

Chapter 7

TRANSPORTATION

The primary purpose of the transportation element is to provide a basis for a system of infrastructure that efficiently supports existing land uses and anticipated redevelopment. This chapter describes the existing transportation system, the infrastructure that promotes the use of multi-modal transportation, the Village's participation and role in addressing regional transportation and future opportunities to improve transportation safety and diversity. The key entities that the Village works with in respect to the transportation system include the following: Wisconsin Department of Transportation (WisDOT), Southeastern Wisconsin Regional Planning Commission (SEWRPC), City of Brookfield, City of Wauwatosa, Waukesha County Department of Transportation and Milwaukee County Department of Transportation. Due to shared responsibilities of transportation systems, cooperation with a number of agencies and local governments is critical for successful future implementation of enhancements.

Transportation Goal, Objectives & Policies

Goal

Provide a system of roadways, pathways and transportation services that facilitate the safe and efficient movement of vehicles, bicycles and pedestrians.

Objective I

Maintain the Village's public streets rights-of-way and pathway infrastructure.

Policy

- Perform an annual inspection of Village roads / pathways to determine maintenance needs.



Objective 2

Consider improvements to the local street network which provide connectivity to the regional transportation system and meet the short- and long-range mobility needs of the community.

Policies

- Actively participate in local, regional and statewide transportation planning activities to promote funding of facilities and improvements that benefit the Village of Elm Grove.
- Participate in relevant transportation planning efforts directed by the Wisconsin Department of Transportation (WisDOT) and the Southeastern Wisconsin Regional Planning Commission (SEWRPC) to ensure that any future roadway improvements are consistent with the Village's objectives.
- Require traffic impact studies by applicants of proposed new developments or redevelopments if the anticipated increase in traffic exceeds 100 trips during a peak hour. These traffic impact studies will identify necessary roadway and intersection improvements to accommodate greater traffic volumes.
- Require applicants to secure sufficient right-of-way and manage access to locations in advance of development and concurrent with redevelopment proposals.

Objective 3

Work with relevant State, County and local departments to evaluate the construction, reconstruction and/or jurisdictional transfer of roadways adjacent to the Village periphery.

Policies

- Work with entities such as the Southeastern Regional Planning Commission, and Waukesha and Milwaukee County Departments of Transportation to assess the viability of jurisdictional transfer of roadways adjacent to the Village periphery.
- Work with the Transportation Departments from the City of Brookfield and Waukesha County to ensure that future reconstruction of North Avenue and Pilgrim Parkway augments Village character and neighboring properties, and provides for safety of pedestrians, bicyclists and automobiles.

Objective 4

Provide for the safety of residents and visitors that travel on local streets within the Village.

Policies

- Enhance safety by prioritizing and mitigating high vehicular collision locations within the Village.
- Periodically review travel speed studies on select roads to determine if posted speed limits are being observed.



- Maintain street pavement markings and signage for all school safety zones.
- Ensure that the Village Public Safety Committee works with Village staff and Departments to evaluate and respond to citizen vehicular and pedestrian traffic-related concerns.

Objective 5

Ensure that private off-street parking supply, location and demand in the Downtown area is sufficient for short-term parking.

Policies

- Ensure that future redevelopment provides ample off-street parking to better accommodate existing uses as well as proposed future uses.
- Encourage shared parking arrangements between existing and proposed businesses to provide improved parking for adjacent uses.
- Ensure compliance, to the extent feasible, with on- and off-street parking regulations, as outlined in the Zoning Code of Ordinances.
- Ensure that parking needs and standards are met during planning and design review of redevelopment proposals.
- Consult commercial parking analysis data (2005) when evaluating redevelopment proposals.

Objective 6

Promote multi-modal transportation within the Village and neighboring region.

Policies

- Continue to evaluate the implementation of the existing plan for the pathway system.
- Consider potential new pathway connections and renovations to improve pedestrian and bicycle access and safety.
- Consider a pathway circuit (loop arrangement) within in the Village which connects to neighboring and regional pathway systems.
- Encourage continued operations of public transit that accommodates persons who are physically challenged, and ensure that public and private pedestrian facilities and vehicular parking lots are compliant with ADA (American Disabilities Act) design standards.

Objective 7

Encourage developers to create pedestrian and bicycle friendly projects. Require mitigation of adverse impacts associated with increases in traffic volumes that would result in low or unacceptable levels of service to adjacent roadways.

Objective 8

Encourage all public transportation projects to provide for pedestrian, bicycle or other enhanced aesthetics.

Policies

- Coordinate with Waukesha County and WisDOT in the design of future roadway construction along the Village periphery to ensure that aesthetic qualities are sensitive to the character of the community.
- Ensure that future roadway construction under the jurisdiction of Waukesha County or State of Wisconsin incorporate sufficient facilities for transit, pedestrian and bicycle travel.

Transportation Issues

The scope of transportation issues will continue to expand, encompassing not just traffic congestion, but also environmental issues and land use. Transportation is a regional issue.

Safe and Efficient Travel

The local transportation system is made up of a network of roads and streets, each designed with varying capacities and functions to move traffic within and around the community.

Collector and arterial streets that circumnavigate the Village are not constructed to accommodate future traffic volumes, as forecast by Waukesha County and the regional planning authority. Additionally, primary local routes within the Village could experience additional traffic congestion in the future if the intensity of use of redeveloping properties is increased.

Roadway Intersections

The majority of traffic-related accidents occur at road intersections. Potentially substandard intersections, with respect to vehicular safety, may require redesign in the future.

Alternative Modes of Transportation

A complete transportation system includes streets and other modes such as public transit, bicycling and walking. A combination of these modes, which collectively form a complete transportation system, is needed to adequately support the widely varying needs of the community. These transportation needs range from children walking to school and persons using pathways for recreational walking and jogging.



At present, the pathway infrastructure is primarily limited to public parks and open space, and the Downtown area. The expansion of the pathway system, including connectivity to regional and neighboring pathways, would afford safe and navigable routes that promote non-automobile forms of transportation.

Inventory and Analysis of Travel Modes

The Village of Elm Grove is served by a system of roadways under the jurisdiction of the Wisconsin Department of Transportation (WisDOT), Waukesha County and the Village of Elm Grove. Various roadways are classified according to their function and, therefore, do not possess the same design characteristics.

The two major considerations in functionally classifying roadways are the level of access, and the mobility which they provide. Three classifications of roadways occur within or adjacent to the Village boundary (Map 9):

FIGURE 7-1: ROADWAY CLASSIFICATIONS, ELM GROVE

Classification	Street or Road
Arterial Streets	<ul style="list-style-type: none"> • Pilgrim Parkway • Bluemound Road • North Avenue ** • 124th Street (north of Watertown Plank Road) *
Collector Streets	<ul style="list-style-type: none"> • Watertown Plank Road • Juneau Boulevard • Highland Drive • Legion Drive • Hollyhock Lane • Elm Grove Road (S)
Local Streets	<ul style="list-style-type: none"> • All other streets

* Shared right-of-way with City of Wauwatosa; ** City of Brookfield

Regional Roadway Network

The regional roadway circumnavigates the Village of Elm Grove, and assists in achieving logical and efficient traffic flow to the neighboring interstate highway system. Arterial roadways along the Village boundary provide for a modest level of mobility, and are characterized by signalized intersections at major crossroads. Roadways within this network include Bluemound Road (US 18), Pilgrim Parkway, North Avenue (Co. Hwy. M), and 124th Street. Of regional thoroughfares, Bluemound Road accommodates the highest volumes of vehicular traffic.

The increase (and decrease) in traffic volumes on regional roads over a 20-year span has been nominal, and ranges from -1.31 to 2.57 percent per year. The greatest percentage increase in traffic volumes (1982-2003) has occurred on Pilgrim Parkway. (Source: WisDOT historical data)

The following are regional roads:

North Avenue (County Highway M) provides an east-west vehicular route along the northern municipal boundary of Elm Grove. Approximately one-dozen local streets convey traffic onto North Avenue along the two-mile segment that traverses the Village boundary. Three signalized intersections along the length of North Avenue (Pilgrim Parkway, Lilly Drive, 124th Street) permit regulated flow of cross traffic. While the roadway conveys vehicular traffic via two lanes throughout the majority of the segment (contiguous to the Village), the SEWRPC Regional Transportation System Plan: 2035 recommends widening of North Avenue to four lanes in the future.

The North Avenue corridor segment adjacent to Elm Grove resides completely within the City of Brookfield and is under the jurisdictional control of Waukesha County. Yet approximately one-third of total properties that front North Avenue along the southern side of the street are within the Village of Elm Grove.

Pilgrim Parkway is located along the western periphery of Elm Grove and provides the only uninterrupted north-south route within the Village. The road provides a high degree of mobility, as there are few intersecting roads along its course. Pilgrim Parkway is characterized as a two-lane arterial throughout the 1.3-mile stretch that lies within the Village boundary.

Under the Regional Transportation System Plan: 2035, Pilgrim Parkway is identified as a candidate for jurisdiction transfer to Waukesha County. Portions of this corridor that extend to the north and south into the City of Brookfield are presently maintained by the County. However, the existing 1.3-mile segment within the boundary of Elm Grove remains under control by the Village.

Bluemound Road (US 18) lies within the municipal boundary along the southern periphery of the Village. The corridor is characterized as an east-west four-lane divided highway that allows for bus transit in the outer driving lanes.

Bluemound Road accommodates nearly twice the traffic volumes compared to other peripheral roads. Although significant modifications to this corridor will be implemented in segments to the west of the Village, the portion of the highway that resides within Elm Grove will not be affected by reconstruction efforts.

124th Street traverses the eastern boundary of Elm Grove and shares the road right-of-way with the City of Wauwatosa. Although this road corridor represents a significant north-south transportation route, it fails to provide connectivity to the south.

The portion of 124th Street that extends between Watertown Plank Road and North Avenue is characterized as a two-lane rural roadway that expands to a divided four-lane arterial upon entering the City of Brookfield. The southernmost section of 124th Street is completely redirected into the municipal boundary of Elm Grove. A separate, parallel segment of this roadway (also 124th Street) exists within the boundary of the City of Wauwatosa. 124th Street ends approximately 1/3-mile south of the juncture with Watertown Plank Road. Significant costs related to land acquisition, construction and engineering are primarily related to railroad and drainage overpasses that would be required to complete the street extension.

Various regional transportation plans, including SEWRPC's Regional Transportation System Plan: 2035, have identified the 124th Street corridor as a major north-south transportation route for a number of years. Additional studies co-sponsored by the Village have investigated costs and constraints related to potential extension of the roadway.

The implementation of a plan to reconstruct and extend 124th Street has not occurred, primarily due to complexities related to a shared road easement, land assembly, significant municipal costs, and disputed value of a roadway extension.

FIGURE 7-2: AVERAGE DAILY TRAFFIC VOLUMES, REGIONAL (PERIPHERAL) ROADS, ELM GROVE

Street	Average Daily Traffic (2003)	Volume Rank (2003)	Growth Rate (1982-2003)	Percentage Rank
North Avenue				
Pilgrim Pkwy. to Railroad	13,500		1.98%	3
Pilgrim Pkwy. To Highland Dr.	15,400		0.95%	
Highland Dr. to Lilly Rd.	17,700		1.16%	
Lilly Rd. to Hollyhock Ln.	16,800		0.87%	
Hollyhock Ln. to 124th St.	17,200		1.50%	
Pilgrim Pkwy				
Gebhardt Rd. to North Ave. (City of Brookfield)	11,400		2.45%	2
Watertown Plank Rd. to Gebhardt Rd.	14,700		2.57%	1
Watertown Plank Rd. to Bluemound (SB – 13,900)	24,900	2	1.56%	4
Watertown Plank Rd. to Bluemound (NB – 11,000)				
124th Street				
Gremoor to Watertown Plank Road	8,600		0.50%	
Bluemound Road (US 18)				
Pilgrim Pkwy. to Sunnyslope Rd. (EB – 13,200)	25,500	1	0.77%	
Pilgrim Pkwy. to Sunnyslope Rd. (WB – 12,300)				
Sunnyslope Rd. to Elm Grove Rd. (EB – 11,300)	23,900	3	0.41%	
Sunnyslope Rd. to Elm Grove Rd (WB – 12,600)				
Elm Grove Rd. to 124th St. (EB – 10,800)	22,800	4	-1.31%	
Elm Grove Rd. to 124th St. (WB – 12,000)				

NB – Northbound; SB – Southbound ; EB – Eastbound; WB-Westbound

Source: Annual Average Daily Traffic, WisDOT

Local Roadway Network

Collector streets accommodate both residences and business properties, and generally allow for higher volumes of automobile traffic. A few segments of collector streets accommodate greater volumes of traffic than portions of regional roadways. Additionally, some collector streets within the Village are characterized by the presence of pedestrian and bicycle pathways.

Of streets within the Village proper, Watertown Plank Road accommodates the greatest quantity of vehicular traffic, followed by South Elm Grove Road and Highland Drive.

Local (residential) streets provide a means of access between a property and a collector or arterial roadway. Local streets in Elm Grove are regulated by 25-mph speeds, and designed to accommodate low volumes of traffic.

The percentage increase in traffic volumes of local and collector streets within the Village has been minimal during the previous two decades. While most streets, such as Watertown Plank Road, have experienced stable volumes of traffic since the early 1990s, other local streets such as Highland Drive and Sunnyslope Road have witnessed percentage increases of 3 to 4 percent.

FIGURE 7-3: AVERAGE DAILY TRAFFIC VOLUMES, COLLECTOR STREETS, ELM GROVE

Street	Average Daily Traffic (2003)	Traffic Volume Ranking (2003)	Growth Rate (1991-2003)
Watertown Plank Rd			
<i>Pilgrim Pkwy. To Highland Dr.</i>	6,000	5	1.14
<i>Highland Dr. to Sunnyslope Rd.</i>	4,900	7	0.17
<i>Elm Grove Rd. to Legion Dr.</i>	11,700	1	0.32
<i>Legion Dr. to Juneau Blvd</i>	9,500	3	0.39
<i>Juneau Blvd. to 124th St.</i>	11,000	2	-0.16
S. Elm Grove Rd.	7,800	4	-1.01
Legion Dr.			
<i>Juneau Blvd. to Gremoor Dr.</i>	3,000	11	1.43
Juneau Blvd.			
<i>Highland Dr. to N. Elm Grove Rd.</i>	3,200	10(a)	1.27
<i>Legion Dr. to Watertown Plank Rd.</i>	2,000	12	1.07
Highland Dr.			
<i>Watertown Plank Rd. to Juneau Blvd.</i>	3,200	10(b)	3.23
<i>Juneau Blvd. to Gebhardt Rd.</i>	4,700	8	2.27
<i>Gebhardt Rd. to North Ave.</i>	5,300	6	3.09
Gebhardt Rd.			
<i>Pilgrim Pkwy. to Highland Dr.</i>	3,500	9	-1.87
Hollyhock Lane	<i>(no data)</i>		

Source: Annual Average Daily Traffic, WisDOT

FIGURE 7-4: AVERAGE DAILY TRAFFIC VOLUMES, INTERNAL LOCAL STREETS, ELM GROVE

Street	Average Daily Traffic (2003)	Traffic Volume Ranking (2003)	Growth Rate (1991-2003)
N. Elm Grove Rd (Cave Rd)	1,400	12	1.46
Sunnyslope Rd.			
North of Bluemound Road	4,500	14	4.16

Source: Annual Average Daily Traffic, WisDOT

Rail: Freight – Passenger

The Canadian Pacific rail line bisects the Village in a north-south direction, and accommodates approximately thirty (30) trains daily. Canadian Pacific Rail anticipates that within the next five to ten years, fifty trains will be running through the Village on a daily basis. The rail line splits into two separate corridors near the center of the Village, where one track advances north and the other diverges to the northwest. Approximately 80 single-family residential properties abut the active rail lines. The rail line interrupts vehicular traffic flow at three street crossings characterized by gated barriers (Map 9).

Amtrak “intercity” passenger service that extends between Chicago and Seattle (Empire Builder Line) utilizes the rail corridor that traverses the Village. Although the only Amtrak passenger terminals within the region are located in the downtown area of Milwaukee and Mitchell Airport, this rail corridor is designated as a potential route for regional commuter rail transit (SEWRPC, 1997). It is anticipated that rail transit, including high speed rail, will be examined in further transportation studies conducted by the regional planning authority.

Public Transit/Transportation for Physically Challenged

Two local bus transit routes operated by the Milwaukee County Transit System serve the Village of Elm Grove, one on the east and one on the south edge of the Village. The route on the east edge travels north on 124th Street and the route on the south edge extends between Brookfield Square Mall (City of Brookfield) and the City of Milwaukee along Bluemound Road. Eight signed bus stops, located at intervals of approximately one-eighth of a mile, are designated along Bluemound Road. The frequency of bus transit service occurs approximately every 10 to 15 minutes during peak travel periods and every 30 to 60 minutes during off-peak periods.

Specialized transportation service is available to the elderly and persons with disabilities through the Waukesha County Department of Aging and the Elmbrook Senior Taxi of Elmbrook Memorial Hospital.

Bicycle and Pedestrian Transportation System

Public amenities within the Village include pathways that are primarily affiliated with arterial and collector streets, public parks, schools and open space areas. A range of path types that vary in use, width, surfacing, and degree of separation from the roadway comprise the pathway system (Map 8).





FIGURE 7-5: EXISTING PATHWAY TYPES, ELM GROVE

Path Type	General Location	Surface	Distance from Roadway
Recreational Pathway	<ul style="list-style-type: none"> Park and open space areas 	Asphalt	10-12 feet from road edge (where applicable)
Neighborhood Pathway	<ul style="list-style-type: none"> North side of Watertown Plank Road, east and west of the Business District Legion Drive 	Asphalt	10-12 feet from road edge
Urban Pathway	<ul style="list-style-type: none"> Watertown Plank Road Business District Blue Mound Road 	Concrete	Attached to curb 2 feet from curb 5 feet from curb
On-street Pathway	<ul style="list-style-type: none"> Watertown Plank Road Pilgrim Parkway Juneau Boulevard 	Asphalt	Associated with road surface

In general, paths are not present in residential districts of the Village due to the non-urban character of these areas.

There is no formalized or signed bicycle transportation network in the Village, although recreational cyclists utilize off-street paths (Class I) and on-street paths (Class II). Signed bike routes on designated streets (Class III) are not present in the Village.

Parking

Adequate vehicular parking is provided for residents, visitors, customers, and employees within the Village. Suitable levels of parking are essential to ensure that neighboring residential areas are not unduly burdened, and to maintain a viable environment for businesses within the Village.

Parking for office, retail, other business uses and multifamily (including mixed-residential land uses) should to the extent feasible provide adequate off-street parking for customers, employees and residents. Currently, parking requirements outlined in the Zoning Code of Ordinances are as follows:

FIGURE 7-6: EXISTING PARKING REQUIREMENTS, ELM GROVE (2007)

Land Use	Parking Requirement
Residential	
<i>1- and 2-family</i>	2 spaces per dwelling unit
<i>Multifamily</i>	2 spaces per dwelling unit
<i>Multifamily, Elderly</i>	1.5 spaces per dwelling unit
Restaurants	1 space per 150 square feet of floor space
Retail	1 space per 200 square feet of floor space
Office	1 space per 250 square feet of floor space

While several properties in the Downtown area make use of shared parking agreements, many of the retail and office businesses are characterized by individual parking lots. The need to provide adequate parking – particularly within individual lots - is largely hindered by the shallow lot depths or unconventional parcel configurations.

In December of 2005 Village staff presented a commercial parking analysis to the Village Plan Commission, which included 72 commercial properties within the Village. Existing conditions were inventoried, including: the total number of on-street and off-street striped parking stalls; ADA accessible stalls; loading zones; and various attributes unique to a given parcel. Research from surrounding suburban municipalities yielded a functional database contrasting the Village's parking requirements with those of other municipalities.

The findings of the study indicated that approximately 30% of properties were deficient with respect to Village Code parking requirements. Of these, 10 properties (48%) were located east of the railroad tracks, and five properties (24%) were located on Knoll Road.

The conclusions of the study also note that most properties can be brought into compliance through (1) formal agreements between property owners for the purpose of sharing parking space and (2) a revision to specific parking stall requirements in the Village Zoning Code. The second conclusion was accomplished in October of 2006 with the enactment of a revised parking ordinance.

In addition to existing parking facilities, new development of commercial and industrial properties should consider helping to alleviate existing parking problems.

Air Transportation

The Village does not support public or private air travel facilities. Air transit is provided by General Mitchell Airport (Milwaukee County) and regional airfields in both Waukesha and Milwaukee Counties.

Village Compliance with State & Regional Transportation Plans

A Regional Transportation System Plan for Southeastern Wisconsin : 2035 (SEWRPC Planning Report No. 49)

The adopted Regional Transportation System Plan outlines recommendations to physical infrastructure that consider the context of the seven-county southeast Wisconsin region. The plan examines arterial streets and highways, transit, bicycle and pedestrian travel as part of an integrated system. By State law, the regional plan is entirely advisory.

The regional transportation system plan proposes several modifications to roadway infrastructure and governmental control that are relevant to the Village of Elm Grove:

Jurisdictional Transfer

The plan recommends transferring jurisdictional control from local to county governance of primary highways and arterial streets. As such, Waukesha County would assume ownership of roadway easements and direct reconstruction and enhancements of roadway infrastructure. While a local government, such as Elm Grove, would forfeit

control associated with roadway corridors, municipal costs required to upgrade and maintain roadway infrastructure would not be required.

Proposed jurisdictional transfer outlined in the plan for which compliance has not occurred, and is not required, includes the following:

FIGURE 7-7: PROPOSED JURISDICTIONAL TRANSFER, REGIONAL TRANSPORTATION SYSTEM PLAN 2035

Street	Existing Jurisdictional Responsibility	Planned Jurisdictional Responsibility
Pilgrim Parkway	Village of Elm Grove	Waukesha County
124th Street (if extended to Bluemound Road)	Village of Elm Grove City of Wauwatosa	Waukesha County

Functional Improvements to the Arterial Street and Highway System

Existing and future travel demands and identified long-term deficiencies in roadway infrastructure provide rationale for functional improvements to arterial and collector streets that circumnavigate the Village of Elm Grove. It is anticipated that the primary arterial of Bluemound Road will not undergo modifications in the near future. However, other arterial streets and highways that circumnavigate the boundaries of Elm Grove are recommended for lane widening in the future. Future functional improvements for the following roadways are identified by the regional transportation system plan:

FIGURE 7-8: PROPOSED FUNCTIONAL IMPROVEMENTS, REGIONAL TRANSPORTATION SYSTEM PLAN 2035

Street	Existing Capacity	Future Improvements
Pilgrim Parkway	2 lanes	4 lanes
North Avenue *	2 lanes	4 lanes
124th Street (North)	2 lanes	4 lanes
124th Street Extension (South)	(not extant)	4 lanes

* City of Brookfield, although contiguous with Village of Elm Grove

A Regional Bicycle and Pedestrian Facilities System Plan for Southeastern Wisconsin: 2010 (SEWRPC Planning Report No. 43)

The adopted regional bicycle and pedestrian plan examines rural and urban pathway and road infrastructure that supports non-motorized forms of transit. By State law, the regional plan is entirely advisory.

The regional plan identifies a system of “bicycleways” that accommodate pedestrians and cyclists, and outlines policies for pedestrian facilities. As defined in the plan, bicycleways may occur as on-street lanes, signed routes or separate paths within the street right-of-way. The decision regarding the appropriate design treatment to be used is at the discretion of the local unit of government.

The Village of Elm Grove is compliant with the regional plan, except for the following routes:

FIGURE 7-9: PROPOSED BICYCLEWAYS AND PEDESTRIAN PATHWAYS,, REGIONAL TRANSPORTATION SYSTEM PLAN 2035

Street	Facility
124th Street	Bicycleway Pedestrian Pathway
Bluemound Road	Bicycleway Pedestrian Pathway <i>(Pilgrim Parkway to Elm Grove Road)</i>
Highland Drive	Bicycleway
Sunnyslope Road	Bicycleway
Watertown Plank Road	Bicycleway

The Statewide Transportation Improvement Program (STIP)

The Statewide Transportation Improvement Program produces a four-year plan of highway and transit projects. Revised every year, the plan is a compilation of all highway (state or local) and transit (capital or operating) projects in urban and rural areas that propose to use federal funds. The contemplated reconstruction of Watertown Plank Road in the Village of Elm Grove is currently being managed under the direction of this program.

Connections to the Regional Transportation Network

The regional transportation system is easily accessed by the Village of Elm Grove, as major vehicular routes navigate the Village border. The Regional Transportation System Plan: 2035 illustrates a modified grid of regional routes in Waukesha County that are under the jurisdictional control of the county, state and federal governments.

Access to the Interstate transportation system (Interstate 94) is approximately 0.8 miles from the southwest corner of the Village, and approximately 2.7 miles from Village Hall.

Impact of Current and Future Land Use on Transportation Systems

Future and proposed land use may impact the existing transportation system. In general, the relocation or elimination of points of ingress and egress may restrict access to transportation routes; insufficient traffic driving lanes and the addition of traffic signaling often constrain mobility.

Parcels identified as “potential for future investment or reinvestment” (Map 7) are generally located in the downtown business district. Since the downtown area is served by internal collector streets, such as Elm Grove Road and Watertown Plank Road, increased traffic affiliated with redeveloping properties will be directed onto these routes. However, it is probable that modifications to internal collector streets – and limited local streets -- will be required. In some cases, enhancements may involve minor engineering solutions, additional traffic signage, or reconfiguration of access points to private parcels.

Additional pockets of vacant residential properties that may accommodate new residential development are dispersed throughout the Village, and will therefore not adversely impact the transportation system.

Possible Future Transportation Needs

Due to the Village's central location in Greater Milwaukee, it will be affected by changes occurring throughout the metropolitan area. Although the population of the Village will remain fairly stable in the future, increased traffic volumes affiliated with anticipated population increases within the City of Brookfield and Waukesha County will impact the Village's transportation system.

Roadways

124th Street (Extension from Knoll Road to Bluemound Road)

The extension of 124th Street is a long-standing recommendation of the SEWRPC's regional transportation plans and associated revisions. As outlined in those plans, the extension of the roadway would contribute to the grid of regional transportation routes by establishing an uninterrupted north-south arterial along the boundary of Waukesha and Milwaukee counties. In addition to the proposed roadway extension located in Elm Grove, the roadway would continue southward to Greenfield Avenue in the City of Brookfield. The entire 124th Street corridor, after proposed extensions, is also earmarked for jurisdictional transfer to Waukesha County. However, the extension may eliminate access of adjacent streets in Elm Grove and the City of Wauwatosa to 124th Street.

Forecasts generated by the regional planning commission (2003) indicate that implementation of the 124th Street extension may be expected to reduce traffic volumes on W. Watertown Plank Road and Elm Grove Road by 18 to 20 percent by the year 2025. Traffic volumes would likely increase by 25 percent along the northern portion of 124th Street.

Cost estimates for the roadway extension were updated in July 2002 (\$4.85 million dollars). This cost considers only a two-lane extension of the roadway and not the four-lane extension recommended by SEWRPC.

This portion of 124th Street remains under the jurisdiction of the Village of Elm Grove, and therefore the decision as to whether to extend the roadway lies with the Village.

Pilgrim Parkway

Pilgrim Parkway traverses the western boundary of the Village, is primarily characterized as a two-lane collector roadway that extends between Watertown Plank Road and to the Village corporate boundary north of Gebhardt Road (1.5 miles).

While the Parkway remains under the jurisdiction of the Village, this section of roadway has been targeted for jurisdictional transfer to Waukesha County since 1975.

The Regional Transportation System Plan for Southeastern Wisconsin: 2035 (SEWRPC Planning Report No. 49) continues to endorse jurisdictional transfer and upgrade of the corridor to a four-lane County Trunk Highway. The 1.5-mile segment of Pilgrim Parkway

that presently falls under Village jurisdiction remains only one of two segments under local municipal control within this corridor (the other segment in City of Muskego).

The long-term estimates for traffic volume increases anticipate a growth rate of 5% annually through 2022 (Waukesha Co. Department of Public Works, 2002). Traffic growth is related to the population increase and land development activity in the City of Brookfield and neighboring suburbs.

Three alternative conceptual plans for a new four-lane configuration of Pilgrim Parkway were generated in 2002 (S&G Engineering, Pilgrim Parkway Corridor Study). As recommended in the corridor study, "Alternative 2" (estimated cost, \$11.78 million) represents the most efficient road design in terms of access and mobility. The higher cost of this alternative, compared to other options, is largely due to the placement of the adjacent drainageway (Dousman Ditch) through a box culvert system. However, the plan would be acceptable only if the two additional lanes were constructed in Brookfield.

Watertown Plank Road

Watertown Plank Road serves as the primary internal thoroughfare of the Village, and is the most heavily traveled internal street. The road provides a direct link between the neighboring municipalities of Wauwatosa and Brookfield, as well as access to the Downtown Business District, institutional and residential land uses.

Watertown Plank Road is bisected by the Canadian Pacific Rail Line near the Village center. Approximately 30 trains per day cross Watertown Plank Road, thereby affecting vehicular traffic flow and causing significant vehicular stacking. Additionally, moderate traffic congestion occurs during peak times of use during weekday hours.

East Watertown Plank Road. Reconstruction of Watertown Plank Road (east of the railroad tracks) is slated for implementation in 2009, and will include road and intersection improvements. While the road will remain a 2-lane configuration, the design provides for curb and gutter, limited on-street parallel parking, pedestrian paths and traffic islands. The design also reconfigures the intersection of Watertown Plank Road and Juneau Boulevard, and establishes an improved gateway to the Village Center.

The remaining section of West Watertown Plank Road that extends between Legion Drive and Elm Grove Road (550 feet, west of the railroad tracks) channels the greatest volumes of vehicular traffic within the Village proper. Annual average daily traffic (AADT) volumes for this road segment indicate an increase of 2.12% over a 10-year period (1991-2000). This section of road experiences periods of congestion due to parking lot access, vehicular stacking at the rail crossing and front end parking along the road right-of-way.

Redesign of the road could more easily occur as contiguous properties undergo redevelopment.

Wisconsin Avenue, Extension (to the City of Brookfield)

Since the 1980s, the City of Brookfield has undertaken planning studies related to land use and infrastructure development between Pilgrim Parkway and Calhoun Road. A portion of land use investigations focus on the construction and extension of Wisconsin Avenue from North Brookfield Road to Pilgrim Parkway. The completion of this

collector roadway would provide an alternative 2.4-mile east-west route in the City of Brookfield. At present, Pilgrim Parkway is under the jurisdictional control of the Village of Elm Grove, and no plans have been adopted to concede jurisdiction to the County government. Therefore, Elm Grove retains the authority to grant or deny the construction of an intersection at Wisconsin Avenue and Pilgrim Parkway.

A 0.2-mile segment that extends from Pilgrim Parkway to the west (City of Brookfield) is unrealized. Future decisions regarding construction of a traffic intersection at Pilgrim Parkway and Wisconsin Avenue remain under the control of Elm Grove.

Projected impacts generated by the proposed extension are outlined in a study drafted in 1988 (Graef, Anhalt, Schloemer & Associates, Inc, Wisconsin Avenue Extended, Impact Study). Although statistical measures and estimated impacts associated with an extended Wisconsin Avenue to Pilgrim Parkway are outdated, it remains probable that this endeavor would require widening of Pilgrim Parkway from a two-lane to four-lane arterial, using land in the City of Brookfield, and implementation of signalization at the roadway intersection.

Additional concerns relate to anticipated stormwater flow generated by development alongside the Wisconsin Avenue extension. Stormwater runoff associated with new development would potentially increase flow in the Dousman Ditch, which conjoins Underwood Creek north of the Village. As a result, the Village could receive greater volumes of stormwater runoff through the Underwood Creek channel. While SEWRPC has previously recommended a stormwater detention reservoir be constructed at the Dousman Ditch between Bluemound Road and Gebhardt Road, no improvements have been implemented to date (Report No. 26, A Comprehensive Plan for the Menomonee River Watershed, 1976).

Traffic Intersections

Road intersections present several safety problems. Accident rates are usually higher at intersections than at other sections of the road. Many factors affect accident occurrence at intersections, including; traffic volume, traffic control, frequency of access points, the number of legs (e.g. intersecting roadways), the speed limit, the median type and width, the number of traffic lanes, the existence of left-turn lanes, the lighting level and human factors.

The ranking of the most hazardous evaluated intersections was performed on the basis of the annual crash rate. Crash data over a three year period (2003-2005) for major intersections in the Village are shown below.

FIGURE 7-10: INTERSECTION CRASH SUMMARY, ELM GROVE, 2003-2006

Intersection (ranked in order of crash frequency)	Number of Crashes	Daily Entering Volume	Crash Rate per MEV*	Personal Damage Only	Injury	Fatality	Head On	Rear End	Angle	Fixed Object
Pilgrim Parkway & Watertown Plank Rd.	29	21,350	3.72	13	16	0	1	8	19	1
124th Street & Watertown Plank Rd.	10	18,880	1.46	3	7	0	0	5	5	0
Elm Grove Road & Bluemound Rd.	8	29,750	0.74	3	5	0	1	3	3	1
Elm Grove Road & Watertown Plank Rd.	4	16,300	0.67	4	0	0	0	1	0	1

MEV : Crashes per)Million Entering Vehicles; Source: WisDOT, Elm Grove Police Department

Transportation Implementation Strategies

Project or Action	Responsible Party	Timeframe
TRANSPORTATION		
Perform an annual inspection of Village roads and pathways to determine maintenance needs.	Department of Public Works	Ongoing
Participate in local, regional and statewide transportation planning activities to promote funding of facilities and improvements that benefit the Village of Elm Grove.	Village Staff	Ongoing
Continue to investigate and mitigate high collision intersections.	Village Staff Wisconsin Department of Transportation	Ongoing
Ensure there are clear views of all traffic control devices.	Department of Public Works Police Department	Ongoing
Where possible, encourage shared parking arrangements between businesses to provide improved parking for adjacent uses.	Village Staff Elm Grove Business Association Plan Commission	Ongoing
Coordinate with Waukesha County in the design of future roadway construction along the Village periphery.	Village Staff Waukesha County Transportation Department	As needed