CHAPTER 5 – TRANSPORTATION

INTRODUCTION

This section of the Town of Russell's Comprehensive Plan focuses on various transportation elements that comprise the Town's transportation system. We use transportation to travel to where we work, shop, and recreate. This mobility requires the need for good infrastructure that includes: roadways, transit, trails, and other modes. We demand a transportation network that is safe, efficient, and dependable. This chapter includes an inventory of the modes of transportation available to residents of the Town and county. The transportation plans that are currently applicable will be taken into consideration, along with some ideas that should be included in future transportation plans. This element of the plan also contains descriptions of roadway classification. Considerations of clean air, economic development, transportation control measures, and changes occurring in surrounding areas have greatly increased the importance of well-planned transportation facilities and policies. At the end of the chapter, a transportation strategy is outlined with possible policies and programs the Town of Russell should consider.

SUMMARY AND IMPLICATIONS

Through its comprehensive planning process, the Town of Russell seeks to establish a safe and efficient transportation system for motor vehicles, pedestrians, and bicycles that is compatible with the Town's adopted 20-year comprehensive plan.

The transportation facility inventory conducted for the Town of Russell has established that the Town currently has approximately 20 miles of town roads. The Town's jurisdictional responsibility relative to its local roads includes maintenance, repair, and reconstruction of the roads as needed. The primary source of funding for maintaining, rehabilitating, and reconstructing the local road system in the Town for Russell is the state's general transportation aid. The Town's internal transportation system of town roads is complemented by seven County Trunk Highways providing access to local roads within the Town as well as other roads within Sheboygan County, the region, and the state.

Currently, the Town does not have any specific facilities (bicycle paths, paved shoulders, stand-alone bike trails, and/or sidewalks) to serve bicyclists and pedestrians. However, on the condition that traffic levels remain moderate or low, the Town's existing local road roads and county trunks should be able to safely and efficiently serve the needs of bicyclists and pedestrians. The residents of the Town typically use the shoulders of the roads as their pedestrian facilities.

The recommendations in this plan call for a safe and efficient transportation system for the Town. Providing a transportation system plan that complements the existing land uses should be a priority. Making sure roads are well-maintained is also a priority to the Town of Russell.

TRANSPORTATION FUNDING PROGRAMS

The following section identifies the agencies, as well as the programs established and administered by those agencies, to provide financial and technical support for the operation, maintenance and planning of the Town's transportation system.

Wisconsin Department of Transportation

General Transportation Aid (GTA)

Town road improvements, construction and maintenance is funded, in part, through the state's disbursement of general transportation aids. The state provides a payment to each county and municipality, which pays a portion of the local governments' costs for such activities as road and street reconstruction, filling potholes, snow removal, grading shoulders, marking pavement, and repair of curb and gutters. The statutory "rate per mile" was $1,862 for calendar year 2006. Beginning in 2000, each municipality was required to establish and administer a separate segregated account from which moneys may be used only for purposes related to local highways and must deposit into that account all state and federal money for local highway purposes.

Local Mileage Certification

Each local government that increased or decreased the mileage of its roads and streets is required to file a certified plat with DOT by December 15 of each year. Local governments that have no changes in total local road miles are required to file a certified plat or a certified statement that no mileage statements have occurred. Local road certification also includes the requirement to report major road rehabilitation and improvements, new construction, and reconstruction of existing roads. Asphalt overlays of 1-inch or more are considered major improvements to the road. The Town does not have to report crack filling or seal-coating projects.

Local Roads Improvement Program (LRIP)

This program provides funding to local units of government for the costs associated with improving seriously deteriorating county highways, town roads, and municipal streets in cities and villages under the authority of the local unit of government. Projects are required to have a minimal design life of 10 years. This is a biennial program and all funds are distributed the first of the year. Applications are submitted through the county highway commissioners by November 15 of the off numbered years.

There are three entitlement components for funding road improvements: 1) County Highway Improvement component (CHIP), 2) Town Road Improvement component (TRIP), and 3) cities and villages under Municipal Street Improvement component (MSIP).

In addition LRIP funds three statewide discretionary programs; 1) CHIP-D County Highway Discretionary Improvement Program; 2) TRIP-D Town road Discretionary Improvement Program; and 3) MISP-D Municipal Street Discretionary Improvement Program for cities and villages.

All LRIP projects and locally let[1], with up to 50% of the costs reimbursed by WDOT upon completion, and the remainder matched by the local unit of government. Eligible projects include, but are not limited to, design and feasibility studies, bridge replacement or rehabilitation, reconstruction, and resurfacing. Ineligible projects include, but are not limited to: new roads, seal coats, ditch repair, and/or curb and gutter construction.

[1] This means that the project is possible through a specific action, in this case it possible for the local governments to get reimbursed for some of their costs.

Local Bridge Program
This program includes two separate programs 1) a statewide local bridge entitlement program and 2) a high cost local bridge program (high cost bridges are those that cost more than $5 million and exceed 475 feet in length). This program funds 80% of the project costs to replace and rehabilitate structures on the Federal Bridge Register, in excess of 20 feet. Bridges with sufficiency ratings of less than 80 are eligible for rehabilitation, and those with sufficiency ratings of less than 50 are eligible for replacement.

Counties set priorities for funding within their area, with projects funded on a statewide basis.

Local bridge projects are solicited by local WDOT Transportation Office staff in the winter of odd numbered years, with program approval in summer of odd numbered years. The program has a three-year cycle.

Flood Damage Aids
This program provides local governments with financial assistance for replacing or improving roads or roadway structures that have had major damages caused by flooding.

Traffic Signing and Marking Enhancement Program
This WDOT program is available to local governments to enhance the visibility of traffic signs and roadway markings in an effort to assist older drivers and pedestrians. Eligible projects include updating to larger, brighter, and more reflective signs and increasing the reflectivity of yellow centerlines and white edge "fog lines" on roadway pavement. The program pays up to 75% of the total eligible costs, with the local government contributing matching funds equal to at least 25% of the total eligible costs.

Rural and Small Urban Area Public Transportation Assistance Program- Section 5311
Allocations to the State of Wisconsin are set at a federal level. Funds may be used for operating assistance and capital assistance. Eligible public transportation services include public transportation service operating or designed to operate in non-urbanized areas (a non-urbanized area is one that has a population of 50,000 or less).

Specialized Transportation Assistance Program for Counties – Section 85.21
Allocations under this formula program are based upon the proportion of the state's elderly and disabled population located in each county, subject to two minimums: no county can receive less than a ½ percent of the total annual appropriation; and no county can receive an allocation smaller than they received in 1992. A local match of 20 percent is required.

Eligible expenditures include:

- Directly provided transportation service for the elderly and disabled
- Purchase of transportation service from any public or private organization
- A user-subsidy for the elderly or disabled passenger for their use of their transportation service
- Volunteer driver escort reimbursement
- Performing or purchasing planning or management studies on transportation

- Coordinating transportation services
- Performing or purchasing in-service training relating to transportation services
- Purchasing capital equipment (buses, vans etc.) for transportation services

The following provides a brief description of competitive transportation related grant programs that are federally and state funded:

Local Transportation Enhancement Program (TE)
Administered by the WDOT, the TE program provides funding to local governments and state agencies for projects that enhance a transportation project. There are 12 eligible project categories listed below:

- Providing facilities for bicycles and pedestrians
- Providing safety and educational activities for pedestrians and bicyclists
- Acquiring scenic easements and scenic or historic sites
- Sponsoring scenic or historic highway programs, including the provision for tourist and welcome centers
- Landscaping and other scenic beautification
- Preserving historic sites
- Rehabilitating and operating historic transportation buildings and structures
- Preserving abandoned railway corridors
- Controlling and removing outdoor advertising
- Conducting archaeological planning and research
- Mitigating water pollution due to highway runoff or reducing vehicle caused wildlife mortality
- Establishing transportation museums

Federal funds will cover up to 80% of the project, while the project sponsor is responsible for providing at least a 20% match.

Surface Transportation Program – Discretionary (STP-D)
This program encourages projects that foster alternatives to single occupancy vehicle trips, such as rehabilitation and purchase of replacement vehicle for transit systems, facilities for pedestrians and bicycles, system-wide bicycle planning, and a wide range of transportation demand management (TDM) projects. Communities with a population over 5,000 are eligible to apply for the funds through the competitive application process.

Transportation Demands Management Programs
Transportation Demand Management consists of policies and programs designed to reduce the number of single occupant vehicles (SOV) trips in a region, especially during peak travel periods.

There are two grant programs: **TDM Grant Program and Wisconsin Employment Transportation Assistance Program (WETAP).**

TDM Grant Program
The TDM Grant Program provides funding to successful grant recipients to implement projects that encourage innovative solutions and alternatives to reducing Single Occupancy Vehicle (SOV) trips. WDOT accepts applications annually. Eligible applicants may include local governments, chambers of commerce, and others as defined by the program. The required local match is 20 percent of the project costs.

Wisconsin Employment Transportation Assistance Program (WETAP)
As a joint program between the Wisconsin Department of Workforce Development (DWD) and WDOT, it provides funding to help low- income people access, or retain or advance in employment with the goal of meeting the entire population's transportation needs. This program is funded with combined federal and state dollars, and requires a local match.

Application requirements include the development of regional job access plans that identify the need for transportation services and illustrate the alternatives proposed for the program. Plans should be developed between public transit providers, local units of government, transportation planners, human service agencies, low-income individuals and other interested parties.

Transportation Economic Assistance (TEA Grant) Program
This program provides a 50% state grant to governing bodies, private businesses, and consortiums for road, rail, harbor and airport projects that are necessary to help attract employers to Wisconsin, or to encourage business and industry to remain and expand in Wisconsin.

Federal Highway Administration Programs
Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users Program (SAFETEA-LU)
The SAFETEA-LU program is an initiative that assists communities as they work to solve interrelated problems involving transportation, land development, environmental protection, public safety, and economic development. SAFETEA-LU represents the largest surface transportation investment in the Nation's history. Built as an off-spring to the pilot program, the Transportation Equity Act for the 21st Century (TEA-21), the bill was signed into law by President Bush on August 10, 2005.

The SAFETEA-LU program is administered by the U.S. Department of Transportation's Federal Highway Administration in partnership with the Environmental Protection Agency and the Department's Federal Transit Administration, Federal Railroad Administration, and Research and Special Programs Administration. Funding for this program has been authorized through 2009.

Funds are used to help achieve locally determined goals, such as improving transportation efficiency, reducing the negative effects of transportation on the environment, providing better access to jobs, services and trade centers, reducing the need for costly future infrastructure, and revitalizing underdeveloped and brownfields sites. Grants also can be used to examine urban development patterns and create strategies that encourage private companies to work toward these goals in designing new developments. The grants will help communities become more livable by preserving green space, easing traffic congestion and employing smart growth strategies, while promoting strong, sustainable economic growth.

Grants may be awarded to improve conditions for bicycling and walking, better and safer operation of existing roads, signals and transit systems, development of new types of transportation financing and land use alternatives, development of new programs and tools to measure success, and the creation of new planning tools and policies necessary to implement SAFETEA-LU-related initiatives. Implementation activities may include community preservation activities to implement transit oriented development plans, traffic-calming measures or other coordinated transportation and community and system preservation practices. There is no local match required under this program; projects are fully funded, although priority is given to those applications that demonstrate a commitment of non-federal resources.

Under the SAFETEA-LU, Sheboygan County received a federal grant for the Non-Motorized Transportation Pilot Program, only one of four awarded throughout the country, to develop a network of non-motorized transportation facilities that connect neighborhoods, retail centers, schools, recreation amenities, and employment centers and will allow people to change the way they choose to move around through their daily lives. This funding will expire in 2010, but if the Town would like to pursue improvements to its pedestrian and bicycling facilities, this may be a source of funding for those improvements.

INVENTORY OF TRANPORTION FACILITIES

Highways

There are no state highways in the Town of Russell. Some county highways that run or border the Town are County Highways Q, H, J, NR, SR, P, and MM. (See Figure 5.1 for a listing of these highways.) There are approximately 11.25 miles of county highways in Russell.

Figure 5.1: Town of Russell Roadways

COUNTY HIGHWAYS	
County Road H	County Road P
County Road J	County Road Q
County Road MM	County Road SR
County Road NR	
LOCAL ROADS	
Anderson Court	Kornetzke Court
Clark Road	Lefeber Court
Dickman Court	Marsh Court
Drake Court	Olrich Court
Ford Road	River Lane
Grogen Road	Rusmar Road
Highview Road	Schmahl Court
Holstein Road	Sexton Road
Horn Court	Sheboygan Road
Hunters Court	South Court
Irish Court	Turba Court
Kempf Court	Watry Court

Source: Sheboygan County Planning Department, 2006

Roads

There are approximately 24 named roads and approximately 20 miles of town roads within the Town of Russell (See Figure 5.1 for a listing of these roads).

Inter-County Bus Service (WETAP) & Transit

There are no transit services provided to or by the Town of Russell. However, transit service is available in the City of Sheboygan and the City of Sheboygan Falls.

Elderly and Disabled Transportation System

Elderly and disabled transportation systems refer to those programs that provide rides through scheduled bus services with paid or volunteer drivers and volunteer programs with private vehicles and unpaid drivers. Current transportation services for elderly and disabled persons living within the Town of Russell are provided through programs coordinated and administered by the Sheboygan County Health and Human Services Department, Division of Aging. Long-distance transport options include Superior Medical Transport, headquartered in Oostburg.

The door-to-door specialized transportation of elderly and disabled persons within Sheboygan County, including the Town of Russell, is provided by the Sheboygan County Health and Human Services Department. The Sheboygan County Health and Human Services Department contracted the provision of this service with G & G Enterprises of Wisconsin, Inc. (doing business as Handicare Transportation) in May of 1993. For the most part, service comments since privatization of the transportation service have been quite favorable, until recently. In August 2006, it was discovered that many of the vehicles used for transportation were breaking down and in need of repairs. This transportation system's use may need to be re-evaluated. Priority trips include medical, nutritional, and work-related activities, as well as adult day care/day programming, personal appointments and grocery shopping. If the schedule cannot accommodate a medical appointment, a volunteer driver is located to transport the person; this service is not available for medical appointments by residents of nursing homes.

The Health and Human Services Board of the Sheboygan County Board has been designated by the County Board Chairman as the Transportation Coordination Board. This board is composed of six County Board Supervisors and three citizens, and is a standing board of the County Board. Sheboygan County has a high degree of coordination of transportation services for elderly and disabled persons. All other groups who operate transportation programs are aware of the Health and Human Services Transportation Program, and contact the Sheboygan County Health and Human Services Department office to supplement their service. Some specific examples of coordinated service include daily service to the Rehabilitation Center of Sheboygan (RCS), handling all requests for transportation services and daily service to nursing homes for visitors.

Air Transportation

The inventory of air transportation systems and facilities included both public airports that service the region and also the private or semi-public airport facilities that service private commercial and recreational interest. The Wisconsin DOT Bureau of Aeronautics classifies airport facilities according to the function that they serve and the size and type of aircraft that they are capable of handling.

Regional Air Service

At the regional level, the primary commercial-passenger and air freight service for residents of the Village of Glenbeulah (and Sheboygan County) is provided either by Austin Straubel International Airport, located near the City of Green Bay, or General Mitchell International Airport located south of the City of Milwaukee. Austin Straubel is owned and operated by Brown County and is a full service regional connector that provides direct service flights to 7 major cities, including Milwaukee, Wisconsin; Atlanta, Georgia; Chicago, Illinois; Detroit, Michigan; Las Vegas, Nevada; and Minneapolis, Minnesota. Flights are provided on six airlines with approximately 32 arrivals and 32 departures daily. An alternative choice for passenger service is General Mitchell International Airport located in Milwaukee, which is a medium-hub airport owned and operated by Milwaukee County. Mitchell's 12 airlines offer roughly 220 daily departures (plus 220 daily arrivals). Approximately 90 cities are served nonstop or direct from Mitchell International. It is the largest airport in Wisconsin, and has been ranked the 5th best airport overall in the nation.

Local Air Service

Sheboygan County Memorial Airport is located about 15 miles southeast of the Town of Russell. The Sheboygan County Memorial Airport is classified as a Transport/Corporate (T/C) Airport. Transport class facilities can serve aircraft weighing as much as 60,000 pounds provided that approach speeds are less than 121 knots, with wing spans less than 80 feet in length. The primary runway is nearly 4,000 feet in length and 75 feet in with. Corporate charter and limited commuter service are available at this airport. This airport facility is capable of handling precision instrument approach operations. In 1997, there were approximately 64,000 operations at the airport, which was an increase of approximately 3,000 flight operations from the 1992 total. Aircraft based at the facility increased from 79 in 1992 to 110 in 1995. Flight operations at the airport include more than 30,000 general aviation itinerant flights and nearly 29,000 local aviation general purpose flights. Available services include fuel, major airframe and power plant repair, charter, rental, sales and instructional services.

An expansion plan is in place for the airport with a horizon year of 2020. This expansion plan recommends extending the primary runway 1,400 feet (600 feet to the south and 800 feet to the north) and extending the crosswind runway 1,000 feet (300 feet to the east and 700 feet to the west). These runways would be extended to allow for larger aircraft to utilize the airport. The existing terminal site would be expanded under this plan. A significant portion of CTH O would need to be relocated slightly to the south where it meets with CTH TT if the airport plan is implemented; this relocation has been recommended in the *Year 2020 Sheboygan Area Transportation Plan (SATP)*. In addition, a small portion of Highland Road would be relocated if recommended improvements are implemented.

Private and Recreational Airstrip Facilities

Private airport facilities are required to obtain a certificate of approval or permit from the Wisconsin Department of Transportation's Bureau of Aeronautics. The permit is issued if the Department determines that the location of the proposed airport is compatible with existing and planned transportation facilities in the area. Generally, permits are granted provided that the proposed airstrip is located to allow approaching and departing aircraft to clear all public roads, highways, railroads, waterways or other traverse ways by a height that complies with applicable federal standards. The permit is issued upon an application review by WisDOT, the county, and

the municipality in which the facility is located, and by the appropriate regional planning commission.

In the County there are seven privately owned airstrips consisting of a 2,100 foot runway along STH 144 west of Random Lake; a 2,000 foot runway near CTH OK in the Town of Wilson; a 1,200 foot runway north of CTH J in the Town of Sheboygan Falls; a 2,500 foot runway east of Dairyland Drive in the Town of Mosel; a 2,300 foot runway near the Village of Oostburg; a 2,700 foot runway near the Lake Michigan shoreline in the Town of Holland; and a 2,500 foot runway north and west of CTH V in the Town of Wilson. These small, private airport facilities offer minimal services, and are generally utilized by recreational fliers.

There are two helipads within Sheboygan County, all associated with medical facilities. The first of these is owned by St. Nicholas Hospital in Sheboygan. The second helipad is owned by Aurora Memorial Medical Center in Sheboygan.

Waterborne Transportation

There are no commercial port, harbor, or marina facilities within the Town of Russell (The Broughton County Marsh Park is used primarily for recreational purposes). However, due to its location within Sheboygan County, relative to Lake Michigan and Lake Winnebago, numerous marina and harbor facilities are located within driving distance from the Town.

Rail Transportation

There are no railroad tracks that run through the Town of Russell.

Trucking

There are currently no trucking companies within the Town of Russell.

Bike Facility Systems

The Wisconsin Bicycle Map identifies general bicycling conditions on the state and county highways located within Sheboygan County. The volume of traffic and the paved width of roadway were the two primary variables by which roads were classified for bicycling. The bicycling conditions are known specific to some roads in the Town.

Best Conditions for Bicycling – These county highways and state highways will have light volumes of traffic and may have many other favorable factors such as good sight distance and minimal truck traffic. This classification may include a small number of highways approaching a moderate level of traffic but with paved shoulders.

- County Highway H – west of County Highway J into St. Anna
- County Highway Q – west from County Highway H to the county line
- County Highway MM – Until County Highway J
- County Highway SR
- County Highway NR

Moderate Conditions for Bicycling – These roadways have moderate traffic volumes for the amount of pavement width present. This classification may also include county highways and

state highways with paved shoulders, but slightly more traffic. Due to moderate traffic volumes, less experienced cyclists should use care on these segments.

- County Highway J – north of County Highway P until the northern County line.

The Wisconsin State Bicycle Plan does not identify if county or local roads have paved shoulders of a width of at least four to five feet. Studies have shown that paving road shoulders, (from four to five feet in width) not only improves safety for bicyclist and pedestrians, but will also decrease long-term maintenance costs for the facility and will improve motor vehicle safety.

The *Bicycle Facility Transportation Plan for the Bay-Lake Region* has identified a system of connecting routes and needed improvements connecting all municipalities and major destination points throughout the eight-county region including Sheboygan County and the Town of Russell. The regional plan proposes transportation facility improvements (paving road shoulders to a width of four or five feet) to provide safe and efficient travel paths between communities located within Sheboygan County.

Currently, within the Town of Russell there are no paved bicycle lanes or stand-alone bike trails. The Town may have an opportunity to improve bicycling conditions through the non-motorized transportation grant dollars to be distributed to local projects within the next three years.

Source: 2005 Wisconsin Bicycle Map. The information is compiled by the Bicycle Federation of Wisconsin and the WisDot. Note: The map does not include information specific to the Village, just the surrounding roads.

Pedestrian Facility Systems

Currently, there are no pedestrian facilities located in the Town of Russell, and there are currently no plans to pave the shoulders of the roads to a width of 4 to 5 feet.

EVALUTAION OF CURRENT INTERNAL TRAFFIC CIRCULATION SYSTEM

Roads and Highways

There are several basic considerations useful is assessing the road system within a community. These considerations include the functional classification of the existing road system, the annual average daily traffic on roads within the Town, and an evaluation of the system's capability to handle present and projected future traffic volumes. In addition, vehicle crash data is useful in determining problem areas relative to road safety. This information can provide an indication of the road improvements that may be needed during the planning period.

Functional Class

Roads, which are the principal component of the circulation system, may be divided into three categories: arterial, collector, and local. The three categories of roads are determined by the function that the road serves in relation to traffic patterns, land use, land access needs, and traffic volumes. The road system for the Town of Russell has been functionally classified based on the criteria identified by the WisDOT in Figure 5.2. Figure 5.3 is a map of the road system for the Town of Russell. Figure 5.4 is a map of the functional road classification within the Town.

Arterial Roads

The function of an arterial road is to move traffic over medium to long distances, often between regions as well as between major economic centers, quickly, safely, and efficiently. To improve safety and to enhance efficiency, land access from arterial roads should be limited to the greatest extent possible. Arterial roads are further categorized into either principal or minor arterial roads based on traffic volumes. Within the Town of Russell, there are no principal or minor arterial roads.

Collector Roads

The primary function of those roads classified as collectors is to provide general area to area routes for local traffic. Collector roads take traffic from the local roads (and the land based activities supported by the local roads) and provide relatively fast and efficient routes to farm markets, agricultural service centers, and larger urban areas. With an overall socioeconomic trend that is characterized by the decline of small and medium agricultural concerns, and a significant increase in the number of rural single-family residential properties, collector roads generally serve the same function, but with different trip purposes. Collector roads typically serve low to moderate vehicle volumes and medium trip lengths between commercial centers at moderate speeds. Collector roads serve to distribute traffic between local and arterial roads, between home and the work place, home and the place of worship, home and school, and between home and those places where business and commerce are conducted. Collector roads are further delineated by classification as major or minor collectors.

In the Town of Russell, CTH J and CTH Q are functionally classified as major collectors. The county highways servicing the Town that are classified as a minor collectors are CTH H, CTH NR, and CTH SR.

Local Roads

The primary and most important function of local roads is to provide direct access to the lands adjacent to the road. Local roads are constructed to serve individual parcels of land and properties. They also tend to serve the ends of most trips within the rural area. All roads that are not classified as arterial or collector facilities within the Town are classified as local roads. Local roads should be designed to move traffic from an individual lot (more often than not, a person's home, cottage or farm) to collector roads that in turn serve areas of business, commerce and employment. Local roads should not be designed or located in such a manner that they would or might be utilized by through traffic. In total, there are nearly 25 miles of local roads under the jurisdiction of the Town.

Traffic Counts

An analysis of past and present volumes is beneficial in determining the traffic conditions in a community. Traffic volumes are usually presented as an Annual Average Daily Traffic (AADT) figure, and are calculated for a particular intersection or stretch of roadway. The Wisconsin Department of Transportation, as part of its traffic count program, provides highway traffic volumes from selected roads for all state communities on a rotating basis, providing those counts for a community once every three years. The traffic on County Highway J at MM has increased by 200 since 1996. The traffic has also increased on Sheboygan Road, whereas the traffic on

Figure 5.2: Functional Classification Criteria for Rural Roads and Highways

<table>
<tr><th colspan="6">Rural Principal Arterials</th></tr>
<tr><td rowspan="3">County Population Density (Rural)</td><td colspan="4">Basic Criteria</td><td>Supplemental Criteria</td><td rowspan="3">Mileage Percent of System Range</td></tr>
<tr><td colspan="4">Must meet any 2 of these</td><td rowspan="2">OR
Must meet both of these plus 90% of Traffic Volume</td></tr>
<tr><td>Population Service</td><td>Land Use Service</td><td>Spacing</td><td>Traffic Volume</td></tr>
<tr><td>>43</td><td rowspan="2">Connect places 50,000 with other places of 50,000.
Connect places 5,000 with places of 50,000.</td><td rowspan="2">Provide access to major recreation areas of the state</td><td rowspan="2">Maximum 30 miles</td><td>>6,000</td><td rowspan="2"></td><td rowspan="2">2.0-4.0% statewide</td></tr>
<tr><td>>43</td><td>>2,000</td></tr>
<tr><th colspan="8">Rural Minor Arterials</th></tr>
<tr><td>>43</td><td>Connect places 5,000 with places of 5,000.</td><td rowspan="2">Serve all traffic generating activities with an annual visitation of 300,000 if not served by a principal arterial.</td><td rowspan="2">Maximum 30 miles</td><td>>2,000</td><td rowspan="2">1. Alternate population connection
2. Major river crossing/restrictive topography</td><td rowspan="2">4.0-8.0% statewide</td></tr>
<tr><td>>43</td><td>Connect places with 1,150 with places of 5,000 or other principal arterials.</td><td>>1,000</td></tr>
<tr><th colspan="8">Rural Minor Collector</th></tr>
<tr><td></td><td colspan="4">Basic Criteria</td><td rowspan="2">OR Must meet 2 of these plus 90% of Traffic Volume</td><td rowspan="2">Mileage Percent of System Range</td></tr>
<tr><td></td><td colspan="4">Must meet any 2 of these OR the Parenthetical Traffic Volume</td></tr>
<tr><td>>43</td><td>Connect places 1,150 with other places of 1,150.

Connect places 575 with places 1,150 or higher function route.</td><td>Land Use Service Index > or =16.</td><td rowspan="2">Maximum 10 miles</td><td>>1,000

(>4,000)</td><td rowspan="2">1. Alternative population connection
2. Major river crossing
3. Restrictive topography
4. Interchanges with a freeway
5. Parallel to a principal arterial</td><td>5.0-18.0% countywide</td></tr>
<tr><td>>43</td><td>Connect places 575 with other places of 1,150 or higher function route.

Connect places 115 with places 575 or higher function route.</td><td>Land Use Service Index > or =12.</td><td>>400

(>1,600)</td><td>Most counties should be at 7.0-14.0%</td></tr>
<tr><th colspan="8">Rural Minor Collectors</th></tr>
<tr><td>>43</td><td>Connect places 115 with other places 115.</td><td>Land Use Service Index > or =8.</td><td rowspan="2">Maximum 10 miles</td><td>>400 (>1,600)</td><td rowspan="2">1. Alternative population connection
2. Major river crossing
3. Restrictive topography
4. Interchanges with a freeway
5. Parallel to a principal arterial</td><td rowspan="2">5.0-10.0% countywide</td></tr>
<tr><td>>43</td><td>Connect places 60 with places 115 or higher function route.</td><td>Land Use Service Index > or =5.</td><td>>200 (>800)</td></tr>
<tr><th colspan="8">Local Roads</th></tr>
<tr><td colspan="6">All public roads not classified as arterials or collectors.</td><td colspan="2">65.0-75.0% countywide

Most counties should be at 68.0-72.0%</td></tr>
</table>

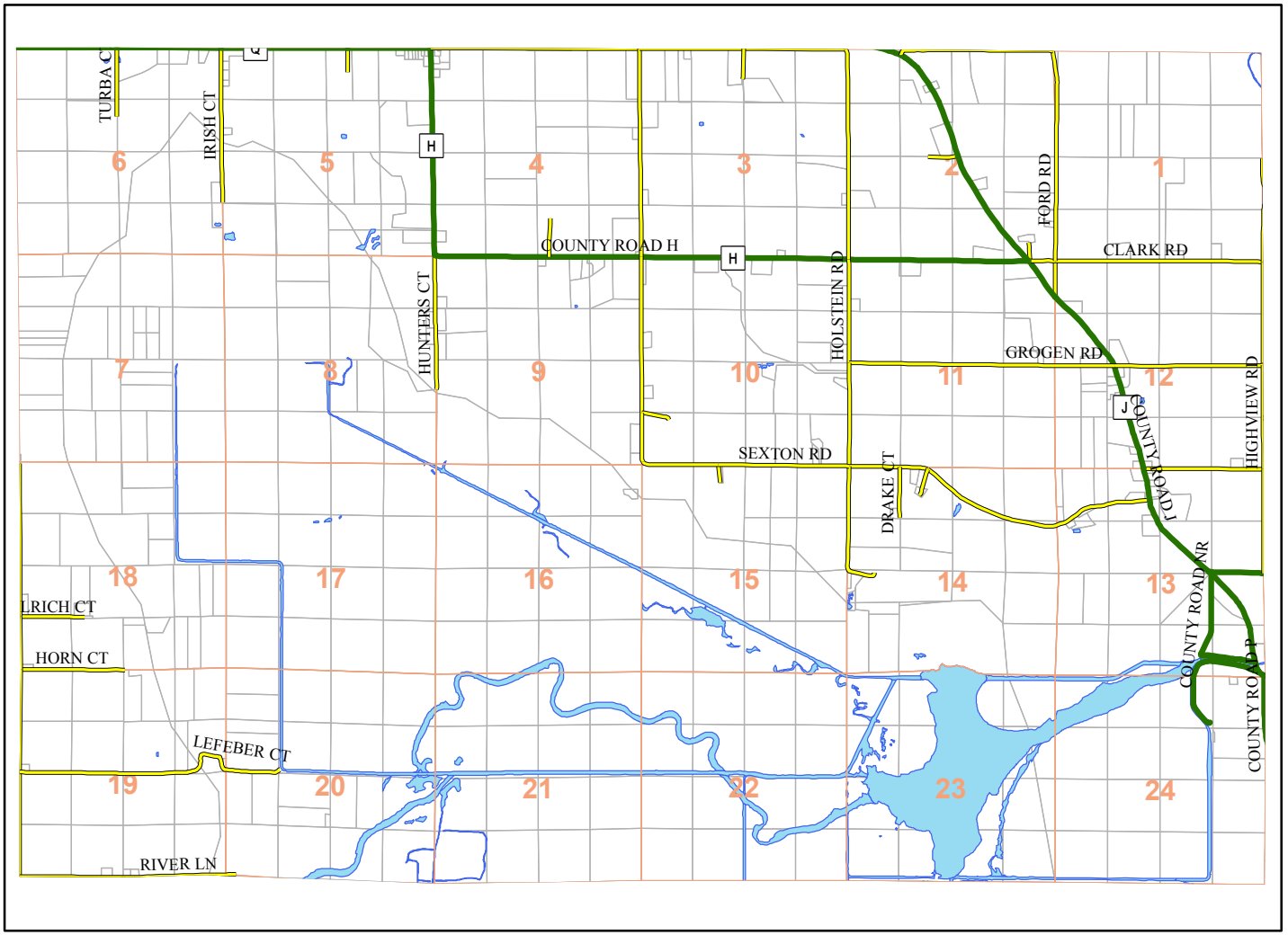

Figure 5.3
Locations of Highways & Roads
Town of Russell

Sheboygan County, WI

Legend

Parcels

Roads

State Hwy

County Road

Local Road

Private Road

N

W E

S

1 " equals 4,400 '

4,500 2,250 0 4,500 Feet

Prepared for the Town of Russell by the
Sheboygan County Planning Department

Source : Sheboygan County

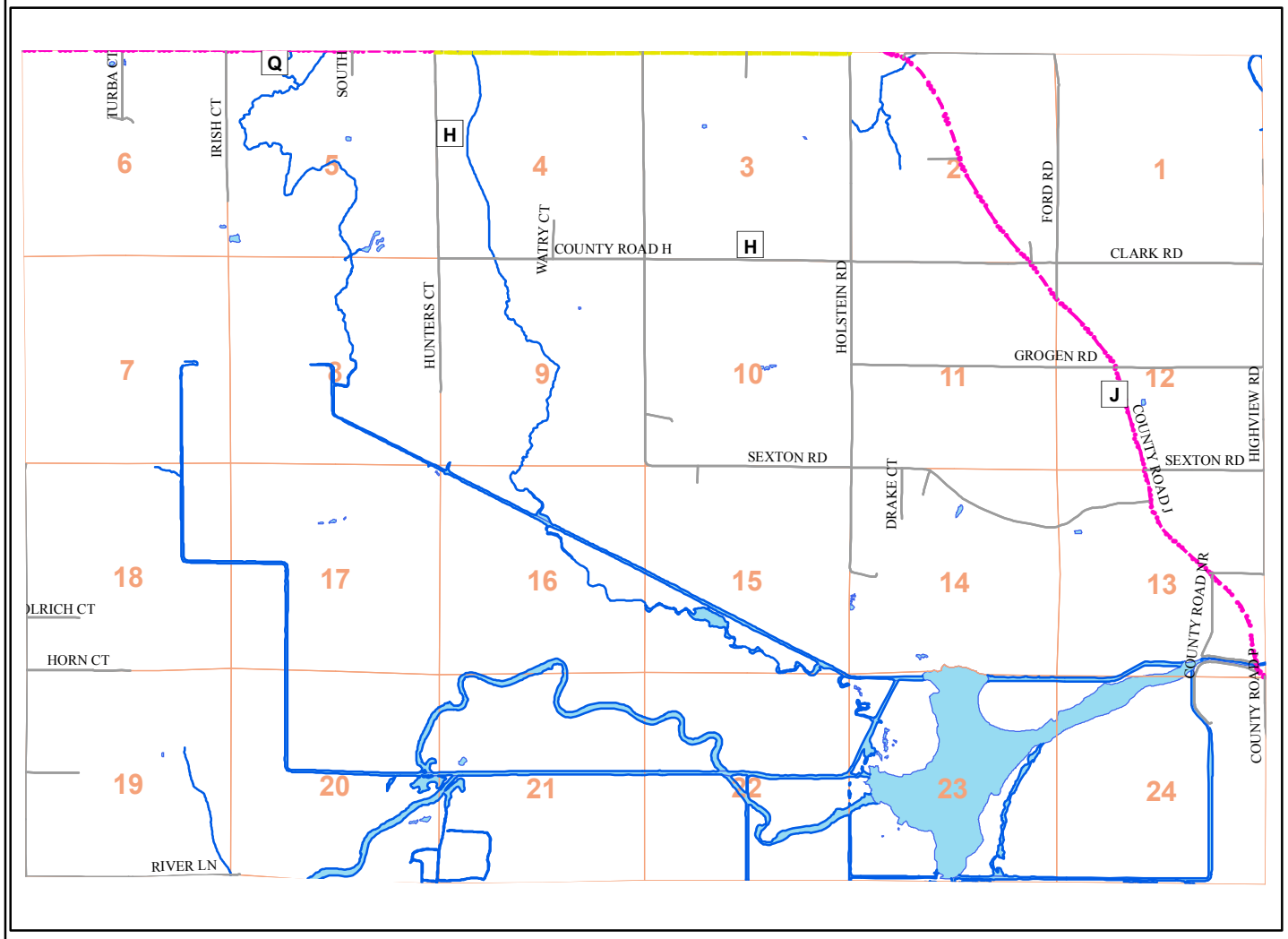

Figure 5.4
Functional Road Classifications
Town of Russell
Sheboygan County, WI

Legend

- Principal Arterial
- Minor Arterial
- Major Collector
- Minor Collector
- Local Road or Street

Planimetric

- Bridges
- Dams
- Railroads
- Rivers, Streams
- Road / Bridge

N
W E
S

1 " equals 4,400 '

4,500 2,250 0 4,500 Feet

Prepared for the Town of Russell by the
Sheboygan County Planning Department

Source : Sheboygan County

County Highway Q has decreased. From 1999 to 2002 most of the Average Daily Traffic counts remained the same (see Figure 5.5).

Figure 5.5: Average Daily Traffic Counts, Town of Russell

Highway- Counter Location	1996 ADT	1999 ADT	Number Change 1996 to 1999	Percent Change 1996 to 1999	2002 ADT	Number Change 1999 to 2002	Percent Change 1999 to 2002
CTH J- north of CTH H	1100	1100	0	0.00	1100	0	0.00
CTH J- at CTH MM	1200	1400	200	16.67	1400	0	0.00
CTH Q- west of CTH H	1100	1100	0	0.00	1000	-100	-9.09
Sheboygan Rd.- east of CTH H	230	290	60	26.09	310	20	6.90

Source: WisDOT "Annual Average Daily Traffic" for Sheboygan County, 1996, 1999, 2002.

Traffic Flow Capacity

The roads that serve the state, region, and local community are designed and engineered to accommodate a maximum level of traffic (Figure 5.6). The maximum total capacity of a two-lane, two-way road under ideal conditions is 2,000 vehicles per hour, as determined by the Peak Hourly Traffic (PHT), regardless of traffic distribution by direction. The maximum capacity values given in Figure 5.5 should be considered as the average maximum volume on various types of roads under ideal conditions. As the comparison of the recorded annual average daily traffic, peak hourly traffic and traffic flow capacities indicate, at present, there are no roads or road segments located within the Town that have approached or appear to be approaching the roads design capacity.

Figure 5.6:UninterruptedTraffic Flow Capacities Under Ideal Conditions

Highway Type	Capacity Peak Hourly Traffic
Multi-Lane Divided Highways	2,000 vehicles per lane
Two-Lane, Two-Way Highways	2,000 vehicles both lanes
Three-Lane, Two-Way Highways	4,000 vehicles both lanes

Source: "Highway Capacity Manual," Highway Research Board of the Division of Engineering and Industrial Research, 1985; Bay-Lake Regional Planning Commission, 2002.

Traffic Crashes

Vehicle crash reports, filed with the Sheboygan County Sheriff's Department and also with the Wisconsin Department of Transportation, provide the detail of the type, location, and severity of the vehicle crash that has occurred. These reports are often excellent indicators of problems with road alignments, roadway construction, and geometric design of the road. The number, location and severity of accidents can often indicate problem areas (in terms of traffic safety) which may be alleviated through a variety of measures. Alterations in the road geometry, enlargement of the intersection turning radii, sign placement, sight lines, speed changes, and access limits are just a few of the physical alterations and adjustments that can be made to make a specific intersection or stretch of roadway safer.

Figure 5.7: Vehicle Crashes, Town of Russell, 2002-2006

Year	Total Crashes	Fatalities	Injuries
2002	14	0	1
2003	31	0	5
2004	26	1	3
2005	32	1	6
2006	25	0	2
TOALS	**128**	**2**	**17**

Source: Sheboygan County Sherriff's Department accident reports, 2002-2006.

Figure 5.7 shows that for the period between January 1, 2002 through December 31, 2006, there were a total of 128 crashes in the Town of Russell. Of that, two of the crashes resulted in fatalities and 17 resulted in injuries to the vehicles occupants.

The crash data further delineated by non-intersection and intersection crashes can be seen in Figure 5.8. Non-intersection crashes typically include deer/vehicle crashes, vehicles sliding into the ditch, vehicles leaving the road and hitting fixed objects such as sign posts, utility poles, and trees. Intersection crashes are typically characterized by angle crashes, rear-end crashes, and head-on crashes within the immediate area of a particular intersection. Intersection crashes which involve multiple cars are typically indicators of a problem with the sight triangle at the intersection, location of and visibility of signs, and/or the geometric configuration of the roadway itself.

In the 2002, one crash was not identified as intersection or non-intersection that is why there are only 13 listed crashes list in Figure 5.8 and 14 crashes listed in Figure 5.7. Intersection crashes make up 83% of the total crashes in the Town of Russell.

Figure 5.8: Intersection/Non-intersection Crashes, Town of Russell

Year	Crashes	Intersection	Non-Intersection
2002*	13	10	3
2003	31	25	6
2004	26	17	9
2005	32	30	2
2006	25	24	1
TOTAL	127	106	21

*Source: Sheboygan County Sherriff's Department accident reports, 2002-2006. * 2002 only lists 13 crashes in detail*

Out of all the intersection crashes, 57 have occurred at four intersections. This means that over 50% of the total number of intersection crashes have occurred at these intersections. These intersections are at County Highways H and J, County Highways J and MM, County Highway J and Sexton Road, and County Highway J and Sheboygan Road. The intersection with the greatest number of crashes is at County Highways J and MM. County Highways MM and J do not meet at a right angle; the intersection is more

of a triangle, which may be part of the cause of the higher number of crashes at this intersection.

Figure 5.9: Number of Crashes by Crash Type, Town of Russell

Crash Type	2002*	2003	2004	2005	2006*	Totals
Motor Vehicle-In-Transport	0	0	0	1	2	3
Parked Motor Vehicle	0	2	2	1	2	7
Tree	0	2	0	2	1	5
Deer	10	14	11	16	8	59
Other Fixed Object	0	0	1	2	1	4
Guardrail Face	0	0	0	0	0	0
Ditch	2	2	1	3	3	11
Other Animal	0	2	1	2	1	6
Traffic Sign Post	0	5	4	0	1	10
Utility Pole	1	0	0	4	1	6
Overturn	0	1	4	1	3	9
Mailbox	0	2	1	0	1	4
Culvert	0	1	1	0	1	3
Total Crashes	**13**	**31**	**26**	**32**	**25**	**127**

*Source: Sheboygan County Sherriff's Department accident reports, 2002- 2006. * 2002 only lists 13 crashes in detail*

Crash Type

The manner of the crash is indicated by crash type in Figure 5.9. The majority of crashes in the Town of Russell have occurred with deer. Approximately 46% of the crashes have occurred in this manner. Vehicles entering the ditch, hitting a traffic sign post, or overturning are the next common types of crashes. The Town of Russell is a rural area, so the high number of deer/car crashes is not uncommon.

Access Controls

Access management is a means to maintain the safe and efficient movement of traffic along arterial and major collector highways by controlling the number and location of intersecting roads and driveways. State Statutes allow counties, cities, and villages (through an adopted ordinance) to control access on county highways that have traffic counts in excess of 1,000 vehicles daily.

At this time, neither Sheboygan County nor the Town of Russell has a Controlled Access Ordinance, nor do they plan to adopt one.

Driveway Permits

Driveways to local town roads may also impair vehicle safety, if improperly sited and/or designed. Wisconsin State Statutes allow towns to issue permits for all new driveways; these permits can allow a town to prohibit driveways that due to location (at the base or top of hills, within a specified distance from an intersection, etc.) are deemed unsafe. The permit process can also regulate the size and design of driveway culverts. Improperly designed and sized culverts can pose traffic safety problems and impede drainage from the road surface.

Along all state highways, WisDOT has jurisdiction of any new driveway to be constructed. This is covered under Trans 231 and a permit is necessary for construction. The Town of Russell

does not have any state highways, so this legislation is not is not relevant for the Town's use. The Town regulates driveways through section .23 of its zoning ordinance, but does not have a strict permitting process for driveways on Town roads.

Speed Limit Controls
Local units of government can change speed limits for their roads under the authority and guidelines of the Wisconsin Statutes. Local officials play a key role in setting speed limits. They must balance the competing concerns and opinions of a diverse range of interests, including drivers (who tend to choose speeds that seem reasonable for conditions) and landowners or residents (who frequently prefer and request lower speed limits than those posted), law enforcement agencies with statutory requirements, and engineering study recommendations.

The prevailing speed, the one most drivers choose, is a major consideration in setting appropriate speed limits. Engineers recommend setting limits at the 85th percentile speed, which is the speed 85% of the free slowing traffic travels at or below. An engineering study measuring average speeds is required to determine the 85th percentile. Another consideration is the road's design limit, this is the highest and safest speed for which the road was designed and takes into account the road type, geometry, and adjoining land uses.

Speeds should be consistent, safe, reasonable, and enforceable. When 85% of the drivers voluntarily comply with posted speed limits, it is reasonable to enforce the limits with the 15% who drive too fast. Unreasonably low speed limits, however, tend to promote disregard for posted limits and make enforcement much more difficult. Such limits may also promote a false sense of security among residents and pedestrians expecting the speeds of drivers will decrease due to the posting.

Internal Traffic Circulation System
The internal traffic circulation system for the Town of Russell consists of a grid network of local roads serving agricultural and scattered rural residential land access needs. The local road system is complemented by a network of well-spaced county trunk highways, which although serving limited land access, primarily serves the purpose of providing countywide travel.

INVENTORY AND ANALYSIS OF APPLICABLE TRANSPORTATION PLANS AND PROGRAMS

The following section of this chapter presents information on existing state, regional, county, and local transportation related plans that apply within the Town.

County Functional and Jurisdictional Studies

There are no existing county functional or jurisdictional transportation plans for the road system within the Town of Russell, however, such a study for the surrounding area is overdue. During a key stakeholder forum held November 30, 2004, the Sheboygan County Highway Commissioner stated that functional/jurisdictional classifications are reviewed periodically. Roads can change classification from town to county and vice versa. The County Highway Department intends to look at the roads' classification as part of Sheboygan County's comprehensive planning process. These changes in classification are generally based on traffic numbers and types of vehicles.

Transportation Corridor Plans
There are no existing transportation corridor plans for the road system located within the Town of Russell.

Rural Transportation Plans
There are no transportation plans for the road system located within the Town of Russell.

State Highway Plan
The Wisconsin State Highway Plan 2020 states that, "Wisconsin's State Trunk Highway system, consisting of approximately 11,800 miles of roads, is aging and deteriorating at the same time traffic congestion is increasing." In response to this critical issue, WisDOT, in partnership with its stakeholders, has developed the *State Highway Plan 2020*, a 21-year strategic plan which considers the highway system's current condition, analyzes future uses, assesses financial constraints and outlines strategies to address Wisconsin's preservation, traffic movement, and safety needs. The plan will be updated every six years to reflect changing transportation technologies, travel demand, and economic conditions in Wisconsin.

The *Wisconsin State Highway Plan 2020* addresses three key elements or issues of concern relative to the State Highway System:

- Preserving the system by improving or replacing aging pavements and bridges;
- Facilitating movement of people and goods through an efficiently designed system, and with programs that reduce traffic congestion; and
- Improving highway safety through combined strategies of engineering, education, and enforcement.

Six-Year Highway Improvement Plan

The Wisconsin Department of Transportation develops a *Six-Year Highway Improvement Plan* which addresses the *rehabilitation* of Wisconsin's state highways. Rehabilitation falls into three major categories (*resurfacing, reconditioning and reconstructi*on) giving it the often used abbreviation 3-R Program.

- *Resurfacing* entails provision of a new surface for a better ride and extended pavement life.
- *Reconditioning* entails addition of safety features such as wider lanes, or softening of curves and steep grades.
- *Reconstruction* entails complete replacement of worn of roads including the road base and rebuilding roads to modern standards.

Relative to the state's *Six-Year Highway Improvement Plan*, the Town of Russell was not affected because it does not have any state highways in its boundaries.

State Airport Plans
The Wisconsin State Airport System Plan 2020 (SASP 2020) provides a framework for the preservation and enhancement of the system of public-use airports adequate to meet current and future aviation needs of Wisconsin. The plan determines the number, location, and type of aviation facilities required to adequately serve the state's aviation needs over a 21-year planning

period, 2000 through 2020. The plan defines the State Airport System and establishes the current and future role of each airport in the system.

Wisconsin State Railroad Plans

An update of the State Rail Plan is in progress. Due to the increased utilization of inter-modal shipment of goods, manufacturers can locate virtually anywhere within a short driving distance of a rail facility and still benefit from the reduced costs afforded by rail transportation.

State, Regional and Local Bicycle Plans

State Bicycle Plan

The *Wisconsin Bicycle Transportation Plan 2020* has as its two primary goals

- Increase levels of bicycling throughout Wisconsin, doubling the number of trips made by bicycles by the year 2010 (with additional increases achieved by 2020).
- Reduce crashes involving bicyclists and motor vehicles by at least 10 percent by the year 2010 (with additional increases achieved by 2020).

Recommended actions include: 1) developing local bicycle transportation plans; 2) providing suitable space for bicyclists when designing roadway projects; 3) following accepted bikeway guidance and standards; and 4) routinely considering bicyclists when developing roadway projects.

Regional Bicycle Plan

The *Bicycle Facility Transportation Plan for the Bay-Lake Region* identified a system of connecting routes and needed improvements connecting all municipalities and major destination points throughout the eight-county region, including Sheboygan County and the Town of Russell. The regional plan proposes transportation facility improvements (paving road shoulders to a width of four or five feet) to provide safe and efficient travel paths between communities located within Sheboygan County.

Sheboygan Area Transportation Plan

The Sheboygan Metropolitan Planning Organization Technical and Policy Advisory Committees and Bay-Lake Regional Planning Commission staff have completed the *Year 2035 Sheboygan Area Transportation Plan (SATP)*. The Sheboygan Metropolitan Planning Organization includes representatives from the cities, villages, and towns affected in Sheboygan County, the Sheboygan Public Works Department, the Sheboygan Transit System, and Sheboygan County Government.

The mission of the *Year 2035 Sheboygan Area Transportation Plan (SATP)* is to plan for a means of providing safe, efficient, economical, convenient, aesthetic, and multimodal transportation facilities for people, goods, and services within the Sheboygan Metropolitan Planning area, for all trip purposes.

The following nine major goals are included in the Sheboygan Bicycle Plan:

1) Support the economic vitality of the metropolitan planning area (through promotion of global competitiveness, productivity, and efficiency) by recommending transportation

investments that recognize the mobility needs of business and industry and that enhance access for economic development and tourism.
2) Increase the safety and security of the transportation system for motorized and non-motorized users through programs and improvements that reduce or eliminate system deficiencies.
3) Increase the accessibility and mobility options available to people and for freight by ensuring a safe, affordable, and intermodal system that minimizes the needs for automobile travel and provides mobility options for the transportation disadvantaged.
4) Protect and enhance the environment, promote energy conservation, and improve quality of life in the metropolitan planning area.
5) Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight, by connecting truck, rail, airport, and water transport facilities, yielding a competitive, economical, safe, efficient, and environmentally sound way to transport people and goods.
6) Promote efficient management and operation of the intermodal infrastructure system for the movement of people and goods.
7) Preserve the existing transportation system and current transportation infrastructure by responding to replacement and/or rehabilitation needs in accordance with recommended cycles.
8) Maintain a transportation planning process that is responsive to the needs and interests of the area residents, groups, and public agencies, and ensure that minority and low-income residents do not bear the majority of adverse impacts from the transportation system.
9) Use corridor-level planning and design to develop street and highway corridors that are aesthetically pleasing.

Recommendations of the *SATP* include the identification of corridors providing important linkages to potential bicycle traffic generation sites, the development of bicycle paths or multipurpose recreational facilities, increased usage of bicycle lanes and wide curb lanes, the development of common roadway usage corridors, and the development of recommended bicycle facilities within identified principal bikeway corridors. The recommended width of bicycle paths and multi-purpose recreational facilities is approximately 10 feet. Bicycle lanes and wide curb lanes have a recommended width of 5 feet. Common roadway usage corridors are areas identified by low traffic volumes and low average travel speeds. This plan also addresses freight transportation, safety and security of transportation, street and highway improvement projects, and transportation funding. This plan does not have specific recommendations for the Village, but this Plan provided a starting point for the Sheboygan County Comprehensive Bicycle and Pedestrian Plan.

Sheboygan County Comprehensive Bicycle and Pedestrian Plan
Sheboygan County recently adopted a Comprehensive Bicycle and Pedestrian Plan. The plan makes some recommendations that will impact the Town of Russell. The recommendations deal with the proposed pedestrian and bicycle network within the Town. The plan recommends that County Highway J throughout the Town should be a shared roadway. This is classified as a long-term project meaning it will be completed in the next 11 to 20 years. This means the roadway should be shared with bicyclists, pedestrians, and motor vehicles. The plan also addresses sidewalks and bicycles lanes in the other Lake Country communities.

TRANSPORTATION STRATEGY AND RECOMMENDATIONS

The Town of Russell will seek direction for this element from the vision and goals identified through the public participation process.

Transportation Goals, Policies, and Programs

1) **The Town of Russell will be actively involved in transportation projects/activities that impact the Town.**

Transportation systems cross many municipal boundaries and are managed by multiple layers of government. This is an on-going reality that must be acknowledged and worked with.

a. *Policy/Program:* The Town will continue to communicate periodically with state and county transportation officials regarding maintenance of existing roadways within the Town.

b. *Policy/Program:* The Town will communicate with state transportation officials regarding notification of planned roadway upgrades within adjacent Towns.

c. *Policy/Program:* The Town will share its comprehensive plan with appropriate transportation agencies and surrounding communities.

2) **The Town of Russell will maintain safe and adequate roads for residents and travelers within the County and Town.**

A well managed transportation system helps ensure the safety of farmers and residents, and increased the livability of a community.

a. *Policy/Program:* Enforce regular maintenance and inventory of road conditions to ensure quality and safety.

b. *Policy/Program:* Conduct an annual assessment of town road pavement conditions, road drainage, and ditch maintenance, adequacy of existing driveways and culverts relative to safe access to and from adjoining parcels of land, and to determine the adequacy of sight triangles at all road intersections.

c. *Policy/Program:* Encourage public input and collaboration when addressing transportation-related projects.

d. *Policy/Program:* Work with the Sheboygan County Highway Commission and the WisDOT to develop a long-range maintenance and improvement program for town roads.

e. *Policy/Program:* When appropriate, the Town will explore using funding sources identified under the Transportation Funding Programs listed earlier in this chapter.

f. *Policy/Program:* Provisions for bicycling and walking should be made in a long-range transportation plan. These provisions may include walking or cycling facilities in rural residential areas through a combination of methods, which may include paved shoulders or paths where appropriate.

g. *Policy/Program:* Town road right-of-ways will be maintained as needed to control brush encroachment and improve traffic safety in accordance with existing road maintenance policy.

h. *Policy/Program:* Identify and accommodate for any changing transportation needs of residents, including senior citizens and those with special needs, pedestrians, bicyclists and public transportation needs.

i. *Policy/Program:* Develop and use an official map that will preserve future travel corridors for pedestrian, bicycle, and roadway use. The official map can help preserve land for important community infrastructure.

3) **The Town of Russell will plan for a transportation system that is harmonious with its surroundings.**

Roads and related features should adapt to and complement existing land uses and natural resources.

a. *Policy/Program:* Coordinate land use and transportation facilities.
b. *Policy/program:* The total amount of land for transportation facilities should be minimized as much as possible.
c. *Policy/program:* The destruction of, or negative impacts to, historic buildings and historic, scenic, scientific, archaeological, and cultural sites as caused by the construction or reconstruction of transportation facilities should be minimized.
d. *Policy/Program:* The location of transportation facilities in or through environmental corridors should be avoided, if possible.