Department currently uses.

- Fire Hydrant Coverage Program: Utilities Department staff utilize Geographic Information System mapping software to analyze current fire hydrant locations. Any distance gaps of more than three hundred feet between fire hydrants are identified and studied for further attention. As funding allows, new fire hydrants are installed to eliminate these coverage gaps.

Since 1996, a total of 1,256 new fire hydrants have been added to the fire protection system.

Wastewater Treatment Plants

- A number of facility improvements to the Dillman WWTP are necessary in order to upgrade original plant equipment and infrastructure.
- Several facility modifications and other miscellaneous improvements to the Blucher Poole WWTP will be required to treat additional flows from the sanitary sewer system during wet weather events.



A number of improvements to the sanitary sewer network are targeted to eliminate SSOs.

Sanitary Sewers

- Perform upgrades to the E. Rusgan Drive (Blue Ridge subdivision) sanitary sewer and lift station to remedy SSOs in this area. This is a priority project that will be performed completely in-house by Utilities Department personnel to maximize cost efficiencies.
- Perform rehabilitation and upgrades to sanitary sewer lines and manholes in the south, southwest and southeast sides of the community. This work will increase sewer capacity and lift station flows, which will reduce infiltration and inflow from SSOs.

Lift Stations

- A total of four lift stations located on the east side of the city have been identified as having surpassed their useful service lifespan. As a result, they will need to be completely replaced in the near future.

Storm Sewers

A number of improvements to the stormwater sewer system are planned for the future. These include the following:

- Stormwater facility improvements will be installed as part of the W. Kirkwood Avenue Streetscape Project between College Avenue and Rogers Street.
- Stormwater facility improvements to the Spanker's Branch and Jordan River will be installed as part of the S. Walnut Streetscape Project between just north of 1st Street and Smith Avenue.
- Major downtown stormwater sewer capital improvements for areas along Wylie Street. Additionally, storm sewers that run between Dunn Street and Indiana Avenue, and between Washington Street and Lincoln Street, will also need future capital investments.
- Neighborhood specific stormwater sewer improvement projects for areas such as Arden Place, Bryan Park, McDoel Gardens (W. 1st Street) and Southdowns Area. These projects will be prioritized, as funding allows.

- As opportunities arise, pursuing "Green" partnerships that utilize natural elements, such as plantings and landscaping, that help retain stormwater and reduce runoff.

- Jordan River Culvert System: the Jordan River is the main drainage channel for Bloomington. Approximately 3,900 feet of the Jordan River is enclosed as storm sewer in the downtown area. This is known as the Jordan River Culvert System.

The exact construction date of Jordan River Culvert System is unknown, but it represents the oldest storm sewer facility in Bloomington. Some sections are estimated to have been built in 1900. Since that time, major renovation efforts and upgrades have recently been conducted, especially along the E. Kirkwood Avenue corridor. However, there are still many sections in place that date back to the original construction period. Due to this advanced age, the structural stability and effectiveness of these older sections potentially could cause stormwater problems for the downtown area. Many of the older sections are located on private property and underneath existing buildings.

As a result, efforts should be made to upgrade these older sections whenever possible. These opportunities typically would appear in conjunction with redevelopment projects occurring on downtown properties. Before new construction occurs, Utilities Department access to the Jordan River Culvert System could allow for new and upgraded facilities to be installed, allowing for more efficient stormwater flow.

The Jordan River Culvert System will need future upgrades. Opportunities will appear in conjunction with downtown redevelopment projects.

PLANNING AND ZONING CONSIDERATIONS

- *Downtown parcels*: developers that are considering new, high density, projects located within the downtown should be encouraged to factor the necessary utility infrastructure investments and upgrades into their project's cost estimates. Additional coordination between the developer and Utilities Department staff will be necessary to better anticipate the full costs of all utility infrastructure needs.

- *Jordan River Culvert System Construction Phasing*: special consideration for construction phasing of any parcel located along the Culvert (especially along E. Kirkwood Avenue) should be given during the zoning approval process. The Utilities Department should be given the opportunity to access these parcels in order to repair and upgrade the Jordan River Culvert before project construction begins.

- *Former Winston-Thomas WWTP*: land located within this area has been identified by the Police Department as the ideal site for future training facilities (see the *Police* chapter, page 53, for more details). Sufficient amounts of land at this site should be kept available to accommodate these facilities at a future date.

- *Sewer Service Boundary*: the current service area negotiated by Monroe County, the City of Bloomington and Utility Service Board should be maintained and not expanded, unless there is concurrence from all entities that such expansion is warranted and is consistent with Monroe and City of Bloomington comprehensive plans.

- *Water Conservation Initiatives*: aggressively pursue opportunities to encourage the implementation of water conservation features in new residential or commercial developments. These can include initiatives such as the following: rain gardens, building certification in Leadership in Energy and Environmental Design (LEED), utilizing high water efficiency and low-flow appliances and other water-saving technologies.

APPENDICES

CITY FACILITIES REPORT

APPENDIX 1: FIRE DEPARTMENT SERVICE STANDARDS

NFPA Standard 1710

NFPA Standard 1710 (section 4.1.2.1) utilizes the following definitions and technical terms for various fire department response time objectives. These include the following:

1. 'Turn-out time' refers to the amount of time it takes for the first fire crew to depart a fire station after the dispatch center notifies (also known as 'tones out') the appropriate fire department units to respond to an incident. Per the NFPA, the one minute turn-out time is counted separately from the four and eight minute response time performance standards.

2. A 'fire suppression incident' refers to the fire department's activities that are typically involved in controlling and extinguishing fires.

3. A 'first responder' is defined as personnel capable of providing basic first-aid intervention, functional provision of airway, breathing and circulatory system initial assessments, and the use of Automatic Ex ternal Defibrillator and cardiopulmonary resuscitation.

4. A 'full first alarm assignment' is considered to be a department's *full* complement of fire personnel, equipment and resources that are ordinarily dispatched upon notification of a specific incident type (e.g. structural fire, hazardous materials incident, medical emergencies, etc.).

Alarm Time

The term 'alarm time' refers to the total amount of time needed at the dispatch center to process an emergency 911 call and deploy the applicable fire department units to the incident scene. There are certain emergency 911 calls that may require greater time and attention to detail from the dispatch center than others (e.g. the caller cannot provide an address, a false alarm situation, a bad phone connection, language differences, multiple calls for a single incident, a high stress level event, etc.).

Because it may take longer for the dispatcher to reach the point where sufficient information is known to deploy applicable units during these types of calls, the amount of alarm time can increase. As a result, the total amount of time involved between verifying the nature and location of an emergency incident, to the actual 'tone out' from the dispatch center to the appropriate units to respond, can be lengthened. As a result, calls that occur between the five and eight minute range (and therefore are pushing up against the eight minute maximum NFPA Standard 1710 performance objective) are not necessarily a cause for concern. Rather, many of these may be reflective of the more complicated, or serious, 911 emergency calls that the dispatch center receives.