

**December 2009**

# **5TH AVENUE STUDY**



**Naperville**

---

**Transportation, Engineering, and Development Business Group**

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# 1.0 Executive Summary

The 5th Avenue Study was conducted to evaluate future land use, commuter parking, and multi-modal (i.e., vehicle, transit, bicycle, and pedestrian) circulation in the vicinity of the Naperville Metra Station. In addition, future land use, site access, parking and streetscape were evaluated for parcels fronting Washington Street, between Ogden Avenue and Benton Avenue. The purpose of the 5th Avenue Study is to provide guidelines for future redevelopment, transportation and streetscape improvements in the study area, an important gateway to downtown Naperville and one of the city's commuter hubs, while maintaining cohesiveness with the existing character of the neighborhood and providing a network of multi-modal transportation options to access the Naperville Metra Station.

The guidelines and implementation strategies contained in this report were developed based on a comprehensive planning process that extended over a period of approximately one year and included an evaluation of a number of factors, including:

- Public input on existing conditions (*Section 3.0: Existing Conditions*), and future opportunities;
- An evaluation of land use in the study area, including site location and context, visibility, accessibility, and land use compatibility;
- An evaluation of existing and future traffic conditions in the study area;
- An analysis of commuter access to the Naperville Metra Station, including commuter parking use, as well as use of alternate modes of transportation (i.e., transit, pedestrian and bicycle activity); and
- An inventory of streetscape conditions on Washington Street.

Based on public input received throughout the planning process (*Section 4.0: Planning Process*), and an evaluation of site location, land use compatibility, multi-modal accessibility (i.e., vehicle, transit, bicycle or pedestrian accessibility), and traffic impacts, a future land use map was developed for the parcels located within the vicinity of the Naperville Metra Station, and the parcels on Washington Street between Ogden Avenue and Benton Avenue (*Section 5.0: Future Land Use*). Although much of the area is established, the future land use map will provide a guide to determine land uses that would be appropriate at such time redevelopment occurs. The future land use map also identifies the location of future commuter parking facilities.

Multi-modal improvements were identified to address concerns related to vehicle, pedestrian and bicycle visibility and accessibility at key locations (*Section 6.0: Transportation and Commuter Parking*). The purpose of the recommended improvements is to enhance access to multi-modal transportation options and improve the interconnectivity of the various travel modes in the vicinity of the Naperville Metra Station. In order to provide for pedestrian accessibility and create a cohesive and inviting streetscape, enhancements were developed for Washington Street between Ogden Avenue and Benton Avenue (*Section 7.0: Washington Streetscape Vision and Conceptual Design*).

A comprehensive list of the future land use, transportation, commuter parking and streetscape implementation strategies developed through the 5th Avenue Study is provided in *Section 8.0: Implementation Strategies*.

## 2.1 BACKGROUND

Naperville's Comprehensive Master Plan, first adopted in 1985, serves as a guide for growth and development in the city. The plan is divided into three primary sector plans: the East Sector, Northwest Sector and Southwest Community Area, as shown in *Figure 1: City of Naperville Planning Sector Map*. The Comprehensive Plan also incorporates non-residential building design guidelines and several sub-area plans to provide additional guidance for the city's future development and allocation of resources.

The East Sector is Naperville's largest planning area, encompassing more than 27 square miles of land and a number of community resources, including the Naperville Metra Station, downtown Naperville, the Historic District, North Central College, the I-88 office corridor and numerous established neighborhoods and institutions. The 1998 East Sector Update provides policy guidance for development and redevelopment of land and resources within the East Sector.

Although most of the East Sector was fully developed when the Plan was updated in 1998, there are some areas that 1) have a future land use designation that no longer reflects current development patterns; 2) experience a high degree of development/**redevelopment** pressure; or 3) present challenging development conditions (i.e., vacant properties surrounded by existing residential developments, located adjacent to major arterial roadways, etc.). In order to provide policy guidance for the future development/redevelopment of these areas, in 2007 the City Council initiated amendments to the East Sector Plan through a series of small area studies to occur over a five-year period.

**Redevelopment** means replacement, remodeling, or reuse of existing structures to accommodate new development.

One of the areas in the East Sector that has experienced significant development pressure is the area surrounding the Naperville Metra Station. Future redevelopment in this area faces challenges due to its adjacency to an established residential neighborhood, train tracks, and a major arterial roadway (i.e., Washington Street). In addition, many of the parcels surrounding the train station are publicly-owned or leased, including the former Department of Public Works (DPW) facility located at the southeast corner of 5th Avenue/Loomis Street (known as the Water Tower West site), which was vacated in 2008, prompting the need to re-evaluate the site's future land use.

With redevelopment interest in private properties, and potential opportunities for redevelopment of publicly-owned or leased properties, the City Council identified the need for an updated small area study for the area

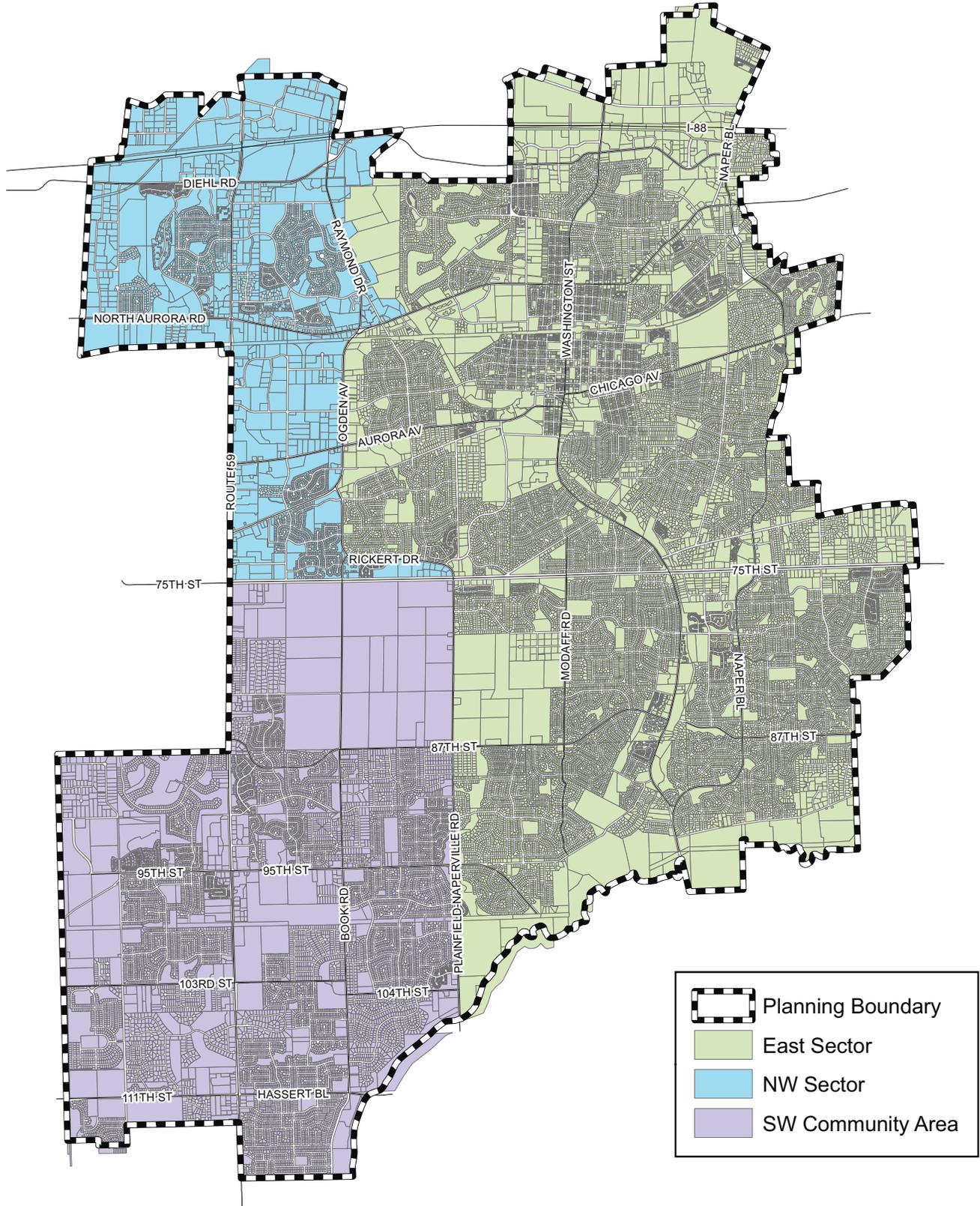
## 2.0 Introduction

surrounding the Naperville Metra Station. The study provides an opportunity to ensure the Comprehensive Master Plan remains current in light of concepts, market conditions, and community preferences which may have changed since adoption of the 1998 East Sector Update.

On June 5, 2007, the City Council directed staff to prepare a project scope for the 5th Avenue Study, including the development of a study boundary and study components. The City Council subsequently approved the study boundary, project scope, timeline and public participation plan for the 5th Avenue Study on November 20, 2007.

# City of Naperville

## COMPREHENSIVE PLANNING AREAS



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Figure 1: City of Naperville Planning Sector Map

# 2.0 Introduction

## 2.2 PURPOSE

The 5th Avenue Study includes an evaluation of land use, commuter parking, and **multi-modal** circulation in the vicinity of the Naperville Metra Station. The study also addresses future land use, site access, parking and **streetscape** for parcels fronting both sides of Washington Street between Benton Avenue and Ogden Avenue.

The purpose of the 5th Avenue Study is to establish recommendations that will guide potential redevelopment, parking, transportation and streetscape improvements within the study area, an important gateway to downtown Naperville and one of the city's commuter hubs, while maintaining cohesiveness with the existing character of the neighborhood.

## 2.3 STUDY BOUNDARY

The 5th Avenue Study includes three components: 1) land use; 2) transportation and commuter parking; and 3) streetscape.

### Land Use

The land use component of the study involves parcels in the immediate vicinity of the Naperville Metra Station and parcels fronting both sides of Washington Street between Benton Avenue and Ogden Avenue. All publicly-owned or leased property in the vicinity of the train station was included in the study boundary; select privately owned properties were included in the study boundary due to their proximity to the train station and as a result of recent redevelopment interest.

### Transportation and Commuter Parking

The study area for the transportation component is bounded by Ogden Avenue on the north, Columbia Street on the east, Benton Avenue on the south and Washington Street on the west. The 5th Avenue Study also includes an evaluation of the commuter parking facilities in the vicinity of the Naperville Metra Station, including the Burlington Lot, Kroehler Lot, and Parkview Lot, as well as the on-street commuter parking spaces.

### Streetscape

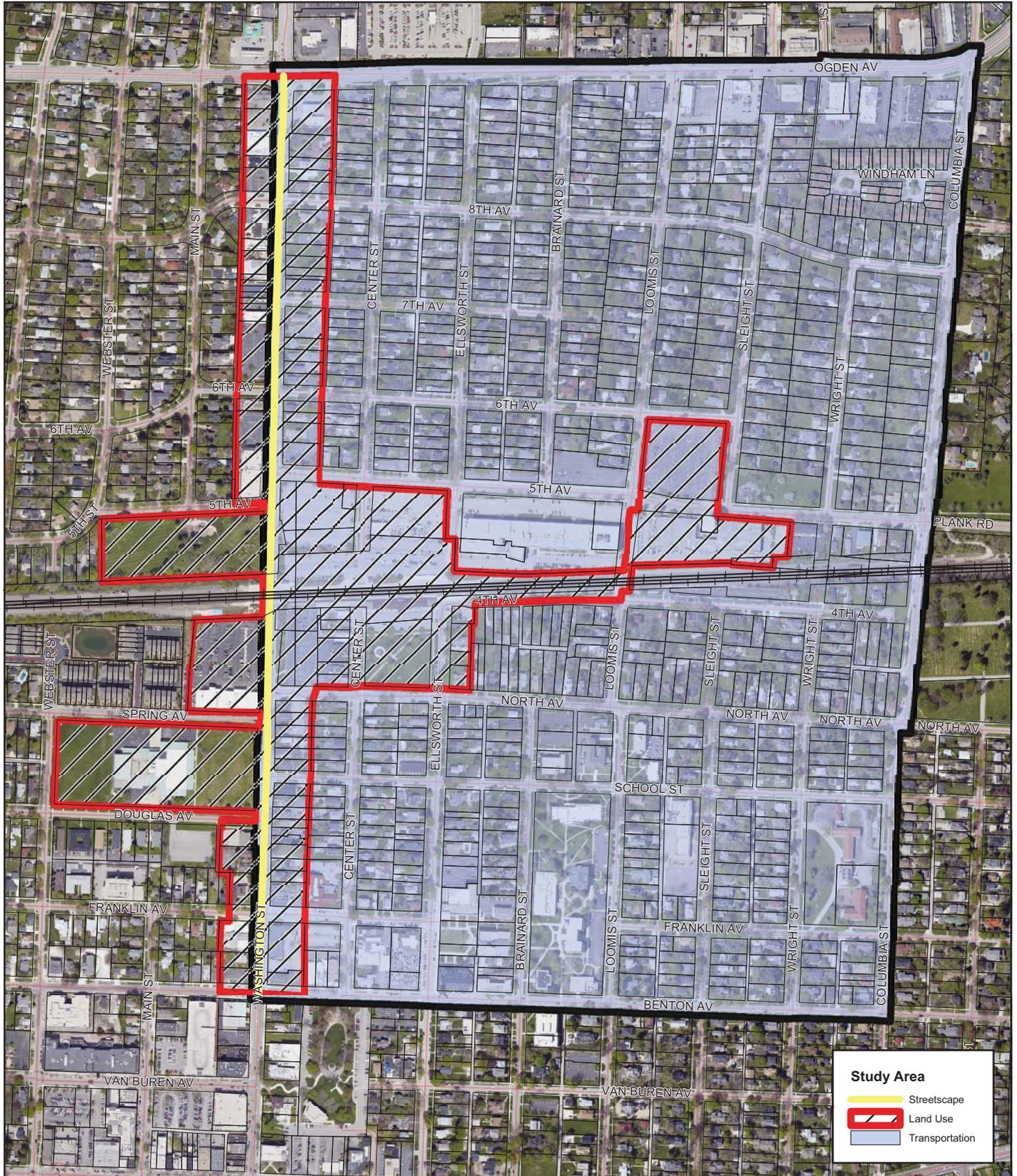
The boundary of the streetscape component includes both sides of Washington Street from Ogden Avenue south to Benton Avenue.

A map of the boundary of each component is provided as *Figure 2: 5th Avenue Study Boundary*.

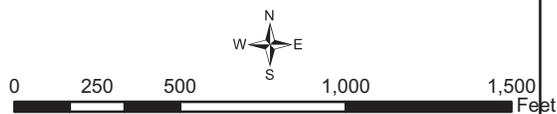
**Multi-modal** is a term used to describe various modes of transportation, including vehicle, transit, bicycle, and pedestrian activity.

**Streetscape** includes the elements that contribute towards how a street looks and functions. Streetscape elements include sidewalks, lighting, landscaping, signage, benches, trash receptacles, bus stops, and other pedestrian amenities.

# City of Naperville 5th Avenue Study



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Figure 2: 5th Avenue Study Boundary Map

# 3.0 Existing Conditions

## 3.1 EXISTING LAND USES

The land use component of the study includes 91 parcels on approximately 49 acres.

The parcels fronting Washington Street are currently occupied by a mix of uses, including **home-to-office conversions**, office, retail, institutional (i.e., DuPage Children’s Museum), park/open space (i.e., Kendall Park), and educational uses (i.e., Washington Jr. High School). North of the Burlington Northern Santa Fe (BNSF) underpass, the majority of properties fronting Washington Street are larger, buildings are more spread out, and many of the buildings are set back from the roadway creating a more open feeling. The area south of the underpass, approaching downtown Naperville, has smaller parcels with buildings closer to the street.

The parcels surrounding the Naperville Metra Station are occupied by a mix of uses, including commuter parking lots, industrial and warehouse uses, commercial, residential uses, and park/open space (i.e., Burlington Square Park). Many of the parcels surrounding the train station are publicly-owned or leased properties, including the former City of Naperville Department of Public Works (DPW) facility at the southeast corner of Loomis Street/5th Avenue (known as the Water Tower West site), which was vacated in Fall 2008 when DPW was relocated to a new facility at the northeast corner of Jefferson Avenue and Fort Hill Drive.

In addition, the commuter parking lots are publicly-owned or leased, including the Burlington Lot (southeast corner of Washington Street/5th Avenue) and Kroehler Lot (northeast corner of Loomis Street/5th Avenue) located north of the train tracks, and the Parkview Lot (northeast corner of Washington Street/North Avenue) located south of the train tracks (*Figure 3: Existing Commuter Parking at Naperville Metra Station*). The City of Naperville has lease and/or grant agreements with BNSF/Metra for portions of the existing commuter parking lots, which may restrict the use of these properties.

The privately-owned properties surrounding the train station are occupied by a mix of uses, including industrial/warehouse, commercial and residential uses.

**Home-to-office conversion** is a term used to describe the reuse/conversion of residential-style buildings for nonresidential uses. Typically home-to-office conversions are used as offices for architects, brokers, engineers, insurance agents, lawyers, real estate agents, planners and other professionals, including medical and dental practitioners, ministers, priests, rabbis, and sales representatives.

# City of Naperville Naperville Metra Parking Map



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Figure 3: Naperville Metra Station - Existing Commuter Parking

# 3.0 Existing Conditions

## 3.2 EXISTING ZONING

The study area is comprised of various zoning districts, including:

- R2 (Single-Family and Low Density Multiple-Family Residence District);
- B3 (General Commercial District);
- OCI (Office, Commercial and Institutional District);
- R1B (Medium Density Single-Family Residence District);
- TU (Transitional Use District);
- B5 (Secondary Commercial District); and
- I (Industrial District).

A map of the existing zoning is provided as *Figure 4: 5th Avenue Study Existing Zoning Map*.

## 3.3 EXISTING TRANSPORTATION NETWORK

As noted in *Section 2.3: Study Boundary*, the transportation component of the 5th Avenue Study encompasses the roadway network bounded by Ogden Avenue to the north, Columbia Street to the east, Benton Avenue to the south and Washington Street to the west. Ogden Avenue and Washington Street are designated as **Major Arterial Roadways** within the **City of Naperville Master Thoroughfare Plan**. As Major Arterial roadways, Ogden Avenue and Washington Street provide for local and regional traffic movement. The remaining roadways in the study boundary are designated as collector streets, neighborhood connectors and local streets. Ogden Avenue is under the jurisdiction of the Illinois Department of Transportation (IDOT); all other study area roadways are under the jurisdiction of the City of Naperville.

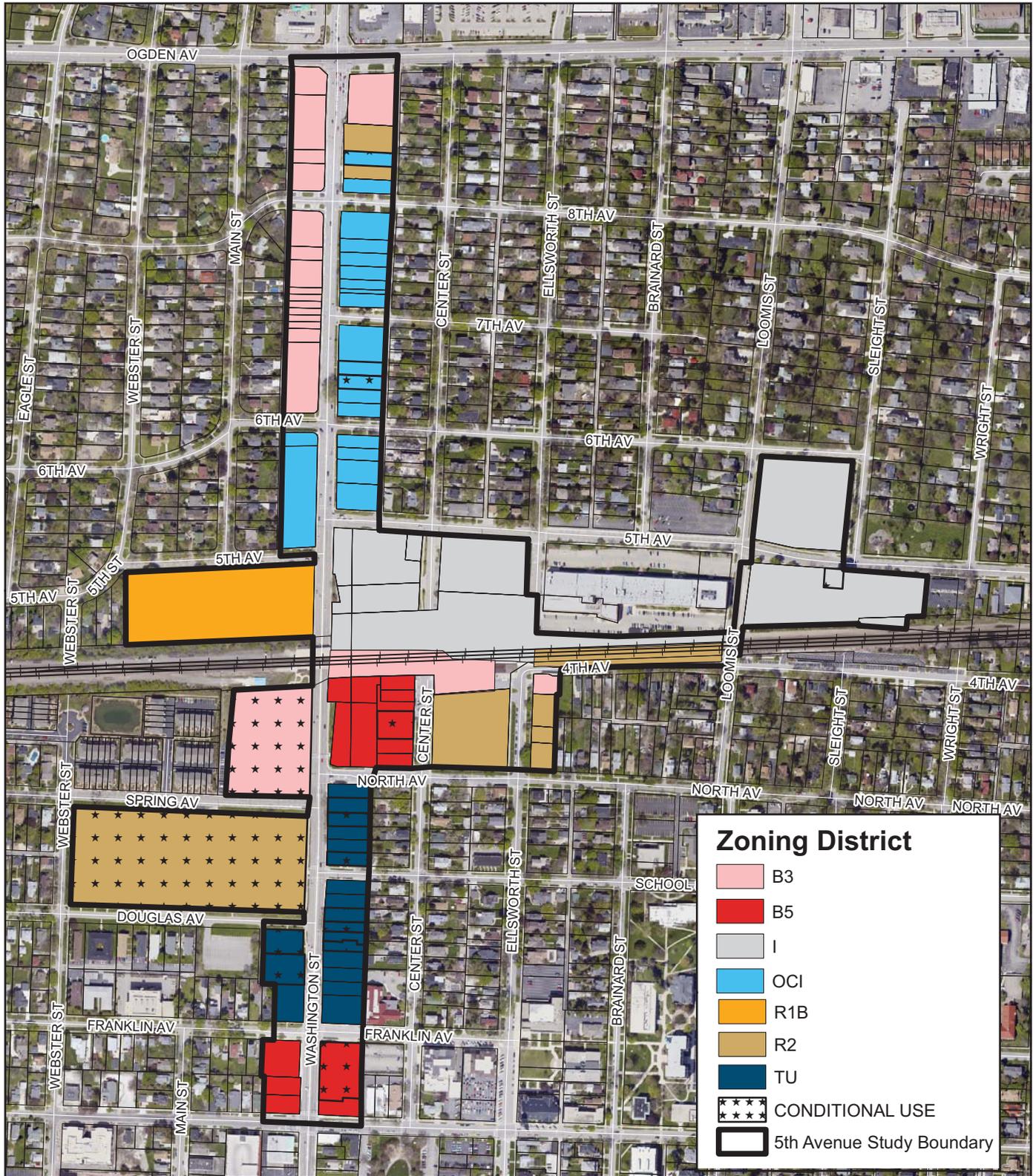
As part of the transportation component of the study, an analysis of existing (2008) and future (2028) AM and PM peak hour traffic conditions were evaluated for 41 intersections located within the study boundary, as shown in *Figure 5: Study Intersections Map*. A summary of the transportation analysis is provided in *Section 6.1: Traffic Analysis Summary*. The full analysis is provided in the *5th Avenue Study Transportation and Parking Analysis*, contained in *Appendix F*.

**Major Arterial Roadway** is a principal street within the roadway network for the provision of both local and regional traffic movement. The Major Arterial provides for efficient traffic flow and a restricted level of access to fronting properties. Access is limited in order not to impede the movement of traffic.

**City of Naperville Master Thoroughfare Plan** is a policy document that creates and maintains a thorough street system to promote local and regional connectivity, allow for the appropriate level of access, and facilitate the movement of people and goods in a safe and efficient manner.

The Master Thoroughfare Plan classifies existing roadways (i.e., Freeway/Tollway, Strategic Regional Arterial, Major Arterial, Minor Arterial, Collector, Neighborhood Connector Street, and Residential or Local Street). Street classifications influence and factor into transportation and land use decisions.

# City of Naperville 5th Avenue Study Existing Zoning Map



**Zoning District**

- B3
- B5
- I
- OC1
- R1B
- R2
- TU
- \*\*\*\*\*  
CONDITIONAL USE
- 5th Avenue Study Boundary



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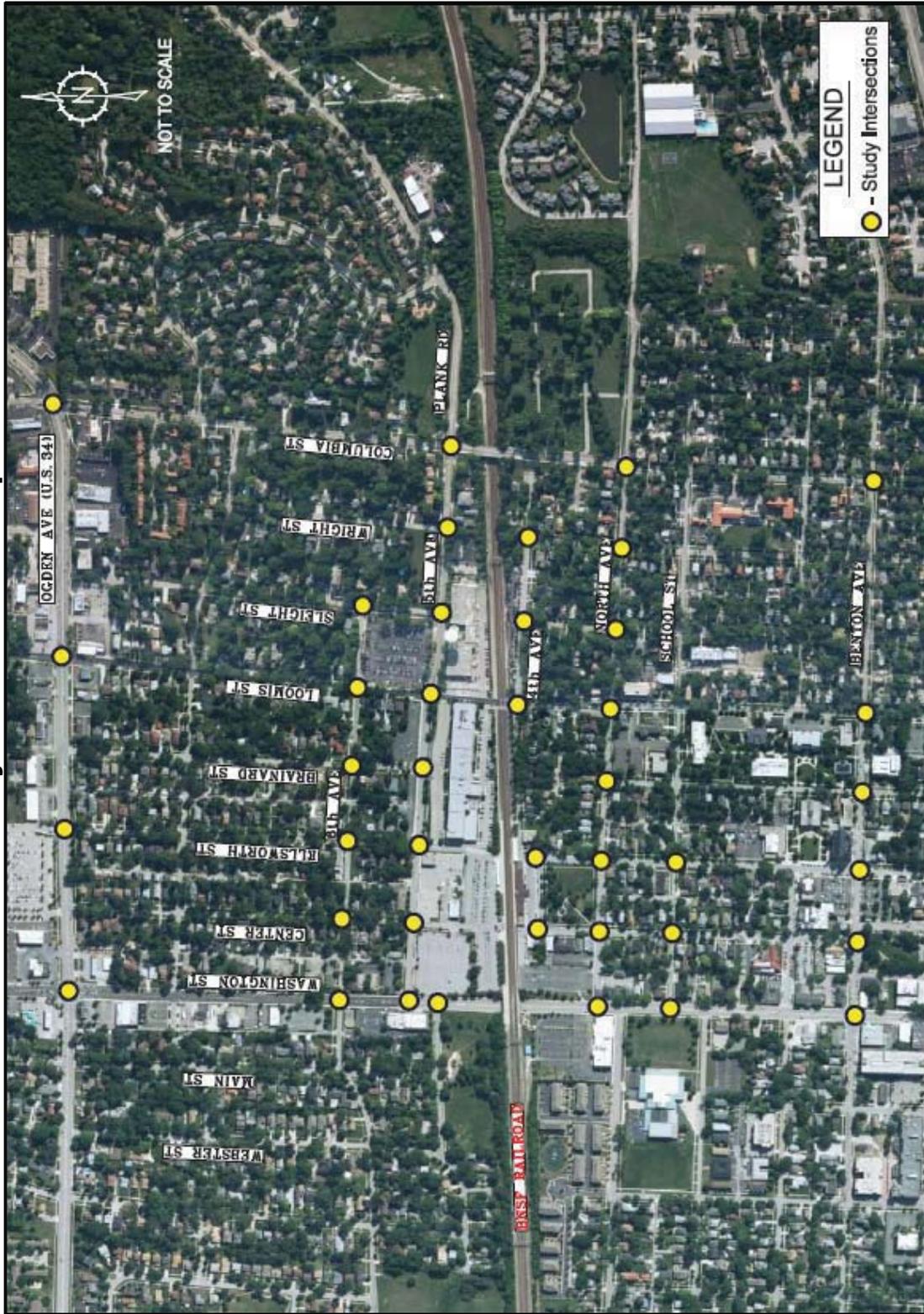
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Figure 4: 5th Avenue Study Existing Zoning Map

# City of Naperville Study Intersection Map



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**LEGEND**  
● - Study Intersections

Figure 5: Study Intersections Map

# 3.0 Existing Conditions

## 3.4 EXISTING PUBLIC TRANSPORTATION

The Naperville Metra Station is a key transportation node for the city, providing access to Metra commuter rail, Pace Suburban Bus routes, and Amtrak. The Regional Transportation Authority (RTA) provides oversight of Metra, which operates the commuter rail service on the Burlington Northern Santa Fe (BNSF) rail line and Pace, which operates suburban bus route service in the study area. Amtrak operates regional and nationwide service from the Naperville train station.

### Metra Commuter Rail

The BNSF commuter rail line operates daily at the Naperville Metra Station, providing service between 4:43 a.m. and 1:37 a.m. on weekdays and limited service on weekends. Nine express trains depart the Naperville Metra Station to Chicago during the morning period (5:40 - 8:24 a.m.), and ten express trains arrive at the Naperville Metra Station from Chicago during the evening period (3:07 - 7:27 p.m.).

Based on information obtained from Metra, the Naperville Metra Station accounts for approximately 7.4 percent of the total boarding and approximately 7.3 percent of the total **alighting** on the Metra/BNSF line, as demonstrated in *Table 1: Metra Weekday Daily Boarding and Alighting Information*. The *5th Avenue Study Transportation and Parking Analysis*, provided as *Appendix F*, provides further information on the Metra/BNSF commuter rail line.

**Alighting** refers to the number of people who debark or get off a train.

**Table 1: Metra Weekday Daily Boarding and Alighting Information**

Metra Service	Boarding			Alighting		
	Inbound	Outbound	Total	Inbound	Outbound	Total
BNSF Total	27,657	27,782	55,439	27,657	27,782	55,439
Naperville	3,994	118	4,112	69	3,996	4,065
Naperville Percentage	14.4%	0.4%	7.4%	0.2%	14.4%	7.3%

Source: Regional Transportation Asset Management System (RTAMS) website (2006)

## 3.0 Existing Conditions

### Pace Suburban Bus

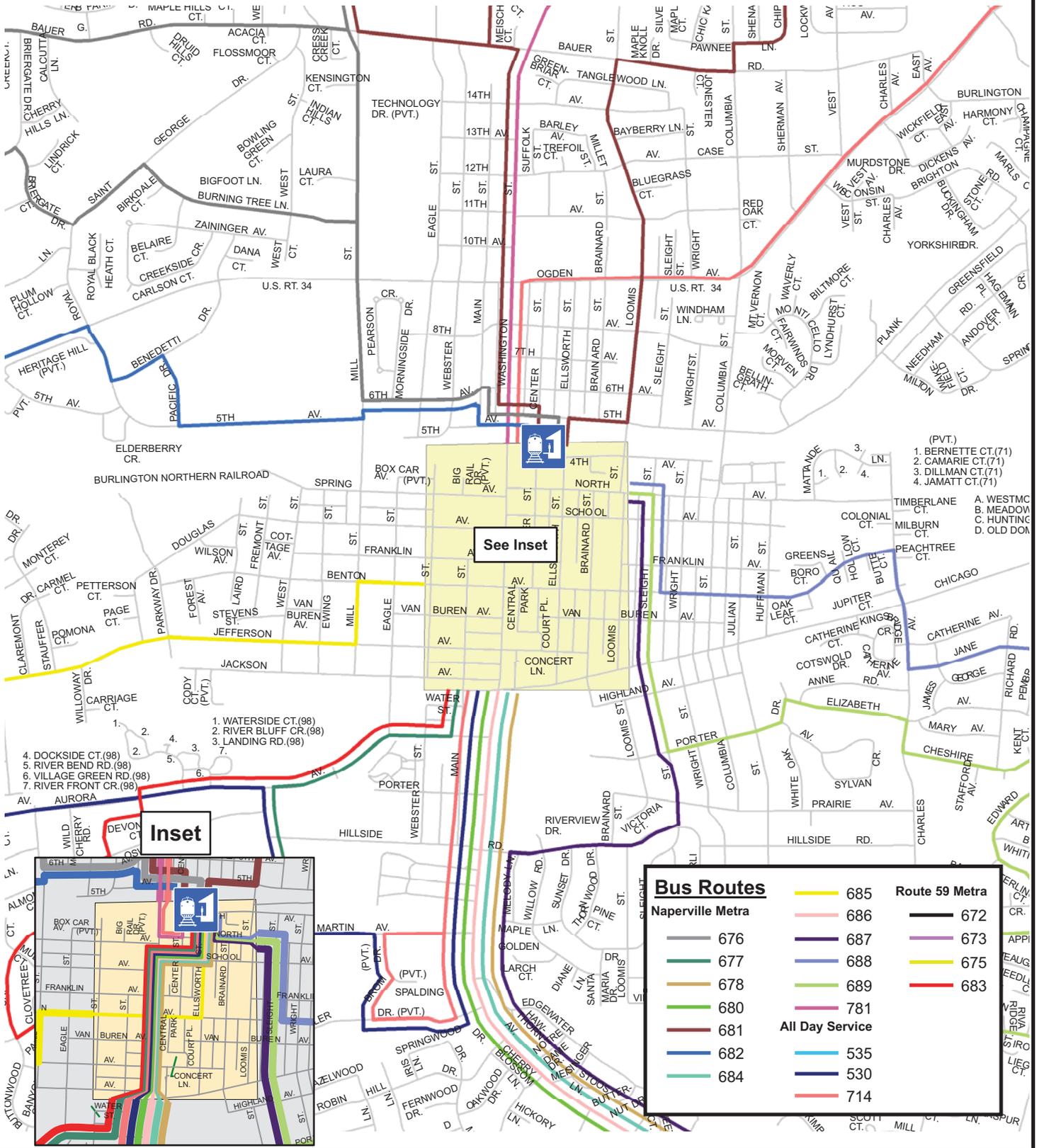
The Naperville Metra Station provides a connection to 16 Pace Suburban Bus routes, as shown in *Figure 6: Pace Suburban Bus Routes*. Of the 16 bus routes serving the Naperville Metra Station, 3 bus routes pick-up and drop-off passengers on the north side of the train tracks, and the remaining 13 routes pick-up and drop-off passengers on the south side of the train tracks.

Available data for the 16 bus routes serving the Naperville Metra Station was obtained from the Regional Transportation Asset Management System (RTAMS) website to determine frequency, usage and ridership. Weekday daily ridership has remained, on average, fairly consistent between 1997 and 2007. The *5th Avenue Study Transportation and Parking Analysis*, provided as *Appendix F*, provides further information on the Pace Suburban Bus routes serving the Naperville Metra Station and associated bus ridership information.

### Amtrak

Amtrak provides regional service from the Naperville Metra Station to destinations in Illinois via the Carl Sandburg and Illinois Zephyr routes. Long-distance service is also provided to national destinations in the west and southwest via the Southwest Chief and California Zephyr routes. No local service between Chicago and the Naperville Metra Station is provided via these routes, except when connecting to/from other Amtrak trains. Based on information obtained from Amtrak, approximately 1.1 percent of the total boarding and alighting for the Illinois locations occurs at the Naperville Metra Station.

# City of Naperville Pace Bus & Metra Train Services



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Figure 6: Pace Suburban Bus Routes Servicing Naperville Metra Station

# 3.0 Existing Conditions

## 3.5 EXISTING BICYCLE ACCESS AND AMENITIES

There currently is one on-street signed **bicycle route** in the vicinity of the Naperville Metra Station, as shown in *Figure 7: Existing and Planned Bikeways in the 5th Avenue Study Area*. As part of the **City of Naperville Bicycle Implementation Plan** (adopted on June 20, 2006), an off- and on-street **bicycle path**/route is proposed along Washington Street from Warrenville Road to just south of Iroquois Street and then continuing along Loomis Street to 4th Avenue. This planned path/route would provide a connection from the DuPage Herrick Lake Forest Preserve Trail and Prairie Path connection to the Naperville Metra Station. As part of the Bicycle Implementation Plan Work Program for FY 09-10, the location of this path/route will be further identified.

The City of Naperville Bicycle Implementation Plan identifies a future on-street bicycle route along Ellsworth Street, providing a connection from the train station to North Central College. An on-street bicycle route is also proposed along Benton Avenue, extending easterly from Washington Street to the proposed route on Charles Avenue. The future bicycle route improvements will further enhance opportunities for regional bicycle connectivity to the Naperville Metra Station.

## 3.6 EXISTING WASHINGTON STREETScape

A key gateway to downtown Naperville, Washington Street is a Major Arterial roadway with significant north-south daily traffic totaling approximately 33,000 average daily trips. The existing streetscape is limited due to the narrow Washington Street **right-of-way**. Between Ogden Avenue and Benton Avenue, there is generally less than ten feet (10') on each side to accommodate streetscape elements. The existing streetscape generally consists of five-foot (5') wide concrete sidewalks, minimal trees and landscaping, and roadway lights. The existing conditions are summarized in *Figure 8: Existing Washington Streetscape Inventory*. The *Washington Street: Streetscape Vision and Conceptual Design*, contained in *Appendix E*, provides further information on the existing streetscape along Washington Street.

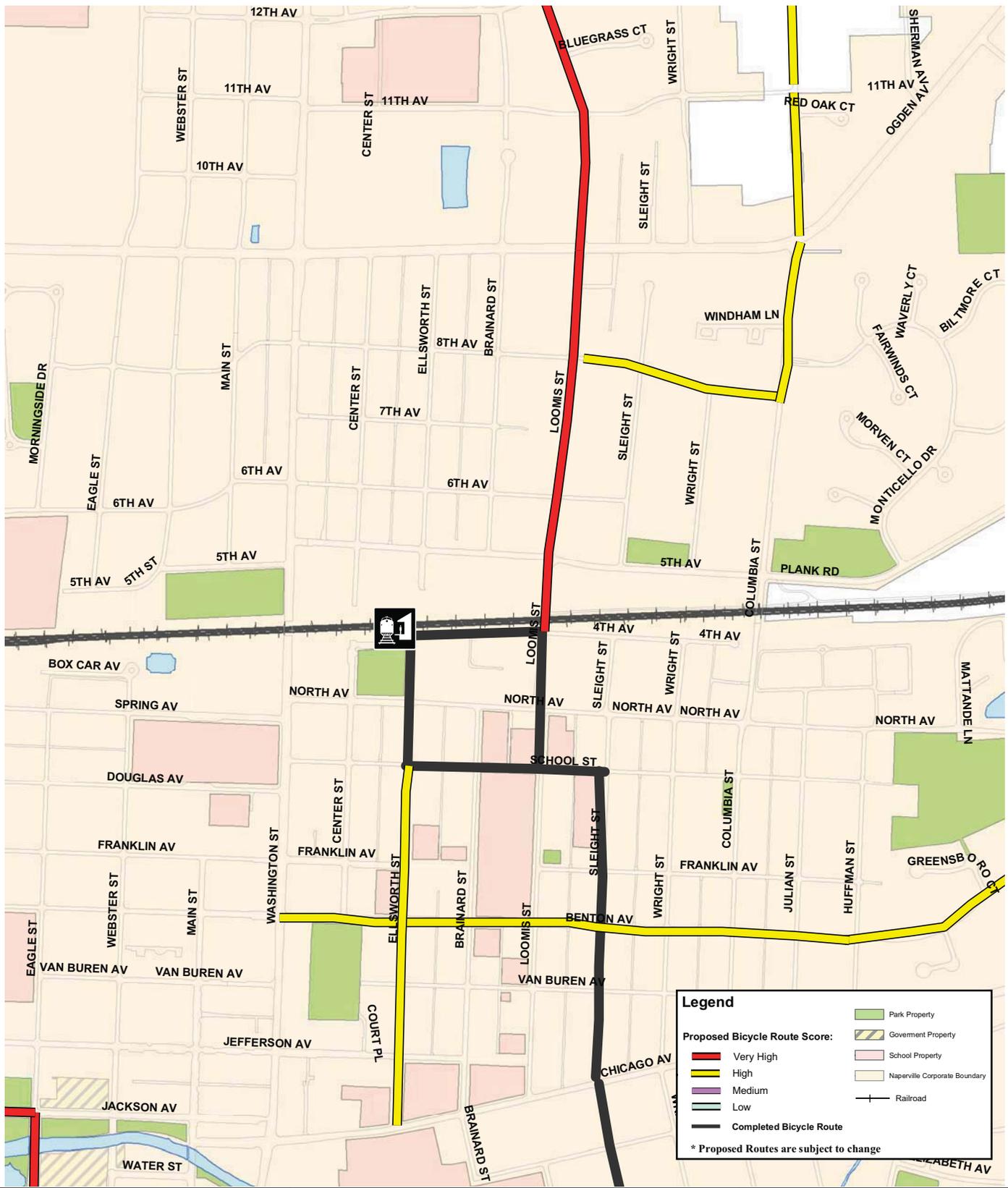
A **bicycle route** is typically a network of signed on-street facilities. Bicycles routes in Naperville are traditionally designated on wide, low speed neighborhood streets but may include any and all types of bikeways, including marked on-street bicycle lanes, shared on-street lanes, and shared use pathways.

The **City of Naperville Bicycle Implementation Plan** guides the establishment of new bicycle facilities throughout the city. Each fiscal year, staff prepares a work program that outlines which tasks will be accomplished during that year in order to implement routes identified in the Bicycle Implementation Plan.

A **bicycle path** is an off-street facility that is physically separated from motorists by open space or a barrier. Bicycle paths generally allow two-way travel and may be shared by cyclists, pedestrians, runners, or other users.

**Right-of-way (ROW)** is a term used to describe an area of land over which people and goods have the right to pass or travel. Right-of-way is any public thoroughfare such as a street, road or alley. The right-of-way also usually includes utility poles, sidewalks and parkway (i.e., unpaved, landscaped area immediately adjacent to the street). The right-of-way is publicly owned land.

# City of Naperville Bicycle Implementation Map

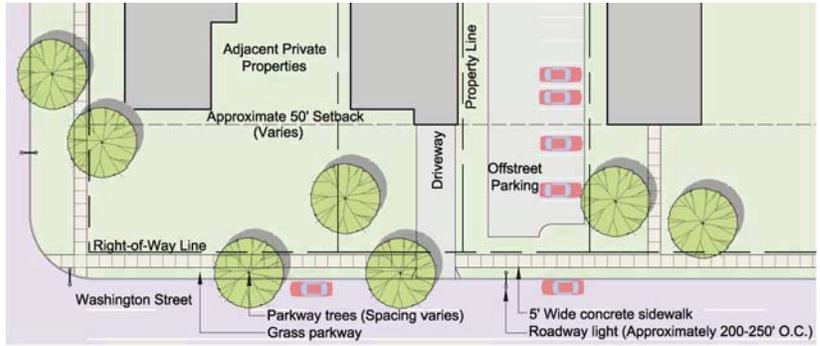


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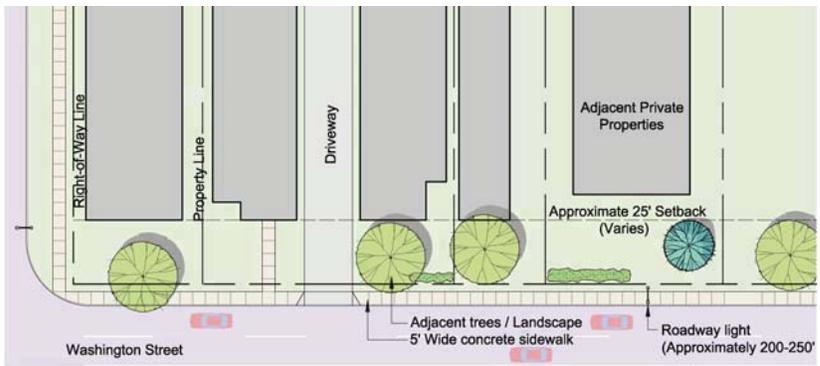
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Figure 7: Existing and Planned Bikeways in 5th Avenue Study Area



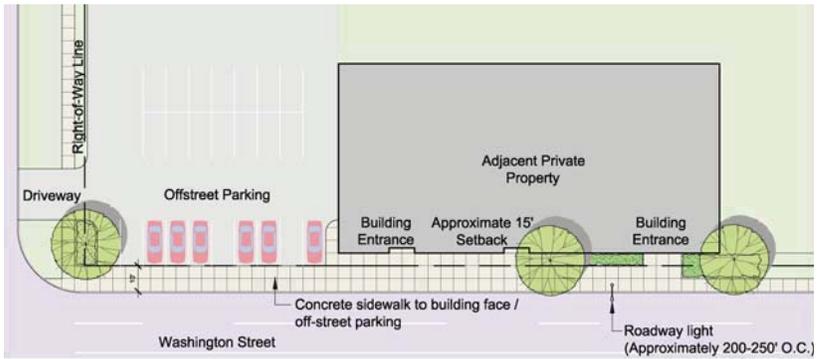
**Typical Existing Conditions: Parkway**

Sidewalk separated from back of curb by grass area



**Typical Existing Conditions: Carriage Walk**

Sidewalk located directly adjacent to back of curb



**Typical Existing Conditions: Paved Streetscape**

Sidewalk continuous from back of curb to building face or parking area



**Existing Conditions: Plan View**

Source: Washington Street: Streetscape Vision and Conceptual Design, Hitchcock Design Group

Figure 8: Existing Washington Streetscape Inventory

# 4.0 Planning Process

The 5th Avenue Study planning process was initiated in August 2008 and progressed over a period of approximately one year. The process involved extensive public participation and outreach in an effort to identify community issues and concerns, and to foster dialogue amongst residents, commuters, property and business owners, and other interested stakeholders.

During the initial planning stages, city staff collected data for the study area (e.g., intersection traffic counts, existing land uses and zoning) and began analyzing existing conditions. Input from local institutions and organizations (i.e., Washington Jr. High School, DuPage Children's Museum, Naperville Park District, and Naperville Heritage Society) and transportation providers (i.e., BNSF, Metra and Pace Suburban Bus), was solicited through interviews. Public input was obtained through public meetings and open houses during which all interested parties were invited to participate.

## 4.1 CONSULTANT USE

In August 2008, the city commissioned the consulting firm of Metro Transportation Group, Inc. to perform an analysis of existing commuter parking and multi-modal circulation conditions near the Naperville Metra Station, and assist city staff with the development of recommendations for future transportation and parking improvements. The transportation and parking analysis is provided as *Appendix F*. The findings of the transportation analysis are further discussed in *Section 6.0: Transportation and Commuter Parking*.

In November 2008, Hitchcock Design Group was commissioned to design the Washington Streetscape component of the 5th Avenue Study. The *Washington Street: Streetscape Vision and Conceptual Design* is provided as *Appendix E*. The Washington Streetscape component is further discussed in *Section 7.0: Washington Street: Streetscape and Conceptual Design*.

## 4.2 PUBLIC PARTICIPATION

The recommendations contained in this report are based upon a comprehensive planning process involving interested residents, commuters, property and business owners, developers, and institutions (i.e., DuPage Children's Museum, North Central College, Kroehler Family YMCA, and Washington Jr. High School). A series of public meetings were held to solicit stakeholder input on study components; a summary of the meetings is outlined below, with detailed information provided in *Appendix A: Public Meeting Summary*.

- September 29, 2008: Public meeting to introduce the 5th Avenue Study.
- October 29, 2008: Meeting to seek public input on existing strengths and weaknesses of the study area and the future land use component of the study.
- November 13, 2008: Open house to seek public input on existing parking and multi-modal circulation (i.e., vehicle, bicycle, pedestrian and public transit circulation) in the study area.
- December 9, 2008: Meeting to seek public input on potential streetscape and gateway improvements (i.e., signage, landscaping, lighting, and pedestrian and bicycle amenities) for the Washington Street Corridor between Ogden Avenue and Benton Avenue.

## 4.0 Planning Process

- December 10, 2008: Downtown Plan Implementation Committee review of existing streetscape conditions along Washington Street and initial input on opportunities for future streetscape enhancements.
- February 19, 2009: Open house to present and clarify the preliminary alternatives for future land use, commuter parking and multi-modal circulation improvements and streetscape improvements (Washington Street only), and respond to initial questions from the public.
- March 5, 2009: Public forum before the Plan Commission and Transportation Advisory Board (TAB) to obtain initial public input on the preliminary alternatives.
- May 13, 2009: Open house to seek public input on the additional alternatives for future land use and commuter parking, and respond to questions from the public.
- June 6, 2009: Transportation Advisory Board (TAB) initial consideration of the recommendations for commuter parking, multi-modal improvements and streetscape enhancements for Washington Street; recommended approval of the *Washington Street: Streetscape Vision and Conceptual Design (Appendix E)*, subject to the following conditions (Approved 8-3):
  - o Provide for extension of the existing railing on the west side of Washington Street at the BNSF underpass between 5th Avenue (south leg) and North Avenue.
  - o Consider safety barriers (e.g., fence, wall, bollards, etc.) on both sides of Washington Street between 5th Avenue and Ogden Avenue.
- June 17, 2009: Plan Commission initial consideration of the future land use recommendations.
- June 18, 2009: Formerly known as the Downtown Plan Implementation Committee, the Downtown Advisory Commission recommended approval of the *Washington Street: Streetscape Vision and Conceptual Design (Appendix E)* (Approved 6-0).
- July 11, 2009: Transportation Advisory Board recommended approval of the 5th Avenue Study (dated July 2009), subject to the condition that Pace bus routes are removed from the residential neighborhoods in the vicinity of the Naperville Metra Station (Approved 9-1).
- July 15, 2009: Plan Commission recommended approval of the 5th Avenue Study (dated July 2009), subject to the following amendments (Approved 7-0):
  - o The Kroehler Lot and Water Tower West side should be designated “Transportation/Utilities” (Approved 5-2).
  - o The height of new buildings on the west side of Washington Street, south of Franklin Avenue should not exceed the approximate height of the existing 5th Avenue Station (50’) (Approved 6-1).
  - o “Consideration should be made for accessory residential units above commercial uses” shall be added as a supplemental recommendation (Approved 7-0).
  - o “Commuter parking shall be viewed as a system in evaluation of future land use of city-owned properties” shall be added as a supplemental recommendation (Approved 7-0).
- August 18, 2009: City Council initial consideration of the 5th Avenue Study (dated August 2009). Following public testimony, the 5th Avenue Study was continued to a City Council workshop on October 12, 2009.

## 4.0 Planning Process

- October 12, 2009: City Council workshop to discuss recommendations for future land use, commuter parking, multi-modal improvements, and streetscape enhancements. The workshop provided an opportunity for City Council members to analyze issues and exchange ideas about the 5th Avenue Study. No formal action was taken during the workshop; the 5th Avenue Study was subsequently continued to a future City Council meeting.
- December 1, 2009: City Council consideration of the 5th Avenue Study. Following public testimony, the City Council voted to adopt the 5th Avenue Study as an amendment to Section 1-11-1 (Comprehensive Plan) of the Naperville Municipal Code (Approved 8-1).

### 4.3 FUTURE ALTERNATIVES

Three preliminary alternatives for future land use, commuter parking, and streetscape enhancements were presented at the February 19, 2009 public open house and also at the March 5, 2009 Plan Commission/Transportation Advisory Board public forum. Through evaluation of the three initial alternatives, members of the public, Plan Commission and Transportation Advisory Board identified the following factors as important in the development of the recommended alternative:

- Maintain the existing open space (i.e., Kendall Park and Burlington Square).
- Establish the existing 5th Avenue Station (i.e., Kroehler Building) as the benchmark for height of new buildings in the study area.
- Maximize commuter parking to the extent possible without compromising vehicle, pedestrian and bicycle access to the train station, and the existing character of the surrounding residential neighborhood.
- Enhance pedestrian accessibility to the train station and adjacent uses, including Washington Jr. High School.
- Establish Washington Street as an important gateway to downtown Naperville through enhanced streetscape.
- Encourage the use of alternative modes of transportation to access the train station (e.g., bicycle, pedestrian, public transit).

Based on the public input and feedback received from the Plan Commission and Transportation Advisory Board, two additional alternatives for future land use and transportation/commuter parking were developed and presented to the public for review and comment during the May 13, 2009 open house. The preliminary alternatives may be viewed in further detail in *Appendix B*. A summary of the February 19, 2009 public open house and March 5, 2009 public forum is contained in *Appendix A*.

Public comments regarding the five preliminary alternatives were used along with a number of factors, including existing land use, site location, visibility and accessibility, land use feasibility, and land use compatibility, to determine the recommended alternative and associated implementation strategies (*Figure 9: Factors Considered for 5th Avenue Study*).

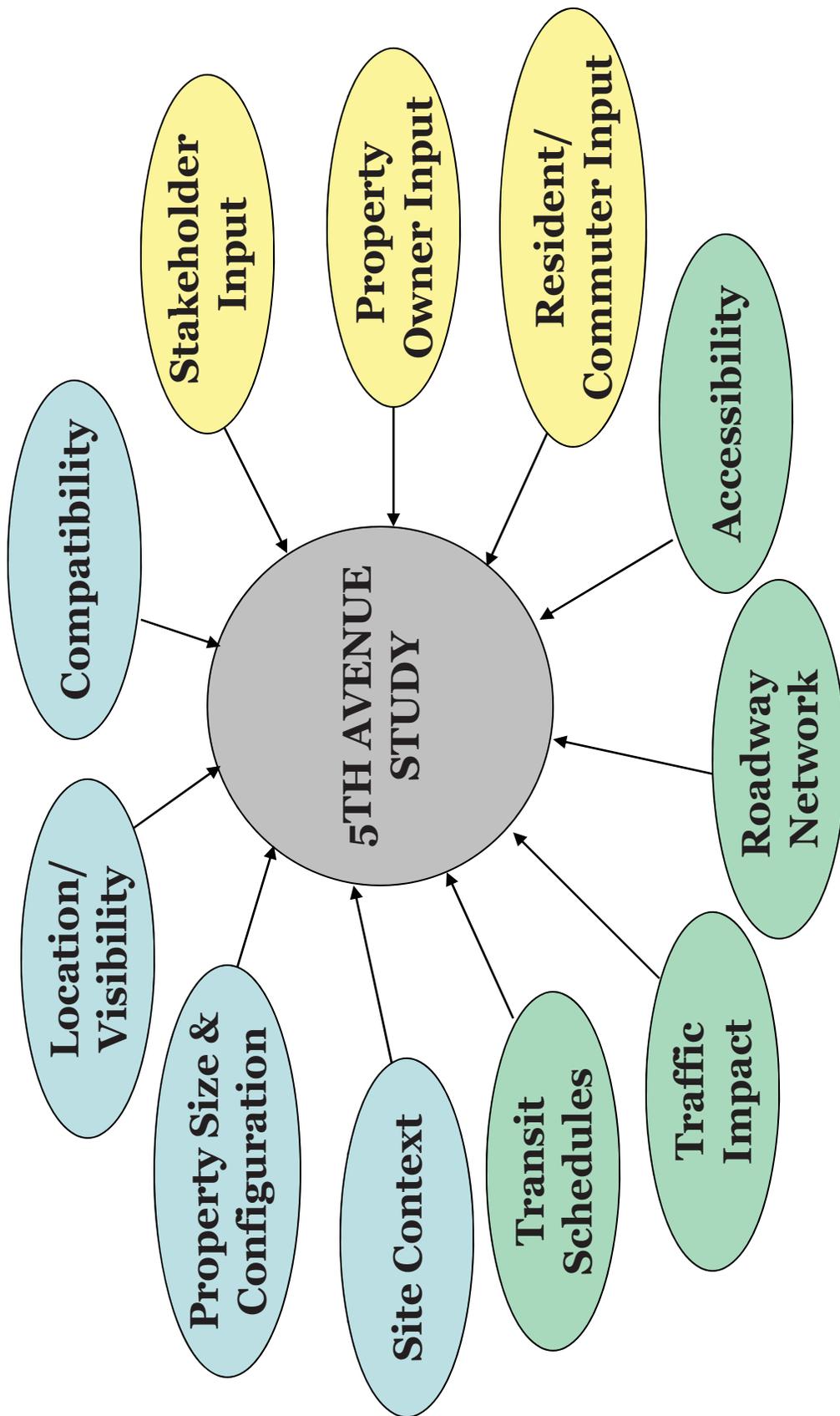


Figure 9: Factors Considered for 5th Avenue Study

Based on an evaluation of site location, land use compatibility, accessibility, traffic impacts, future commuter parking, and the priorities identified during the March 2009 public forum, the following two documents have been developed to serve as a generalized policy to guide future development and redevelopment within the 5th Avenue Study area:

- Future Land Use Map
- Future Land Use Supplemental Recommendations

It is important to note that while the Future Land Use Map designates a general land use category for each parcel in the future land use study area, it comprises only one component of the land use recommendations for the 5th Avenue Study. Based on public input received throughout the planning process and the priorities identified during the March public forum, the Supplemental Recommendations outline additional land use guidelines for future redevelopment in the study area (*Figure 10: Future Land Use Map and Supplemental Recommendations*).

## 5.1 FUTURE LAND USE MAP

The Future Land Use Map (*Figure 10*) allocates recommended land uses by acting as a guide to determine what zoning classifications and land uses are appropriate for the study area at such time that redevelopment proposals are considered. A summary of the future land use recommendations is provided below.

### Educational

Washington Jr. High School is designated “Educational”, consistent with the existing school.

### Park/Open Space

Kendall Park, located at the southwest corner of Washington Street/5th Avenue (south leg), and Burlington Square, located south of the train station, are designated “Park/Open Space”, consistent with the existing land uses.

### Transportation/Utilities

Commuter parking facilities and public transit areas, including the BNSF right-of-way, surface commuter parking lot, and the proposed bus depot (*Section 6.4: Multi-Modal Improvement Recommendations*), are designated “Transportation/Utilities”, consistent with the existing land uses and recommended commuter parking and multi-modal improvements identified in *Section 6.0: Transportation and Commuter Parking*.

### Mixed-Use

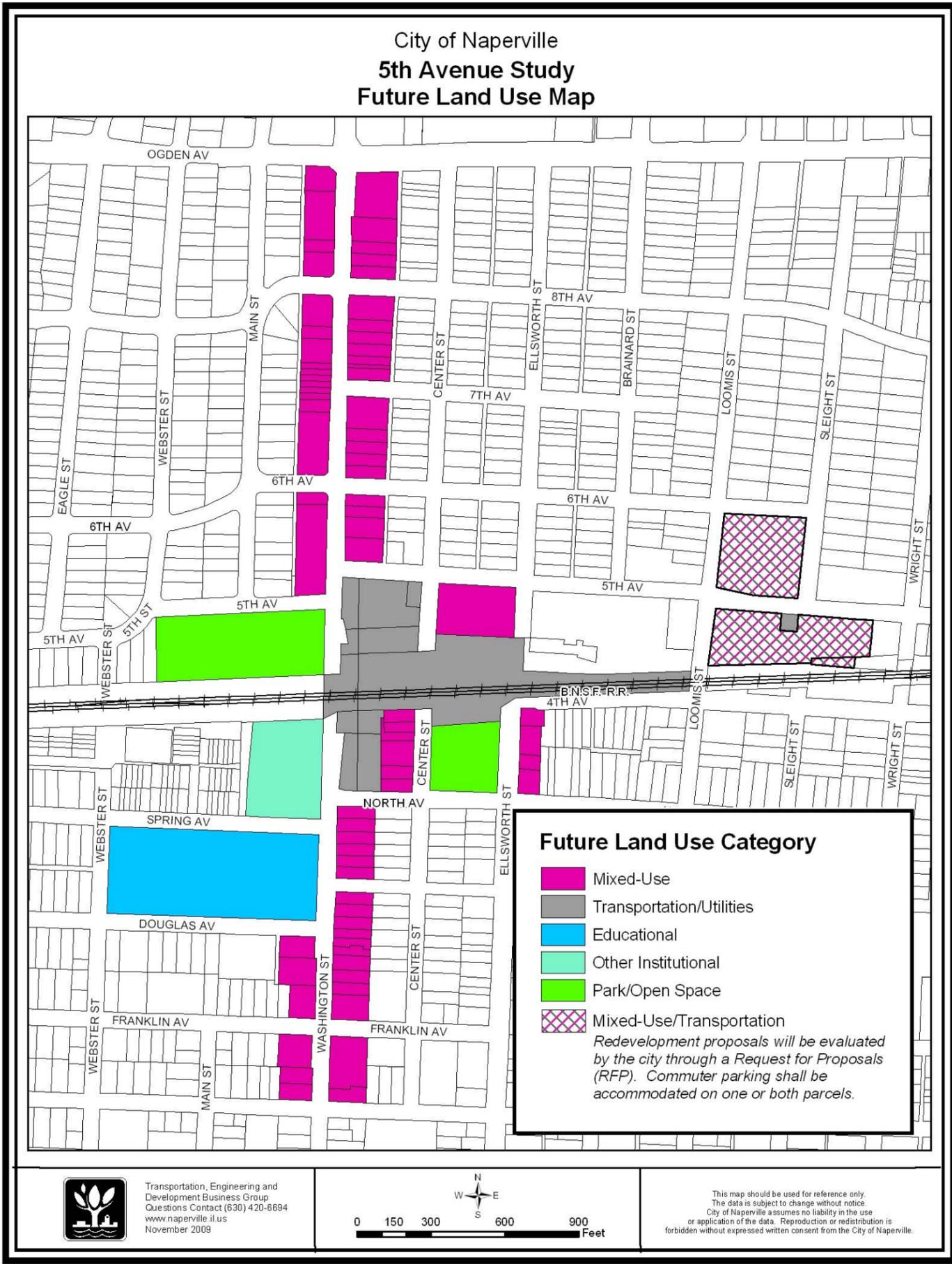
The future land use category “Mixed-Use” incorporates one or more land uses including office, neighborhood retail and service uses, and residential. The mixed-use category provides flexibility for future development while remaining sensitive to the adjoining neighborhoods in form, scale, and appearance per the Supplemental Recommendations.

## 5.0 Future Land Use

“Mixed-Use” is intended to act as a transitional area between the higher intensive uses (e.g., Naperville Metra Station, Washington Street, and downtown Naperville) and the adjacent residential neighborhoods. No density limitations are proposed for this future land use category; rather, a focus on compatibility of building form and design within the context of the surrounding neighborhood is emphasized. Parcels designated as “Mixed-Use” will be controlled in terms of bulk and height by the underlying zoning designation.

With the “Mixed-Use” designation for the Kroehler Lot and Water Tower West, commuter parking shall be accommodated on one or both parcels. The future land use designation provides a balance between commuter access to the Naperville Metra Station and cohesiveness with the adjacent residential neighborhood. The future land use allows for future redevelopment that is compatible with the existing built environment, which includes the adjacent residential neighborhoods, train tracks and roadway network, while maintaining the commuter parking supply.

Through a Request for Proposals (RFP), identified as Implementation Action Item No. 2 (*Section 8.0: Implementation Strategies*), the city will further evaluate development and commuter parking options for the city-owned Kroehler Lot and WTW site. In addition, multi-modal accessibility will continue to be encouraged, as discussed in *Section 6.3: Commuter Parking and Access Analysis* and *Section 6.4: Multi-Modal Improvement Recommendations*.



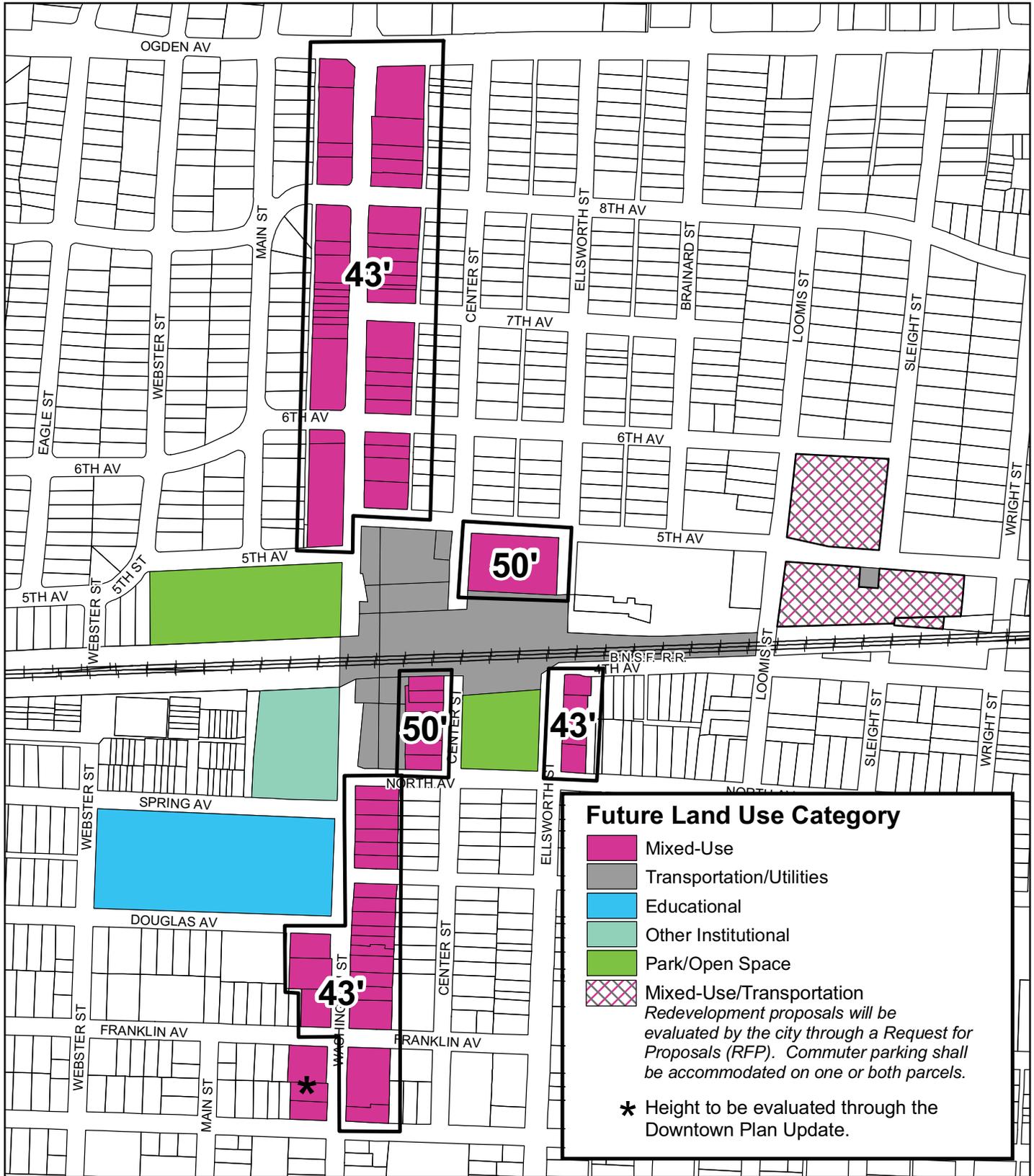
City of Naperville  
5th Avenue Study  
Future Land Use Supplemental Recommendations

- New buildings (including, but not limited to the parapet wall, elevator shaft and rooftop mechanical equipment) should not exceed the height shown on *Figure 11: Supplemental Height Recommendations*.
- “Mixed-Use” may be comprised of a mix of uses (i.e., commercial, office or residential) or a single use (i.e., commercial, office or residential) in a building
- Residential uses shall provide parking onsite.
- Reuse/conversion of existing residential-style buildings for non-residential uses along Washington Street is encouraged, where appropriate.
- The design of new buildings and building additions should be compatible with the character of the existing community and the *Building Design Guidelines*.
- Development and redevelopment along Washington Street should provide or reserve rear cross-access to adjacent properties where feasible.
- New commercial uses should be limited to office, neighborhood retail and service uses.
- New development on Washington Street should be located closer to the right-of-way so as to accommodate parking in the rear and provide for a greater separation between the building and residential uses abutting the rear property line.
- Commuter parking shall be viewed as a system in the evaluation of future use of city-owned properties.

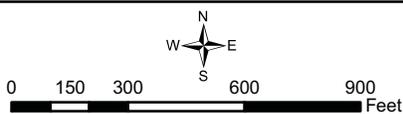
  
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Figure 10: 5th Avenue Study Future Land Use Map and Supplemental Recommendations

City of Naperville  
**5th Avenue Study**  
**Supplemental Height Recommendations**



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Figure 11: Supplemental Height Recommendations

# 6.0 Transportation and Commuter Parking

As part of the 5th Avenue Study, existing and future traffic conditions were evaluated for the study area. Access to the Naperville Metra Station was also evaluated, including existing and future utilization of commuter parking and alternate modes of transportation. Based on the *5th Avenue Study Transportation and Parking Analysis (Appendix F)*, and public input received throughout the planning process, recommendations for commuter parking and multi-modal transportation improvements were developed to address vehicle, transit, bicycle and pedestrian accessibility to and from the Naperville Metra Station. A summary of the analysis and recommended commuter parking and multi-modal improvements is provided below.

## 6.1 TRAFFIC ANALYSIS SUMMARY

### Existing (2008) Traffic Conditions

In order to evaluate existing (2008) traffic conditions in the study area, the following factors were considered:

- Field surveys were conducted to examine the access and circulation of personal vehicles, transit, taxi, kiss-and-ride, bicycles and pedestrians in the study area.
- Two public meetings were conducted to solicit public input on the existing transportation and commuter parking conditions in the study area (*Section 4.2: Public Participation*).
- Traffic counts were conducted at the 41 study intersections (*Figure 5: Study Intersections Map*) to determine the weekday AM and PM peak hour. To provide for a conservative analysis, the **peak hour** for each individual intersection was evaluated.

Based on the information obtained through field surveys, public comments, and traffic counts, an analysis of existing weekday AM and PM peak-hour traffic conditions was performed at the 41 study intersections. As shown in *Table 2*, traffic operation is currently satisfactory at all signalized study intersections during the morning peak hour. During the evening peak hour, the intersections of Washington Street/Ogden Avenue and Loomis Street/Ogden Avenue exhibit a poor overall **level of service** (LOS “E/F”). The remaining signalized intersections operate under acceptable levels of service during the evening peak hour.

The **peak hour** is the one-hour period during which traffic volumes are highest. During the weekday, the peak hour occurs once in the morning (AM peak hour) and once in the evening (PM peak hour), reflective of school and commuter traffic patterns. For purposes of a conservative analysis, the AM and PM peak hour was determined individually for each study intersection based on the combined four highest consecutive 15-minute traffic count volumes for all vehicular movements at each intersection.

**Level of Service (LOS)** is a data point that transportation professionals use to evaluate the operational effectiveness of an intersection. LOS is a grade, A through F, of how well an intersection is operating. For design of peak-hour conditions, the minimum standard for level of service in Naperville is LOS D.

# 6.0 Transportation and Commuter Parking

Study intersections under all-way stop or yield control are currently operating at desirable levels of service during both the AM and PM peak hours. The highest amount of delay occurs at the intersections of Columbia Street/5th Avenue/Plank Road and Columbia Street/North Avenue during the morning peak hour; however, the overall LOS D is acceptable for these intersections.

Study intersections under two-way stop/yield control are operating at acceptable levels of service during both the morning and evening peak hours with the exception of two intersections. The intersection of Washington Street/6th Avenue currently experiences poor levels of service during the morning and evening peak hours (LOS F in the eastbound and westbound approaches). The intersection of Ellsworth Street/North Avenue also exhibits a poor level of service (LOS E) during the morning peak hour.

The LOS for signalized and all-way stop sign controlled intersections is graphically depicted in *Figure 12: Existing (2008) AM/PM Peak Hour Level of Service Map*.

## Future (2028) Base Traffic Conditions

Future traffic volumes in the study area are expected to increase as a result of growth in population, employment, and development in the surrounding region, regardless of changes to existing land use in the study area. In order to forecast future (2028) traffic conditions in the study area, an evaluation of population data for the city, as well as ridership trends for Metra and the Pace bus routes serving the Naperville Metra station was conducted. Based on forecasted future trends in traffic growth, an annual growth factor of one percent for the study area street system was applied to the existing traffic volumes at the 41 study intersections. The future base traffic conditions assume no change in land use for the study area.

The future (2028) base traffic volumes were compared to the existing (2008) traffic volumes to determine how traffic growth over time will impact the roadway network. The analysis found that a number of intersections along Washington Street, Columbia Street, and Ogden Avenue will begin to operate inefficiently (LOS E or F), and potential improvements may be evaluated for these locations independent of any land use changes to the 5th Avenue Study area.

Table 2 presents the level of service for the 41 intersections under the existing (2008) and future (2028) base conditions. The level of service for signalized and all-way stop sign controlled intersections is graphically depicted in *Figure 13: Future (2028) Base Conditions AM/PM Peak Hour Level of Service Map*. Potential improvements were evaluated for intersections operating at a poor level of service (LOS E or F), as presented in *Section 6.2 Potential Intersection Improvements*.

# 6.0 Transportation and Commuter Parking

**Table 2: Existing (2008) and Future (2028) Base Conditions AM/PM Peak Hour Level of Service (LOS)**

Intersection	Existing (2008)		Future (2028) Base Conditions	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
<b>Signalized Intersections</b>				
Washington St./Ogden Ave.	D	F	D	F
Washington St./5th Ave. (north)	C	C	F	D
Washington St./North Ave.	B	B	C	C
Washington St./School St.	A	A	B	A
Washington St./Benton Ave.	D	C	E	E
Loomis St./Ogden Ave.	B	E	C	E
Columbia St./Ogden Ave.	B	C	C	C
<b>All-Way Stop/Yield Control Intersections</b>				
Ellsworth St./Benton Ave. <sup>1</sup>	A	A	B	B
Brainard St./Benton Ave. <sup>1</sup>	B	A	B	B
Loomis St./5th Ave. <sup>1</sup>	C	C	D	D
Loomis St./North Ave. <sup>1</sup>	B	B	C	C
Loomis St./Benton Ave. <sup>1</sup>	B	B	B	B
Sleight St./4th Ave. <sup>2</sup>	A	A	A	A
Sleight St./6th Ave. <sup>2</sup>	A	A	A	A
Wright St./4th Ave. <sup>2</sup>	A	A	A	A
Columbia St./5th Ave./Plank Rd. <sup>1</sup>	D	C	F	F
Columbia St./North Ave. <sup>1</sup>	D	C	F	E
Columbia St./Benton Ave. <sup>1</sup>	A	B	A	C
<b>Two-Way Stop/Yield Control Intersections</b>				
Washington St./5th Ave. (south) <sup>3</sup>	EB - B	EB - C	EB - B	EB - C
Washington St./6th Ave. <sup>3</sup>	EB - F WB - F	EB - F WB - F	EB - F WB - F	EB - F WB - F
Center St./6th Ave. <sup>3</sup>	NB - A SB - A	NB - A SB - A	NB - A SB - A	NB - B SB - B
Center St./5th Ave. <sup>3</sup>	NB - C SB - B	NB - D SB - C	NB - C SB - B	NB - F SB - C
Center St./4th Ave. <sup>4</sup>	WB - B	WB - B	WB - B	WB - B

# 6.0 Transportation and Commuter Parking

**Table 2: Existing (2008) and Future (2028) Base Conditions AM/PM Peak Hour Level of Service (LOS) (continued)**

Intersection	Existing (2008)		Future (2028) Base Conditions	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
<b>Two-Way Stop/Yield Control Intersections</b>				
Center St./North Ave. <sup>3</sup>	NB - D SB - C	NB - D SB - C	NB - F SB - C	NB - E SB - D
Center St./School St. <sup>3</sup>	NB - B SB - C	NB - A SB - B	NB - B SB - D	NB - A SB - B
Center St./Benton Ave. <sup>3</sup>	SB - C	SB - B	SB - C	SB - B
Ellsworth St./Ogden Ave. <sup>3</sup>	NB - C SB - C	NB - C SB - C	NB - D SB - D	NB - C SB - C
Ellsworth St./6th Ave. <sup>3</sup>	EB - A WB - A	EB - B WB - B	EB - A WB - A	EB - B WB - B
Ellsworth St./5th Ave. <sup>3</sup>	NB - B SB - B	NB - C SB - C	NB - B SB - B	NB - E SB - C
Ellsworth St./4th Ave. <sup>3</sup>	NB - A	NB - A	NB - A	NB - A
Ellsworth St./North Ave. <sup>3</sup>	NB - E	NB - C	NB - F	NB - D
Ellsworth St./School St. <sup>3</sup>	NB - C SB - D	NB - B SB - C	NB - D SB - E	NB - B SB - C
Brainard St./5th Ave. <sup>3</sup>	NB - B SB - B	NB - C SB - B	NB - C SB - C	NB - D SB - C
Brainard St./North Ave. <sup>3</sup>	NB - B	NB - B	NB - B	NB - B
Brainard St./6th Ave. <sup>3</sup>	NB - A SB - A	NB - A SB - A	NB - A SB - A	NB - A SB - A
Loomis St./6th Ave. <sup>3</sup>	EB - B WB - B	EB - B WB - B	EB - B WB - B	EB - B WB - B
Loomis St./4th Ave. <sup>3</sup>	EB - B WB - B	EB - C WB - B	EB - B WB - B	EB - C WB - C
Sleight St./5th Ave. <sup>3</sup>	SB - B	SB - B	SB - B	SB - B
Sleight St./North Ave. <sup>3</sup>	NB - B SB - C	NB - B SB - B	NB - B SB - C	NB - B SB - B
Wright St./5th Ave. <sup>4</sup>	SB - B	SB - B	SB - B	SB - B
Wright St./North Ave. <sup>3</sup>	NB - B SB - C	NB - B SB - B	NB - B SB - C	NB - B SB - B

NB – Northbound Approach  
SB – Southbound Approach

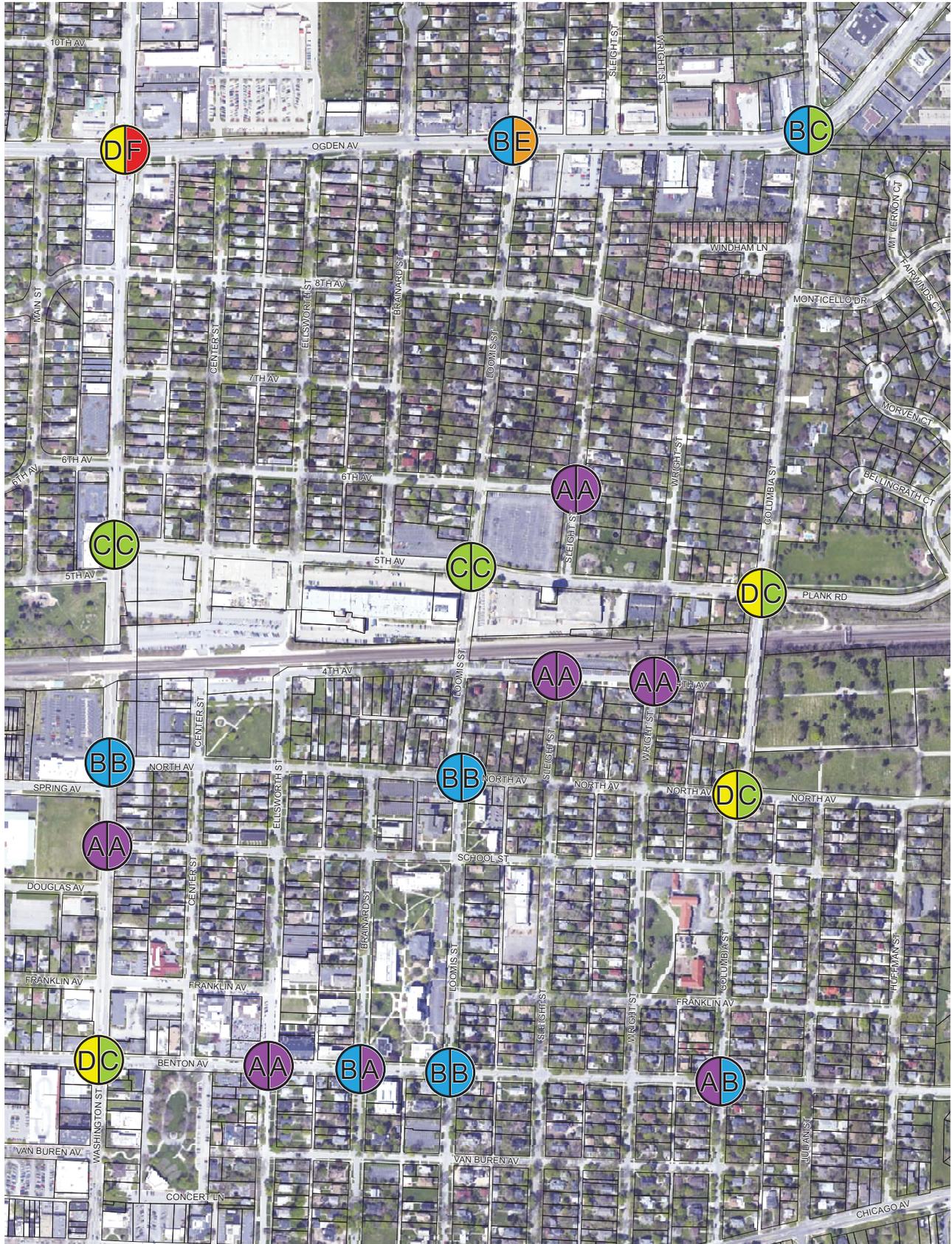
EB – Eastbound Approach  
WB – Westbound Approach

Notes:

1. All-Way Stop Control
2. All-Way Yield Control

3. Two-Way Stop Control
4. Two-Way Yield Control

# City of Naperville Existing 2008 AM/PM Level of Service



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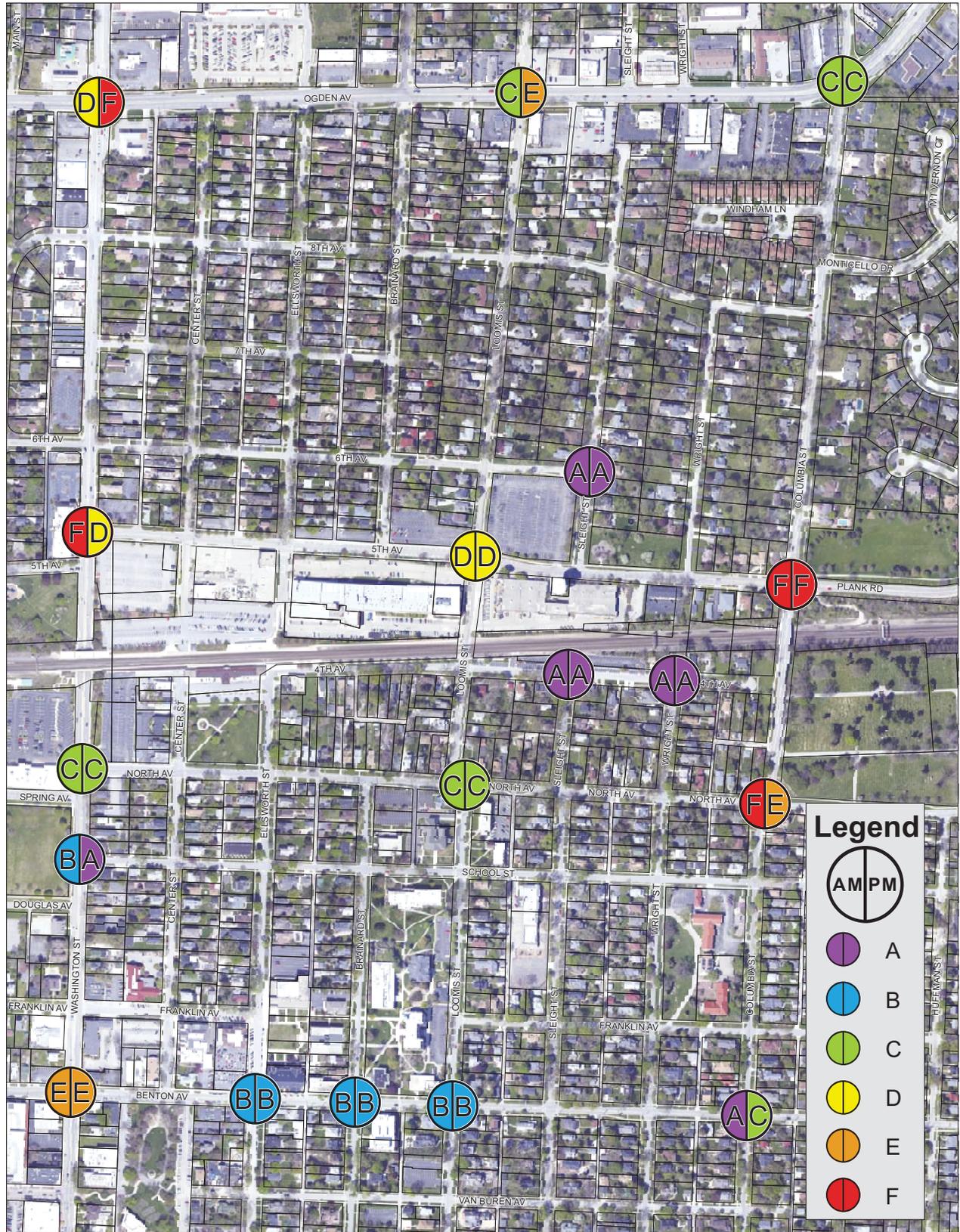


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Figure 12: Existing (2008) AM/PM Peak Hour Level of Service Map

# City of Naperville Future 2028 AM/PM Peak Hour Level of Service (Existing Land Use)



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Figure 13: Future (2028) Base Conditions AM/PM Peak Hour Level of Service Map

# 6.0 Transportation and Commuter Parking

## Future (2028) Traffic Conditions with Future Land Use Alternatives

In addition to future base conditions, in which no change in land use is assumed, traffic conditions associated with the five future land use alternatives were also evaluated. The roadway capacity analysis found that the traffic impacts associated with the future land use alternatives do not result in a significant deterioration as compared to the future base condition.

To further evaluate potential traffic impacts, submittal of a traffic study will be required for future development and redevelopment in the study area. With future redevelopment, potential intersection improvements will be evaluated as detailed in *Section 6.2: Potential Intersection Improvements (below)*.

## **6.2 POTENTIAL INTERSECTION IMPROVEMENTS**

Based on an evaluation of future (2028) traffic conditions for base conditions and with the future land use alternatives, potential improvements were evaluated for signalized and all-way stop/yield control intersections operating at a poor level of service (LOS E or F). Each intersection improvement would require additional right-of-way, with the exception of the potential traffic signal at the intersection of Columbia Street/5th Avenue/Plank Road and the potential stop sign on the east leg of the intersection of Ellsworth Street/North Avenue. With future redevelopment in the study area, the potential intersection improvements listed below should be further evaluated through the city's Capital Improvement Program (CIP) process.

No improvements are recommended for the two-way stop/yield control intersections. The approaches at the two-way stop/yield control intersections that are expected to operate at poor levels of service are under stop control, while the other approaches travel through the respective intersections uninterrupted (no stop sign). The poor levels of service are common for approaches that are required to stop because the other approaches, typically arterials or collectors with higher traffic volumes, pass through the intersection without stopping. At two-way stop controlled intersections the right-of-way, or right to pass uninterrupted (no stop sign), is typically determined by the city's roadway classification or other key attributes (i.e., one-way street). Right-of-way is typically given to arterials or collectors to provide for free-flow conditions for the higher traffic volumes.

The following potential intersection improvements were considered:

### Washington Street/Ogden Avenue

The poor level of service during the PM peak hour (LOS F) is attributable to high traffic volumes on all four approaches. If through lanes and turn lanes are added, the intersection level of service would be expected to improve. As Ogden Avenue is under the jurisdiction of the Illinois Department of Transportation (IDOT), all improvements within the right-of-way must be coordinated with and approved by IDOT. It is important to note that improvements at this intersection will be difficult to achieve absent of redevelopment occurring, given the necessary right-of-way acquisition.

# 6.0 Transportation and Commuter Parking

## Washington Street/5th Avenue (north)

During the AM peak hour, the conflict between northbound traffic and the high volume of southbound left-turns headed to the Naperville Metra Station results in LOS F. As commute patterns are reversed in the PM peak hour, the traffic volumes for the aforementioned movements are not as high, resulting in an acceptable LOS D. The addition of a northbound right-turn lane would improve the overall intersection level of service in the AM peak hour, but would have minimal effect in the PM peak hour.

## Washington Street/Benton Avenue

During future (2028) base conditions this intersection is forecasted to operate at LOS E during both peak hours, and with the future land use recommendation is expected to operate at LOS F during both peak hours. The poor level of service is due to high northbound traffic volumes during the AM peak hour and high southbound traffic volumes during the PM peak hour, reflective of commuter traffic patterns. With a southbound right-turn lane, the intersection level of service is expected to improve during the PM peak hour. In order to improve the intersection level of service during both peak hours, an additional northbound through lane would be required. Per the *City of Naperville Washington Street Corridor Study* (completed in 2005), additional through lanes on Washington Street are not recommended.

## Loomis Street/Ogden Avenue

The poor level of service during the PM peak hour is attributable to the high traffic volumes at this intersection. Additional through lanes are needed to address the traffic volumes. Increased capacity at this intersection would necessitate widening Ogden Avenue through several adjacent intersections to maintain roadway continuity. As Ogden Avenue is under the jurisdiction of the Illinois Department of Transportation (IDOT), all improvements within the right-of-way must be coordinated with and approved by IDOT.

## Columbia Street/5th Avenue/Plank Road

The following improvements could make this intersection more efficient:

- Due to large eastbound right-turning volumes in the PM peak hour, adding an eastbound right-turn lane would improve the level of service during the PM peak hour. An eastbound right-turn lane would have minimal effect in the AM peak hour, however, due to low right-turn volumes.
- Adding a northbound right-turn lane would improve the intersection LOS from F to C in the AM peak hour and from LOS F to E in the PM peak hour. The northbound right-turn movement is heavier in the weekday AM peak hour compared to the PM peak hour. This improvement should be evaluated with future bridge reconstruction.
- Adding both a northbound right-turn lane and eastbound right-turn lane would result in an improvement in intersection level of service from LOS F to LOS C in the AM peak hour and from LOS F to LOS D in the PM peak hour. This improvement should be evaluated with future bridge reconstruction.
- Signalizing the intersection would create an intersection with LOS B in both peak hours. The signal would operate independently from the coordinated system on Ogden Avenue. It is important to note that while a signal would make the intersection more efficient in the peak hours, it may negatively impact vehicle delay in the non-peak hours. A traffic signal warrant analysis should be conducted if the city decides to pursue a traffic signal in this location.

# 6.0 Transportation and Commuter Parking

## Columbia Street /North Avenue

The following improvements could make this intersection more efficient:

- The addition of a westbound right-turn lane would improve the intersection level of service to LOS C during the AM peak hour. The westbound right-turn lane would have minimal effect in the PM peak hour as the westbound right-turn volume is considerably less than during the AM peak hour, reflecting commuter traffic patterns.
- With the addition of a southbound right-turn lane, the intersection level of service would improve from LOS F to LOS E in the AM peak hour and from LOS E to LOS D in the PM peak hour for the future (2028) base conditions. With the future land use recommendation, the addition of a southbound right-turn lane would improve the intersection level of service from a LOS F in both peak hours to a LOS E in the AM peak hour and a LOS D in the PM peak hour.
- The addition of both a westbound right-turn lane and a southbound right-turn lane would improve the overall intersection level of service from LOS F to LOS B in the AM peak hour and from LOS F to LOS D in the PM peak hour for the future (2028) base conditions. With the future land use recommendation, the addition of westbound and southbound right-turn lanes would improve the intersection level of service from LOS F to LOS B in the AM peak hour and from LOS F to LOS D in the PM peak hour.

## Ellsworth Street/North Avenue

Based on public input received throughout the planning process and an evaluation of the pedestrian and vehicle activity at the intersection of Ellsworth Street/North Avenue, potential improvements were analyzed in order to improve pedestrian and motorist visibility in this location. With a stop sign on westbound North Avenue, pedestrians would be more visible to oncoming traffic. Installation of a stop sign at this intersection is subject to the city's stop sign warrant analysis.

In order to determine the effectiveness of the recommended intersection improvements, a supplemental analysis was performed. The results of the future (2028) base conditions with intersection improvements are summarized in *Table 3*.

# 6.0 Transportation and Commuter Parking

**Table 3: Future (2028) Base Conditions with Intersection Improvements AM/PM Peak Hour Level of Service (LOS)**

Intersection	Potential Improvements <sup>1</sup>	Future 2028 (Base Conditions)		Future 2028 (Base Conditions + Intersection Improvements)	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
<b>Signalized Intersections</b>					
Washington St./ Ogden Ave.	Add additional through and turn lanes <sup>2</sup>	D	F	D	E
Washington St./ 5th Ave. (north)	Add NBR lane	F	D	C	D
Washington St./ Benton Ave.	Add SBR lane	E	E	E	D
	Add SBR lane Add NBT lane <sup>3</sup>			D	D
Loomis St./ Ogden Ave.	Add additional through lanes <sup>2</sup>	C	E	C	C
<b>All-Way Stop-Controlled Intersections</b>					
Columbia St./ 5th Ave./Plank Rd.	Add EBR lane	F	F	F	D
	Add NBR lane <sup>4</sup>			C	E
	Add EBR lane Add NBR lane <sup>4</sup>			C	D
	Maintain current geometry and signalize <sup>5</sup>			B	B
Columbia Ave./ North Ave.	Add WBR lane	F	E	C	E
	Add SBR lane			E	D
	Add WBR lane Add SBR lane			B	D
<b>Two-Way Stop-Controlled Intersection</b>					
Ellsworth St./ North Ave.	Add WB Stop Sign <sup>6</sup>	NB - F WB - A	NB - D WB - A	NB - C WB - C	NB - B WB - B

WB – westbound

SBR – southbound right-turn lane

NBT – northbound through lane

EBR – eastbound right-turn lane

NBR – northbound right-turn lane

WBR – westbound right-turn lane

**Notes:**

- Each intersection improvement would require additional right-of-way, with the exception of the potential traffic signal at the intersection of Columbia Street/5th Avenue/Plank Road and the potential stop sign on the east leg of the intersection of North Avenue/Ellsworth Street.
- Contingent upon IDOT action on arterial roadway (i.e., Ogden Avenue).
- The Washington Street Corridor Study resulted in a city policy not to expand Washington Street to provide additional through lanes in the vicinity of downtown Naperville.
- This improvement should be evaluated with future bridge reconstruction.
- Subject to City's traffic signal warrant analysis. Level of Service (LOS) criteria varies between unsignalized and signalized intersections.
- Subject to City's stop sign warrant analysis.

# 6.0 Transportation and Commuter Parking

## 6.3 COMMUTER PARKING AND ACCESS ANALYSIS

Over 4,000 commuters use the Naperville Metra Station to board a Metra train each day (*Section 3.4: Existing Public Transportation*). These commuters access the train station through a variety of methods, including travel by private vehicle (parking lots), carpool/vanpool, kiss-and-ride, transit, bicycle and pedestrian activity. There are a total of 1,373 parking spaces currently provided at the station, including 354 daily fee parking spaces and 1,019 permit parking spaces. The Naperville Metra Station is also served by 16 Pace bus routes.

Based on the following analysis of the multi-modal system used to access the Naperville Metra Station, it was determined that the city should continue its established policy of providing a comprehensive, multi-modal network that provides commuters with options to access the train station, including permit parking, daily fee parking, carpooling, Pace bus, bicycling, and walking. While there is some demand for additional commuter parking, the current multi-modal system is successfully providing access to the Naperville Metra Station for the vast majority of commuters. As such, the 5th Avenue Study examined opportunities to further encourage alternative modes of transportation to the Naperville Metra Station, and to improve the interconnectivity of the various travel modes at the station.

### Commuter Parking

Access to the Naperville Metra Station is currently provided by permit parking, daily fee parking, Pace bus service, and bicycle and pedestrian activity. A total of 1,019 permit parking spaces are provided in the three permit parking lots at the Naperville Metra Station: Burlington, Parkview and Kroehler. The city maintains waitlists for commuters wishing to obtain a parking permit for the Naperville or Route 59 Stations. Approximately 1,800 people currently have their name on the Burlington/Parkview and Kroehler waitlists. Of those commuters on the waitlist, over 530 people currently hold a permit for another commuter parking lot. These are people who have a permit but would like to obtain a permit in a more desirable commuter parking lot. Therefore, there are 1,270 commuters who desire a permit, but do not currently hold one.

While a significant number of commuters are currently waiting for a permit, this does not mean that all of these commuters do not have other ways to access the train station. The City of Naperville has established a multi-modal approach to providing access to the Metra Stations, including commuter parking permits, daily fee parking spaces, riding a Pace bus, bicycling or walking to the station, or being dropped off. The most recent data indicates that only 8 percent of commuters at the Naperville Metra Station are not currently accessing the train station through the existing permit parking, daily fee parking, or Pace bus routes. These commuters (approximately 330) are likely biking, walking, carpooling or being dropped off at the Metra Station.

### Daily Fee Parking

Commuters on the waitlist have the opportunity to use the daily fee parking spaces located at the Naperville Metra Station. The 354 daily fee parking spaces currently provided at the Naperville Metra Station are available for \$2 per day on a first come, first serve basis and provide enough parking spaces to accommodate 28 percent of the commuters without an existing parking permit.

# 6.0 Transportation and Commuter Parking

## Transit

Each year the city adopts Strategic Plan Initiatives (SPI) that identify the city's priorities for the year and establishes initiatives to achieve the city's strategic vision. The Transportation Vision for the city states that "Alternative transportation methods are available and promoted: pedestrian and bicycle routes, mass transportation, ride-sharing, and telecommuting." To achieve this goal, a strategy to "Examine, implement and promote alternative transportation methods" was established and the FY 09-10 SPI included the evaluation of alternative transit opportunities consistent with the Comprehensive Transportation Plan.

At the 2007 Transportation Workshop, the City Council and Transportation Advisory Board further solidified their support of a multi-modal approach to provide access to the Metra Stations through the endorsement of several action items:

- Focus on improving access to the train stations through bus service with consideration of limited additional commuter parking at the Naperville and Route 59 Metra Stations in the future.
- Aggressively pursue additional park-and-ride facilities for commuter bus service and investigate and implement improvements to Pace service to the train stations to make transit more convenient and reliable.

The Naperville Metra Station is served by 16 Pace buses. Fourteen of those routes provide Feeder Service, which operate through the neighborhoods and provide service to the Naperville Metra Station. In 2009, the Feeder Routes serving the Naperville Metra Station averaged approximately 585 riders per day, meaning that over 14 percent of commuters are utilizing Pace Feeder Routes to access the train station. This does not account for the commuters who may be using the two all day routes, Routes 530 and 714, to get to and from the train station.

In support of its goal to promote transit and to reduce the number of vehicular trips, the City of Naperville has budgeted approximately \$368,000 in FY 09-10 for transit related initiatives. The majority of these dollars are being spent to support the establishment or expansion of transit services in Naperville in order to provide more flexibility and additional options for commuters. The funding of these transit enhancements have been effective with data showing that in the month immediately following the implementation of a transit enhancement ridership increased by almost 18 percent from the previous year.

Transit also plays an important role in reducing the number of vehicle trips taken on the road network. The 21 current transit routes in Naperville result in almost 1,400 vehicles being removed from the road network each day. Commuter bus routes remove almost 800 vehicles from the roadways, with approximately 585 of those people traveling to the Naperville Metra Station. This is especially significant for the roadways surrounding the train stations since commuter traffic is often condensed into a short period of time during peak hours as a result of the express train schedules.

# 6.0 Transportation and Commuter Parking

## 6.4 MULTI-MODAL IMPROVEMENT RECOMMENDATIONS

Based on an evaluation of the current use of alternate modes of transportation to access the Naperville Metra Station, and public input received throughout the planning process, multi-modal improvements were identified to enhance vehicle, pedestrian and bicycle visibility and accessibility, and improve the interconnectivity of the various travel modes in the vicinity of the train station. Through review of multi-modal improvements and based on feedback received during the February and March public meetings, an analysis of the net change to on-street commuter parking attributable to the multi-modal improvements was conducted and is provided in *Appendix C: Multi-Modal Improvement Recommendations and On-Street Commuter Parking*. All multi-modal improvements will require engineering prior to implementation.

### Transit Improvements

In order to enhance transit accessibility, a bus depot is recommended for the northeast corner of Washington Street/North Avenue (existing Parkview Lot). Through an engineering feasibility study, the city will evaluate the configuration and accessibility of a bus depot in the vicinity of the Naperville Metra Station, as well as bus movements north and south of the train station (see *Section 8.0: Implementation Strategies*). The bus depot would require relocation of the surface parking spaces to an alternate commuter parking facility in order to maintain the parking supply, and would offer the following:

- Consolidation of passenger pick-up/drop-off activity for buses on the south side of the tracks;
- Elimination of bus queues on Ellsworth Street and 4th Avenue;
- Reduction of bus conflicts with pedestrian and kiss-and-ride activity on 4th Avenue; and
- Provision of a defined transit center/area for commuters.

### Pedestrian and Bicycle Improvements

Based on an evaluation of existing conditions and public input, opportunities were identified to improve accessibility for pedestrians and bicycles in the study area. The following improvements could be implemented independent of future land use or commuter parking changes; a full list of recommended improvements is provided in *Section 8.0: Implementation Strategies*.

- 5th Avenue - Remove parking at key intersections and install curb bulb-outs in order to provide a pedestrian refuge, improve visibility between pedestrians and vehicles, and reduce crossing distance.
- 4th Avenue - Install pedestrian lighting along the sidewalk on the north side of 4th Avenue to enhance the pedestrian environment.
- North Avenue - Remove on-street parking spaces on the south side of North Avenue, east of Center Street to improve visibility between pedestrians and vehicles.
- Bicycle routes and racks - Enhance signage along existing routes and install additional bicycle racks to facilitate bicycle commuting to the train station.

# 6.0 Transportation and Commuter Parking

## Vehicular and Roadway Improvements

In addition to the overall intersection improvements that should be considered independent of future land use and commuter parking changes in the study area (*Section 6.2: Potential Intersection Improvements*), the following vehicular and roadway improvements were identified. These improvements could be implemented independent of future land use or commuter parking changes in the study area. A full list of improvements is provided in *Section 8.0: Implementation Strategies*.

- Washington Street/North Avenue - Relocate the stop bar for the northbound left-turn lane into the DuPage Children's Museum in order to reduce conflict with westbound left-turn movements.
- Washington Street/North Avenue - Modify signal timing to provide for split phase eastbound/westbound movements in order to reduce conflicts between the DuPage Children's Museum and commuter traffic.

## 6.5 COMMUTER PARKING RECOMMENDATION

Commuter parking at the Naperville Metra Station requires a balance between providing access to the train station and maintaining cohesiveness with the adjacent residential neighborhoods. To that end, staff evaluated the following factors in the development of the recommendation for commuter parking:

- Site context and land use compatibility, including compatibility with the adjacent residential neighborhoods;
- Existing and future use of alternative modes of transportation (e.g., transit, bicycle, pedestrian); and
- Roadway network and future traffic conditions.

Commuter parking will be viewed as a system in the evaluation of future use of city-owned properties in order to maintain the existing supply of commuter parking spaces. Consolidation of commuter parking is recommended in order to accommodate the bus depot and the associated loss of parking spaces as necessary. The following steps will be taken to evaluate commuter parking options for the Naperville Metra Station:

- Initiate a Request for Proposals (RFP) to consider development and parking options for the Kroehler Lot and Water Tower West (WTW) site.
- Following a feasibility study for the bus depot and an RFP for development and parking options for the Kroehler Lot and WTW site, consider the issuance of an RFP for a public/private partnership to consolidate commuter parking and accommodate the loss of parking spaces in a parking structure.

# 7.0 Washington Street: Streetscape Vision and Conceptual Design

The streetscape component of the 5th Avenue Study encompasses Washington Street, between Ogden Avenue and Benton Avenue (*Figure 2: 5th Avenue Study Boundary*). This area serves as a gateway to the City of Naperville and provides a critical link between the Ogden Avenue Corridor, the Naperville Metra Station, and downtown Naperville. The purpose of the Streetscape Vision and Conceptual Design is to establish a concept for aesthetic improvements that will help to create a new streetscape environment that is cohesive, inviting and complementary of downtown Naperville.

## 7.1 STREETScape VISION

The development of the Washington Streetscape Vision is based on an analysis of existing conditions, the priorities identified through the visioning workshop and other input gathered throughout the planning process. The vision is a long-range document that describes the desired streetscape environment for Washington Street, including aesthetic, pedestrian and gateway elements.

The Washington Streetscape Vision Statement is as follows:

“Create an attractive streetscape along Washington Street between Ogden Avenue and Benton Avenue that establishes a cohesive image and identity for the corridor, emphasizes its role as a key gateway to Downtown Naperville, and is accommodating for all users.”

In addition, the following goals were established to further describe specific aspects of the Vision Statement:

### GOAL 1: Improve the Pedestrian Environment

Improve the streetscape to include a consistent application of materials such as sidewalk surface, street trees, landscape, lighting, furnishings, and other amenities that will create a better separation between pedestrians and vehicular traffic and make pedestrians feel more safe and comfortable.

### GOAL 2: Establish Economically Sustainable Streetscape Improvements

Identify streetscape improvements that are economically sustainable, with emphasis on durable, quality materials and reasonable maintenance requirements.

### GOAL 3: Create a Gateway to Downtown

Enhance the corridor to include attractive streetscape improvements consistent with the importance of the area as a downtown gateway. The streetscape should announce entry to the downtown environment.

### GOAL 4: Create a Cohesive Image along the Corridor

Create a cohesive image and a unified look along the corridor by applying a consistent palette of materials and design elements.

### GOAL 5: Enhance the Transition between the Ogden Corridor and Downtown

Create a streetscape that serves as a transition between Ogden Avenue and downtown Naperville.

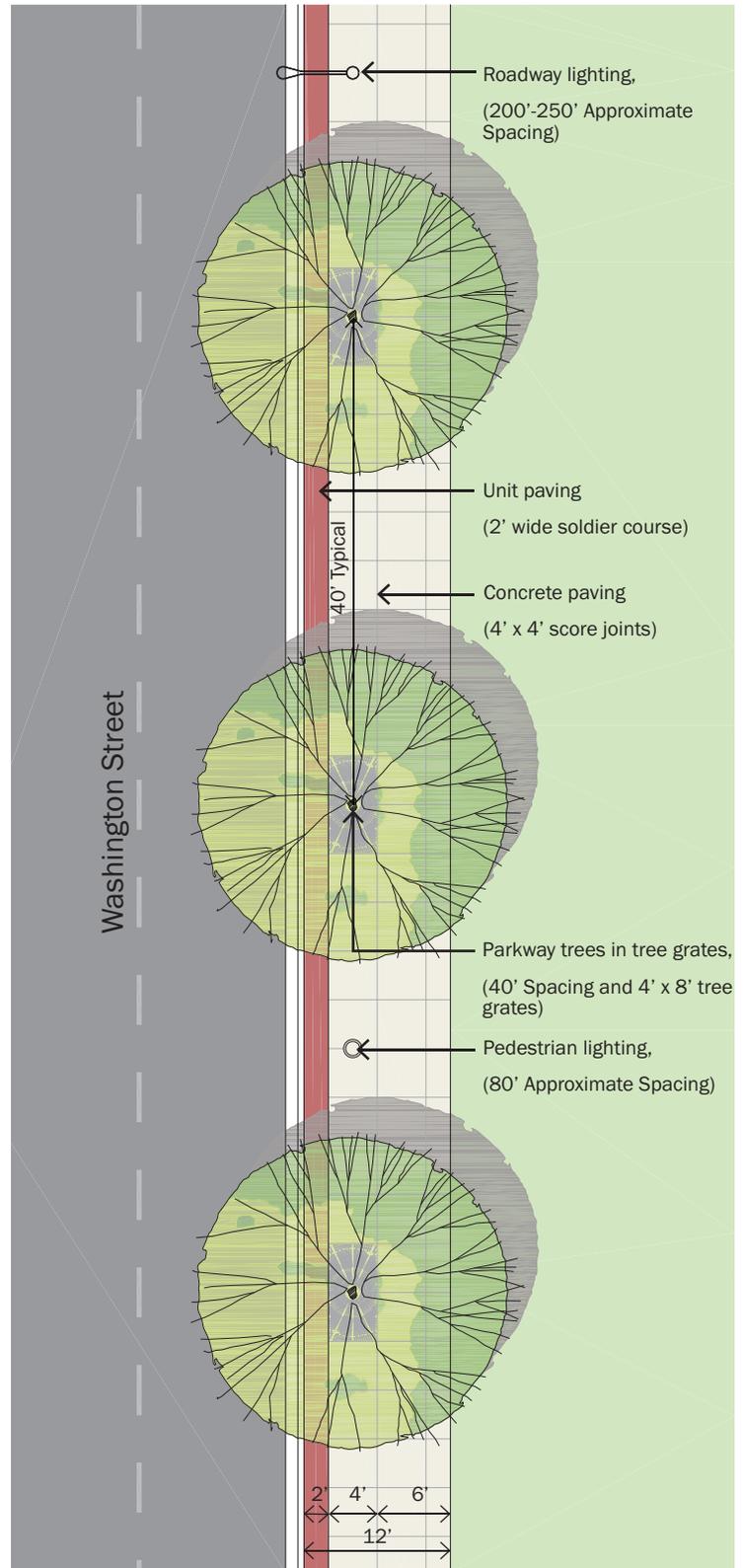
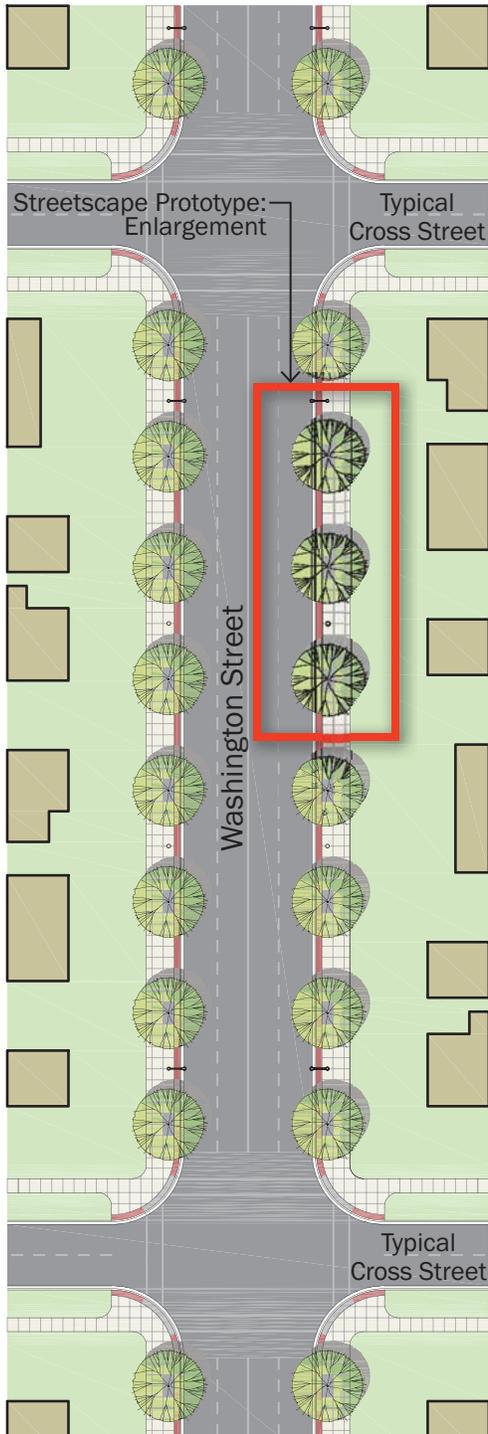
# 7.0 Washington Street: Streetscape Vision and Conceptual Design

## GOAL 6: Improve Identity and Way Finding Signage

Develop identity and way finding signage as a strong streetscape element both from a functional and aesthetic standpoint. The signage style and message should be clear, concise, timeless and flexible, and should clearly direct users to important community destinations.

## **7.2 STREETScape DESIGN RECOMMENDATIONS**

The Streetscape Conceptual Design provides a consistent application of a 12-foot (12') streetscape area along the entire length of the corridor with streetscape elements including parkway trees, roadway and pedestrian lights, signage, sidewalk and paving improvements to create an attractive and inviting street environment (*Figure 14: Washington Streetscape Prototype: Plan View and Enlargement*). Landscape and furnishings are placed between the roadway and the sidewalk to provide separation from the roadway, thereby creating a more comfortable pedestrian setting. In addition, concepts for gateway enhancements at the BNSF railway underpass area and directional and special event signage are recommended to improve the appearance and function of the corridor (*Figure 15: Washington Streetscape Underpass Enhancements*). Material selection guidelines are provided to ensure consistent material application for the entire corridor. Details of the Streetscape Vision are included in *Appendix E*.



**Streetscape Prototype: Plan View      Streetscape Prototype: Enlargement**

Source: *Washington Street: Streetscape Vision and Conceptual Design*, Hitchcock Design Group

Figure 14: Washington Streetscape Prototype - Plan View and Enlargement

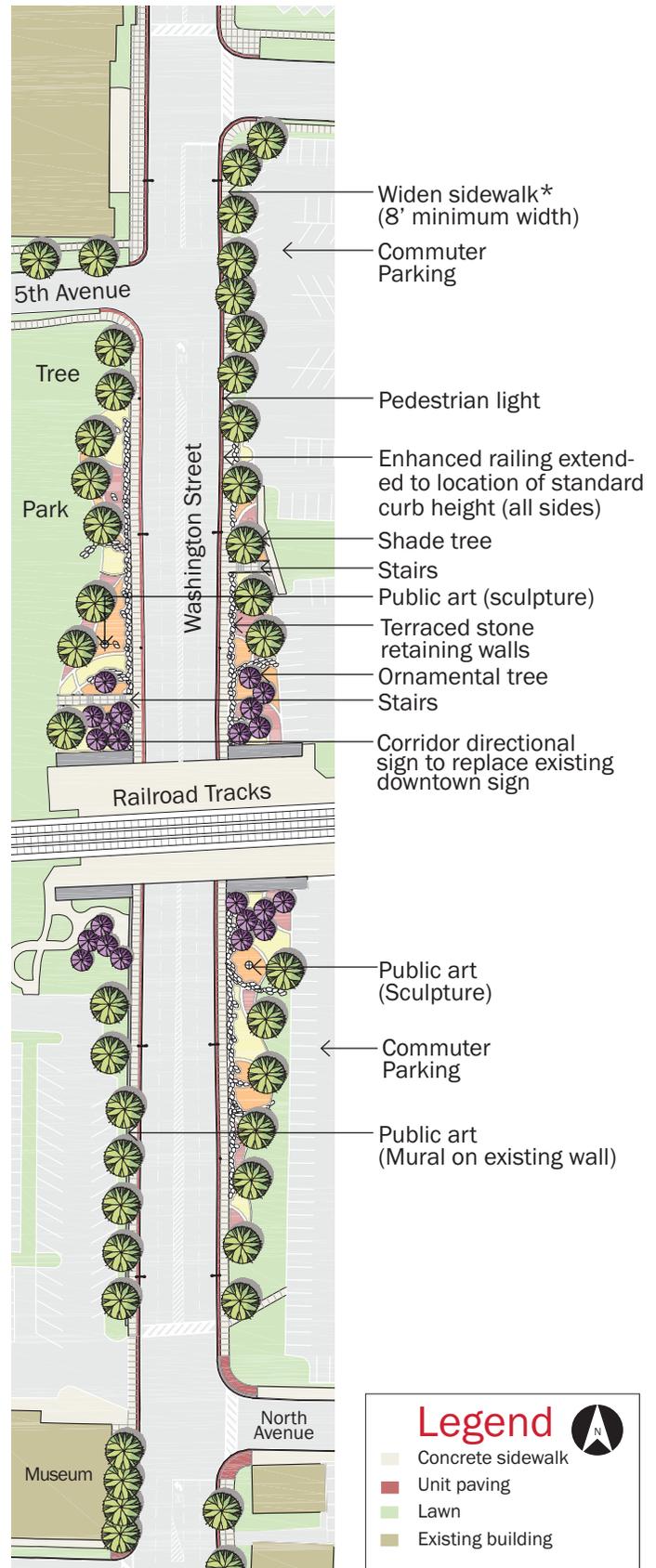
In addition to streetscape improvements, enhancements to the area surrounding the BNSF railway underpass are recommended to further establish a prominent gateway feature along the corridor and create a sense of arrival to the downtown environment. Improvements recommended at the underpass area include landscaping, stone outcropping retaining walls, widened sidewalks, and improved railings. It is also recommended that space be reserved for public art (e.g. murals, reliefs, mosaics, sculptures, and other artwork). Community participation will be encouraged in creation of the artwork to enhance the sense of place in this area.

Further study is required to evaluate the feasibility and placement of the recommended improvements. Any modifications to or around the underpass would be subject to the review and/or approval from BNSF Railway Company and Metra.



### Public Art Examples

\* Widen sidewalks where feasible. In areas fronting the city's commuter parking lots and Kendall Park, sidewalks could potentially be widened with construction of retaining walls. However, sidewalk directly underneath the underpass and fronting the Museum parking lot would likely stay the same width due to the space constraints and the presence of an existing retaining wall.



### Underpass Enhancements: Plan View

Source: Washington Street: Streetscape Vision and Conceptual Design, Hitchcock Design Group

Figure 15: Washington Streetscape Underpass Enhancements

## 8.0 Implementation Strategies

A comprehensive list of the future land use, transportation, commuter parking and streetscape implementation strategies developed through the 5th Avenue Study are summarized in the following Implementation Action Plan. Based on the Action Plan, city staff will incorporate action items into the annual Planning Services Team and Transportation Team work programs, and Capital Improvement Program (CIP), for City Council consideration. This approach will provide City Council with the opportunity to approve specific work plan items on an annual basis and evaluate progress on completed implementation strategies. The Implementation Action Plan is presented in *Table 4*, and includes a description of each action item and associated level of effort, public cost estimate (where applicable), and priority, as defined below.

- **Level of Effort** represents the degree of difficulty to implement the action item, indicated by a scale of low, medium or high, with low being the easiest to implement and high being most difficult to implement. This category represents the collective level of effort by staff, landowners and general stakeholder interest. The need for coordination with other jurisdictions or agencies (e.g., IDOT, Metra, BNSF, Pace Suburban Bus) has also been factored into the anticipated level of effort to implement the action item.
  - o Low: The action item can be implemented with little need for public coordination; or the technical aspects of the item are relatively straightforward with minimal engineering required.
  - o Medium: The action item will require some degree of public involvement; or the technical requirements of the item may be challenging, but not overly complex.
  - o High: The action item will require significant public involvement and coordination with other jurisdictions or agencies (e.g., IDOT, Metra, BNSF, Pace Suburban Bus); or the technical requirements for implementation are complex and require specialized technical assistance.
- **Public Cost Estimate** – The anticipated public cost for implementation based on current year (2009) estimates. For capital projects, the cost shown is for construction only. Additional costs will be required for feasibility studies and engineering.
- **Priority** – A priority has been assigned based on the time period for initiation of the action item, as defined below:
  - o Ongoing: The action item is currently underway and expected to continue
  - o 1: Short-term, 1 to 3 years
  - o 2: Intermediate-term, 4 to 9 years
  - o 3: Long-term, 10 years or more

# 8.0 Implementation Strategies

**Table 4: Implementation Action Items**

Action Item		Priority	Level of Effort	Lead Responsibility	Public Cost Estimate (where applicable) <sup>1</sup>	Cost Description
Commuter Parking	1.	1	High	TED - Engineering Services Team	\$500,000 - \$1.5 million (depending on access configuration)	Reinforced pavement, striping, lighting, signage, landscaping, sidewalk and shelters
	2.	1	High	TED	TBD	
	3.	1	High	TED	TBD	
Future Land Use	4.	1	High	TED - Planning Services Team	Internal staff time	
	5.	1	High	TED - Planning Services Team	Internal staff time	
	6.	1	Medium	TED - Planning Services Team	Internal staff time	

**Level of Effort**

- **Low:** The action item can be implemented with little need for public coordination; or the technical aspects of the item are relatively straightforward with minimal engineering required.
- **Medium:** Item will require some degree of public involvement; or the technical requirements of the item may be challenging, but not overly complex.
- **High:** Alternative will require significant public involvement and coordination with other jurisdictions or agencies (e.g., IDOT, Metra, BNSF, Pace Suburban Bus); or the technical requirements for implementation are complex and require specialized technical assistance.

**Priority**

- **Ongoing:** The action item is currently underway and expected to continue
- **1:** Short-term, 1 to 3 years
- **2:** Intermediate-term, 4 to 9 years
- **3:** Long-term, 10 years or more

<sup>1</sup> For capital projects, the cost is construction only.

# 8.0 Implementation Strategies

**Table 4: Implementation Action Items (continued)**

Action Item		Priority	Level of Effort	Lead Responsibility	Public Cost Estimate (where applicable) <sup>1</sup>	Cost Description	
Washington Streetscape	7.	Establish material specifications for streetscape.	1	Medium	TED - Planning Services Team	Internal staff time	
	8.	Review and consider amending the landscaping requirements for private properties along Washington Street to mitigate the impact of the sidewalk easement requirement.	1	Medium	TED - Planning Services Team	Internal staff time	
	9.	With redevelopment, require dedication of sidewalk easements.	1	Medium	TED - Engineering/ Planning Services Team	Internal staff time	
	10.	Establish and implement a fee-in-lieu for streetscape along Washington Street.	1	Medium	TED - Planning Services Team	Internal staff time	
	11.	Install a railing extension on Washington Street near the BNSF underpass.	1	Medium	TED - Engineering Services Team	\$225 / linear foot	Installation of new railing
Multi-Modal Improvements	12.	Examine opportunity to shift the northbound left-turn stop bar south to reduce conflict with westbound left-turn movements.	1	Low	TED - Transportation Services Team	\$300	Remove existing pavement marking Restripe northbound stop bar
	13.	Eliminate on-street parking on the south side of North Avenue immediately east of Center Street to increase line of sight.	1	Low	TED - Transportation Services Team	\$1,200 <sup>2</sup>	Annual lost revenue for two (2) daily fee spaces Pavement marking removal
	14.	Conduct a stop sign warrant analysis for westbound North Avenue at Ellsworth Street. If warranted, install the stop sign. <sup>3</sup>	1	Low	TED - Transportation Services Team	\$300	Installation of new stop sign

**Level of Effort**

- **Low:** The action item can be implemented with little need for public coordination; or the technical aspects of the item are relatively straightforward with minimal engineering required.
- **Medium:** Item will require some degree of public involvement; or the technical requirements of the item may be challenging, but not overly complex.
- **High:** Alternative will require significant public involvement and coordination with other jurisdictions or agencies (e.g., IDOT, Metra, BNSF, Pace Suburban Bus); or the technical requirements for implementation are complex and require specialized technical assistance.

**Priority**

- **Ongoing:** The action item is currently underway and expected to continue
- **1:** Short-term, 1 to 3 years
- **2:** Intermediate-term, 4 to 9 years
- **3:** Long-term, 10 years or more

<sup>1</sup> For capital projects, the cost is construction only.

<sup>2</sup> Includes lost revenue attributed to commuter parking spaces to be removed to accommodate improvement.

<sup>3</sup> City of Naperville stop sign warrant must be satisfied.

# 8.0 Implementation Strategies

**Table 4: Implementation Action Items (continued)**

Action Item		Priority	Level of Effort	Lead Responsibility	Public Cost Estimate (where applicable) <sup>1</sup>	Cost Description	
Multi-Modal Improvements	15.	Eliminate on-street parking spaces on 5th Avenue, immediately adjacent to the intersections between Ellsworth Street and Loomis Street, to increase sight distance.	1	Low	TED - Transportation Services Team	\$2,200 <sup>2</sup>	Annual lost revenue for four (4) daily fee spaces Pavement marking removal
	16.	Eliminate on-street parking on the north side of 5th Avenue, between Washington Street and Center Street, to increase vehicle queuing capacity.	1	Low	TED - Transportation Services Team	\$2,700 <sup>2</sup>	Removal of five (5) daily fee spaces
	17.	Evaluate signal timing modification to provide for split phase eastbound/westbound movements in order to reduce conflicts between the Children’s Museum and commuter traffic.	1	Low	TED - Engineering Services Team	\$2,500	Consultant fee to review SCAT and adjust signal timing
	18.	Evaluate installation of a leading pedestrian phase on School Street at Washington Street with a pedestrian “walk” signal starting before the vehicular “green” signal.	1	Low	TED - Engineering Services Team	\$14,500	Signal timing adjustment Update signal controller
	19.	Develop a “Bike to Metra” brochure for the Naperville train station.	1	Low	TED - Transportation Services Team	\$1,000	Print and distribute brochures
Intersection Improvements	20.	Evaluate the inclusion of the intersection improvements identified in <i>Section 6.2: Potential Intersection Improvements</i> into the Capital Improvement Program (CIP).	1	Low	TED - Engineering Services Team	Additional analysis required	See <i>Section 6.2: Potential Intersection Improvements</i>
Washington Streetscape	21.	Evaluate installation of the streetscape enhancements fronting public property.	1	Low	TED - Planning Services Team	\$123,000 (\$35,000 / linear foot)	Installation of streetscape enhancements fronting Washington Jr. High School (cost does not include lighting or signage)

**Level of Effort**

- **Low:** The action item can be implemented with little need for public coordination; or the technical aspects of the item are relatively straightforward with minimal engineering required.
- **Medium:** Item will require some degree of public involvement; or the technical requirements of the item may be challenging, but not overly complex.
- **High:** Alternative will require significant public involvement and coordination with other jurisdictions or agencies (e.g., IDOT, Metra, BNSF, Pace Suburban Bus); or the technical requirements for implementation are complex and require specialized technical assistance.

**Priority**

- **Ongoing:** The action item is currently underway and expected to continue
- **1:** Short-term, 1 to 3 years
- **2:** Intermediate-term, 4 to 9 years
- **3:** Long-term, 10 years or more

<sup>1</sup> For capital projects, the cost is construction only.

<sup>2</sup> Includes lost revenue attributed to commuter parking spaces to be removed to accommodate improvement.

# 8.0 Implementation Strategies

**Table 4: Implementation Action Items (continued)**

Action Item		Priority	Level of Effort	Lead Responsibility	Public Cost Estimate (where applicable) <sup>1</sup>	Cost Description	
Washington Streetscape	22.	Coordinate with Metra and BNSF to evaluate the feasibility and location of streetscape enhancements for the area surrounding the BNSF railway underpass. The BNSF underpass enhancements include streetscape improvements along Washington Street, between North Avenue and 5th Avenue.	2	High	TED - Planning/ Transportation Services Team	\$300,000	Installation of streetscape enhancements in the area surrounding the BNSF railway underpass and along Washington Street between North Avenue and 5th Avenue (cost excludes railing installation and public art)
	23.	Conduct a study to evaluate the location, spacing and the appropriate approach to installation of roadway lighting and pedestrian lighting along Washington Street, between Ogden Avenue and Benton Avenue.	2	Medium	TED - Planning Services Team	\$1,100,000	Installation of roadway and pedestrian lights
Multi-Modal Improvements	24.	Evaluate locations for additional bicycle racks.	2	Medium	TED - Transportation Services Team	\$675 / rack	Bicycle rack accommodates nine (9) bicycles; opportunity for three (3) racks on the west side of Washington Street near Kendall Park
	25.	Evaluate installation of curb bulb-outs on the north and south sides of 5th Avenue east of Ellsworth Street.	2	Medium	TED - Engineering Services Team	\$32,000 <sup>2</sup>	Removal of up to two (2) daily fee spaces Installation of curb bulb-outs Removal of existing pavement markings
	26.	Evaluate pedestrian-scale lighting along the north side of 4th Avenue, between the train station and the Serpentine Lot.	2	Medium	TED - Transportation Services Team / DPW	\$45,000 (\$5,000 / light post)	Pedestrian-scale street lights (assembly and installation)

**Level of Effort**

- **Low:** The action item can be implemented with little need for public coordination; or the technical aspects of the item are relatively straightforward with minimal engineering required.
- **Medium:** Item will require some degree of public involvement; or the technical requirements of the item may be challenging, but not overly complex.
- **High:** Alternative will require significant public involvement and coordination with other jurisdictions or agencies (e.g., IDOT, Metra, BNSF, Pace Suburban Bus); or the technical requirements for implementation are complex and require specialized technical assistance.

**Priority**

- **Ongoing:** The action item is currently underway and expected to continue
- **1:** Short-term, 1 to 3 years
- **2:** Intermediate-term, 4 to 9 years
- **3:** Long-term, 10 years or more

<sup>1</sup> For capital projects, the cost is construction only.

<sup>2</sup> Includes lost revenue attributed to commuter parking spaces to be removed to accommodate improvement.

# 8.0 Implementation Strategies

**Table 4: Implementation Action Items (continued)**

Action Item		Priority	Level of Effort	Lead Responsibility	Public Cost Estimate (where applicable) <sup>1</sup>	Cost Description	
Multi-Modal Improvements	27.	Evaluate pedestrian-scale lighting along the path on the north side of the railroad tracks, between the train station and Loomis Street.	2	Medium	TED - Engineering Services Team / DPW	\$45,000 (\$5,000 / light post)	Pedestrian-scale street lights (assembly and installation)
	28.	Explore option to use underutilized areas or convert parking spaces to bicycle parking during the peak seasons.	2	Low	TED - Transportation Services Team	\$420 / rack	Portable bicycle rack accommodates six (6) bicycles
	29.	Explore opportunity for pavement striping to enhance existing bicycle route on Loomis Street.	2	Low	TED - Engineering Services Team	\$2,160	Installation of pavement striping
	30.	Explore opportunity to attach a pedestrian bridge structure to the existing railroad overpass.	3	High	TED - Engineering Services Team	Additional analysis required	
Washington Streetscape	31.	Following installation of streetscape enhancements for the area surrounding the BNSF railway underpass, coordinate with private organizations to identify opportunities for public art.	3	High	TED - Planning Services Team	Additional analysis required	
Commuter Parking	32.	Following implementation of the bus depot, evaluate parking reconfiguration on 4th Avenue, south of the train station, to provide for bus access to the bus depot and kiss-and-ride activity.	3	Medium	TED - Engineering Services Team	\$81,300	Relocate existing median Remove existing striping Stripe new parking spaces
	33.	With successful implementation of the bus depot, convert the bus lane on the east side of Ellsworth Street to parallel parking spaces.	3	Low	TED - Engineering/ Transportation Services Team	\$1,000	Remove existing bus lane pavement marking Stripe new parallel parking spaces (approximately 8 spaces)

**Level of Effort**

- **Low:** The action item can be implemented with little need for public coordination; or the technical aspects of the item are relatively straightforward with minimal engineering required.
- **Medium:** Item will require some degree of public involvement; or the technical requirements of the item may be challenging, but not overly complex.
- **High:** Alternative will require significant public involvement and coordination with other jurisdictions or agencies (e.g., IDOT, Metra, BNSF, Pace Suburban Bus); or the technical requirements for implementation are complex and require specialized technical assistance.

**Priority**

- **Ongoing:** The action item is currently underway and expected to continue
- **1:** Short-term, 1 to 3 years
- **2:** Intermediate-term, 4 to 9 years
- **3:** Long-term, 10 years or more

<sup>1</sup> For capital projects, the cost is construction only.

# 8.0 Implementation Strategies

**Table 4: Implementation Action Items (continued)**

Action Item			Priority	Level of Effort	Lead Responsibility	Public Cost Estimate (where applicable) <sup>1</sup>	Cost Description
Intersection Improvements	34.	Evaluate right-of-way needs and the potential for intersection improvements with redevelopment.	Ongoing	Medium	TED - Engineering Services Team	Additional analysis required	See Section 6.2: Potential Intersection Improvements
Commuter Parking	35.	Continue to pursue park-and-ride facilities for the Naperville train station.	Ongoing	Medium	TED - Transportation Services Team	Internal staff time	
	36.	Evaluate opportunity to designate priority parking for carpools/vanpools.	Ongoing	Medium	TED - Transportation Services Team	Internal staff time	
Future Land Use	37.	Coordinate with property owners and developers to establish rear cross-access easements between properties as redevelopment occurs to provide more efficient customer access between businesses and reduce curb cuts (i.e., driveways) on Washington Street.	Ongoing	Low	TED - Planning Services Team	Internal staff time	
Multi-Modal Improvements	38.	Evaluate crosswalk enhancements (e.g., striped crosswalk, additional signage, flashing yellow signal, in-pavement lighting system) at key locations.	See Appendix D for a full list of projects.				
	39.	Evaluate vehicle, pedestrian and bicycle wayfinding signage in key locations.	See Appendix D for a full list of projects.				

**Level of Effort**

- **Low:** The action item can be implemented with little need for public coordination; or the technical aspects of the item are relatively straightforward with minimal engineering required.
- **Medium:** Item will require some degree of public involvement; or the technical requirements of the item may be challenging, but not overly complex.
- **High:** Alternative will require significant public involvement and coordination with other jurisdictions or agencies (e.g., IDOT, Metra, BNSF, Pace Suburban Bus); or the technical requirements for implementation are complex and require specialized technical assistance.

**Priority**

- **Ongoing:** The action item is currently underway and expected to continue
- **1:** Short-term, 1 to 3 years
- **2:** Intermediate-term, 4 to 9 years
- **3:** Long-term, 10 years or more

<sup>1</sup> For capital projects, the cost is construction only.

# Appendix

- A. Public Meeting Summary
- B. Preliminary Future Alternatives
- C. Multi-Modal Improvement Recommendations and On-Street Commuter Parking
- D. Implementation Action Items – Wayfinding/Signage and Crosswalk Enhancements
- E. Washington Street: Streetscape Vision and Conceptual Design, Hitchcock Design Group
- F. 5th Avenue Study Transportation and Parking Analysis, Metro Transportation Group, Inc.



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