



Public Hearing Draft

2024-09-19

2025-2045

**BRISTOL**

Comprehensive Plan

# Public Hearing Draft

## 2024-09-19

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Public Hearing Draft

*Draft: 9/19/2024*

# Town of Bristol

2025-2055 Comprehensive Plan

Adopted Month XX, 2024

Public Hearing Draft  
2024-09-19



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# Adoption and Amendment History

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# Table of Contents

Executive Summary .....	1
Development Priorities .....	1
Wisconsin's Comprehensive Planning Legislation.....	4
Scope and Purpose of this Plan.....	4
Regional Context.....	5
2024 Plan Preparation and Adoption.....	5
Issues and Opportunities .....	6
Identification of Issues and Opportunities.....	6
Community Profile.....	10
Population Projections .....	14
Employment Projections.....	16
Plan Implementation.....	19
Goals, Objectives, Strategies, and Tasks.....	19
Regional Development Framework Alignment.....	27
Making it Happen.....	27
Public Participation .....	28
The Importance of Public Participation.....	28
Standards of Communication.....	29
Intergovernmental Cooperation Element.....	32
Intergovernmental Cooperation.....	32
Governmental Units and Their Plans.....	33
Housing Element .....	36
Why Housing? .....	36
Background Issues .....	36
Existing Conditions .....	38
Review of Existing Federal and State Housing Programs.....	47
Future Housing Needs .....	49
Transportation Element .....	50
Why Transportation? .....	50
Existing Conditions .....	50

Programmed Transportation Improvement Projects.....	58
Future Transportation Plan.....	58
Utilities & Community Facilities Element .....	59
Existing Facilities and Services.....	59
Agricultural, Natural, and Cultural Resources Element .....	67
Agricultural Resources.....	67
Natural Resources .....	72
Cultural Resources.....	78
Economic Development Element .....	80
Labor and Economic Characteristics.....	80
Economic Development Funding Opportunities.....	89
Land Use Element.....	93
Land Use Trends.....	93
Development Factors.....	97
Future Land Use.....	98
Appendices.....	101

2024-09-19

Public Hearing Draft  
2024-09-19

# Executive Summary

The Town of Bristol Comprehensive Plan for 2025-2055 is a guide to future growth and development. Although it is a new document, it echoes much of the sentiment and reuses content contained in the 2003 plan in instances where conditions have not changed appreciably since the 2003 plan was drafted.

Public outreach for this plan update consisted of a survey in the fall of 2023 which received input from over 10 percent of the adult population, two open house events, updates and discussion at joint Town Board-Planning Commission meetings, and an official public hearing. Input from the community and Town elected officials validated a continuation of the Town's approach to growth and development from the original 2003 plan.

## *Development Priorities*

The 2025-2055 plan lays out the following priorities—in part a simplified version of the 2003 plan's priorities—to shape the town's future in a way that reflects community values:

1. Balance maintaining essential community services and low taxes.
2. Protect natural and cultural resources, document local history, & maintain the rural atmosphere.
3. Support agriculture by encouraging agribusiness and protecting high-value farmland.
4. Communicate proactively and engage cooperatively with neighboring communities to plan development.

Challenges await the Town in the coming decades. Some are known and addressed in this plan, but many are unknown. The most effective way for the Town to address these unknowns is through regular collaboration and communication across municipal boundaries and with regional and state agencies, monitoring of emerging trends, and regular review and update to the comprehensive plan and its implementation schedule.

## ADDRESSING HOUSING DEMAND

Regional growth is projected to be robust. Projections by the Capital Area Regional Planning Commission (CARPC) conservatively estimate *at least* 100,000 new households and 100,000 new jobs in Dane County by 2050. Housing demand in the region is currently high but existing housing stock and production is inadequate. Vacancy rates are low, prices are high, and units do not stay on the market long. This has resulted in a very difficult housing market for many hopeful residents.

Analysis from the Dane County Regional Housing Strategy suggests that there may be even more latent future demand for housing than suggested by CARPC projections, as many as 40,000 more units. New job creation in Dane County is on a trajectory to far exceed the current ability to produce housing. People who take jobs in Dane County will have even greater difficulty finding and affording housing unless production increases.

This plan proposes holding residential growth at a rate of 1% per year, adding 650 new units (18 per year) by 2055. This is in response to community sentiment that growth and development in the town has been too rapid. Limiting residential growth will help slow conversion of prime agricultural land and maintain the rural atmosphere in the community—two important goals in this plan. However, restricting growth in a high-demand environment may lead home prices and assessments to increase. The Town will monitor the situation in the coming years and adjust policies and ordinances as necessary to accommodate these changes and provide housing flexibility to its residents.

## BUILDING AND MAINTAINING A LOCAL ECONOMY

The regional economy remains one of the strongest and fastest growing in Wisconsin. Relative to the nation, Dane County fared better during past economic recession and slowdown thanks in part to government employment and well-developed economic clusters.<sup>1</sup> Projections indicate sustained growth over the new few decades. Bristol shares in this success with many of its residents employed in high-paying jobs and commuting to work in adjacent communities like Sun Prairie and Madison. Locally, agriculture and supporting industries define the physical landscape, despite employing relatively few town residents.

This plan outlines strategies and actions that the Town can take to slow conversion of agricultural land. It also suggests encouraging and attracting agribusiness to the town to promote long-term viability of the agricultural economy. Achieving these outcomes will require an investment in staff time and effort to attract and enable economic growth. The Town will consider tools like transfer and purchase of development rights (TDR and PDR programs) to encourage development where it is most appropriate and preserve farmland where it is the most successful.

## NAVIGATING GROWTH AND EXPANSION

This plan prioritizes cooperative, managed growth. It envisions a high-quality place to live, work, and play with unique rural character. The plan is a living document. Regular reviews and updates will ensure it remains relevant and responsive to changing conditions and community needs. Development pressure on Bristol will continue. Madison and surrounding communities will grow rapidly in the coming decades. Sun Prairie especially will face heavy demand for development. Sun Prairie is at the beginning of a major shift in community form. Existing city planning, market forces, and contemporary planning practices are prioritizing denser, more mixed-use development styles.

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<sup>1</sup> The region has strong, growing national presence in advanced manufacturing; agriculture, food, and beverage; bioscience; healthcare; and information communications technology.





Pressure to develop upward will slow expansion outward, but it will not prevent it entirely. Existing plans adopted by the City of Sun do not anticipate major annexation into Bristol beyond what is outlined in the communities' current intergovernmental agreement. That agreement is set to expire in 2025. Initial discussions suggest the zones delineated will not move much, if at all, in a renewed agreement. By planning together ahead of time, Bristol and Sun Prairie can establish a reasonable expectation of timing and the ultimate extents of development. This will allow both communities to create realistic expectations and place appropriate growth near the future Bristol-Sun Prairie boundary. One of Town residents' largest concerns is making sure that city development scales down appropriately to provide a gradual transition into the more rural atmosphere of the town. Residents are worried about incompatible uses, traffic, and light pollution from new development adjacent rural subdivisions creating a jarring transition and spoiling the existing atmosphere.

## PRESERVING AND PROTECTING VALUABLE LOCAL ASSETS AND CHARACTER

Bristol is fortunate to have some of the highest quality farmland in the county, state, and the nation. The terrain is mostly flat, and the soil is rich thanks to prairies and marshes that once covered the township. Both the manmade and pre-settlement landscapes are Bristol's greatest assets. Maintaining their health and resilience for coming generations is paramount. Not only do Bristol's wide-open space make agriculture possible, but they also provide beauty, respite, recreational opportunities, and valuable ecosystem services such as carbon sequestration, habitat for plant and animal communities, and mitigation of heavy rainfall and flooding.

# Wisconsin's Comprehensive Planning Legislation

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As part of the state's 1999-2000 biennial budget, Governor Thompson signed into law what is referred to as the 'Smart Growth' legislation (1999 Wisconsin Act 9). The Smart Growth legislation significantly changed the stature of comprehensive planning in the state and places it very high on a local governmental unit's 'to do' list. Municipalities that want to manage development with land division and/or zoning ordinances are required to maintain an updated document that plans 20 years into the future. Comprehensive plans are required to be updated every ten years.

## Scope and Purpose of this Plan

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Although this plan has been prepared and adopted to meet the state requirements for comprehensive plans, it is much more than that. It is a statement reflecting community pride and how residents want the Town to manage growth and development in the future. It will help elected officials make decisions that reflect the short- and long-term wishes of the community. It will help prioritize the Town's human and financial resources so it can provide the necessary public infrastructure and amenities needed to maintain a high quality of life. It will also help to foster a sustainable economy that is in keeping with its rural character.

### Comprehensive Plans & State Statutes: A Summary

- *Contents.* A plan at a minimum shall contain specified information in the following nine elements: issues and opportunities; housing; utilities and community facilities; agricultural, natural and cultural resources; economic development; intergovernmental cooperation; land use; and implementation.
- *Effect of Comprehensive Plan.* Beginning January 1, 2010, all existing and new programs or actions of a local governmental unit that affect land shall be consistent with a comprehensive plan.
- *Public Participation.* The local governmental unit shall adopt written procedures that it will use to foster public participation.
- *Adoption.* The plan commission or other body of a local governmental unit prepares and recommends adoption of a comprehensive plan. Following a public hearing, the local governmental unit then adopts a plan.

## *Regional Context*

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The Town of Bristol is in northeastern Dane County, Wisconsin, adjacent to the City of Sun Prairie and Village of Windsor. Its land area includes about 34 square miles. It is bisected by County Highways V, W and N and Highway 151 runs diagonally across the southeast quadrant.

The Town is bordered on the north by the Town of Hampden in Columbia County, Town of York on the east, Town of Sun Prairie and City of Sun Prairie on the south and Village of Windsor on the west. Pursuant to Wis. Stat. §62.23 (7a), the City could and does extend its extraterritorial authority for land division control 3 miles into the Town.

## *2024 Plan Preparation and Adoption*

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### 2024 REWRITE

The Capital Area Regional Planning Commission (CARPC) assisted the Town in the preparation of this plan. The primary changes to the plan during the 2024 rewrite consist of paring down language, simplifying the document, and restating the plan's goals, objectives, etc. The main pillars of the previous document remain largely unchanged from 2003: agriculture, natural resources, and development appropriate to rural areas of the region.

### COMMUNITY SURVEY

To obtain up-to-date information about the residents and their views, the Town administered a survey during the fall of 2023. The online survey consisted of 30 questions covering a wide range of issues. A postcard was mailed to all households in the Town. Paper copies were provided at the Town Hall. The survey was advertised at the Town Hall, recycling center, and online on the Town's social media accounts and website. In all, 284 or 10 percent of the adult population answered the survey. Survey results were compiled and are included as Appendix I. Survey response is summarized in the "Issues and Opportunities" chapter.

### PLAN HORIZON

State statutes specify that comprehensive plans should cover a 20-year period, putting the planning horizon for this document at roughly 2045. However, this document considers conditions until 2055. This was done to provide some overlap between the plan's useful life and preparation of its next update. By statute, the next update to the document should take place between 2034 and 2035. A rewrite of the plan should be undertaken in 2044 or 2045.

# Issues and Opportunities

## Basic Objectives of the Issues & Opportunities Element

- Document the public input received relative to the issues and opportunities facing the community.
- Identify the key issues and opportunities the Plan revolves around.
- Understand some of the trends in the local economy and demographics.
- Present projections that serve as the basis for this plan.

## *Identification of Issues and Opportunities*

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### COMMUNITY SURVEY

During September and October of 2023, the Town conducted an online survey to ask residents what they felt was important to consider for the on-going update of the Comprehensive Plan. The survey asked residents what factors in Bristol were important to them for shaping the community's growth and development trajectory in the coming decades. The survey was advertised online, by word of mouth, and on posters at Town Hall. Midway through the survey period, a postcard was mailed to all residences in the Town. In total, 287 residents filled out the survey, a bit more than 10 percent of the adult population. The demographic makeup of respondents in the survey sample was similar to the population. In other words, the views expressed by survey respondents are likely to be representative of Bristol as a whole.

### ISSUES AND OPPORTUNITIES

The core issues expressed through written comments and in answer selections were very similar to the tone of the 2003 comprehensive plan. The following topics received strong support and were mentioned frequently in written responses. These served as the basis for the goals and objectives in this plan

## 1. KEEP TAXES LOW AND MAINTAIN A COMMENSURATE LEVEL OF SERVICE.

Existing services and facilities appear to be adequate for many residents. Half of the survey participants commented on at least one service or facility. But with no more than two dozen comments at most, none of those issues (trash/recycling, road maintenance, etc.) rose to the level of community-wide concern. This is not to say that the Town should not address these issues, only that there is not a need to make one or more of these issues cornerstones of a new plan covering 30 years into the future. The issues raised can be better addressed through short-term planning, community meetings, and budget writing.

Three out of five respondents (170 total) were opposed to property tax increases funding additional or improved services or facilities. When asked which existing comprehensive plan goals needed update/review (i.e. included in one form or another in the new plan), 66% selected "Keep real estate taxes as low as practicable." Roughly one third (34%) of respondents indicated a willingness for a small tax increase. However, there was no consensus that the overall level of services and facilities currently provided by the Town was inadequate. As many respondents indicated that they were comfortable with current services and facilities as respondents who indicated a deficiency in a particular issue.

## 2. PROTECT NATURAL RESOURCES WHILE ALLOWING RECREATIONAL ACCESS.

Survey respondents identified protection/preservation of natural resources and other aspects of rural life among their top concerns. Multiple related goals from the 2003 plan received strong support from the community:

- Recognize the value of the community's groundwater (50%)
- Maintain and improve the Town's park and open space areas (44%)
- Recognize the many natural resources in the area (41%)

A simple majority of respondents listed atmosphere, natural areas, and recreation as concerns of theirs. Respondents also frequently listed issues related to natural resources and recreation in their top three most important issues facing the Town:

- Provision of recreational trails, including bicycling, walking, and equestrian (40%)
- The rural atmosphere and vistas/views of agricultural life (29%)
- Environmental pollutants such as nitrates (23%)
- Light pollution and/or maintaining dark skies (23%)





### 3. SUPPORT FARMING AND PRESERVE FARMLAND.

Agriculture-related topics were repeatedly selected from among the list of fourteen topics of concern as well as goals needing review in the 2003 comprehensive plan. Nearly 30% of respondents listed "the rural atmosphere and vistas/views of agricultural life" in their top three concerns.

Not only did respondents respond with strong support for maintaining farmland for its scenic value, but they also emphasized the importance of agriculture as a vital economic base and cultural cornerstone of the community.

- Over half (55%) of respondents selected protecting the agricultural base of the town,
- Just over half (52%) selected limiting non-farmland uses, AND
- Nearly half (47%) selected controlling the location of those uses as goals from the current plan needing review.

Respondent concerns also emphasize the importance of farming to the community. Maintaining large, contiguous tracts of farmland and protecting high-quality soils were both selected frequently.

#### 4. MANAGE GROWTH IN BRISTOL IN COOPERATION WITH NEIGHBORING COMMUNITIES, KEEPING A SIMILAR (OR SLIGHTLY SLOWER) RATE OF DEVELOPMENT AS COMPARED TO THE PAST SEVERAL DECADES.

Anticipating growth inside and outside the current Town of Bristol borders and being able to control that to the greatest extent possible was very much implicit in the key topics mentioned in items one through three above. It was explicit in the goals and concerns that respondents expressed, for example resolving boundary and annexation issues (47%) and having a complete strategy for Town improvement and growth management (38%).

A plurality of respondents (44%) felt that the pace of growth in Bristol had "been about right" over the past few decades. **An additional forty-five percent (45%) of respondents felt the pace of development had been either too fast or much too fast.**

#### 5. ADDRESS CURRENT CHALLENGES THROUGH INTERGOVERNMENTAL PLANNING

Four of those actions suggesting collaboration with neighboring communities received between 39 and 49 percent support:

- Enhancing Token Creek as an environmental resource,
- Crafting boundary agreements,
- Planning appropriate transitions from neighboring municipalities' development into Town development, AND
- Planning connections between recreational and non-motorized transportation networks.

# Community Profile

## EDUCATION LEVELS

According to the 2021 American Community Survey 5-Year Estimate, Bristol residents had higher educational attainment, on average, than Dane County as a whole. A greater proportion of Bristol residents 25 years and older had an advanced degree compared to Dane County (Table C-1).

TABLE C-1. Educational Attainment of Persons 25+ Years in Bristol, Neighboring Communities, and Dane County (2021)

HIGHEST EDUCATIONAL LEVEL ATTAINED	TOWN OF BRISTOL		V-WINDSOR	C-SUN PRAIRIE	DANE COUNTY
	n	%	%	%	%
Less than 9th grade	0	0	0.8	0.9	1.6
9th to 12th grade, no diploma	48	1.7	3.0	2.0	2.4
High school graduate	399	13.7	26.8	20.2	17.7
Some college, no degree	375	12.9	28.2	17.0	16.2
Associate's degree	279	9.6	12.6	10.3	9.2
Bachelor's degree	1052	36.2	16.9	33.9	31.6
Graduate or professional degree	752	25.9	11.7	15.6	21.4

Source: U.S. Census Bureau, 2021 American Community Survey 5-Year Estimates

## AGE OF RESIDENTS

Table C-2 compares the ages of Town residents in 2021 with neighboring communities and Exhibit C-2 graphically shows the change in age cohorts in Bristol over the past two decades. Young adults, those aged 20–34, make up a much smaller proportion of Bristol residents than its neighbors and Dane County. Conversely, school-aged children and individuals 65 and older make up more of the population. Over the past two decades, Bristol's population has become proportionally older and working aged residents (20–64) as a percentage of total population, has declined. For the most part, these changes are driven by the makeup of the households in the Town and its relatively small population rather than broader trends. As long-time residents age and their children relocate, the relative proportion of residents in each age group tends to ebb and flow.

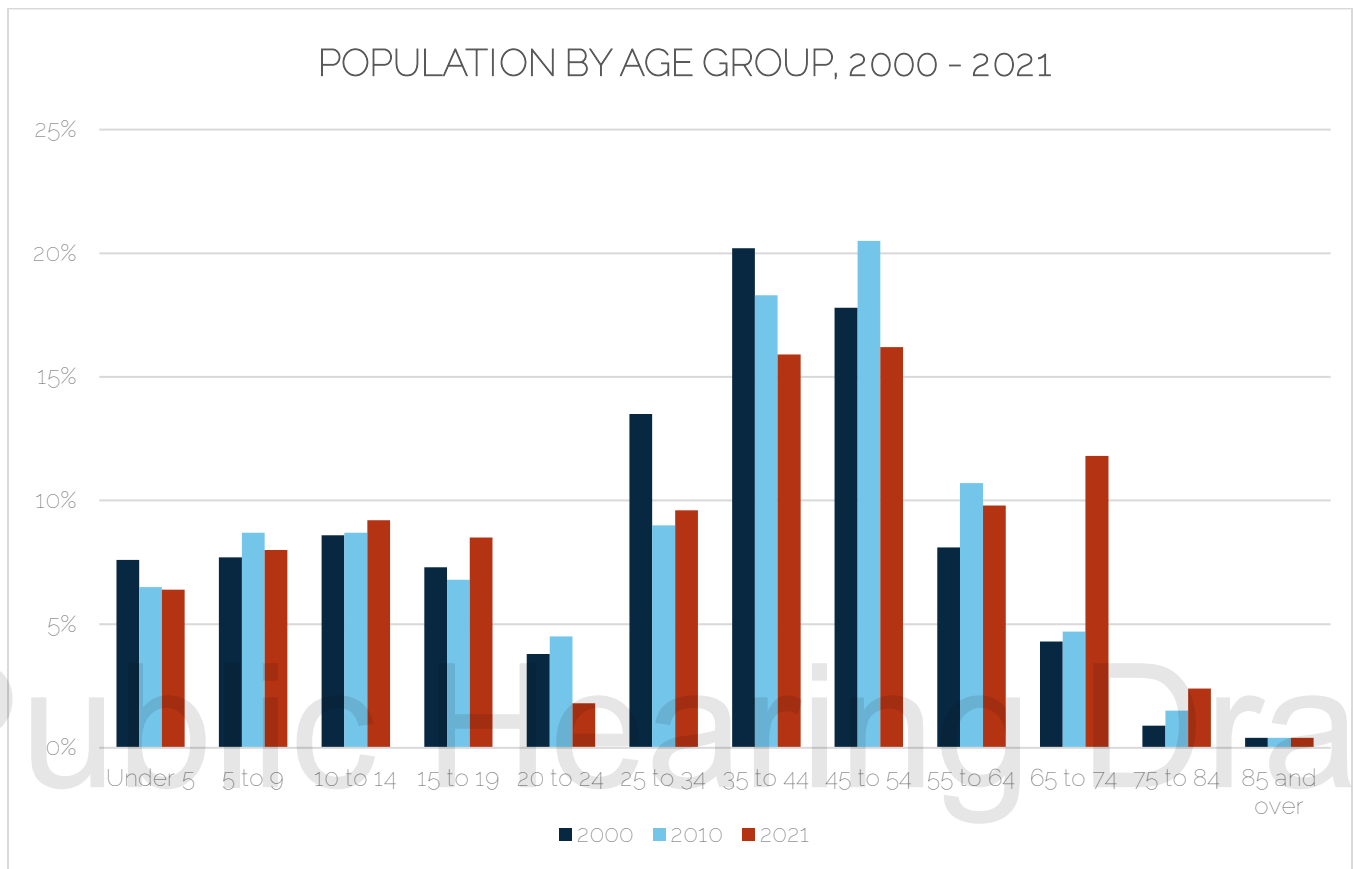


TABLE C-2. Age of Population in Town of Bristol,  
Neighboring Communities, and Dane County (2021)

AGE	TOWN OF BRISTOL	V-WINDSOR	C-SUN PRAIRIE	DANE COUNTY
	%	%	%	%
Under 5 years	6.4	7.0	6.2	5.4
5 to 9 years	8.0	9.0	6.4	5.5
10 to 14 years	9.2	5.5	7.1	6
15 to 19 years	8.5	5.3	6.9	6.7
20 to 24 years	1.8	3.9	5.3	10.1
25 to 29 years	4.4	4.6	7.6	8.2
30 to 34 years	5.2	6.5	6	7.4
35 to 39 years	10.3	8.8	9.9	7.3
40 to 44 years	5.6	7.3	6.7	6.4
45 to 49 years	8.1	8.2	6.3	5.8
50 to 54 years	8.1	4.6	5.8	5.8
55 to 59 years	5.8	8.2	6.7	6.1
60 to 64 years	4.0	6.5	5.1	5.5
65 to 69 years	6.5	3.5	4.5	4.9
70 to 74 years	5.3	4.6	3.4	3.8
75 to 79 years	2.2	2.2	2.5	2.2
80 to 84 years	0.2	1.7	1.3	1.4
85 years and over	0.4	2.8	2.3	1.5

Source: US Census Bureau, Decennial Census, 2021 American Community Survey 5-Year Estimates

Exhibit C-2. Age Cohort Change in the Town of Bristol



Source: US Census Bureau, Decennial Census, 2021 American Community Survey 5-Year Estimates

## HOUSEHOLD INCOME

According to data from the 2021 ACS, most of the households in the Town of Bristol had an annual income of over \$100,000 (Table C-3). Those with an annual income over \$200,000 account for an estimated 22% of households. In comparison, the proportion of residents in this income range throughout all of Dane County was around 40 and 10 percent respectively. Household incomes in Bristol are heavily concentrated towards the upper range measured by the ACS.

During the period from 2017-2021, the median income and per capita income of residents in the Town of Bristol was significantly higher than all of Dane County (Table C-4).

TABLE C-3. Household Income in the Town of Bristol, Neighboring Communities, and Dane County (2021)

	TOWN OF BRISTOL	V-WINDSOR	C-SUN PRAIRIE	DANE COUNTY
HOUSEHOLD INCOME	%	%	%	%
Less than \$10,000	1.9	1.3	1.2	4.3
\$10,000 to \$14,999	0	4.3	1.1	2.7
\$15,000 to \$24,999	0	4.7	5.7	5.8
\$25,000 to \$34,999	6.8	2.7	6.8	6.6
\$35,000 to \$49,999	3.2	3.6	11	10.9
\$50,000 to \$74,999	6.1	19.7	19	17.5
\$75,000 to \$99,999	20.2	9.8	14.9	13.9
\$100,000 to \$149,999	23	22.8	19.1	18.8
\$150,000 to \$199,999	16.8	16.6	14	9.5
\$200,000 or more	22	14.4	7.3	9.9

Source: US Census Bureau, 2021 American Community Survey 5-Year Estimates

TABLE C-4. Income: Town of Bristol, Neighboring Communities, and Dane County (2021)

	TOWN OF BRISTOL	V-WINDSOR	C-SUN PRAIRIE	DANE COUNTY
Median income	\$119,861	\$104,179	\$83,409	\$78,452
Mean income	\$142,015	\$122,170	\$99,136	\$103,670
Per capita income	\$57,803	\$48,087	\$44,260	\$44,746

Source: US Census Bureau, 2021 American Community Survey 5-Year Estimates



## *Population Projections*

Population changes<sup>2</sup> in a community will have a significant impact on how a community fashions its comprehensive plan. While most communities share many goals in common, the needs of a fast-growing community will likely be different than those of a community with a stable or declining population.

Projections can help determine how much land a community will need to allocate to different types of land uses in its overall development plan. They can also be used to help assess the changes that may be required in the available housing, transportation networks, recreational and school facilities and similar public and private facilities. And finally, projections can be used to help assess the changes that may occur to the community's character, local economy, agricultural land base and the natural environment.

Although population projections are an important tool, a word of caution is in order. Projecting population change is best done on a large geographic scale. As the geographic area becomes smaller, it becomes increasingly more difficult to project into the future with a high degree of certainty. The loss of a single, major employer, for example, can significantly reduce a small community's population. Likewise, a policy change by the local governing body can boost a community's growth. This is why it will be necessary for the Town of Bristol to periodically review the population projections this plan is based on to ensure that they reflect current conditions and ever-changing demographic trends.

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<sup>2</sup> Population change is a function of natural increase (births minus deaths) and net migration (in-migration minus out-migration).

### HISTORICAL POPULATION CHANGE

As a starting point in developing population projections for this plan, historical population change is reviewed (Table C-5). The Town of Bristol grew by 18 percent over the past decade. The City of Sun Prairie and Village of Windsor grew by 23 and 38 percent respectively over the same period.

During the last decade, the Town of Bristol experienced a net gain of 682 residents or roughly 250 additional households in the Town. This growth represented an annualized rate of approximately 1.7 percent.

TABLE C-5. Population Change: Bristol and Neighboring Communities

	2010	2020	POPULATION INCREASE	% CHANGE
Bristol	3,765	4,447	682	18.1%
Windsor	6,345	8,754	2,409	38.0%
Sun Prairie	29,262	35,967	6,705	22.9%

Source: US Census Bureau, Decennial Census, 2021 American Community Survey 5-Year Estimates

### EXPECTED POPULATION CHANGE

The rate of population growth depends on many factors -- some of which the Town can influence in varying degrees. Consistent with the overall approach of this plan as expressed in the goals, objectives and strategies, the Town of Bristol envisions growing slowly at a rate of 1 percent per year over the next 30 years. This means the projected population of the Town of Bristol in 2055 will be 6,300 residents, representing a total increase of 1,853 residents during the next 30 years as seen in (Table C-6).

TABLE C-6. Population Projections: Town of Bristol: 2025—2055

	2025	2030	2035	2040	2045	2050	2055
Population	4,674	4,912	5,163	5,426	5,703	5,994	6,300

Source: CARPC calculations

Periodically, the Town of Bristol will need to compare the actual population growth with these population projections and adjust Town plans accordingly.



## *Employment Projections*

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Table C-7 shows the anticipated number of new jobs by sector in the Bristol area. These numbers reflect 20 years of historical data for the ZIP Codes containing all or part of the City of Sun Prairie, Villages of DeForest, Marshall and Windsor, and Towns of Bristol, Marshall, Medina, Sun Prairie, and York. At this level of analysis, exact employment numbers lack certainty. However, the basic trends illustrated by the data are likely to prove true.

Local employment is expected to grow in industries that reflect the growth and expansion of neighboring Sun Prairie. As the community grows, goods-producing and service-providing employment will grow with it. This growth will have more of an impact on land consumption in the Town than it will on what industry employs town residents. Based on Town goals and the local economic trend, land demand for agribusiness may be high.

Because Bristol residents participate in the regional employment market, their income, commuting habits, and other characteristics more closely mirror regional market shifts than changes in local employment demand. The regional economy is projected to grow rapidly through 2050, expanding by 27 percent. Jobs in knowledge, management, retail, and service-providing industries are expected to expand at a faster rate than goods-producing industry employment (Table C-8).

The Capital Area RPC projects that Dane County will add twice as many jobs as workers by 2050. This imbalance suggests an increased prevalence of workers holding multiple jobs, but more importantly, an increase in workers commuting into Dane County and/or housing demand that greatly exceeds the current trend in housing production.



TABLE C-7. Employment Projections for ZIP Codes 53532, 53590, 53559

NAICS	INDUSTRY	2024	2034	CHANGE #	CHANGE %
11	Agriculture, forestry, fishing and hunting	1,828	2,036	208	11.4%
21	Mining, quarrying, and oil and gas extraction	21	20	-1	-4.8%
22	Utilities	11	9	-2	-18.2%
23	Construction	1,982	2,066	84	4.2%
31	Manufacturing	3,363	3,583	220	6.5%
42	Wholesale trade	2,013	1,974	-39	-1.9%
48	Transportation and warehousing	1,259	1,428	169	13.4%
51	Information	476	551	75	15.8%
52	Finance and insurance	1,419	1,472	53	3.7%
53	Real estate and rental and leasing	195	190	-5	-2.6%
54	Professional, scientific, and technical services	792	892	100	12.6%
55	Management of companies and enterprises	178	98	-80	-44.9%
56	Administrative and support and waste management and remediation services	974	948	-26	-2.7%
61	Educational services	346	350	4	1.2%
62	Health care and social assistance	1,790	1,955	165	9.2%
71	Arts, entertainment, and recreation	711	825	114	16.0%
72	Accommodation and food services	2,504	2,711	207	8.3%
81	Other services (except public administration)	1,047	1,079	32	3.1%
90	Government	3,930	3,936	6	0.2%
TOTAL		24,839	26,123	1,284	5.2%

Source: Lightcast.com Projections

TABLE C-8: Projected County-Wide Employment Change

NAICS	INDUSTRY	2020	2050	CHANGE #	CHANGE %
11	Agriculture, forestry, fishing and hunting	4,800	5,500	700	14.6%
21	Mining	600	700	100	16.7%
22	Utilities	1,300	1,400	100	7.7%
23	Construction	20,300	20,400	100	0.5%
31	Manufacturing	26,700	27,500	800	3.0%
42	Wholesale trade	15,900	19,100	3,200	20.1%
44-45	Retail trade	44,000	77,400	33,400	75.9%
48	Transportation and warehousing	9,000	9,600	600	6.7%
51	Information	19,400	36,600	17,200	88.7%
52	Finance and insurance	26,600	25,600	-1,000	-3.8%
53	Real estate and rental and lease	20,000	31,800	11,800	59.0%
54	Professional and technical services	37,000	67,700	30,700	83.0%
55	Management of companies and enterprises	11,500	26,600	15,100	131.3%
56	Administrative and waste services	22,600	31,200	8,600	38.1%
61	Educational services	9,000	14,500	5,500	61.1%
62	Health care and social assistance	45,500	65,500	20,000	44.0%
71	Arts, entertainment, and recreation	10,400	16,100	5,700	54.8%
72	Accommodation and food services	34,100	47,700	13,600	39.9%
81	Other services, except public administration	22,700	35,300	12,600	55.5%
90	Government	87,200	97,600	10,400	11.9%
TOTAL		468,600	657,800	189,200	40.4%

Source: Woods and Poole Projections



# Plan Implementation

## Basic Objectives of the Implementation Element

- Present goals and objectives that accommodate the needs of current and future residents.
- Present strategies the Town can use and tasks the Town can complete to realize its goals and objectives.

## *Goals, Objectives, Strategies, and Tasks*

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The 2024 update includes reorganized implementation elements. It establishes Goals, Objectives, Strategies, and Tasks that will help Bristol realize its long-term vision.

The hierarchy of elements are described as follows:

**GOALS**—A long-term outcome of the Town of Bristol's Comprehensive Plan; something that represents the values of the community. Goals can be open-ended—without a true endpoint—and "achieving" them is more a matter of continuous improvement.

**Objectives**—A measurable step to reach a goal. Objectives may help reach multiple goals. More than the other categories, objectives define what the Town will do.

**Strategies**—The way(s) in which the Town realizes one or more of the community's objectives. It tells how the community will approach things. They offer a path for the community to follow.

**Tasks**—Actions that helps achieve Strategies. Tasks are specific and time limited. Implementation tasks are meant to be revised and revisited frequently as they are accomplished. The Implementation Schedule included in Appendix II is intended as a starting place for the next five years.

Goals, objectives, and strategies may also need to change or be added in response to future conditions. *Regular use and review of the plan is strongly encouraged.*

## GOAL: SUPPORT THE FUTURE OF FARMING.

1. Objective: Preserve and enhance prime agricultural soils and connected agricultural tracts.
  - a. Strategy: Discourage subdividing agricultural land and other land use changes that negatively affect the connectedness of agricultural lands.
    - i. Draft a decision matrix that evaluates the impact of land development decisions on farming operations.
    - ii. Establish Purchase of Development Rights (PDR) or Transfer of Development Rights (TDR) programs.
    - iii. Apply to have appropriate farmlands designated as Agricultural Enterprise Areas (AEA) by the State.
    - iv. Establish a group of interested landowners to champion the AEA designation effort.
  - b. Strategy: Discourage the development of lands with high-quality soil.
    - i. Map soils and reference during rezone and variance requests.
    - ii. Create a decision matrix for use while making development decisions.
  - c. Strategy: Mitigate impacts on drainage districts, downstream properties and water resources resulting from stormwater runoff.
    - i. Review existing local, county and state standards regulating stormwater management and consider whether the Town can or should adopt a stricter local standard to protect downstream property from stormwater runoff.
    - ii. Promote stormwater management on private property through practices such as rain gardens and native plantings.
    - iii. Encourage practices such as cover-cropping and native buffers that can reduce stormwater runoff and soil erosion. (See Appendix III for Examples.)
  - d. Strategy: Encourage the implementation of best management practices that improve soil health and nutrient management while preventing degradation of downstream water resources.
    - i. Aid local farmers in participating in a producer-led group focused on nonpoint source pollution abatement.
2. Objective: Remove barriers to additional commercial agricultural development.
  - a. Strategy: Accommodate non-traditional agricultural land uses and changes to agribusiness practices.
    - i. Closely monitor agribusiness trends. Periodically discuss new developments at Plan Commission and Town Board.

- ii. Audit Town zoning code and ordinances. Review which business practices are permitted as-of-right, conditionally by permit, or that are not discussed. Adjust this to be inclusive and encouraging of new agribusiness and agritourism ventures.
  - iii. Apply for ARIP funding for agriculture transportation projects to upgrade Bristol Road from Highway VV to Highway N to county road standards.
- b. Strategy: Encourage agriculture-related commercial and light industrial development within designated areas.
  - i. Maintain in the Future Land Use Map areas appropriate for commercial and industrial development.
- 3. Objective: Manage non-agricultural land development rates.
  - a. Strategy: Plan for an approximate 1 percent or lower compound annual growth rate—roughly 18 new housing units per year over 30 years. Eighteen units house approximately 50 people and requires about 40 acres of land.
  - b. Strategy: Limit residential development to designated areas in the Town as described and mapped in this plan.

## GOAL: VALUE LOCAL HISTORY AND CULTURAL RESOURCES AS A PART OF THE TOWN'S HERITAGE AND IDENTITY.

- 1. Objective: Document oral and informal histories of Bristol.
  - a. Strategy: Support local senior programs.
    - i. Organize history chats with Bristol seniors to document oral histories.
    - ii. Seek assistance from residents to create a local history document.
  - b. Strategy: Support the efforts of Dane County Historical Society, DeForest Area Historical Society, Sun Prairie Historical Library & Museum, and Sun Prairie Historical Society and their efforts to document local histories that are a part of Bristol's past.
    - i. Play an active role in Bristol residents' efforts to record historical information.
- 2. Objective: Catalog physical traces of local history.
  - a. Strategy: Document town cemeteries.
    - i. Photograph and record information from headstones.
    - ii. Map burial plots and digitize burial records.
    - iii. Publish an online map for residents conducting genealogical research.

- b. Strategy: Survey and document any historical structures and sites in the town.
    - i. Add a local history section to the Town website.
  - c. Strategy: Discourage development in areas where landforms and conditions suggest high potential for archaeological sites.
- 3. Objective: Increase public awareness and appreciation of local history and culture.
  - a. Strategy: Work with WHS, county/local historical societies, tribes, and/or residents to provide interpretive materials, plaques, markers, etc.
    - i. Publicize the small structure currently located in Bristol Gardens Park as a town museum. This building was repainted and moved from the Davis Farm to a permanent foundation in its current location by a local housing developer.
  - b. Strategy: Support local events, community festivals, and tourism activities that celebrate Town history, heritage, and culture.
    - i. Plan a "History Night" event at one of the Town parks.
- 4. Objective: Protect historic and archaeological resources during the development review process.
  - a. Strategy: Consult with WHS (and/or Dane County Planning/Dane County Historical Society) when reviewing development proposals, rezones, land divisions, highway projects, etc. in areas with known or potential historic/archaeological sites.
  - b. Strategy: When historic/archaeological resources are present in a proposed development area, encourage preservation/integration into the new development (for example, make a historic barn a part of a new subdivision).

## GOAL: PLAN GROWTH AND DEVELOPMENT IN PARTNERSHIP WITH NEIGHBORING COMMUNITIES.

- 1. Objective: Maintain strong working relationships with the City of Sun Prairie and the Village of Windsor, including joint enforcement and decision-making for border areas.
  - a. Strategy: Resolve annexation and boundary conflicts with neighboring communities.
    - i. As necessary, renew boundary agreements with partner communities, e.g. Sun Prairie and Windsor.
    - ii. Revisit the terms of boundary agreements every 10 years.

- b. Strategy: Maintain communication with the City of Sun Prairie and the Village of Windsor about their growth and development plans.
  - i. Schedule check-ins with Sun Prairie and Windsor planning staff about upcoming developments along or near shared borders once per quarter.
  - ii. Send communication directly to Sun Prairie and Windsor planning staff when considering rezones, conditional use permits, etc. near community borders.
- c. Strategy: Work with the City of Sun Prairie to smoothly transition development intensity/ density to rural levels where urban and rural development is planned to meet.
  - i. Establish a joint planning area with Sun Prairie.
  - ii. Explore the viability of other options, such as:
    - 1. Writing a Cooperative Plan with the City of Sun Prairie.
    - 2. Establishing an Extraterritorial Zoning ordinance with the City of Sun Prairie.

## GOAL: PROTECT AND IMPROVE NATURAL RESOURCES THAT CONTRIBUTE TO RESIDENTS' HEALTH, THE RURAL ATMOSPHERE, AND RECREATIONAL OPPORTUNITIES.

- 1. Objective: Develop standards to ensure that new development is compatible with the Town's rural character.
  - a. Strategy: Limit light pollution from new and existing developments to protect the rural atmosphere and views of the night sky.
    - i. Form an ad hoc committee to assist the Town with the following tasks:
      - 1. Adopt a lighting ordinance.
      - 2. Work with City of Sun Prairie and Village of Windsor staff to adopt lighting standards for development adjacent to the Town.
      - 3. Seek recognition as a dark sky community.
- 2. Objective: Prioritize farmland and environmental resource preservation in the development process.
  - a. Strategy: Draft policies for the development review process which favors projects that, for example:
    - Avoid disturbance of productive agricultural land,

- Avoid disturbance of floodplains, wetlands and other areas adjacent to water resources or wooded steep slopes and require appropriate vegetated buffers surrounding such resources,
- Minimize the number and length of driveways, AND
- Avoid fragmentation of contiguous wooded lots over 20 acres.

3. Objective: Protect and improve the Town's natural environment.

a. Strategy: Improve surface and groundwater quality through adoption of local ordinances, where appropriate, or through educational / awareness programs.

- i. Provide residents with educational resources about point source and non-point pollution prevention and detection.
  1. Schedule WDNR and UW Cooperative Extension information sessions for residents and producers.
  2. Publicize/schedule DATCP assistance with nutrient management plans for farm operators.
  3. Work with residents and Public Health Madison and Dane County (PHMDC) to conduct well water testing.
  4. Provide links to educational resources on proper septic system maintenance on the Town website.
  5. Collaborate with Dane County Land & Water Resources on regulating illicit discharges of pollutants, like manure, from farming operations.
- ii. Review existing local, county and state standards regulating stormwater management and groundwater protection and consider whether the Town can or should adopt stricter local standards to protect groundwater from contamination and downstream property from stormwater runoff.
- iii. Reduce chlorides pollution in surface waters and drinking water by encouraging and implementing best management practices to reduce the use of salt for de-icing and in water softeners.
- iv. Regularly send Public Works staff to Wisconsin Salt Wise trainings and local equipment open house events and implement best practices to reduce salt usage while maintaining safe roads.
- v. Provide residents and private businesses with materials about the efficient use of salt for de-icing driveways and sidewalks and in water softeners.

b. Strategy: Limit potentially disruptive land uses and activities adjacent to bodies of water and where such land uses or activities can't be avoided, provide mitigation practices to prevent detrimental impacts on water resources.

- i. Encourage greater buffer distances for development adjacent to bodies of water such that detrimental impacts are avoided (see "Voluntary

Environmental Corridors" delineated by CARPC).

- ii. Encourage use of native landscaping, vegetated buffer strips in riparian areas, ag conservation practices, etc. (See Appendix III for Examples.)
- c. Strategy: Work with CARPC and other agencies to identify areas that are sensitive to disruption or present an opportunity for restoration while making land use decisions.
  - i. Prevent land disturbances or development in "Estimated Environmental Corridors" mapped by CARPC. These are areas that generally have regulatory protections in various ways and would be formally designated as Environmental Corridor if or when the land is adopted into an Urban Service Area.
  - ii. Discourage land disturbances or development within "Voluntary Environmental Corridors" mapped by CARPC, unless such disturbances are intended to enhance or restore the natural functions of the area (e.g., restoration of a formerly drained wetland).
- d. Strategy: Work with the Dane County Tree Board and CARPC to survey and protect high-quality or old growth forest remnants.
  - i. Protect the Town's remaining acres of old growth forest through conservation easements, public land dedication, and encouraging development in more suitable locations.
  - ii. Aid local landowners in conservation efforts or securement of grant funding.
  - iii. Provide residents with educational resources about the value of woodlands and management techniques.
  - iv. Apply to Dane County Office of Energy and Climate Change's (OECC) Climate Champions program for recognition of completed woodland protection efforts.
- e. Strategy: Encourage pollinator-friendly native trees, shrubs, and flowering plants and minimize land management activities (prescribed fires, haying, herbicide use, etc.) within the High Potential Zone (species likely present) for the federally endangered Rusty Patched Bumble Bee in the southwest corner of the Town.

## GOAL: KEEP PROPERTY TAXES AS LOW AS PRACTICABLE WHILE PROVIDING ESSENTIAL SERVICES TO RESIDENTS.

- 1. Objective: Provide residents with essential services.
  - a. Strategy: Communicate to residents what type and quality of service they can expect.
    - i. Provide a list of services in a format that is readily available to residents, e.g.

on the Town website and in important Town documents such as this plan.

- ii. Maintain recreational facilities for the use and enjoyment of Town residents, e.g. lighted ice rink and baseball backstop at Star Crest Trail Park, volleyball court and picnic area at the Town Hall, picnic shelter, grills, volleyball court and baseball backstop at Sunset Meadow Park, etc.
- iii. Return roads to safe and passable conditions within 24 hours after a storm event.
- iv. Maintain hours of operation at the recycling center that are consistent and convenient for Town residents.
- v. Draft a service plan or service plans where necessary.
- vi. Select a consistent way to distribute information to residents (flyers, email, social media site, etc.) and advertise this to new and existing residents.
- vii. Distribute postcards to all residents (and via flyers, email list, Facebook, NextDoor, etc.) clearly explaining where to find up-to-date info.
- viii. Add language such as "Visit Town website for updates / Sign up for notifications at \_\_\_" on all meeting agendas and other town documents.
- ix. Create posters/flyers with basic information about how to get information about Town meetings at local destinations like the recycling center, Weber Tires, the golf course, etc.

**b. Strategy: Maintain stable and equitable levels of service.**

- i. Note service levels and monitor for changes and inconsistencies due to geography or income, for example.
- ii. Plan for future population growth by an average of one percent (1%) per year.

**2. Objective: Seek out opportunities to lower expenditures.**

- a. Strategy: Coordinate and, where possible, share infrastructure, facilities, services, and equipment with neighboring municipalities.
  - i. Schedule quarterly meetings with parties from adjacent municipalities responsible for facilities planning and maintenance, e.g. snowplow operators.
- b. Strategy: Monitor and apply for grant opportunities to fund upkeep and improvement of infrastructure, facilities, services, and equipment.
- c. Strategy: Support the Public Works department to adopt industry best practices in snow and ice management.



## *Regional Development Framework Alignment*

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The goals, objectives, strategies, and tasks outlined in this plan align with CARPC's 2050 Regional Development Framework (RDF or Framework), and illustrate how Bristol contributes to the broader, shared regional vision for a sustainable and prosperous future. The RDF's focus is managing rapid development in ways that promote prosperity, quality of life, and resilience. Its three main goals are:

1. Fostering community resilience to climate change,
2. Increasing access to jobs, housing, and services for everyone, AND
3. Conserving farmland, water resources, natural areas, and fiscal resources.

The region contains both very urbanized and very rural communities. A one-size-fits-all approach to development fails to consider the fundamental differences and strengths of the various community types in and around Dane County. The Framework directs dense, mixed-use, walkable development served by transit to activity centers and along major transportation corridors. It also encourages infill and redevelopment, steering development away from natural resources and productive farming areas. Development spanning the urban-to-rural spectrum can scale up or down gradually to transition between communities.

The RDF recommends that rural communities focus on protecting from development high-value agricultural areas and natural resources. It recommends that rural communities target areas less suited to long-term cultivation and areas removed from possibly sensitive natural resources for any commercial, residential, and industrial development unrelated to the agricultural economy. Placement of these rural development clusters should be carefully planned and coordinated with adjacent municipalities.

## *Making it Happen*

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The suggested Tasks listed above are intended to be near-term steps started within the next five years. Tasks should be incorporated into the Town's annual budgeting process. An initial Implementation Schedule, including timeframes, responsible parties, possible policy directions, is provided in Appendix II. The schedule should be maintained separately from the Comprehensive Plan and modified as needed during the Town's annual budgeting process. As tasks are completed and new ones added, the Implementation Schedule should be updated annually to acknowledge completed tasks. It is appropriate to add new tasks as well; new tasks consistent with the Plan's goals and objectives should not require a formal plan amendment process.

# Public Participation

## Basic Objectives of Public Participation in the Comprehensive Planning Process

- Recognize that the Town of Bristol's Comprehensive Plan should reflect the people it serves.
- Achieve an interactive dialogue between Town staff, elected officials, and residents.
- Give residents access to the information and analyses that shape the plan and provide opportunities for input
- Foster a sense of community and promote active and positive participation in Town government

## *The Importance of Public Participation*

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When undergoing a comprehensive plan update, state statutes require communities to broadly disseminate proposals and alternatives, effectively notice public meetings, provide opportunity for written comments and open discussion, and incorporate public feedback.

Beyond meeting these statutory requirements, inviting public participation promotes awareness of the comprehensive plan among residents and highlights the value of participating in local decision-making processes. It also gives the public an opportunity to communicate directly with Town Board and Plan Commission members, working toward the vision of open and transparent government.

During the 2023-2024 update process, the Town of Bristol solicited input through a variety of means including online and printed surveys, public meetings, and open comment periods.

<b>PUBLIC SURVEY</b> September – October, 2023	The 287 survey responses highlighted resident priorities and gave direction to the plan's goals and objectives.
<b>OPEN HOUSE #1</b> January 30, 2024	Participants at the first open house had the opportunity to review survey results and weigh in on draft goals and objectives.
<b>PUBLIC OPEN HOUSE #2</b> July 22, 2024	Participants at the second open house had the opportunity to review draft strategies and tasks. Participants provided input through conversations with Plan Commission and Town Board members in attendance and on a worksheet about plan implementation. Paper and digital versions of the worksheet were available.
<b>PUBLIC COMMENT PERIOD</b> September 13 to October 14, 2024	The draft comprehensive plan was open to public review and comment prior to adoption. The planning team reviewed all feedback received during this period and incorporated it into the final plan as appropriate.
<b>PUBLIC HEARING</b> October 14, 2024	Before adopting the final plan, a public hearing was held. [meeting details].

## *Standards of Communication*

### PUBLIC NOTICE REQUIREMENTS

All public hearings held by the Town Board and Plan Commission must comply with applicable notice requirements of the Wisconsin Open Meetings Law, statutes governing procedures for plan commissions, and any other notice requirements imposed by local ordinance or bylaws. At a minimum, the requirements of §19.31 pertaining to public meetings and notification will be met.

Official meeting notices will be prepared for any public meetings or hearings conducted pertaining to the Comprehensive Plan update. Town staff will place public hearing notices in The Star (the Town's official paper) for each public hearing. It is recommended that any meeting notices be published at least one week prior to the meeting.

All governmental units must place a Class 1 notice at least 30 days prior to a hearing for comprehensive plan adoption or amendments (§ 985.07 and 985.01(1), Wisconsin Statutes). A Class 1 notice is one newspaper publication at least one week before the act or event (§ 985.07 and 985.01(1), Wisconsin Statutes). Public hearings held by the Town Plan Commission regarding ordinance adoption or amendment require a Class 2 notice according to state statutes. A Class 2 notice consists of two newspaper publications, at least once each week for consecutive weeks, the last at least one week before the act or event (§ 985.07 and 985.01(1), Wisconsin Statutes).

Newspaper publications must be in the municipality's official newspaper or, if no official newspaper is designated, in a newspaper likely to give notice in the affected area (§ 985.03 and 985.05, Wisconsin Statutes).

The following information should be included in any notice:

- Name of the governmental body that will meet.
- Date, time and location of the hearing.
- Name of the applicant, appellant or petitioner.
- General description of the proposal, application or petition.
- Subject matter, statutory authority (recommended) and notice of any anticipated closed session and any intent to reconvene in open session within 12 hours after completion of a closed session (§ 19.85(2), Wisconsin Statutes).
- Notice that interested persons may present testimony regarding matters on the agenda at the meeting/hearing or in writing to the board prior to a deadline.
- Contact information for further information about the proposal or application.

## INFORMATION DISTRIBUTION & OUTREACH STANDARDS

Communication methods have changed dramatically since the first of the mandatory comprehensive plans were drafted twenty-five years ago. Many residents still prefer to receive notifications of public meetings from physical mailers, letters, or bulletins. At the same time, digital distribution of information has exploded in its use. It is critical for the Town to establish consistency in how, where, and when information is made available to residents. In addition, the Town should provide information in places residents are most likely to see it, especially on social media. Some strategies for improving the quality of Town communication include:

- Establish standard posting locations, amounts of advanced notice, and methods of communication that will be provided to residents for different kinds of information, meetings, and events. Public notice requirements should serve as a basis for these decisions but should be treated as the minimum standard of communication.
- Provide an explanation of the Town's communication practices on the Town website. This might be presented as a pledge or promise to residents.
- Advertise where to find Town information (e.g. website page, social media accounts, etc.) in email signatures, through standard language in headers/footers of correspondence or documents produced by the Town, and through periodic posts on social media.
- Consider mailing notifications to new residents detailing where to find information about the Town and how to stay engaged in Town affairs.

## COMPREHENSIVE PLAN REVIEW AND UPDATE

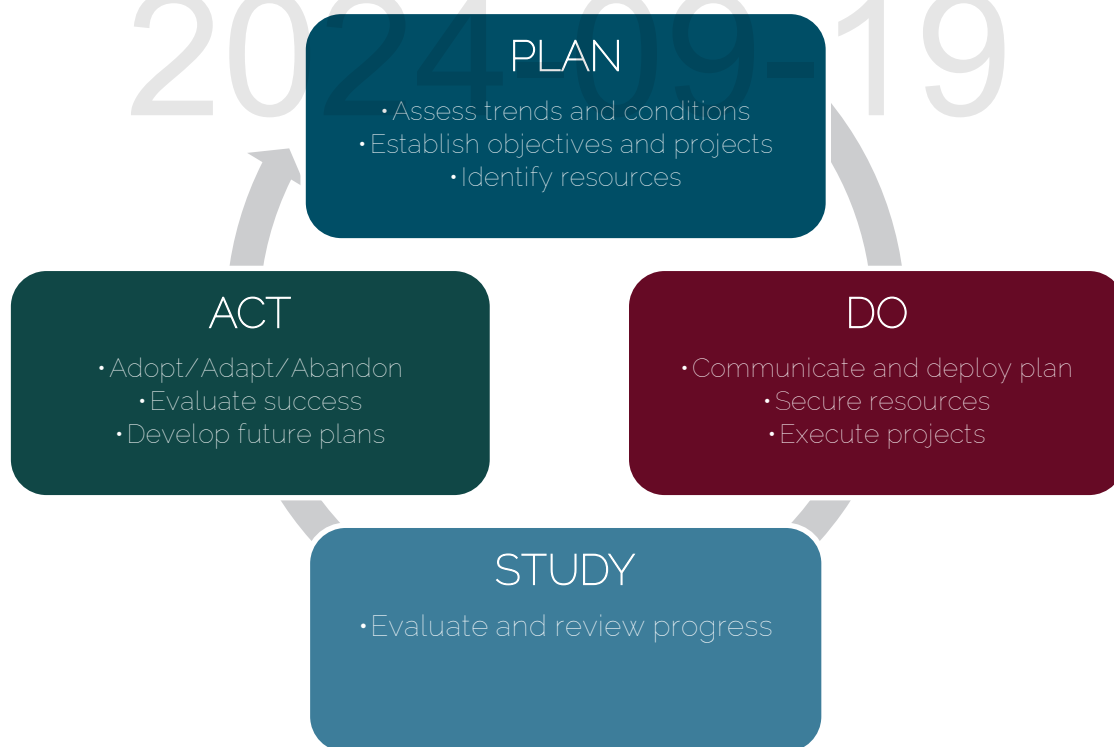
Comprehensive Plans are the guiding vision for a community's future. Other official plans, ordinances, and actions taken by a municipality should be consistent with the comp plan. State statute outlines that comp plans have a useful life of around 20 years, and it requires them to be updated once every 10 years. But to truly make them a living document, more frequent revisits to the plan are recommended.

Using and maintaining a comprehensive plan is an iterative process. This allows for improvement, refinement, and responsiveness to future change. It also allows the plan to play a more central role in the lives of residents through various feedback loops and engagement processes.

As mentioned above, tasks found in the implementation plan (Appendix II) will be accomplished and strategies may evolve in the near term. These plan elements will require regular review and revision as they are incorporated into the Town's annual budgets and work programs.

The Town should review their progress towards accomplishing the vision outlined in the plan on an annual or biennial basis. This could be done as a part of the annual meeting. Regular use and engagement with the comp plan should be used to raise the profile of the plan. The Town should encourage resident awareness of the plan through this regular cycle of review and refinement.

A more thorough review (and essential revisions to the plan) should be considered five years following its adoption. Community outreach in the form of a survey and/or public meetings should be considered at that time.



# Intergovernmental Cooperation Element

## Basic Objectives of the Intergovernmental Cooperation Element

- Identify and describe the roles of other governmental units.
- Identify opportunities for collaborative planning.

## *Intergovernmental Cooperation*

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Planning coordination at all levels is essential to efficient and effective governance. Too often busy schedules and changing development details prevent clear communication between communities about their intentions and activities. Annexation, creation of a tax increment financing (TIF) district, and nearby transportation improvement projects can severely impact an unincorporated municipality. So, it is crucial for neighboring units of government to strive for early notification and regular communication. At a minimum, this allows units of government to prepare for the impacts of decisions outside of their control.

However, the challenges we collectively face demand that all parties do more in attempts to reach consensus on development and land use decisions. While not every decision will result in equal and mutual benefit for all involved, failing to communicate and look for opportunities almost certainly guarantees worse outcomes in the aggregate. Municipalities must make an earnest effort to communicate, plan, and negotiate with one another. Failing to do so misses valuable opportunities and can breed distrust, spark conflict, and can foster a negative impression of all governmental units making governance and serving constituents more difficult.

Even where conflict does not exist, proactively seeking cooperation can often provide more or different services at a lower cost to taxpayers. It is imperative that the Town of Bristol continue to engage its neighboring municipalities in regular communication and collaborative planning, to address shared challenges and opportunities.

## *Governmental Units and Their Plans*

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### COUNTY GOVERNMENT

The Town of Bristol is in northeastern Dane County. The city of Madison is the county seat. The County was created in 1836. The Dane County Board of Supervisors includes 37 members, and the Town of Bristol is located in Supervisory District 20.

Dane County maintains a countywide comprehensive plan and other topic-focused plans. These documents are important sources of information and strategy that the Town should freely review, adapt, and adopt for its own planning purposes. These documents typically follow a 5- or 10-year refresh or rewrite cycle.

### SCHOOL DISTRICTS

The Town is in the following 3 school districts: Columbus, DeForest and Sun Prairie Area. Each of these is in Cooperative Educational Services Agency (CESA) District #2. Its offices are in Whitewater. Districts maintain facilities plans that rely heavily on population and enrollment projections. The Town should communicate with the districts and be broadly aware of these plans and their updating cycles to anticipate both growth and timing of potential referenda for new and expanded facilities. Town staff and residents should look for opportunities to serve in an advisory capacity when such plans are updated.

### CITIES AND VILLAGES

The city of Madison is the largest city in the county and is located to the southwest of the Town of Bristol and the City of Sun Prairie. The Village of DeForest is located about 4 miles to the west and the city of Columbus is about 6 miles to the northeast. Bristol shares its western border with the Village of Windsor. Of these governmental units, Sun Prairie and Windsor have the greatest physical impact on Bristol. Growth expansion from Sun Prairie and growth along Windsor's eastern edge should be coordinated with Bristol's plans. There are many opportunities to cooperatively plan development on both sides of the border to ensure transportation networks, development centers, protection of natural resources, and farmland preservation work efficiently and effectively.

### TOWNS

The Town of Bristol shares a border on the north with the Town of Hampden in Columbia County, with the Town of York to the east, and a small section of border with the Town of Sun Prairie to the south. Like Bristol, they are required to maintain and update their own comprehensive plans. Preservation of high-quality farmland and promotion of a robust agriculture economy across municipal boundaries should be coordinated.





## REGIONAL PLANNING COMMISSION

Within Wisconsin there are nine Regional Planning Commissions (RPCs), which are formed by executive order of the Governor. All but five counties in the state - Columbia, Dodge, Jefferson, Rock and Sauk - are served by an RPC. They provide planning assistance on regional issues, assist local interests in responding to state and federal programs, act as a coordinating agency for programs and activities, and provide planning and development assistance to local governments. RPCs are also responsible for adopting advisory regional plans for the growth and development of their regions.

The Capital Area Regional Planning Commission (CARPC) serves Dane County. Its regional plan, the [\*2050 Regional Development Framework\*](#) (RDF), suggests strategies for accommodating growth that can be adapted to each community's unique goals and identity. Bristol's comprehensive plan aligns with the suggested growth strategies and practices in a way that fits its rural atmosphere. Like local comprehensive plans, regional plans should be updated on a 10-year basis and reviewed every 5 years. The next refresh of the RDF is scheduled to take place in 2027.

## WISCONSIN DEPARTMENT OF NATURAL RESOURCES

The Wisconsin Department of Natural Resources (DNR) is organized into five geographic regions. Dane County is in the Southcentral Region along with 12 other counties.

The DNR has been very successful over the years in working with local governments to establish recreational trails throughout the State. The State Recreational Trails Network Plan and other plans for state-owned properties provide other possibilities for Town coordination.



## MADISON REGION ECONOMIC PARTNERSHIP

The Madison Region Economic Partnership (MadREP) is the economic development agency for the eight-county region including Dane, Columbia, Dodge, Green, Iowa, Jefferson, Rock, and Sauk Counties.

MadREP manages *Elevate: Madison Region*, the comprehensive economic development strategy (CEDS) for the region. The document establishes a plan for a resilient regional economy that recovers quickly from changes in the market, builds a local culture of innovation and entrepreneurship, develops the skills and talents of the future workforce, invests in the infrastructure and place-making efforts which create the quality of life that attracts top talent, and ensures that opportunity and access is provided to all residents. Strategic initiatives in the plan promote sustainability, business retention and attraction, industry diversification, and regional collaboration.

## WISCONSIN DEPARTMENT OF TRANSPORTATION

The Wisconsin Department of Transportation (WisDOT) is geographically organized into eight district offices throughout the state. Dane County is in District 1, along with Columbia, Dodge, Grant, Green, Iowa, Jefferson, Lafayette, Rock and Sauk counties. Its offices are in Madison.

As noted in the Transportation Element, WisDOT has recently completed several statewide transportation planning projects. These documents detail projects that directly or indirectly affect the provision of transportation services in the region and to the Town. In addition, WisDOT programmatic budgets were reviewed to identify what projects, if any, have been programmed that might increase existing transportation capacity, efficiency and/or safety in the area. Funding for many local and regional projects flows from WisDOT through the Greater Madison MPO.

## GREATER MADISON MPO

Urbanized areas with over 50,000 residents must be represented by a metropolitan planning organization (MPO) to receive federal funding for transportation projects. The Greater Madison MPO is responsible for the cooperative, continuous, and comprehensive transportation planning process in the metropolitan planning area covering central Dane County.

The MPO's *Connect Greater Madison: Regional Transportation Plan 2050* (RTP) sets the framework for the future of transportation in the Madison region, identifying how the region intends to invest in the transportation system to accommodate current travel demands and future growth, while setting priorities that balance limited funds. The MPO updates the RTP every five years.

Only the southwest corner of Bristol is currently located within the Greater Madison MPO's planning area. Improvements to Bristol's transportation facilities are not included in the current RTP. However, the MPO's long-range planning efforts may still include Bristol and other communities on the outer edges of Dane County.

# Housing Element

## Basic Objectives of the Housing Element

- Assess local housing stock and conditions.
- Understand the local housing market to assess whether housing needs are being met.
- Review various state and federal housing programs.
- Analyze trends and identify problems and opportunities.
- Project how many new households will be added over the next 30 years.

## *Why Housing?*

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Unlike some of the other required elements of a comprehensive plan, the purpose of a housing element may not be readily apparent. This is because local governments are not seen as developers or homebuilders.

Yet, local governmental units do finance and develop certain types of housing when it is required to meet an unmet need. And most importantly, local governmental units do directly influence the provision of decent and affordable housing through the land use regulations and development standards they adopt and the type of services they provide.

For example, the land use element of this plan will largely determine what types of housing units (single-family/multi-family) are constructed and at what density. In addition, transportation and public utility plans affect the timing of residential development. Therefore, it will be necessary to ensure that each of the elements in this plan form a consistent framework and support each other where they overlap.

## *Background Issues*

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Affordable and decent housing has long been considered a basic element of one's quality of life. Yet it is not always possible to find housing that is both decent and affordable,<sup>3</sup> even in times of relative economic prosperity.

<sup>3</sup> A dwelling unit is considered affordable if it costs no more than 30 percent of the total household income.



Housing affordability is a key issue across the state and nation. A 2019 [report](#) by the Wisconsin Realtors Association found that Wisconsin has not built enough homes to keep up with population growth, construction costs are rising faster than incomes, and current land use regulations increase housing costs. As a result, housing costs are rising, homeownership rates are declining across all age and racial/ethnic groups, and overall affordability is declining for both owners and renters.

- House prices in Wisconsin increased 58.9 percent from 2000 to 2018 and now exceed pre-2007 crisis levels.
- Between 2007 and 2017, rents in Wisconsin grew 21.7 percent, while incomes grew only 17.3 percent over the same period.

According to 2021 data from the National Low Income Housing Coalition, about 25 percent of Wisconsin renter households are considered extremely low income, making \$26,500 a year or less. Almost 70 percent of these households have a severe housing cost burden, spending more than half their income on housing. Severely cost burdened households are more likely to sacrifice other necessities like food and healthcare to pay the rent and to experience unstable housing situations like evictions.

The Capital Area Regional Planning Commission's 2022 report [\*Estimating Future Housing Demand in Dane County\*](#) describes the current housing shortage at the county level. According to this report, the average sales price of a Dane County home was \$318,510 as of December 2018. A household would have to earn \$94,795 a year to afford a home at this price, using a home price to income ratio of 3.36. The 2021 American Community Survey estimates that the median home price in the Town of Bristol is \$385,700, about 30% higher than the median price for Dane County. A household would need to earn about \$115,000 annually to afford a home at this price.

# Existing Conditions

## TYPES OF HOUSING UNITS

In 2021, the American Community Survey (ACS) estimated that there were 1,449 housing units in the Town, up 52% from 956 in 2000. Bristol's housing stock is almost exclusively single-family detached housing (nearly 97 percent) with some single-family attached housing (2 percent) and a small number of multi-family units (Table D-1). This differs substantially from both Dane County, where only about half of housing units are single-family detached, and the state (66.5 percent single-family detached).

TABLE D-1. Housing Units by Type for Bristol, Dane County, and Wisconsin (2021)

HOUSING TYPE	TOWN OF BRISTOL %	DANE COUNTY %	WISCONSIN %
Single-family detached	96.8	51.7	66.5
Single-family attached	1.9	6.6	4.3
Multi-family (2 units)	0	3.9	6.3
Multi-family (3 or more units)	0.6	36.9	19.7
Mobile home	0*	0.8	3.2

Source: US Census Bureau, 2021 ACS 5-Year Estimates

\*The ACS incorrectly reports 10 mobile homes in the Town.

## OCCUPANCY STATUS

The number of dwelling units available for rent or purchase in a community helps us understand local demand for housing, which can in turn influence housing costs and conditions. The supply of available dwelling units must be sufficient to accommodate changing households within the existing population as well as in-migration of new households. If the supply is insufficient, housing costs will likely rise, making it more difficult for many residents to find housing they can afford.

An overall vacancy rate of 3 percent (1.5 percent for owned units and 4.5 percent for rentals) is typically considered ideal. At this rate, there are generally enough dwelling units to maintain adequate housing choice among consumers. The Town, adjacent municipalities, and Dane County have had very low vacancy rates over the past decade. This is especially true for the Town, where virtually 100 percent of housing units were occupied from 2017-2021 (Table D-2). The current estimated vacancy rate of zero percent marks a drop from the 2.9 percent vacancy rate observed in 2000.

TABLE D-2. Occupancy and Vacancy Status for Bristol, Dane County, and Wisconsin (2021)

OCCUPANCY STATUS	TOWN OF BRISTOL		DANE COUNTY	WISCONSIN
	n	%	%	%
Occupied housing units	1,449	100	96	88.4
Vacant housing units*	0	0	4.0	11.6
Homeowner vacancy rate	0	0	0.6	0.9
Rental vacancy rate	0	0	3.7	4.9

Source: US Census Bureau, 2021 ACS 5-Year Estimates

\*Note: The sum of homeowner vacancy and rental vacancy may be less than total vacant housing units due to unoccupied—but owned or rented—units, seasonal occupancy, and short-term rental units.

## HOUSING TENURE

In 2021, over 95 percent of the occupied housing units in the Town were owner-occupied, up from 90 percent in 2000 (Table D-3). The Town's proportion of owner-occupied units remains substantially higher than the county (58.2%) and state (68.4%) owner occupancy rates. The comparatively low homeownership rate in Dane County is affected in part by the large number of rental units available in Madison.

TABLE D-3. Occupied Housing Units by Tenure for Bristol, Dane County, and Wisconsin (2021)

TENURE	TOWN OF BRISTOL		DANE COUNTY	WISCONSIN
	n	%	%	%
Owner-occupied	1,385	95.6	58.2	67.4
Renter-occupied	64	4.4	41.8	32.6

Source: US Census Bureau, 2021 ACS 5-Year Estimates

## HOUSEHOLD SIZE<sup>4</sup>

The number of people living in each dwelling unit has implications for the number of housing units needed in the future. Even if the population remains stable, smaller household sizes require more housing units to accommodate the same population.

Nationally, the average number of individuals living in a dwelling unit has been declining steadily for the last several decades. Many factors have contributed to this trend, including an increasing number of single-parent homes, decreasing number of children per household, and increasing life

<sup>4</sup> A household consists of all those individuals living in a dwelling unit. Some households consist of one person, a traditional family, unrelated individuals or any combination of families and individuals.

expectancy, especially for females. Although the decline in household size has been steady for several decades, it is anticipated the downward trend will moderate in the coming decades and remain somewhat stable.

In Bristol, over 95% of housing units are owner-occupied with a household size of around 3 persons (Table D-4). After declining somewhat in the 1990s, the Town's average household size has remained relatively steady over the past three decades and continues to be larger than the countywide average. Bristol also has proportionally more 3- or 4-or more person households than Dane County as a whole.

In keeping with the predominance of single-family housing in the Town, married-couple families and those with children under the age of 18 account for a higher proportion than the county average. Close to two thirds of Bristol households are married-couple families. Around 40% of households are married-couple families with young children, compared with around 30% of households in Dane County.

TABLE D-4. Average Household Size for Bristol, Dane County, and Wisconsin:  
2010 and 2021

	2010	2021	PERCENT CHANGE 2010 to 2021
Town of Bristol	2.99	3.03	1.6%
Dane County	2.43	2.35	-3.3%
Wisconsin	2.15	2.44	14.0%

Source: US Census Bureau, 2010 and 2021 ACS 5-Year Estimates

AGE OF HOUSING STOCK

The age of a community's housing stock is one measure of housing quality. While quality doesn't necessarily decline as the age of a home increases, older homes may require more time and money on upkeep and maintenance. Maintenance costs can be especially burdensome on low-income households.

If basic maintenance is not done on a continual basis, older homes can become a liability rather than an asset. Older homes that become sub-standard may need to be tom down or abandoned and subsequently replaced in order to maintain the local housing supply.

As shown in Table D-5, most of the Town's existing housing stock (66.5 percent) was constructed between 1980 and 2010. About three quarters of Bristol's housing was built within the last 40 or so years.

The Village of Windsor has similar housing stock, although the Village has a greater proportion of homes built prior to 1970. Countywide housing stock is spread evenly by decade with around 10 to 15% of all housing stock in each decade since about 1960.



TABLE D-5. Year of Housing Construction for Bristol, Dane County, and Wisconsin (2021)

YEAR CONSTRUCTED	TOWN OF BRISTOL %	DANE COUNTY %	WISCONSIN %
Built 2020 or later	0*	0.1	0.4
Built 2010 to 2019	11.4	10.7	7.2
Built 2000 to 2009	28.1	15.5	12.6
Built 1990 to 1999	23.8	15.8	12.5
Built 1980 to 1989	14.6	10.9	9.6
Built 1970 to 1979	7.0	14.5	14.3
Built 1960 to 1969	5.9	10.1	9.3
Built 1950 to 1959	2.3	7.5	10.4
Built 1940 to 1949	0.3	3.3	5.5
Built 1939 or earlier	6.6	11.5	18.2

Source: US Census Bureau, 2021 ACS 5-Year Estimates

\*Bristol has permitted 65 dwelling units since 2020. 2021 ACS 5-Year Estimates contain 3 years of data preceding the year 2020 and therefore underestimate new construction. Including known recent construction lowers the percentage value for pre-2020 categories by 1/3 - 1 percentage point. **Units built after 2020 account for roughly 4% of the current housing stock.**

## RESIDENTIAL CONSTRUCTION

Single-family homes continue to be the predominant—if not the only—type of housing added to Bristol's housing stock (Table D-6). An average of 21 single-family units have been constructed each year over the past decade. Average construction over the long-term (30+ years) has been closer to 30 units, including the rapid subdivision construction of the 1990s and 2000s that was often producing as many as double the housing units of more recent years.

TABLE D-6. New Residential Construction: Town of Bristol: 2015 to 2023

	2015	2016	2017	2018	2019	2020	2021	2022	2023
Bristol	28	18	24	17	27	17	16	17	15
Dane County	3,197	4,512	4,336	3,330	3,015	4,769	6,836	5,237	5,012
Wisconsin	16,795	19,278	19,543	19,106	17,476	21,226	25,445	21,078	21,489

Source: CARPC calculations, U.S. Department of Housing and Urban Development, State of the Cities Data Systems (SOCDS)

## VALUE OF OWNER-OCCUPIED DWELLING UNITS

Recent American Community Survey data suggest that there are very few low-cost housing units in the Town of Bristol. The median value of owner-occupied homes in Bristol is about \$385,000. Upwards of 80% of Bristol's housing stock is valued at or above the county median of \$300,000 and Wisconsin's median home value of \$231,000. Nearly all of Bristol's housing stock is valued above \$200,000. This is noteworthy because the adjacent communities of Windsor and Sun Prairie have median values of \$320,000 and \$266,400 respectively. Compared to Bristol, proportionally fewer of the homes in these two adjacent communities sit in the upper range of housing values (greater than \$500,000).

TABLE D-7. Value of Owner-Occupied Housing Units for Bristol, Dane County, and Wisconsin (2021)

VALUE	TOWN OF BRISTOL %	DANE COUNTY %	WISCONSIN %
Less than \$50,000	0.6*	1.9	4.4
\$50,000 to \$99,999	0*	1.4	7.3
\$100,000 to \$149,999	1.3*	5	12.8
\$150,000 to \$199,999	3.8	10.9	16.9
\$200,000 to \$299,999	13.3	32.4	26.1
\$300,000 to \$499,999	57.4	36.3	24.2
\$500,000 to \$999,999	22.7	10.4	7.2
\$1,000,000 or more	0.9*	1.7	1.1
Median (dollars)	\$385,700	\$294,500	\$230,700

Source: US Census Bureau, 2021 ACS 5-Year Estimates

\*Margins of error (MOEs) higher than value

## HOUSING AFFORDABILITY

Lack of affordable housing is a widespread problem affecting communities throughout Dane County and Wisconsin. Housing payments exceeding 30 percent of household income are considered unaffordable by the U.S. Department of Housing and Urban Development. Bristol has very few households currently exceeding that threshold (12% according to Table D-8). This is compared to roughly 17% of Dane County homes that were unaffordable to their residents.

Affording housing is generally easier at higher income levels. About 21% of Dane County households earn over \$75,000 each year. By comparison, 80% of households in Bristol earn over \$75,000 per year, and only an estimated 4% of households in that income bracket spend more than 30% of their income on housing. The 2022 Dane County median household income was around \$84,800. To afford the average home in Bristol, households need annual incomes over \$94,000.



TABLE D-8. Monthly Housing Costs as a Percentage of Household Income in the Past 12 Months (2021)

Annual Household Income		BRISTOL %	WINDSOR %	SUN PRAIRIE %
Less than \$20,000	Total in Bracket	*	8.3	6.7
	Costs ≥ 30% of Income	*	7.7	6.3
\$20,000 to \$34,999	Total in Bracket	6.0	4.3	10.0
	Costs ≥ 30% of Income	4.8	3.9	7.9
\$35,000 to \$49,999	Total in Bracket	3.2	3.6	11.9
	Costs ≥ 30% of Income	*	*	6.9
\$50,000 to \$74,999	Total in Bracket	6.1	19.7	17.0
	Costs ≥ 30% of Income	3.5	4.2	3.9
\$75,000 or more	Total in Bracket	81.3	63.6	53.3
	Costs ≥ 30% of Income	3.9	*	2.4

Source: US Census Bureau, 2021 ACS 5-Year Estimates

\*Margins of error (MOEs) higher than value

However, in the coming decades, affording housing in Bristol may become increasingly difficult. Aging residents of the town and others on fixed incomes will face greater costs as home values increase and tax assessments follow. Projections for Dane County indicate strong and steady growth. However, housing unit production in Dane County is not currently keeping pace with in-migration and demand. This regional pressure is likely to affect Bristol as well. Two thirds of recent (2022) home sales in Dane County were between \$300,000 and \$750,000 with a median price around \$434,000. (See Table D-10) Bristol's median sale price was \$485,000. Sale prices continue to increase year over year.

Other factors may place additional pressure on hopeful Bristol residents. Nationally, wages have not kept pace with inflation for decades, diminishing home-buying power. Unfortunately, our region has not been immune to this trend. Median household income in the region between 2018 and 2022 saw an increase in income of only 4.3% whereas median sale prices on homes increased 30%. Even higher income households like married-couple families saw only a 7.9% increase over that same timeframe.

Another consideration is the limited diversity of housing types and sizes in the market. Single-family detached homes and large multi-family projects with hundreds of units make up most new construction. While they are financially viable to develop in the current market, they are doing little to affect consumer costs. Large multi-family properties are typically rental-only. They do not

provide opportunities for first-time homeowners to gain a foothold in the market and build equity. Single-family detached unit prices continue to increase due to the combination of rising material, labor, and land costs, pricing would-be home buyers out of the owner-occupied housing market.

TABLE D-g. Bristol Home Sales 2019-2022

	2019	2020	2021	2022
# New Listings	82	72	50	50
# Sales	64	60	54	41
Average Sale Price	\$426,253	\$435,497	\$539,876	\$542,524
Median Sale Price	\$391,000	\$434,950	\$527,358	\$485,000

Source: South Central Wisconsin Multiple Listing Service

TABLE D-10. Dane County Home Sales and Pricepoint (2022)

Sales Price Category	Number Sold	Percent of Total
\$120,000 to \$139,999	14	0.2%
\$140,000 to \$159,999	11	0.2%
\$160,000 to \$179,999	16	0.3%
\$180,000 to \$199,999	33	0.6%
\$200,000 to \$249,999	217	3.8%
\$250,000 to \$299,999	432	7.6%
\$300,000 to \$399,999	1,855	32.8%
\$400,000 to \$499,999	1,407	24.9%
\$500,000 to \$749,999	1,233	21.8%
\$750,000 to \$999,999	286	5.1%
Over \$1,000,000	144	2.5%
Total Sales	5,648	

Source: South Central Wisconsin Multiple Listing Service



## SPECIAL HOUSING NEEDS

As the population continues to age, the special housing needs of older adults is an increasingly important part of a community's commitment to provide appropriate housing options for all residents. The availability of smaller housing units (both owned and rented), homeowner freedom to construct units on existing lots to accommodate aging relatives, and special care facilities are especially important. Many residents want to stay in their communities and remain near family and friends as they age. Maintaining these connections is a critical component of individual wellbeing. A diversity of housing size, type, and tenure supports not only the aging, but also changes in family dynamics like children leaving home or returning.

The Wisconsin Department of Health Services (DHS) licenses several different types of residential and community-based care facilities. Table D-11 lists the various types of adult residential care facilities located in the Bristol area. While there are no adult care facilities within the Town of Bristol, there are roughly 284 facilities of various types in Dane County able to accommodate just over 7,300 people. Thirty-three of these facilities are in the adjacent communities of DeForest or Sun Prairie with a combined capacity of 850.

TABLE D-11. Bristol-Area Residential and Community-Based Care Facilities (2023)

FACILITY TYPE	DESCRIPTION	DANE COUNTY FACILITIES	TOTAL CAPACITY
Residential Care Apartment Complex (RCAC)	Residential care apartment complexes (RCACs) are independent apartment units that provide services including room and board, up to 28 hours of supportive care per week, personal care, and nursing services.	32 3 in DeForest 4 in Sun Prairie	2,213 121 in DeForest 268 in Sun Prairie
Community-Based Residential Facility (CBRF)	Places where five or more unrelated people live together in a community setting. Services offered include room and board, supervision, and support services. It can include up to three hours of nursing care per week.	117 10 in DeForest 7 in Sun Prairie	3,014 156 in DeForest 200 in Sun Prairie
Facility Serving People with Developmental Disabilities (FDD)	Facilities serving people with developmental disabilities (FDDs) provide diagnosis, treatment, or rehabilitation services. These facilities are also known as intermediate care facilities for individuals with intellectual disabilities (ICF/IID)	2	260
Adult Family Home (AFH)	A place where three or four adults who aren't related to the operator reside. Residents receive care, treatment, or services that are above the level of room and board. It may include up to seven hours per week of nursing care per resident.	115 6 in Sun Prairie	432 23 in Sun Prairie
Nursing Home	A facility that provides 24-hour nursing services. This includes room and board for five or more people who aren't related.	18 2 in Sun Prairie	1394 82 in Sun Prairie

Source: Wisconsin Department of Health Services, April 2023

# Review of Existing Federal and State Housing Programs

As a result of unmet housing needs, various governmental and nongovernmental efforts have developed over the years. These programs are intended to help provide decent and affordable housing, especially for low- and moderate-income persons, or persons with special housing needs (physically disabled, developmentally disabled, homeless and elderly). Exhibit D-2 is a summary of some available federal and state housing programs. It should be noted this information is general and intended to show the range of options and available resources. Each of the programs has certain limitations and procedures for providing assistance.

EXHIBIT D-2. Summary of Selected Federal and State Housing Programs and Revenue Sources

WISCONSIN DEPARTMENT OF ADMINISTRATION DIVISION OF ENERGY, HOUSING AND COMMUNITY RESOURCES (DEHCR)	
<u>Community Development Block Grant (CDBG) Program.</u>	A federal formula-allocated grant program under the U.S. Department of Housing and Urban Development (HUD). The Small Cities Housing and Revolving Loan Program provides grants to local governments for housing programs that principally benefit low- and moderate-income households.
<u>Rental Housing Development Program (RHD).</u>	Assists eligible housing organizations with acquisition, rehabilitation, and new construction of rental housing projects for persons at or below 60% of the County Median Income (CMI).
<u>Wisconsin Weatherization Assistance Program</u>	Reduces energy costs for eligible low-income households by improving the energy efficiency of their homes while ensuring their health and safety. Part of DEHCR's <u>Energy Assistance</u> program.
<u>Homebuyer and Rehabilitation Program (HHR)</u>	Provides home purchase assistance and home rehabilitation for low- and moderate-income households. DEHCR awards funds from US HUD's HOME Investment Partnerships Program to local units of government and local housing organizations.
<u>Wisconsin Help for Homeowners Program (WHH)</u>	Assists eligible households experiencing economic hardship with mortgage and tax payments, refinancing, homeowner's insurance, and utility bills.

FEDERAL HOME LOAN BANK OF CHICAGO	
<a href="#"><u>Affordable Housing Program (AHP)</u></a> General Fund	Allows member banks to partner with developers, community organizations or government entities to subsidize the acquisition, new construction, and/or rehabilitation of affordable rental or owner-occupied housing.
U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT (HUD)	
<a href="#"><u>Section 202</u></a>	Provides capital advances to finance the construction, rehabilitation or acquisition of structures that will serve as supportive housing for very low-income elderly persons, along with rent subsidies for the projects to help make them affordable.
<a href="#"><u>Section 231</u></a>	Insures mortgage loans to facilitate the construction and substantial rehabilitation of multifamily rental housing for elderly persons (62 or older) and/or persons with disabilities.
<a href="#"><u>Section 811</u></a>	Provides funding to develop and subsidize rental housing with the availability of supportive services for very low- and extremely low-income adults with disabilities.
WISCONSIN HOUSING AND ECONOMIC DEVELOPMENT AUTHORITY (WHEDA)	
<a href="#"><u>Housing Grant Program</u></a>	Annual competitive grant program to assist with housing improvements for people in crisis, including homeless, veterans, domestic abuse victims, and disabled populations.
<a href="#"><u>Housing Tax Credit (HTC)</u></a>	Provides a dollar-for-dollar reduction of federal income taxes owed by owners/investors in qualified projects for tenants whose incomes are at or below 60% of County Median Income. Funded through the IRS federal Housing Tax Credit Program.
<a href="#"><u>Home Improvement Loan Program (HILP)</u></a>	Home improvement loans for current owners of single family residences, condos, 2-unit, and double wide manufactured housing.





## Future Housing Needs

Based on the overall intent of this plan, the population of the Town over the next 30 years is expected to increase slowly at an annual rate of 1 percent—slower than the County as a whole—resulting in a total of 1,853 additional residents and 643 additional housing units (Table D-12) in 2055. The Town intends to hold unit production close to an average of 18 per year over the long term. The average household size based on the two projections is 2.88 for the duration of the plan. This is slightly lower than the estimated household size at the writing of this plan, just over 3.0 persons per household. Given the current age distribution of residents, trends towards longer lifespans, and increasing concentration of population over 65 in the Town, household size (and population increase) will likely remain lower for the first decade or two of the projection period. As housing stock reenters the real estate market, households with younger children will likely fill those units, bringing household size averages up and causing total population to grow more rapidly.

TABLE D-12. Population and Household Projections: Town of Bristol: 2025—2055

	2025	2030	2035	2040	2045	2050	2055
Population	4,674	4,912	5,163	5,426	5,703	5,994	6,300
Housing Units	1,623	1,706	1,793	1,884	1,980	2,081	2,187

Source: Decennial Census, CARPC Calculations. Projections based on a 1% annual growth rate.

# Transportation Element

## Basic Objectives of the Transportation Element

- Assess the existing Town and regional transportation networks.
- Provide maps that document the location and extent of these resources.
- Review local and regional transportation planning efforts and their potential impacts.

## *Why Transportation?*

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Town residents depend on the transportation facilities in their community and the region to connect them to both their day-to-day destinations as well as to the rest of the state, nation, and the world. The type, quality, and location of transportation facilities are an important component in residents' quality of life and in developing and maintaining a sustainable economy.

There is a significant relationship between transportation and land use. New development or changes in existing land uses, whether incremental or sudden, directly affects the safety and functionality of roadways and the demand for additional transportation facilities. On the other hand, creating new or improving existing transportation corridors can have a significant distributional effect on the type and timing of development within a community and/or region. Thus, this element and the Land Use Element should support and complement one another.

For the foreseeable future, the private automobile will continue to be the Town's dominant mode of transportation. However, it is important to recognize that people have different needs and capabilities and that a good transportation system should include a variety of choices.

## *Existing Conditions*

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### LOCAL ROAD NETWORK

Roadways serve two competing functions: access to individual properties and traffic mobility. As the number of





property accesses along a route increases, traffic mobility generally decreases.

To help plan for current and future traffic conditions, it is useful to categorize roads based on their primary function. Arterials accommodate the movement of vehicles (high mobility, low access), while local streets provide the land access function (high access, low mobility). Collectors serve both local and through traffic by providing a connection between arterial and local roads.

Functional classification groups highways and streets according to the character of service they are intended to provide, ranging from a high degree of travel mobility to land access functions. Map E-1 shows the various roads in the Town and how they are classified according to the Department of Transportation (WisDOT).

- **Principal Arterials:** U.S. Highway 151 is a principal arterial running between Madison and Fond du Lac and points beyond across the Town's southeastern quadrant.
- **Major Collectors:** CTH N is a major north-south route that runs from Sun Prairie to the Columbia County line. CTH V traverses the northern part of the Town from east to west, connecting the Town of Windsor and the Town of York.
- **Minor Collectors:** County Highway VV from the Columbia County line to Hwy 151 serves as a minor collector. Other minor collectors are Happy Valley Road from about Mile Rd to CTH N, Egge Road between CTHs C and N, and Bird Street south of Happy Valley Road.
- **Local Streets:** All other public roads in the Town that are not classified by the DOT are considered local roads.

## MAINTENANCE RESPONSIBILITY

Within the Town of Bristol there are roughly 94 miles of public roads. Of this total, the Town is responsible for maintaining approximately 78 of those miles or slightly more than 80 percent of the total (Table E-1).

TABLE E-1. Roads Located in the Town by Maintenance Responsibility

	Length (miles)	Percent of Total
State of Wisconsin	-	-
Dane County	16	16.7%
Town of Bristol	78	83.3%
Private	-	-
Total	94	100.0%

Source: WisDOT Wisconsin Information System for Local Roads (WISLR), January 2021

## TRAFFIC CONDITIONS

As part of a statewide system, the Wisconsin Department of Transportation monitors traffic flow at selected locations. Map E- I shows the locations of these counts taken in or near the Town in 2021 or 2018. In Bristol, traffic on USH 151 a mile northeast of CTH VV is the highest with an estimated 24,700 average annual daily trips (AADT). USH 151 is the area's dominant north-south route leading to the Madison-metropolitan area.

By comparison, USH 151 carried an AADT volume of 22,200 vehicles at this location in 2010. CTH V averages between 1,400 and 1,900 vehicles per day at various locations. Other roads in the Town average less than 2,000 vehicles per day.

## SURFACE CONDITIONS

The Town inspects all public roads in the spring to assess winter damage. It maintains and assigns a rating for the physical appearance of each road by segment. Pavement condition ratings are then reported to the Wisconsin Information System for Local Roads (WISLR). Recent pavement condition data from 2021 are shown in Table E-2.

Almost three-quarters of the Town's road miles need preservative treatments (rating 5 or 6). Routine maintenance (rating 7 or 8) is needed on about 20 percent of the road miles, while about 5 percent may require structural improvements or leveling. Less than 1 percent of the road miles fall in the highest (no maintenance required) and lowest (reconstruction needed) rating categories. Roads with ratings below 4 are prioritized for upgrade or repair.

TABLE E-2. Condition of Roads Located in the Town (2021)

Pavement Condition Rating	Suggested Maintenance	Miles	Percent of Total
1 or 2	Reconstruction	0.4	0.1%
3 or 4	Structural improvements and leveling - overlay	34.8	5.1%
5 or 6	Preservative treatments	502.3	73.5%
7 or 8	Routine maintenance - crack sealing and minor patching	143.8	21.0%
9 or 10	None required	1.5	0.2%

Source: WisDOT Wisconsin Information System for Local Roads (WISLR), January 2021.

Note: The PASER rating scheme is described in Appendix IV.

## AIR TRANSPORTATION

Within Dane County there are five public use airports offering a full range of facilities and include the following: Blackhawk Airfield (Cottage Grove), Jana Airport (Edgerton), Verona Airpark, Morey Field (Middleton), Waunakee Airport, and Dane County Regional Airport (Exhibit E-4). Dane County Regional Airport, about 16 miles away from Bristol, is the closest airport with full commercial service and general aviation facilities. It serves roughly 99,500 total annual operations and 5,000 average daily visitors/passengers<sup>5</sup>.

Blackhawk Airfield and Morey Airport, both general aviation airports, are designated as reliever airports<sup>6</sup> to Dane County Regional Airport.

### EXHIBIT E-4: Public Airfields in Dane County or within 25 miles of Bristol, 2024

AIRFIELD NAME	CLASSIFICATION	LOCATION ID
Dane County Regional/Truax Field (Madison)	Commercial	<a href="#"><u>MSN</u></a>
Middleton Municipal/Morey Field (Middleton)	Large General Aviation	<a href="#"><u>C29</u></a>
Dodge County (Juneau)	Medium General Aviation	<a href="#"><u>UNU</u></a>
Fort Atkinson Municipal (Ft. Atkinson)	Medium General Aviation	<a href="#"><u>61C</u></a>
Watertown Municipal (Watertown)	Medium General Aviation	<a href="#"><u>RYV</u></a>

<sup>5</sup> <https://wisconsindot.gov/Documents/projects/multimodal/air/sasp5-ch3.pdf>

<sup>6</sup> A reliever airport is a general aviation airport in a metropolitan area that general aviation pilots can use as an alternative landing area to more congested commercial service airports:

Portage Municipal (Portage)	Medium General Aviation	<a href="#">C47</a>
Gilbert Field (Rio)		<a href="#">94C</a>
Jana (Edgerton)		<a href="#">58C</a>
Verona (Verona)		<a href="#">W19</a>
Blackhawk Airfield (Cottage Grove)		<a href="#">87Y</a>
Waunakee (Waunakee)		<a href="#">6P3</a>

Source: Wisconsin Department of Transportation. Additional information available in the [Wisconsin Airport Directory from WisDOT](#).

## RAILROAD FACILITIES

There are several freight railroads operating in the region. Wisconsin & Southern Railroad Company operates a line just south of the Bristol boundary that connects to several other routes including northern and central Illinois.

Traffic on the line is infrequent and used on an as-needed basis. Lumber and fertilizer are commonly shipped on this line.

Amtrak provides passenger service between Minneapolis - St. Paul and Milwaukee and points beyond. The two closest Amtrak Stations are in Columbus and Portage. The feasibility of passenger rail service to central Madison and adjacent communities remains a topic of conversation among planning professionals in the region.

## BICYCLE / WALKING TRAILS

There are no designated trails or Dane County bicycle routes within the Town. CTH N represents the only existing on-road bicycle facility with paved shoulders and bike lanes. Facilities elsewhere in the town provide low suitability for cycling and high levels of user stress due to narrow shoulders, traffic volume, and traffic speed.

The Glacial Drumlin State Trail is in nearby Cottage Grove and is part of a statewide network of trails being developed by the Department of Natural Resources and other collaborators. This trail accommodates a wide range of activities including biking, hiking, pleasure walking and snowmobile use. One of the final steps required to complete the network is acquiring right-of-way to extend the trail from the trailhead to the west into Madison where it will connect to additional trails.

## TRANSIT

Madison Metro began transit service to the City of Sun Prairie starting in June of 2023. Route S makes an hourly loop along O'Keeffe Ave, Main St, Bird St, Bristol St (Hwy N), Windsor St (Wis 19), Grand Ave, and Reiner Rd. The route operates 7 days of the week from 5:30 am (6:30 am on weekends) until 8:00 pm.



## Town of Bristol

Map E-1

# Transportation

### Legend

Sidewalks

### Bike Paths

Off-Street Lanes

On-Street Lanes

### Roads

US Highway

Ramp

State Highway

County Highway

Local Road

Named Private Road

### Boundaries

Parcels

Municipal Boundaries

BuildingFootprints

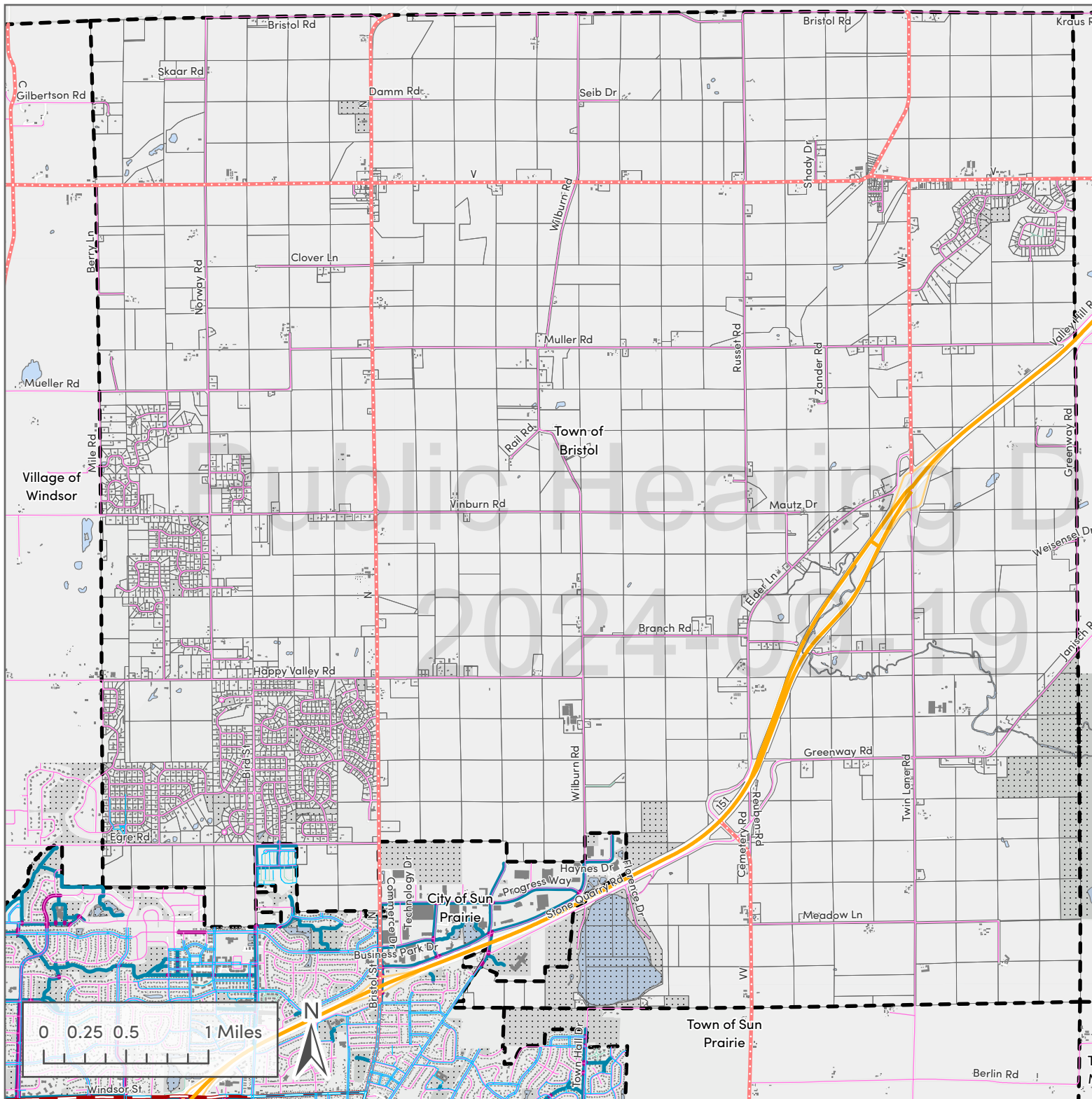
Public Lands

Lakes and Ponds

Data sources: Esri, Dane County, CARPC, City of Sun Prairie

Map information is believed to be accurate but may contain errors due to the dynamic nature of source data. For general reference purposes only.

Date: 7/18/2024





## EXISTING TRANSPORTATION PLANS

There are several transportation planning efforts that will have a bearing on the presence or absence of transportation facilities and services in the region and locally. Most efforts are led by the Wisconsin Department of Transportation. They develop umbrella policy documents that provide general goals and strategies covering the state.

### Connect 2050

Adopted in 2022, Connect 2050 is the Wisconsin Department of Transportation's Long-Range Transportation Plan. (Exhibit E-5). The plan establishes goals and objectives to guide future transportation projects and planning efforts that apply to all modes and means of transportation in Wisconsin, including cars, roads, transit, biking, walking, rail, aviation, and water transport. The plan "envisions an integrated multimodal transportation system that maximizes the safe and efficient movement of people and products throughout the state in a way that enhances economic productivity, transportation accessibility and the quality of Wisconsin's communities while minimizing impacts to the natural environment and socioeconomic, historic, and cultural resources." The goals and objectives of Connect 2050 are then accomplished through policies and actions detailed in component plans, such as the State Rail Plan and Strategic Highway Safety Plan.

EXHIBIT E-5. Statewide Transportation Plans

TITLE	RESPONSIBLE STATE AGENCY	STATUS
<a href="#"><u>Statewide Long-Range Transportation Plan (Connect 2050)</u></a>	WisDOT	Adopted: 2022-2050
<a href="#"><u>Strategic Highway Safety Plan</u></a>	WisDOT	Adopted: 2023-2027
<a href="#"><u>State Freight Plan</u></a>	WisDOT	Adopted: 2023-2027
<a href="#"><u>State Rail Plan</u></a>	WisDOT	Adopted: 2023-2050
<a href="#"><u>Active Transportation Plan</u></a>	WisDOT	Anticipated: 2024-2050
<a href="#"><u>Transportation Asset Management Plan</u></a>	WisDOT	Adopted: 2023-2032
<a href="#"><u>State Airport System Plan</u></a>	WisDOT	Adopted: 2015-2030
<a href="#"><u>Statewide Comprehensive Outdoor Recreation Plan</u></a>	WI DNR	Adopted: 2019-2023
<a href="#"><u>Wisconsin Trails Network Plan</u></a>	WI DNR	Revised: 2003; Update in Progress

Source: Wisconsin Department of Transportation, Wisconsin Department of Natural Resources



## Dane County Comprehensive Plan

The transportation element of the Dane County comprehensive plan (DCCP) contains plans and improvements for all county roads outside of the greater Madison MPO planning area. The latest DCCP (2016) focuses on offering a safe, accessible, and integrated network of transportation mode choices that mitigates aesthetic conflicts and environmental externalities.

## Connect Greater Madison 2050

The greater Madison MPO serves a majority of Dane County, including the city of Madison and many of the adjacent communities.

The MPO's [\*Connect Greater Madison: Regional Transportation Plan 2050\*](#) (RTP) sets the framework for the future of transportation in the Madison region, identifying how the region intends to invest in the transportation system to accommodate current travel demands and future growth, while setting priorities that balance limited funds. The southwest corner of Bristol is located within the Greater Madison MPO's planning area. No improvements to Bristol's transportation facilities are planned in the current RTP.

## TRANSPORTATION FUNDING PROGRAMS

### Local Roads Improvement Program (LRIP)

WisDOT's Local Roads Improvement Plan (LRIP) provides state funds to assist local units of government in improving seriously deteriorating town roads, municipal streets and villages, and county highways. LRIP is a reimbursement program which pays up to 50% of total eligible costs, with local governments providing the balance. LRIP projects are awarded every two years on a biennial budget cycle. Bristol received funding in the 2022-2023 biennium for upgrades to Twin Lane Road (see Current Road Proposals).

### Ag Roads Improvement Program (ARIP)

A new state funding program aimed at repairing Class B and weight-restricted roads that provide access to farms and agricultural lands, as well as bridges and culverts on these roads, is currently in development. Applications for the Ag Roads Improvement Program, or ARIP, are expected to open in 2024.

## *Programmed Transportation Improvement Projects*

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### CURRENT ROAD PROPOSALS

In 2023, the Town received funding approval through WisDOT's Local Roads Improvement Program (LRIP-S) program to upgrade Twin Lane Road south of the Maunesha bridge to the Town of Sun Prairie line. LRIP funds will cover up to \$1 million of the \$1.5 million project. Construction is expected to begin in spring 2024.

## *Future Transportation Plan*

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The Town Board of Bristol will continue the current schedule of Town road maintenance and will implement improvements as needed to keep up with new development in the Town of Bristol.

The City of Sun Prairie Comprehensive Plan highlights on-road bicycle network improvements along Egge Road, better connection to the City bicycle network near Token Springs Elementary School, and potential multi-use paths to Token Creek County Park (1.5 miles from Bristol's southwest corner) and Riley Deppe County Park (7 miles east/southeast of the Hwy N and Egge Road intersection).

While not currently memorialized in long-range planning documents, the future extension of Egge Road to the east where it would meet up with Columbus Street, Wilburn Road, and points beyond remains a possibility.



# Utilities & Community Facilities Element

## Basic Objectives of the Utilities and Community Facilities Element

- Identify and describe the range of community services currently provided.
- Provide maps that document the location and extent of these resources.
- Identify what public facilities will need to be expanded in the future to accommodate additional residents and commercial and industrial uses.

People and communities need a whole host of community-type facilities and services. Some of these services are needed to provide basic levels of health and safety, while others help to maintain a high quality of life, foster job creation and create a sustainable economy.

Historically, the distinction between private-sector services and those provided by the public sector was quite clear. However, this distinction can be quite different from community to community and can shift within a community over time. With the trend of privatization, private-sector companies now offer some services that historically were provided by the government. Likewise, some services typically thought of as private-sector ventures, are now in the realm of the public sector.

## *Existing Facilities and Services*

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### WATER AND WASTEWATER FACILITIES

The residents of the Town of Bristol receive their water from private wells. The glacial till provides a source of good quality groundwater. The nearest municipal water service is in the City of Sun Prairie. However, the City does not provide water to any of the Town residents.

The residents of the Town of Bristol manage domestic wastewater through private onsite wastewater treatment systems (POWTS), regulated by the Department of Safety and Professional Services (DSPS). Industrial and mixed

wastewater is also generally managed through subsurface disposal but is generally regulated by both DSPS and the Wisconsin DNR. Given the low density of most development in the Town of Bristol, the construction of a central wastewater collection system has not been economically warranted.

## STORMWATER MANAGEMENT FACILITIES

The Town of Bristol recognizes the need to manage its stormwater drainage. Within the Town, there are many streams and wetlands susceptible to pollution from point source and nonpoint source (i.e., stormwater runoff) pollution. The Town is also near the headwaters of the Rock River, so much of the detrimental impacts from improperly managed stormwater would not only be felt by residents and ecosystems, but also by those much further downstream. All new subdivisions in the Town of Bristol are required to install onsite stormwater control facilities in accordance with stormwater ordinances contained in Chapter 14 of the Dane County Code of Ordinances. Smaller development activity not under regulation through County ordinance should be encouraged to deploy appropriate stormwater management practices as described in the [Goals / Implementation section].

## SOLID WASTE DISPOSAL / RECYCLING

The Town of Bristol utilizes Waste Management, Inc. in Madison for the collection and disposal of their solid waste. The Town operates a recycling drop-off center that is available to local residents 1-2 mornings a week. Approved recyclable materials collected at the site are then removed by Waste Management, Inc. Yard wastes are banned from landfills and as such these items are not permitted at the Town of Bristol Recycling Center. The Recycling Center does accept branches that can be burned. Residents must bring their grass clippings and leaves to the Dane County Compost Site located on Hwy 19 east of Waunakee.

The Town of Bristol also does not collect waste automobile oil. Residents of the Town can dispose of it, free of charge, at the Dane County Highway Garage located at the intersection of CTH N and CTH 19 in Sun Prairie.

The Dane County Clean Sweep and Product Exchange Program allows residents of the Town to recycle their hazardous wastes safely and free of charge. The hazardous waste drop-off site is located at the Dane County Garage on Fish Hatchery Road in Madison. The following items may be brought to Clean Sweep: paint and related products, pesticides and poisons, aerosols and household products containing solvents.

## RECREATION FACILITIES

The availability of parks, recreational facilities and open space are all factors that contribute to the quality of life in the community. It is important to recognize the value of these facilities in planning for the current and future uses of land in the Town of Bristol. The Town of Bristol has ten parks, almost all of which are located in various residential subdivisions.

The 2023 update to the April 1999 plan, 'Town of Bristol Park and Recreation Plan,' included results and a summary for a 2022 Needs Survey. This survey asked residents how often they used Town parks, what amenities they use most, which park they utilize most, how they get to the parks, and whether the current reservation system works for park facilities. Most respondents use the parks, playgrounds and walking trails were the most used amenities, Bristol Gardens was the most frequently used park (Town Hall, the least), and most people walk to the park. Additional results suggest that the reservation systems for pavilions and fields need to be better communicated and plans should consider updating playground areas and making them ADA-compliant. Plans suggested in the 2023 update include playground equipment replacements, water retention area management, development of additional walking paths, and volleyball court maintenance/removal. Brief descriptions of the Town parks are provided in Table F-1.

TABLE F-1. Recreational Areas: Town of Bristol; 2023

NAME	FACILITIES
Bristol Gardens	Baseball field, tennis and basketball courts, benches, picnic tables, playground equipment, shelter
Bristol Ridge	Baseball backstop, slides, swings, rocking horses, playground equipment, shelter, benches, picnic tables
Brooks Ridge Greenspace	Marked walking paths, park benches, picnic tables, playground equipment, shelter, volleyball court
Drumlin Creek	Grills, trails, picnic tables, playground equipment, shelter
Norway Road Estates	Trails, picnic tables, playground equipment, shelter
Pearl Court	Picnic tables, playground equipment, one acre of open space
Scottish Highlands	Soccer field goals, benches, picnic tables, playground equipment
Starcrest Trail	Backstop, portable shelter, ice rink with lights, well
Sunset Meadow	Baseball backstop, picnic tables, shelter, grills
Town Hall Park	Grills, picnic tables, playground equipment, volleyball court

Source: Town of Bristol Park and Recreation Plan (2023)



In addition, the [\*Dane County Parks & Open Space Plan for 2018-2023\*](#) includes recommendations for the Patrick Marsh Natural Resource Area within the Town. The plan recommends continuing to provide peripheral planning support to stakeholder groups to identify future recreation and management objectives for the resource area and continuing to assist with acquisition of lands designated within project plan that was adopted in 2003. As of 2024, the City of Sun Prairie is in the process of assuming control of Patrick Marsh Natural Resource Area. Three-party discussions between the Town of Bristol, City of Sun Prairie, and Town of Sun Prairie will be facilitated to address issues arising from this change in ownership such as road maintenance, access, and municipal boundaries in the resource area's vicinity.

There are no designated state bike trails in Bristol. However, traffic volumes and road widths on many of the Town's streets allow for limited bicycle traffic. As traffic volumes continue to increase, opportunities for bicycle use may decrease, especially for families with children. Inter-governmental coordination with the City of Sun Prairie has identified the possibility of planning and connecting bicycle infrastructure between the communities in the southwest corner of Bristol, near Token Creek. Planning coordination between the City and Town of Sun Prairie has identified a conceptual "Georgia O'Keefe Trail" that the municipalities intend to reflect in long-range planning documents. The trail would run north-south through the town and connect to future infrastructure in the southeastern corner of the city. Potential expansions include connecting into Bristol to the north and linking up with the Glacial Drumlin State Trail to the south in nearby Cottage Grove.

The North Bristol Sportsman's Club on N Greenway Road was founded in 1970 by a small group of Bristol residents. Today, the club has over 500 members who enjoy access to trap shooting fields, rifle and handgun ranges, and two archery ranges. The club hosts several different leagues as well as hunter safety programming and State Patrol training.

## LIBRARY SERVICES

The Town of Bristol is served through the Dane County Library Service operations in either Sun Prairie or De Forest. These locations offer residents an array of services, internet access, and computer services.

## POLICE SERVICES

The Town of Bristol does not operate its own Police Department. It does, however, contract with the Dane County Sheriff for part-time patrol services. Any additional requests for law enforcement service and intervention are also directed to the Dane County Sheriff's Department for response and handling. There are occasions when the Sheriff's Department may redirect such calls to the local Sun Prairie Police Department or other law enforcement agencies in the immediate area for mutual aid response.

## FIRE PROTECTION

All fire protection services are provided to the Town of Bristol under an intergovernmental agreement with the Sun Prairie Fire Department. The existing contract is in effect through 2025. Under this agreement the Fire Department provides and furnishes fire protection services to all areas contained in the Town limits. The services include, but are not limited to fire suppression, rescue, and auto extrication.

## EMERGENCY MEDICAL SERVICE

All emergency medical services are provided to the Town of Bristol under an Intergovernmental Agreement with the city of Sun Prairie. The contract is renewed on an annual basis.

## MUNICIPAL BUILDINGS

The Town of Bristol owns several municipal buildings. These include the Town Hall/Garage located just north of North Bristol on CTH N. The Town Hall has administrative offices, a conference room and a large meeting room equipped with kitchen facilities. The Town also has a salt shed located at the same site. The recycling center is located next door. The Town Hall is available for use by residents for larger gatherings.

## ELECTRIC UTILITY AND NATURAL GAS TRANSMISSION

The Town of Bristol residents receive their electrical service from Wisconsin Power and Light Company (WPL), the Wisconsin utility subsidiary of Alliant Energy Corporation. Natural gas is provided to the residents by We Energies.





## TELECOMMUNICATIONS FACILITIES

Broadband connections are offered by Spectrum, Frontier, and Verizon. Landline telephone service is primarily provided by Verizon. Bristol falls within the coverage areas of several mobile providers, including AT&T, Verizon, and T-Mobile. Satellite and fiber connections are also available through several ISPs.

## HEALTH CARE FACILITIES

Although there are no hospitals, clinics, or physician offices located in the Town of Bristol, a wealth of health care and medical facilities exists in the surrounding areas. There are three General Medical-Surgical Hospitals (GMS) in Madison including: Meriter Hospital, Inc., St. Mary's Hospital Medical Center and University of Wisconsin Hospital & Clinics Authority. The Madison area is also home to Mendota Mental Health Institute operated by the Wisconsin Department of Health and Family Services and The William S. Middleton Memorial VA Medical Center. Multiple ambulatory surgery centers are in the Madison area. Other medical and dental professionals operate offices and clinics throughout the greater Madison and Sun Prairie areas and afford residents convenient access to an array of professional services.

There are also several home health agencies that service the Dane County area and can provide services in such areas as skilled nursing, home health aide, physical therapy, speech, occupational, respiratory therapy, medical social service, private duty nursing, personal care and homemaker and other non-home health care.

## CHILD CARE FACILITIES

The number of children needing day care is an important consideration for families and employers alike. Within the city of Sun Prairie and greater surrounding area, including the Town, Windsor, and DeForest, there are 59 childcare facilities licensed by the State of Wisconsin, Department of Health and Family Services with a total capacity for 3,500 children

## CEMETERIES

There are three religious-affiliated cemeteries located within the Town of Bristol and five cemetery areas that are maintained by the Town (Table F-3).

TABLE F-3. Cemeteries; Town of Bristol

NAME	LOCATION	OWNERSHIP
St. Joseph's Cemetery	East Bristol, section 11	St. Joseph's Church
Bristol Lutheran Cemetery	West side of CTH N, section 29	Bristol Lutheran Church
Sweet Cemetery	Town, section 26	Town of Bristol
West Bristol Cemetery	East side of CTH N, section 29	Town of Bristol
Baker Cemetery	South side of CTH V, section 9	Town of Bristol
Society of St. Peter Cemetery (Defunct, currently R & G Miller & Sons)	North side of CTH V, section 1	Town of Bristol
Lone Grave	North-south 1/8 west line, section 5	Town of Bristol
Sacred Heart Cemetery	Section 33	Sacred Heart Parish

## SCHOOLS

The children living in the Town of Bristol are served by three different school districts depending on the residential area where they live. Most students living in the Town attend schools in the Sun Prairie Area School District. Those residents of the Town of Bristol who live in the far northwest corner of the Town attend school in the DeForest Area School District. Those residing in a small portion of the northeast corner of the Town of Bristol attend schools in the Columbus Area School District.

In addition, there are several private/parochial schools within the area that are available to residents. These include Calvary Baptist Christian, a combined elementary and secondary school, Peace Lutheran School, an elementary school, and Sacred Hearts School, also an elementary school. There are also more than 30 additional private and parochial schools in the greater Madison, Columbus and Beaver Dam areas.

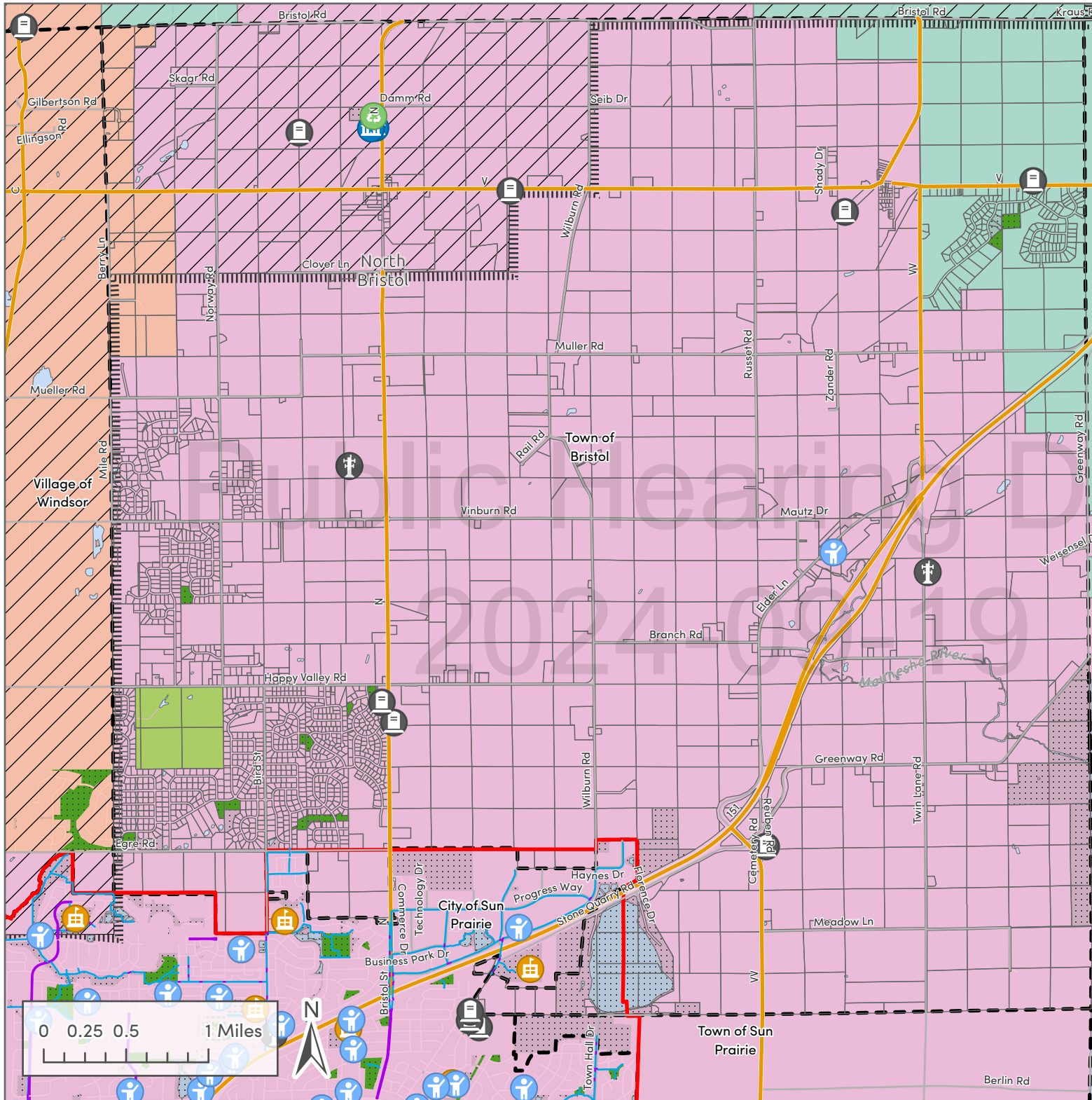




# Town of Bristol

## Map F-1

### Utilities & Public Facilities



#### Legend

##### Public Facilities

- Childcare Facility
- School
- Recycling Point
- Government Bldg.
- Cell Tower
- Cemetery

##### Recreation

- Golf Courses
- Municipal Parks

##### School District

- Columbus
- DeForest
- Marshall
- Sun Prairie

##### Boundaries

- Parcels
- Urban Service Area
- Public Lands
- Municipal Boundaries

##### Natural Gas

- MG&E
- Wisconsin Gas

##### Bike Paths

- Off-Street
- On-Street

##### Roads

- Highway
- Local Road
- Ramp

Data sources: Esri, Dane County, CARPC, City of Sun Prairie, WI DPI, WI PSC, Town of Bristol

Map information is believed to be accurate but may contain errors due to the dynamic nature of source data. For general reference purposes only.

Date: 7/19/2024



# Agricultural, Natural, and Cultural Resources Element

## Basic Objectives of the Agricultural, Natural, and Cultural Resources Element

- Provide background information on agricultural, natural and cultural resources in and around the community.
- Provide maps that document the location and extent of these resources.
- Identify areas for development with the least impact on important resources and features.

## *Agricultural Resources*

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Agriculture has long been a significant, but increasingly smaller segment of the statewide economy, accounting for 0.9% of Wisconsin's GDP. Although agriculture is a relatively small economic sector, its imprint on local landscapes and cultural identities is significant. The state the Department of Agriculture, Trade and Consumer Protection estimates that agriculture accounts for 435,700 jobs or 11.8% of the state's employment.

Statewide, the number of mid-sized farms is decreasing as the numbers of small and large farms are both increasing. Hobby type farms are becoming more popular as interest in small-scale and specialized products increases. At the same time, economics are forcing a small proportion of full-time farmers to increase the size of their operations.

In Bristol, dairy farms were historically the most prevalent agricultural operation. Over time, however, many dairy farms have ceased operation, while a few have grown much larger. This trend toward fewer operators with larger farm operations in the Town is part of a larger statewide and national trend. Today, fewer than one percent of Dane County farms have milk cows, while the average county herd size has fluctuated around 50,000 head.

TABLE G-1. Agriculture Characteristics; Dane County: 2012 to 2022

	2012	2017	2022
Farm Operations	2,749	2,566	2,284
Net Income/Operation	\$ 40,580	\$ 42,704	\$75,575
Market Value of Agricultural Products (1,000s)	\$ 340,336	\$ 509,073	\$653,388
Market Value of Agricultural Products per Farm	\$ 171,553	\$ 198,392	\$ 286,071
Farms with Milk Cows	304	237	184
Milk Cows	49,924	53,945	47,413

Source: U.S. Census of Agriculture

TABLE G-2: Size of Farms; Dane County, 2012 to 2022

FARM SIZE (Acres)	2012		2022	
	Number	%	Number	%
1 to 9	352	13	349	15
10 to 49	829	30	770	34
50 to 179	875	32	618	27
180 to 499	479	17	343	15
500 to 999	124	5	120	5
1,000 or More	90	3	84	4
Total	2,749		2,284	

Source: U.S. Census of Agriculture



## FARMLAND CONVERSION AND PROTECTION

Farmland conversion occurs when previously farmed land is converted to another use or is no longer farmed. In some cases, marginal farmland becomes uneconomical to farm and is allowed to revert to a natural state. In most cases farmland is sold for development purposes. Table G-4 shows an 11% total loss (almost 55,000 acres) of farmland in Dane County from 2012-2022.

There are roughly 500 fewer farms today in Dane County than there were ten years ago. The average farm size also changed over the past decade, with mid-sized farms disappearing in higher numbers. As illustrated in Table G-2, small and large sized farms disappeared in smaller numbers and currently account for a larger proportion of total farms than they did in 2012.

According to the [\*Dane County Farmland Preservation Plan\*](#), soils with an agricultural capability class of I or II, along with class III soils that are or could be economically productive, are to be preserved. Landowners with property designated for agricultural preservation can be eligible to receive a farmland preservation tax credit.

According to the Natural Resources Conservation Service (NRCS), approximately 63 percent of Town soils are classified as prime farmland (Table G-5). It should be noted that not all of these lands are in agricultural production as they could be used for residential or other development. Another 4,990 acres could be considered prime farmland under certain conditions. Subprime farmland occurs throughout the Town with an extensive area extending southwest to northeast across the central part of the Town.

Environmentally significant areas are not included in the farmland preservation program. These areas include floodways, existing parks, woodlands greater than 10 acres not previously identified for agricultural use, and areas 10 acres or larger that are too wet to be farmed.

TABLE G-3. Parcels Removed from A1 Exclusive (or similar)  
Zoning: Dane County, 2018-2022

YEAR	ACRES	PARCELS
2018	719	46
2019	602	78
2020	1,367	54
2021	1,891	47
2022	1,447	11
5-Year Total	6,026	236
5-Year Average	1,205	47

Source: Wisconsin Department of Revenue

TABLE G-4: Land in Farms, Dane County: 2012 and 2022

YEAR	ACRES
2012	504,420
2022	449,464
Numeric Change	-54,956
Percent Change	-10.9%

Source: U.S. Census of Agriculture

TABLE G-5: Agricultural Soil Productivity, Town of Bristol: 2017-2023

	2017/2018	2018/2019	2019/2020	2021/2022	2022/2023
Grade 1-Best Production	11,842	11,764	11,710	11,663	11,652
Grade 2-Less Production	3,062	3,044	3,058	3,039	3,017
Grade 3-Poorest Production	1,186	1,184	1,185	1,177	1,173
Other	1,596	1,595	1,594	1,546	1,545

Source: WI Department of Revenue, Division of Research and Policy

Note: 'Other' includes large dairies, non-tillable pasture, fallow, swamp, etc.





## Town of Bristol

Map G-1

# Agricultural Resources

### Legend

#### Roads

- Highway
- Local Road
- Ramp

#### Boundaries

- Urban Service Area
- Municipal Boundaries
- Quarter Sections
- Parcels
- Lakes and Ponds

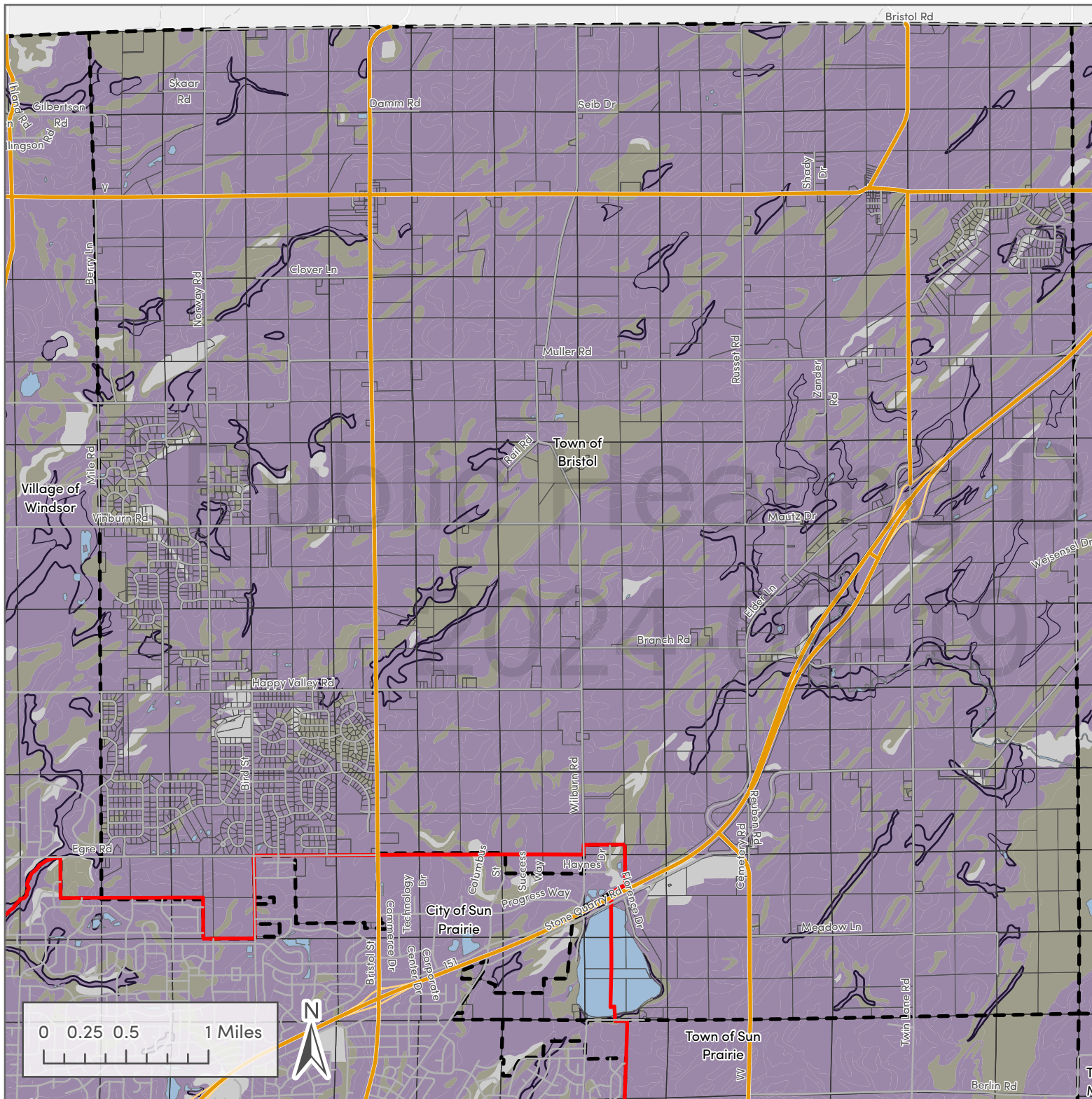
#### Farmland Rating

- Farmland of statewide importance
- Prime farmland / Prime farmland if drained
- Prime farmland if drained and/or protected from flooding
- Not prime farmland

Data sources: Esri, Dane County, CARPC, USDA

Map information is believed to be accurate but may contain errors due to the dynamic nature of source data. For general reference purposes only.

Date: 7/29/2024



# Natural Resources

## GEOLOGY

The bedrock underlying the Town primarily consists of sandstone and limestone. Beneath these sedimentary rocks is crystalline rock composed of components like rhyolite, granite, and basalt, which are impermeable to water.

As in much of Wisconsin, the Town's surface geology and landforms were formed by continental ice sheets that advanced and retreated from the region several times during the Pleistocene Epoch (2.58 million to 11,700 years ago). The deposits left by these glaciers are grouped into two categories depending on how the materials were moved. If moving water transported the materials, the resulting deposits are referred to as outwash deposits and are characterized by well-sorted materials and stratified layers. If the ice sheets physically moved or carried the materials, the deposits are unsorted and unstratified and are known as till deposits. These two main types of glacial deposits can create a wide variety of landforms.

Glacial landforms in the Town are varied and widely dispersed. Outwash plains, terraces, and fans appear in a band running from the southwest to the northeast and also in the western part of the Town. A small handful of isolated end moraines are interspersed in the area. Pleistocene deposits generally cover the bedrock throughout the region in varying depths up to 400 feet. Although most of the commercial sources of sand and gravel are generally associated with the outwash deposits, isolated pockets of sand and gravel can be found as summarized in Exhibit G-2.

EXHIBIT G-2. Sand and Gravel Potential of Selected Glacial Landforms

GLACIAL LANDFORM	SAND AND GRAVEL POTENTIAL
Outwash (plains, terraces, fans and valley trains)	Likely source of commercial deposits. fans and valley trains). Generally found in flat-lying formations of varying quality and depth.
Ground Moraine	Low potential. Production is limited to other glacial landforms superimposed on the ground moraine,
End Moraine	Low potential. Isolated, small pockets may exist in association with outwash plains and ice contact deposits.

Source: Land Resources Analysis Program, 1976



## METALLIC AND NON-METALLIC RESOURCES

There are no known metallic mineral deposits of economic value in or near the Town of Bristol. Mineral resources in Dane County are typically nonmetallic, including sand, gravel and limestone. The most familiar uses for such nonmetallic mineral resources are road building and maintenance. The materials are also used in the construction of residential, commercial and public buildings, bridges, sewer and septic systems, and use in erosion control measures.

Sand and gravel resources are often referred to as 'pits.' The term 'quarry' is appropriate for limestone because such operations require controlled blasting to remove material. All mineral extraction operations are subject to state rules regarding dust control, blasting, safety and reclamation.

Three of Dane County's 136 active mineral extraction sites are in the Town of Bristol. These sites, located in Sections 5 and 34, have approved conditional use permits (CUPs). Most Dane County's mineral extraction sites are in areas designated as agricultural use by town land use plans and are zoned in one of the agricultural categories (A-1, A-1 Exclusive and A-2).

## SOILS

Soils in the region were formed from deposits transported by continental glaciers that moved across the land many thousands of years ago. Some of the soils found in the Town developed from sandy loam glacial till and are generally grouped into two soil associations: Dodge-St. Charles-McHenry Association and the Plano- Ringwood-Griswold Association (Exhibit G-3). These are generally found on elevated sites and contain silt loam. The area's Batavia-Houghton -Dresden soils are associated with streams.

Some of the Town's soils pose limitations for development due to saturation or improper drainage. The most common limitation is related to the use of individual septic systems.

EXHIBIT G-3. Soil Associations Found in the Town

SOIL ASSOCIATION	GENERAL DESCRIPTION
Dodge-St. Charles-McHenry	Well drained and moderately well drained, deep silt loams
Plano-Ringwood-Griswold	Moderately well drained and well drained, deep silt loam and loam
Batavia-Houghton-Dresden	Well drained and poorly drained, deep and moderately deep and shallow silt loams and mucks that are underlain by shale or limestone

Source: Soil Conservation Service, 1978



## GROUNDWATER

Dane County's four geologically distinct aquifers provide an adequate supply of groundwater for domestic, commercial, and agricultural uses. Aquifers closer to the surface tend to yield lesser amounts of water. The lowest and most productive aquifer is composed primarily of sandstone.

Although Dane County's groundwater quality is generally good, regional geology and soil characteristics make it susceptible to contamination from various point and non-point sources. According to the Department of Natural Resources' statewide public and private well database, there are several wells with elevated levels of nitrates and volatile organic compounds (VOCs) in Bristol. Nitrates commonly enter the groundwater from individual septic systems and from standard farming practices.

Bristol is in an atrazine prohibition area as delineated by the Wisconsin Department of Agriculture, Trade and Consumer Protection. Atrazine is a chemical used to grow corn and is found in groundwater in Bristol and the larger region. Town Sections 1, 2, 3, 10, 11, 12, 25, and 26, and portions of 33, 34, 35, and 36 are outside of the designated prohibition area.

According to the Wisconsin DNR Priority Watershed Program, the Mauneshia River, Yahara River and Lake Mendota, Upper Koshkonong, and Upper Crawfish River watersheds are ranked high for groundwater nonpoint source pollution. Nonpoint sources can generally be controlled with appropriately designed and maintained best management practices.

EXHIBIT G-4. Major River Basins of Wisconsin



Source: Wisconsin DNR 2024

## SURFACE WATER AND WETLANDS

Bristol falls primarily within the Upper Rock River Basin, while the southwest corner of the Town is in the Lower Rock River Basin (Exhibit G-4). The principal streams flowing through the Town are the headwaters of Token Creek and Maunesha River. Token Creek begins in the southwest quadrant of the Town and flows to the southwest, eventually entering the Yahara River in the Town of Burke. The Maunesha River generally flows from the northwest quadrant to the southeast, eventually joining the Crawfish River in the Town of Portland (Dodge County). The Maunesha River supports a warm-water sport fishery and cool-water mainstem natural community. Token Creek is a spring-fed Class III trout stream and provides significant base flow for the Yahara River and Lake Mendota. Over the years, significant portions of both Token Creek and the Maunesha River were ditched and drained, negatively affecting water quality and fish habitat. Many other unnamed perennial and intermittent streams also flow within the Town, most of which are tributary to the Maunesha River, the Crawfish River, or Token Creek. Brazee Lake, a 148-acre lake with a maximum depth of 5 feet, is the only significant open body of water.





The Maunesha River has been on the State 303(d) list of impaired waters since 1998. Pollutants of concern are sediment and total phosphorus, which have resulted in a degraded habitat and low dissolved oxygen. Token Creek is also listed for total phosphorus but was delisted for fish passage barriers in 2018. Brazee Lake is considered impaired due to high levels of algae, degraded aquatic vegetation, and eutrophication related to phosphorus pollution.

Many of the significant wetlands in the Town are associated with the Maunesha River and its tributaries, although some isolated wetlands exist. According to the Wisconsin Wetland Inventory for Dane County, there are significant areas mapped as wetland indicators, suggesting the possible presence of current or former wetlands.

Much of the area along the Maunesha River and its tributaries is within the 1%-annual-chance floodplain. The southwest corner of the Town is within the thermally sensitive watershed associated with Token Creek, requiring enhanced thermal controls of stormwater runoff to limit impacts to this sensitive waterbody.

## VEGETATION

Pre-settlement vegetation in the region consisted primarily of prairies and oak savannas characterized by open grasslands with scattered bur and white oaks. Frequent (almost yearly) wildfires kept fire-intolerant trees and shrubs from gaining a foothold, sustaining the prairie environment. Sedge meadows also existed in the wetter parts of the prairie region.

Since European settlement, fire control has resulted in a change in vegetation. Many of the area's original prairies and mature forests have been converted to agricultural uses. Areas not used for agricultural purposes have developed into dense, closed forest ecosystems. On dryer hillsides, forests of white, red and black oak dominate, while mesic forests of sugar maple, basswood and elm are common on wetter sites.

## THREATENED AND ENDANGERED SPECIES

Based on information contained in Wisconsin's Natural Heritage Inventory there are 73 plant and 98 animal species in Dane County that are threatened, endangered, or of special concern. According to the NHI, two plant species and one fish species are known to exist in the Town of Bristol.



# Town of Bristol

## Map G-1

### Natural Resources

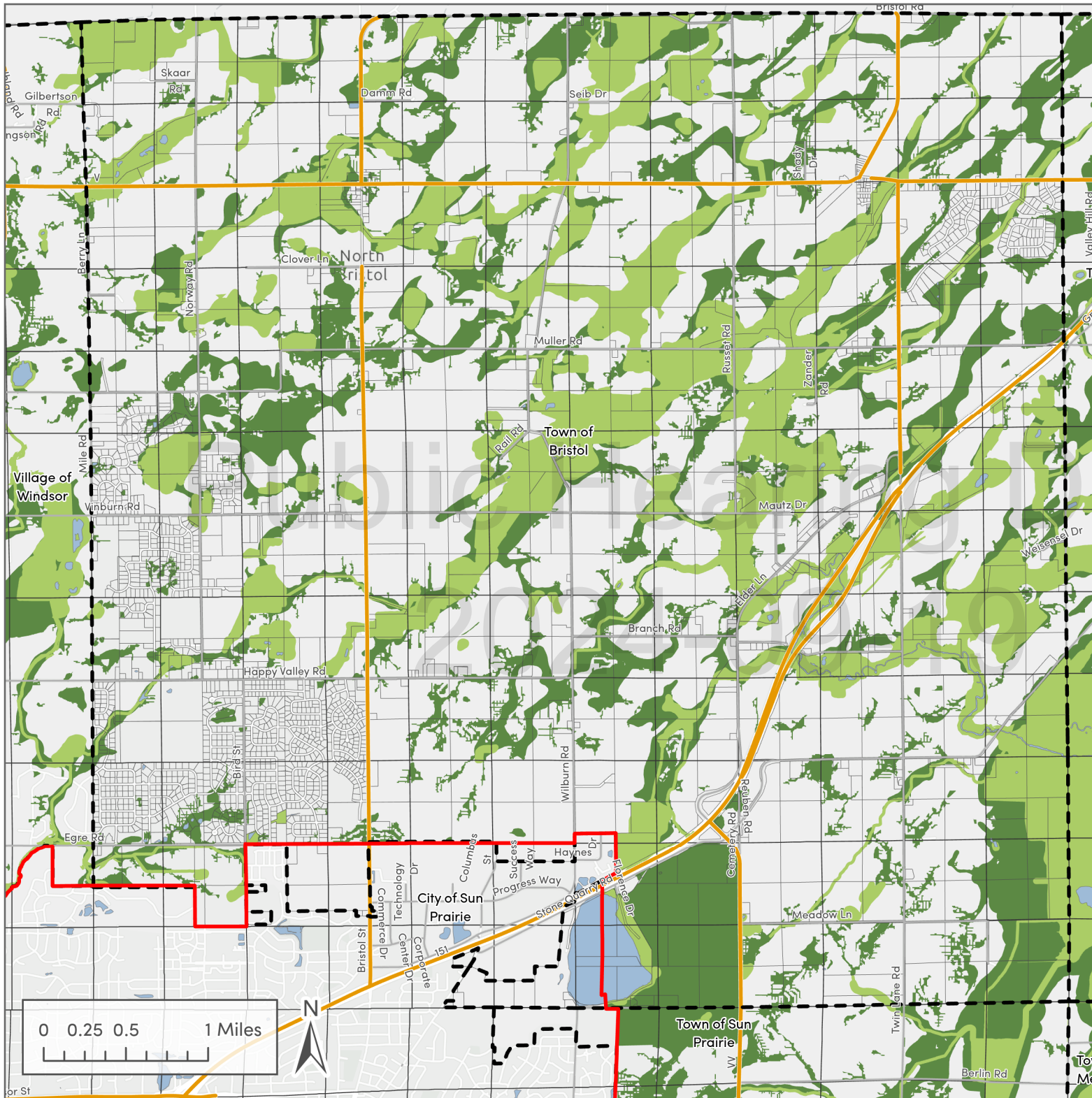
#### Legend

- Urban Service Area
- Municipal Boundaries
- Highway
- Local Road
- Quarter Sections
- Parcels
- Lakes and Ponds
- Estimated Environmental Corridors
- Voluntary Environmental Corridors

Data sources: Esri, Dane County, CARPC, WI DNR

Map information is believed to be accurate but may contain errors due to the dynamic nature of source data. For general reference purposes only.

Date: 9/10/2024



# Cultural Resources

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## HISTORICAL OVERVIEW

Archaeological evidence suggests that the first inhabitants of what is now Wisconsin arrived over 10,000 years ago when the continental glaciers retreated northward. By the early 19<sup>th</sup> century, the area comprising the Town of Bristol was occupied by the Ho-Chunk people. In the 1830s, the Ho-Chunk nation was forced to cede the majority of its Dane County lands to the U.S. government, accelerating European settlement and the development of agricultural communities.

The European settlement of Bristol began as a 'mixed farming' town, raising hogs and dairy cows as well as corn for feed. Records from 1894 show that Bristol grew 108,600 bushels of corn and produced 148,000 pounds of butter from milk of over 1,100 dairy cows

William W. Patrick (Patrick Marsh/Brazee Lake) was elected the first Town Chair of Bristol on April 11, 1848. The first town hall was built later in 1890 at a cost of \$525. The structure was subsequently moved from Wilburn Road to Bird Street in City of Sun Prairie, where it's still used as a residence.

## ARCHAEOLOGICAL RESOURCES

The Town of Bristol occupies an area of the state where mound-building cultures once thrived. Numerous native burial mounds are found throughout Dane County, typically occurring in groups of up to 30 or more. Unfortunately, many mounds and their artifacts have been lost to increased urbanization, land alteration, and looting. No burial mounds have been identified and catalogued within the Town of Bristol.

According to the Wisconsin Historical Society's Archaeological Site Inventory, 20 archaeological sites have been identified and catalogued in the Town of Bristol. These sites, nine former campsites or villages, nine are cemeteries or burial sites, a conical mound, and some isolated resources.

There are three unnamed cemeteries and six named cemeteries in Bristol. The named cemeteries include the Independent Christian Society of St. Peter (Section 1), St. Joseph Catholic Cemetery (Section 11), Baker Cemetery (Section 9), Bristol Cemetery, also known as the Sweet Cemetery (Section 26), Bristol Town Cemetery (Section 29), and Bristol Lutheran (Section 29).

### Burial Site Preservation

In 1987, the state passed the Wisconsin Burial Sites Preservation law (Wis. Stats. 157.70) to protect historic and prehistoric burial sites from all types of human disturbance regardless of ethnic origins, religious affiliation, or age. The Wisconsin Historical Society is responsible for inventorying and cataloguing all prehistoric and historic burial sites in Wisconsin. Once a burial site is registered, it is exempt from property taxes. Aside from exhumations authorized by coroners or by immediate family members, no one may disturb a human burial site without authorization from the State Historic Preservation Officer. The law also authorizes penalties for unauthorized disturbances or the failure to report disturbances.





## HISTORIC RESOURCES

No historic sites in the Town are listed on the National or State Registers of Historic Places. According to the Architecture & History Inventory (AHI) maintained by the Wisconsin Historical Society, there are 56 structures with historical significance in the Town. Of these, the buildings associated with the St. Joseph's Church complex are classified as contributing to historic association or architectural importance, including the convent (built in 1905), rectory (1914), parish hall (1937), and church (1890). Other East Bristol historic structures include the Emil Hauser Store, also known as Hansberry's Store (1914 County Road V) and the Schmitt family farmstead (1934 County Road V).

Bristol's historic farmsteads and homesteads include the Wilbur Renk farmhouse (6791 Wilburn Rd), the Alexander Stevens farm (2042 Branch Rd), the Krebs' residence (County Hwy VV), and the Arch Davison farm (2111 STH 151).



# Economic Development Element

## Basic Objectives of the Economic Development Element

- Understand the economic base of the community and statewide trends affecting the community and region.
- Identify and describe economic development programs at the local and state level.

## *Labor and Economic Characteristics*

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### LABOR FORCE

Dane County's civilian labor force grew by 12% over the past decade. Bristol's labor force grew as well, though at half the rate as the county (Table H-1).

About 93% of Bristol workers commuted somewhere within Dane County. Four out of five of them drove alone in a personal vehicle. About 28% of commuters traveled more than 30 minutes to work (Table H-2).<sup>7</sup> Given those commute times, most of the Town residents likely went to work in Madison and adjacent communities.

<sup>7</sup> The effects of the COVID-19 Pandemic are apparent in the large jump in work-from-home from 4-12% of Bristol's employed labor force. It is unclear whether the working from home will persist, increase, or return to pre-pandemic levels.

TABLE H-1: Civilian Labor Force and Unemployment, Bristol & Dane County, 2011 and 2021

	BRISTOL			DANE COUNTY		
	2011	2021	% CHANGE	2011	2021	% CHANGE
Civilian Labor Force	2,135	2265	6.1%	289,045	323,973	12.1%
Unemployment Rate	6.0%	1.5%	-74.4%	5.4%	2.4%	-55.1%

Source: U.S. Census Bureau American Community Survey 5-Year Estimates

TABLE H-2: Town of Bristol Commuting Patterns (2021)

TRAVEL TIME	PERCENT 2021
Less than 10 minutes	8.0%
10 to 19 minutes	35.2%
20 to 29 minutes	28.6%
30 to 44 minutes	20.5%
45 or more minutes	7.8%
PLACE OF WORK	PERCENT 2021
In Dane County	93.4%
Elsewhere in Wisconsin	5.2%
Out of state	1.5%

Source: U.S. Census Bureau 2021 American Community Survey 5-Year Estimates

TABLE H-2a: Commuting to Work, Town of Bristol, 2010 and 2021

TYPE OF TRAVEL	PERCENT 2010	PERCENT 2021	% CHANGE
Car, truck, or van	92.2%	82.6%	-10.4%
Drove alone	83.7%	81.7%	-2.4%
Carpooled	8.5%	0.8%	-90.6%
Walked	2.4%	3.4%	41.7%
Taxicab, motorcycle, or other means	1.5%	1.4%	-6.7%
Worked from home	3.9%	12.3%	215.4%

Source: U.S. Census Bureau American Community Survey 5-Year Estimates



## EMPLOYMENT

Table H-3 shows employment statistics for Town residents 16 years and over by industry in 2010 and 2021. In the past decade, 213 net new jobs were added, representing an increase of 10.5 percent. However, patterns within industries themselves may be muddled by the Covid-19 pandemic.

The last two years in the 2021 ACS 5-Year Estimate overlapped a period of lockdowns, layoffs, and work-from-home arrangements. Many industries where on-site work predominates showed large drops in the numbers employed, e.g. construction, manufacturing, retail trade, etc.

By contrast, employment in industries that are predominantly office-based, like professional, scientific, and management, and administrative and waste management services increased. The extent to which these shifts are longer-term industry trends for Bristol residents is unclear.

Conservative county-level projections by CARPC anticipate *at least 100,000* new jobs over the next 30 years. Other projections have suggested our region could see up to double that number of new jobs by 2050.

TABLE H-3: Employment by Industry, Town of Bristol and Dane County (2010-2021)

TOWN OF BRISTOL						DANE COUNTY
INDUSTRY	2010		2021		% CHANGE 2010-2021	2021 %
	n	%	n	%		
Agriculture, forestry, fishing and hunting, and mining	78	3.9%	87	3.9%	0.9%	1.0%
Construction	138	6.8%	104	4.7%	-31.8%	4.9%
Manufacturing	211	10.5%	148	6.6%	-36.6%	8.6%
Wholesale trade	67	3.3%	15	0.7%	-79.8%	2.2%
Retail trade	299	14.8%	80	3.6%	-75.8%	9.2%
Transportation and warehousing, and utilities	74	3.7%	145	6.5%	77.2%	3.2%
Information	33	1.6%	0	0.0%	-100.0%	2.9%
Finance and insurance, and real estate and rental and leasing	224	11.1%	436	19.6%	76.1%	7.9%
Professional, scientific, and management, and administrative and waste management services	166	8.2%	465	20.9%	153.4%	14.6%
Educational services, and health care and social assistance	451	22.4%	447	20.0%	-10.4%	28.6%
Arts, entertainment, and recreation, and accommodation and food services	92	4.6%	56	2.5%	-44.9%	7.8%
Other services	73	3.6%	149	6.7%	84.6%	4.1%
Public administration	111	5.5%	98	4.4%	-20.1%	5.0%

Source: U.S. Census Bureau American Community Survey 5-Year Estimates

TABLE H-4: Average Annual Earnings per Job, Dane County: 2002-2022

NAICS	DESCRIPTION	2002*	2022	NUMERIC CHANGE	% CHANGE (2002-2022)
11	Agriculture, Forestry, Fishing and Hunting	\$64,257.86	\$60,960	\$21,538	54.60%
21	Mining, Quarrying, and Oil and Gas Extraction	\$91,907.55	\$94,351	\$37,966	67.30%
22	Utilities	\$140,101.76	\$168,608	\$82,656	96.20%
23	Construction	\$83,084.36	\$86,799	\$35,827	70.30%
31	Manufacturing	\$85,270.19	\$90,600	\$38,287	73.20%
42	Wholesale Trade	\$82,839.86	\$94,660	\$43,838	86.30%
44	Retail Trade	\$43,115.13	\$45,305	\$18,854	71.30%
48	Transportation and Warehousing	\$58,156.77	\$54,180	\$18,501	51.90%
51	Information	\$91,689.13	\$179,976	\$123,725	220.00%
52	Finance and Insurance	\$93,222.96	\$122,223	\$65,031	113.70%
53	Real Estate and Rental and Leasing	\$57,814.47	\$72,624	\$37,155	104.80%
54	Professional, Scientific, and Technical Services	\$96,916.54	\$108,146	\$48,688	81.90%
55	Management of Companies and Enterprises	\$111,166.00	\$146,036	\$77,836	114.10%

NAICS	DESCRIPTION	2002*	2022	NUMERIC CHANGE	% CHANGE (2002-2022)
56	Administrative and Support and Waste Management and Remediation Services	\$44,290.36	\$54,242	\$27,070	99.60%
61	Educational Services	\$37,250.39	\$37,594	\$14,741	64.50%
62	Health Care and Social Assistance	\$66,432.28	\$84,278	\$43,522	106.80%
71	Arts, Entertainment, and Recreation	\$25,524.17	\$26,645	\$10,986	70.20%
72	Accommodation and Food Services	\$22,823.26	\$26,971	\$12,969	92.60%
81	Other Services (except Public Administration)	\$42,619.61	\$46,400	\$20,253	77.50%
90	Government	\$87,953.17	\$94,016	\$40,057	74.20%

Source: Lightcast.io, QECW

\*Inflation adjusted to 2022-dollar values. Source: Federal Reserve Bank of Minneapolis ( $\$1_{2002} = \$1.63_{2022}$ ).





Table H-5 shows the top five employers in the region in 2021. State and local government, education, health care and insurance are some of the largest employers in the region. County trends and projections indicate that those sectors will continue to grow in the decades to come. Like much of the country, Dane County is expected to see increases in service-based employment—retail, personal, and professional—and decreased employment generally in goods-producing industries. Key industry sectors that have a history of strong performance and that represent a competitive advantage for our region are expected to grow through the active involvement of economic development professionals and organizations like the Madison Regional Economic Partnership (MadREP). Target sectors include:

- Advanced Manufacturing
- Agriculture, Food, and Beverage
- Bioscience
- Healthcare
- Information Communications Technology



TABLE H-5. Largest Employers in Dane County: 2021

EMPLOYER	CITY	EMPLOYMENT
University of Wisconsin-Madison	Madison	15,000+
UW Health	Madison	15,000+
State of Wisconsin	Madison	5,000-9,999
Epic Systems Corp	Verona	5,000-9,999
American Family Insurance	Madison	1,000-4,999

Source: MadREP, Wisconsin's WORKnet, EMSI, ReferenceUSA

## LOCAL ECONOMY

Bristol primarily acts as a bedroom community, its residents employed in adjacent communities. Bristol lacks the municipal infrastructure to support most industry and employment, i.e. water and sewer. As a result, employment within the town is low.

Agriculture is a significant part of Bristol's culture and economy, albeit a shrinking part over the past two decades. Table H-6 shows the change in agriculture in Dane County as measured by a few parameters. Between 2012 and 2022, the number of farms, the number of acres in farmland and the number of acres in cropland declined. Given the economics of farming, an increasing number of farm operators must rely on income earned off the farm to help keep the farming operation viable. Over the last decade, there was a decline of 12 percent in those who reported farming as their principal occupation. (42% of farmers, down from 47% a decade ago.) Further, the number of farm operators who worked a portion of their time off the farm increased by nearly six percent. In 2022, the average age of farm operators was 58.6 years compared to 57.7 10 years earlier. Few young people are entering farming suggesting the continued trend of larger farms and a potential conversion to non-farm uses.

TABLE H-6. Farming Characteristics; Dane County: 2012, 2017, and 2022

	2012	2017	2022	CHANGE 2017-2022
Farms	2,749	2,566	2,284	-282 (-11%)
Acres in Farms	504,420	506,688	449,464	-57,224 (-11.3%)
Acres Cropland	362,916	410,309	365,559	-44,750 (-10.9%)
Operators Who Also Work Off the Farm	1,515	2,030	2,411	381 (18.8%)
Farming as Principle Occupation (%)	47.3%	47.6%	41.9%	-5.7 (-12%)
Farming as Secondary Occupation (%)	52.7%	52.4%	58.1%	5.7 (11%)
Average Age of Operator	57.7	57.4	58.6	1.2 (2.1%)

Source: 2012, 2017, 2022 Census of Agriculture

## Economic Development Funding Opportunities

This section is intended to provide a brief overview of some of the federal and state programs that are currently available for economic development efforts. Many of these funding opportunities are tied to the COVID-19 Pandemic and its aftermath. Periodic review and updates to this table are recommended.

EXHIBIT H-3. Summary of Selected Economic Development Programs for Communities and Businesses

PROGRAM	DESCRIPTION
<a href="#"><u>Coronavirus Program (CDBG-CV)</u></a>	Grant funds are awarded to units of general local government and must be used to prevent, prepare for, and respond to Coronavirus. The State of Wisconsin received CDBG-CV funding through the CARES Act.
<a href="#"><u>Disaster Recovery Program (CDBG-DR)</u></a>	Grant funds are awarded to eligible counties for disaster recovery. In 2018, the State of Wisconsin required a presidential declaration of a major disaster pursuant to Section 401 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act. The request for declaration followed the severe storms, flooding, landslides, straight-line winds, and tornadoes that occurred August 17- September 14, 2018.
<a href="#"><u>Economic Development Program (CDBG-ED)</u></a>	Grant funds are awarded to units of general local government to provide financial assistance to businesses to create or retain jobs for low- and moderate-income (LMI) individuals. Examples of eligible projects include business loans to expand facilities or purchase equipment, specialized employee training, or business infrastructure projects.
<a href="#"><u>Emergency Assistance Program (CDBG-EAP)</u></a>	Grant funds are awarded to units of general local government to assist in addressing emergency housing, public facility, infrastructure, and business assistance needs that occur because of natural or manmade disasters. Such assistance may include, but is not limited to housing rehabilitation, acquisition, site clearance/demolition, housing replacement, road repairs, stormwater drainage and public facility upgrades.

PROGRAM	DESCRIPTION
<a href="#"><u>Planning Program (CDBG-PLNG)</u></a>	Grant funds are awarded to units of general local government to support community efforts to address improving community opportunities and vitality. Examples of eligible projects include the development of comprehensive plans, community development plans, and small area and neighborhood plans. Grants are limited to projects that, if implemented, meet a CDBG National Objective.
<a href="#"><u>Public Facilities Economic Development Program (CDBG-PFED)</u></a>	Grant funds are awarded to units of general local government for public infrastructure projects that support business expansion and create or retain jobs for low- and moderate-income (LMI) individuals. Examples of eligible applications include new or improved water and sewer service and streets that result in business expansion and job opportunities for low- and moderate-income (LMI) individuals.
<a href="#"><u>Public Facilities Program (CDBG-PF)</u></a>	Grant funds are awarded to units of general local government to help support infrastructure and facility projects for communities. Examples of eligible projects include improvements and repairs to streets, drainage systems, water and sewer systems, and sidewalks, and the construction or expansion of or improvement to community centers, senior centers, libraries, and fire stations. Grants are limited to projects that, if implemented, meet a CDBG National Objective.
<a href="#"><u>Small Cities Housing and Revolving Loan Program (CDBG)</u></a>	Grants provided to units of general local government for housing programs which principally benefit low- and moderate-income (LMI) households.
<a href="#"><u>Flexible Facilities Program (FFP)</u></a>	Grant program funded through the U.S. Department of Treasury's Capital Projects Fund (CPF) program, which was established through the American Rescue Plan of 2021. Grant funds are awarded to units of general local government for the construction, renovation or expansion of community facilities in conjunction with the purchase and/or installation of digital technology infrastructure and/or equipment for remote high speed internet access that will directly provide work, education, and health monitoring in response to the COVID-19 pandemic.
<a href="#"><u>Capital Catalyst</u></a>	Makes seed funds available to organizations and communities dedicated to stimulating entrepreneurship.

PROGRAM	DESCRIPTION
<a href="#"><u>Qualified New Business Venture</u></a>	Offers incentives for investment in early-stage Wisconsin businesses with the potential for significant economic impact and job growth. This program creates mutually beneficial outcomes for investors, businesses and Wisconsin's economy.
<a href="#"><u>Business Development Tax Credits</u></a>	The Business Development Tax Credit Program supports job creation, capital investment, training, and the location or retention of corporate headquarters by providing companies with refundable tax credits.
<a href="#"><u>Entrepreneurship Partner Grant</u></a>	The goal of the Entrepreneurship Partner Grant is to encourage the formation of entrepreneurship support programs and to develop startup and emerging growth companies in the state of Wisconsin.
<a href="#"><u>Data Center Sales and Use Tax Exemption</u></a>	For projects that involve buildings constructed or rehabilitated to house a group of networked computer servers to centralize the processing, storage, management, retrieval, communication, or dissemination of data and information.
<a href="#"><u>Enterprise Zone Tax Credit</u></a>	Assists Wisconsin businesses that have significant expansion projects or are relocating major business operations from other states to Wisconsin. Refundable tax credits can be earned through job creation, job retention, capital investment, employee training, and supply chain purchases from Wisconsin vendors.
<a href="#"><u>Technology Development Loans</u></a>	Tailored to help innovative companies with promising economic futures clear the hurdles associated with bringing new technologies, products and concepts to market.
<a href="#"><u>Capacity Building Grants</u></a>	Designed to further the WEDC's efforts to foster an advanced economic development network within the state of Wisconsin.
<a href="#"><u>Transportation Facilities Economic Assistance and Development Program</u></a>	Funds transportation facilities improvements (road, rail, harbor and airport) that are part of an economic development project.
<a href="#"><u>Idle Sites Redevelopment Program</u></a>	Redeveloped idle industrial and commercial sites can again become generators for economic development and an improved quality of life for the cities and communities where they are located. WEDC's Idle Sites Redevelopment Program helps communities pursue this opportunity.

PROGRAM	DESCRIPTION
<a href="#"><u>Community Development Investment Grant</u></a>	The CDI Grant Program will support urban, small city and rural community (re)development efforts by providing financial incentives for shovel-ready projects with emphasis on, but not limited to, downtown community-driven efforts.
<a href="#"><u>Industrial Revenue Bond</u></a>	Industrial Revenue Bonds (IRBs) are designed to help Wisconsin municipalities support industrial development through the sale of tax-exempt bonds.
<a href="#"><u>Brownfields Grant Program</u></a>	Wisconsin's Brownfields Grant Program provides funds to assist with the assessment and remediation of environmental contamination of abandoned, idle, or underused industrial or commercial facilities or sites. This program helps convert contaminated sites into productive properties that are attractive and ready for redevelopment.
<a href="#"><u>Historic Preservation Tax Credit</u></a>	The Historic Preservation Tax Credit applies to certified historic buildings. Under the program, owners of eligible buildings may receive a state income tax credit for 20 percent of the qualified rehabilitated expenditures up to \$3.5 million. This program applies to rehabilitation expenditures, as defined in section 47(c)(2) of the Internal Revenue Code, of \$50,000 or more.
<a href="#"><u>Fabrication Laboratories Grant</u></a>	Through the Fabrication Laboratories (Fab Labs) Grant Program, WEDC is helping to outfit public schools across the state with equipment such as 3D printers, laser engravers, computer numerical control routers and plasma cutters to enable and improve science, technology, engineering, art and mathematics (STEAM) courses, which helps students master the skills that are in high demand in the job market.



# Land Use Element

## Basic Objectives of the Land Use Element

- Describe trends in land use.
- Discuss factors affecting development.
- Project land demand and map planned land use.

## *Land Use Trends*

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### AGRICULTURAL LAND

Farmland is the predominant land use present in the Town of Bristol and has been since its inception. Around 70% of Bristol's land area is cropland or pasture. Row crops like corn, soybeans, and wheat cover most of the Town. This has changed very little in the past half century. Bristol currently contains roughly 15,000 acres of agricultural land.

### RECREATIONAL AND PROTECTED LANDS

Recreational land uses have accounted for 250 to 300 acres of land for the past several decades. Prairie Pines Golf Club accounts for 250 acres. Small neighborhood parks in Bristol's rural subdivisions make up the remainder.

The Wisconsin Department of Natural Resources owns roughly 475 protected acres of land in Bristol. This includes much of the land around Brazee Lake. This land will transition to City of Sun Prairie ownership in 2024 or 2025.

### DEVELOPED LAND

Developed land in Bristol has increased threefold over the past 50 years. Total developed land (exclusive of rights-of-way) in the Town of Bristol as of 2024 was approximately 1,500 acres. Almost all of that is residential land. Institutional/governmental land is the second largest category of developed land at 78 acres. Land for commercial goods and service producing uses has fluctuated over the decades, usually accounting for no more than about 10 acres of land each. Table I-1 details changes in the major developed land use categories.

TABLE I-1: Change in Developed Land Uses, 1970–2020

	1970	1980	1990	2000	2010	2020
Commercial Retail	10.0	7.5	7.0	10.0	7.0	4.7
Commercial Services	5.3	2.3	2.5	3.1	4.0	6.1
Communication/Utilities	4.7	10.1	11.1	9.9	5.5	10.1
Institutional/Governmental	18.6	26.4	33.2	48.9	82.7	77.7
Manufacturing	-	4.7	4.3	0.7	-	
Residential	513.6	728.9	757.2	802.1	1,262.6	1,360.7
Wholesale Trade	-	19.8	24.5	10.9	3.0	3.0
Total Developed Land	552.2	799.7	839.8	885.6	1,365.0	1,462.3

Source: Dane County Land Use Inventory; CARPC calculations

TABLE H-2: Land Use Summary, 2024

CATEGORY	TYPICAL USES	ACRES	% TOTAL
<b>Agricultural</b>			
Agriculture Undeveloped - Cropland Pasture	Agricultural operations (farms raising traditional or specialty crops and animals, sod farms, tree farms and nurseries), forestland and other rural land	15,534.9	72.09%
Agriculture Undeveloped - Other Open Land	Other Open Land (not subdivided, not cultivated, not pasture); Stormwater management - man-made catch basins less than 4 acres in size, stagnant water with visible concrete intakes.	2,102.9	9.76%
Agriculture Undeveloped - Vacant Unused Lands	Undeveloped and unused land area (vacant land). Lands that have been subdivided.	114.9	0.53%
Agriculture Undeveloped - Woodlands	Woodlands. 80% or more canopy coverage of 2+ acres of connectivity	533.6	2.48%
<b>Sub-total - Agricultural</b>		<b>18,286.3</b>	<b>84.81%</b>
<b>Commercial</b>			
Commercial Retail - General Repair & Maintenance		-	0.00%
Commercial Retail - Other	Drinking establishments (alcoholic beverages) or taverns. Convenience stores with gasoline.	2.4	0.01%
Commercial Services - Lodging	Hotels, etc.	-	0.00%
Commercial Services - Other	Automobile and truck rental services. Automobile and truck rental services. Other entertainment assembly, nightclub, NEC. Other general construction contractor services, Landscaping NEC. Other special construction trade services, NEC.	6.4	0.03%
Commercial Retail - Transportation Related	Motor vehicle (used only), tire, battery and accessory retail; vacant commercial-related buildings.	2.3	0.01%
<b>Sub-total - Commercial</b>		<b>11.1</b>	<b>0.05%</b>
<b>Communication/Utilities</b>			
Communication/Utilities - Generating Processing	Other electric utility, NEC.	3.0	0.01%
Communication/Utilities - Transmission	Telephone relay towers (microwave). Cellular towers	0.5	0.00%

CATEGORY	TYPICAL USES	ACRES	% TOTAL
Communication/Utilities - Waste Processing	Stormwater management. Man-made catch basins less than 4 acres in size, stagnant water with visible concrete intakes.	2.3	0.01%
<i>Sub-total - Communication/Utilities</i>		<i>5.8</i>	<i>0.03%</i>
<b>Industrial</b>			
Industrial - Extractive	Sand and gravel - quarrying.	80.3	0.37%
Industrial - Manufacturing	Manufacturing/processing plants.	-	0.00%
Industrial - Wholesale	Household goods warehousing and storage. Mini warehouse storage facilities. PODS	3.0	0.01%
<i>Sub-total - Industrial</i>		<i>83.4</i>	<i>0.39%</i>
<b>Institutional</b>			
Institutional/Governmental - Administrative	Executive, legislative and judicial functions. City, Town or Village Halls. Other protective functions and their related activities.	15.3	0.07%
Institutional/Governmental - Cemetery	Cemeteries	7.3	0.03%
Institutional/Governmental - Education	Professional schools.	39.8	0.18%
Institutional/Governmental - Other	Churches, synagogues and temples.	14.8	0.07%
<i>Sub-total - Institutional</i>		<i>77.1</i>	<i>0.36%</i>
<b>Recreation</b>			
Outdoor Recreation	Public recreational areas, dedicated open space areas and golf courses, whether public or private	250.0	1.16%
<i>Sub-total - Recreation</i>		<i>250.0</i>	<i>1.16%</i>
<b>Residential</b>			
Residential - Farm Dwelling	Single-family detached homes agricultural land	51.9	0.24%
Residential - Group Quarters	Group homes and nursing homes	0.3	0.00%
Residential - Mobile Home	Manufactured homes on a single lot or part of a mobile home park	-	0.00%
Residential - Multi Family	Any building containing three or more dwelling units regardless of ownership status (includes triplexes, fourplexes, apartments, townhouses and condominiums)	0.5	0.00%

CATEGORY	TYPICAL USES	ACRES	% TOTAL
Residential - Single Family	Single-family detached homes on a single lot	1,432.6	6.65%
Residential - Two Family	Any building containing two dwelling units on a single lot regardless of ownership status	-	0.00%
<i>Sub-total - Residential</i>		<i>1,485.2</i>	<i>6.89%</i>
Transportation			
Transportation - Other	Highway and street rights of way planned but not yet built	5.8	0.03%
Transportation - Railroad	Railroads and rail rights of way	-	0.00%
Transportation - Right of Way	Highway and street rights of way	1,026.8	4.76%
<i>Sub-total - Transportation</i>		<i>1,032.6</i>	<i>4.79%</i>
Lakes, ponds		318.7	1.48%
TOTAL		21,550.2	100.00%

Source: Dane County Land Use Inventory; CARPC calculations

## Development Factors

One of the largest development pressures on Bristol comes from outside the Town's border. The developed edge of the City of Sun Prairie has just recently expanded up against rural residential subdivisions clustered in Bristol's southwest corner. Many residents have reacted negatively to this development. Feedback from the comprehensive plan survey placed light trespass from development—light leaving a site due to improper shielding or placement of fixtures—as one of the more important priorities for the Town to address. It also identified the increasing perceived brightness of the night sky, known as skyglow, as a source of concern. Skyglow results from the proliferation of manmade light sources which reflect off moisture and particulate matter in the atmosphere. It has been linked to numerous physiological and behavioral disruptions in marine and terrestrial ecosystems.

As recommended in the goals and objectives of this plan, renewing the Bristol-Sun Prairie boundary agreement and working with City staff to adopt mutually acceptable development standards for the transition zone between the two communities are critical next steps.

Similar efforts should be made with the Village of Windsor to ensure land uses on either side of the shared border are coordinated and designed to smoothly transition density and character between the two communities.

## *Future Land Use*

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The Town intends to grow more slowly over the next 30 years. This means that 2055 land uses will remain largely the same as they are in 2024. An estimated **773 acres of land** remain in the growth area in the southwest corner of Bristol. This location is intended primarily for residential development. It was originally delineated in the 2005–2025 boundary agreement between Bristol and the City of Sun Prairie as a “rural development area.” Of these lands, **between 160 and 210 acres are recommended for protection** based on a combination of natural resource factors like soils suitable for development, potentially restorable wetlands, floodplains, etc. This results in a total of **562–616 acres of developable land suitable for residential development**.

The other major development area includes land north and west of the Sun Prairie Business Park on either side of Highway 151. The “joint business park planning area”—as it was called in the boundary agreement—is **over 2,200 acres**. It currently contains around **235 acres of developed land**, mostly comprised of highway right-of-way and a Wingra Stone quarry. Of the total area, around **585 acres are recommended for protection** due to natural resource considerations. This leaves a total of around 1,400 developable acres for commercial uses.

### RESIDENTIAL

By electing to maintain a **one percent compound annual increase in housing production**, the Town would add an average of **18 additional housing units each year** and a grand total of **643 units by 2055**. The minimum allowable lot size for a home served by a septic system within Bristol subdivisions is 20,000 square feet (0.46 acres). Assuming **one-half acre (0.50) per residential unit** and allowing an additional 20% to accommodate rights-of-way, the Town would require only **386 additional acres of land** to meet the current target for residential growth. Holding lot size to the minimum allowable would require only **354 acres for residential growth**.

### TRANSPORTATION

Given the slow rate of residential growth planned and the historically slow growth of commercial development, land required to accommodate growth of the transportation network will potentially be limited to the 20% allowance above for residential growth, **approximately 60 to 65 acres of rights-of-way**.

### ECONOMIC DEVELOPMENT

Many companies looking to develop land or acquire lots require municipal sewerage and water service. However, businesses catering to agriculture—seed research operations, farm implement dealerships, agricultural product shipping and packaging, etc.—may offer economic development opportunities. These uses would be appropriate within an Agricultural Enterprise Area (AEA) along the Bristol-Windsor border or on the edges of future expansion in the business park. The trend of non-residential growth over the past several decades has averaged **10 acres of new development per decade**. There is ample opportunity to accommodate this demand within the town.





## Town of Bristol

Map I-1

# Existing Land Use

### Legend

#### Boundaries

- Urban Service Area
- Parcels
- Municipal Boundaries

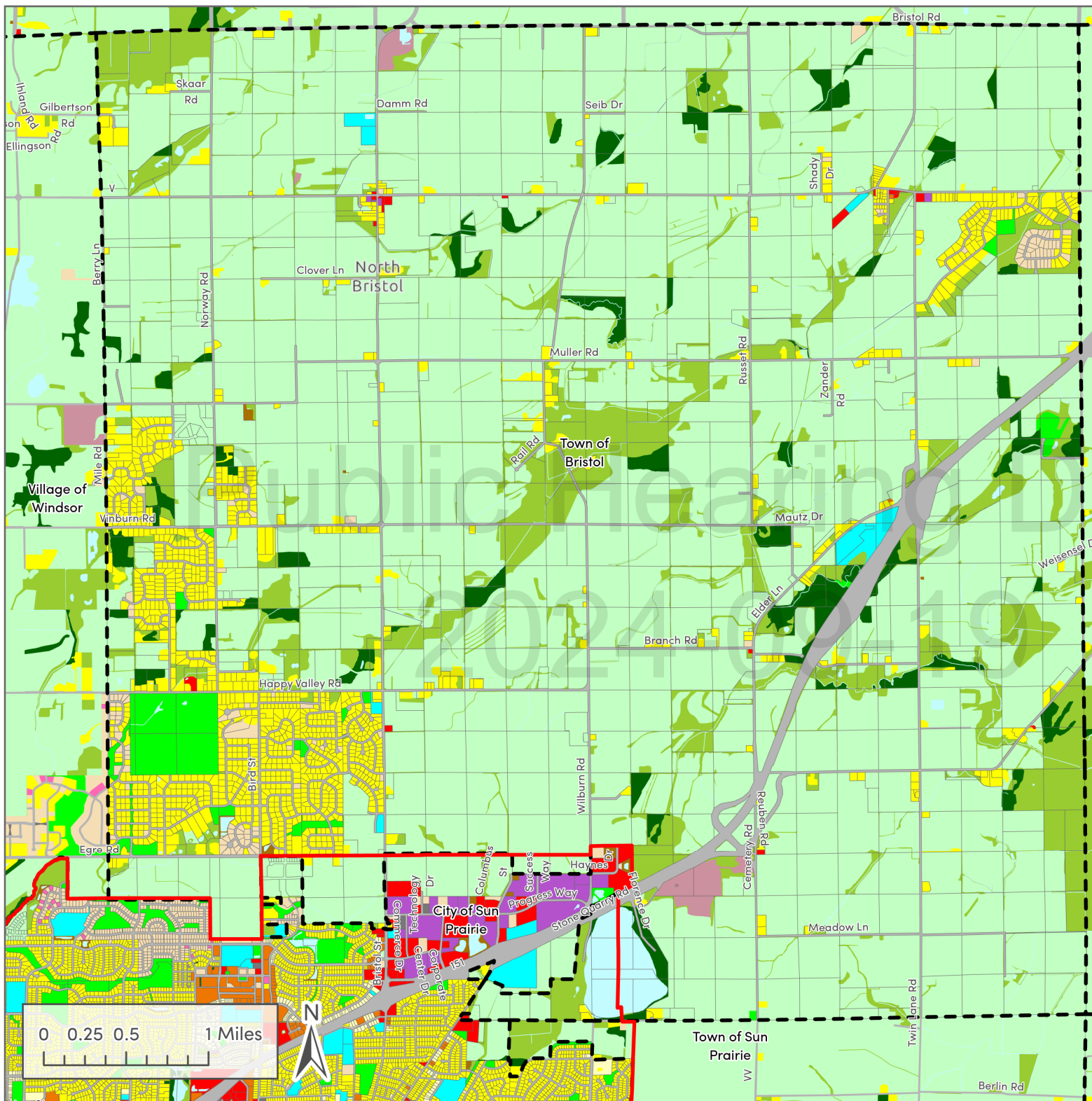
#### 2020 Land Use

- Agriculture
- Commercial Sales or Services
- Communications or Utilities
- Extractive
- Industrial
- Institutional or Governmental
- Multi-Family
- Open Land
- Outdoor Recreation
- Right of Way
- Single Family
- Transportation
- Two Family
- Under Construction
- Vacant
- Water
- Woodland

Data sources: Esri, Dane County, CARPC

Map information is believed to be accurate but may contain errors due to the dynamic nature of source data. For general reference purposes only.

Date: 9/10/2024





# Town of Bristol

Map I-2

## Future Land Use

### Legend

#### Boundaries

- Urban Service Area
- Parcels
- Municipal Boundaries
- Future Development Area

#### Future Land Use

- Possible Commercial & Industrial
- Future Residential
- Commercial
- Sales or Services
- Communications or Utilities
- Extractive
- Industrial
- Institutional or Governmental
- Multi-Family
- Open Land
- Outdoor Recreation
- Right of Way
- Single Family
- Transportation
- Two Family

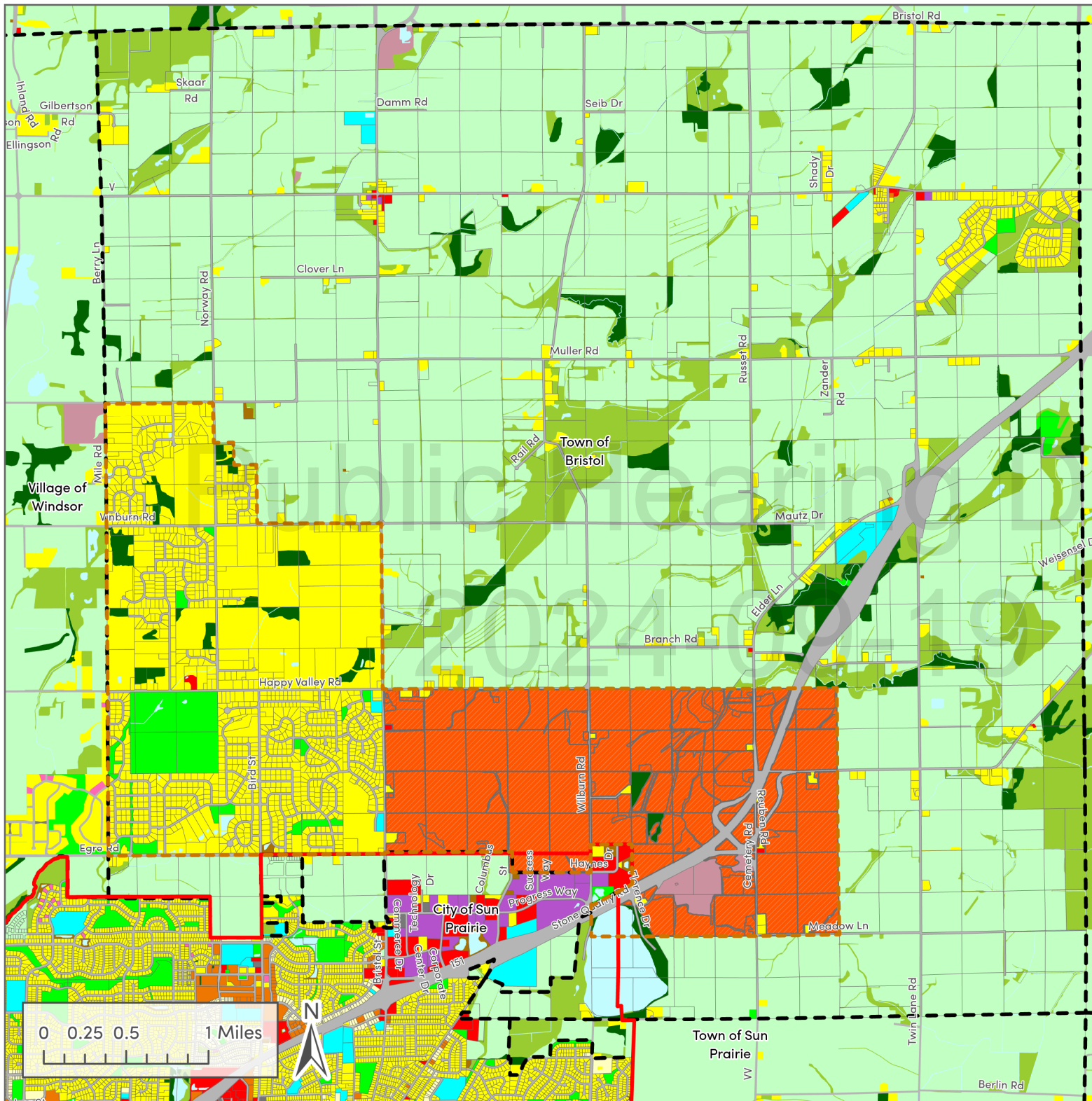
#### 2020 Land Use

- Agriculture
- Cemetery
- Commercial Forest
- Under Construction
- Vacant
- Water
- Woodland

Data sources: Esri, Dane County, CARPC

Map information is believed to be accurate but may contain errors due to the dynamic nature of source data. For general reference purposes only.

Date: 9/10/2024



## *Appendices*

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I. Community Feedback

II. Implementation Schedule

III. Green Infrastructure Best Management Practices (BMPs)

IV. PASER Rating System

V. Adoption Resolution

Public Hearing Draft  
2024-09-19

# Appendix I: Community Feedback

Public Hearing Draft  
2024-09-19



During September and October of 2023, the Town conducted an online survey to ask residents what they felt was important to consider for the on-going update of the Comprehensive Plan. The survey asked residents what factors in Bristol were important to them for shaping the community's growth and development trajectory in the coming decades. The survey was advertised online, by word of mouth, and on posters at Town Hall. Mid-way through the survey period, a postcard was mailed to all residences in the Town. **In total, 287 residents filled out the survey, a bit more than 10 percent of the adult population.** The demographic make-up of respondents in the survey sample was similar to the population. In other words, the views expressed by survey respondents are likely to be representative of Bristol as a whole.

**The core issues expressed through written comment and in answer selections were very similar to the tone of the current comprehensive plan.** The following are topics that received strong support and were mentioned frequently in written responses. These will serve as the basis for a set of goals and objectives for the next 20 years.

#### **1. Keep taxes low and maintain a commensurate level of service.**

Existing services and facilities appear to be adequate for many residents. Half of the survey participants commented on at least one service or facility. But with no more than two dozen comments at most, none of those issues (trash/recycling, road maintenance, etc.) rose to the level of community-wide concern. This is not to say that the Town should not address these issues, only that there is not a need to make one or more of these issues cornerstones of a new plan covering 20 years of the future. The issues raised can be better addressed through short-term planning, community meetings, and budget writing.

**Three out of five respondents (170 total) were opposed to property tax increases funding additional or improved services or facilities.** When asked which existing comprehensive plan goals needed update/review (i.e. included in one form or another in the new plan), 66% selected "Keep real estate taxes as low as practicable." **Roughly one third (34%) of respondents indicated a willingness for a small tax increase.** However, there was no consensus that the overall level of services and facilities currently provided by the Town was inadequate. As many respondents indicated that they were comfortable with current services and facilities as respondents indicated a deficiency in a particular issue.



## **2. Protect natural resources while allowing recreational access.**

**Survey respondents identified protection/preservation of natural resources and other aspects of rural life among their top concerns.** Multiple related goals from the existing plan received strong support from the community:

- Recognize the value of the community's groundwater. (50%)
- Maintain and improve the Town's park and open space areas. (44%)
- Recognize the many natural resources in the area. (41%)

A simple majority of respondents listed atmosphere, natural areas, and recreation as concerns of theirs. **Respondents also frequently listed issues related to natural resources and recreation in their top three most important issues facing the Town:**

- Provision of recreational trails, including bicycling, walking, and equestrian (40%)
- The rural atmosphere and vistas/views of agricultural life (29%)
- Environmental pollutants such as nitrates (23%)
- Light pollution and/or maintaining dark skies (23%)

## **3. Support farming and preserve farmland.**

Agriculture-related topics were repeatedly selected from among the list of fourteen topics of concern as well as goals needing review in the old comprehensive plan. **Nearly 30% of respondents listed "the rural atmosphere and vistas/views of agricultural life" in their top three concerns.**

Not only did respondents respond with strong support for maintaining farmland for its scenic value, but they also emphasized the importance of agriculture as a vital economic base and cultural cornerstone of the community.

- **Over half (55%) of respondents selected protecting the agricultural base of the town,**
- **Just over half (52%) selected limiting non-farmland uses, AND**
- **Nearly half (47%) selected controlling the location of those uses** as goals from the current plan needing review.

Respondent concerns also emphasize the importance of farming to the community. Maintaining large, contiguous tracts of farmland and protecting high-quality soils were both selected frequently.

## **4. Manage growth in Bristol in cooperation with neighboring communities, keeping a similar (or slightly slower) rate of development as compared to the past several decades.**

Anticipating growth inside and outside the current Town of Bristol borders and being able to control that to the greatest extent possible was very much implicit in the key topics mentioned in items one through three above. It was explicit in the goals and concerns that respondents expressed, for example resolving boundary and annexation issues (47%) and having a complete strategy for Town improvement and growth management (38%).



**Intergovernmental planning was heavily favored based on the section of the survey devoted to actions the Town could take to address current challenges.** Four of those actions suggesting collaboration with neighboring communities received between 39 and 49 percent support:

- Enhancing Token Creek as an environmental resource,
- Crafting boundary agreements,
- Planning appropriate transitions from neighboring municipalities' development into Town development, AND
- Planning connections between recreational and non-motorized transportation networks.

A plurality of respondents (44%) felt that the pace of growth in Bristol had “been about right” over the past few decades. **An additional forty-five percent (45%) of respondents felt the pace of development had been either too fast or much too fast.**

Public Hearing Draft  
2024-09-19



August 25, 2023

Town of Bristol Comprehensive Plan Update

Community Survey Questions

1. In 2022, what was your total household income?
  - a. Less than \$10,000
  - b. \$10,000 to \$14,999
  - c. \$15,000 to \$24,999
  - d. \$25,000 to \$34,999
  - e. \$35,000 to \$49,999
  - f. \$50,000 to \$74,999
  - g. \$75,000 to \$99,999
  - h. \$100,000 to \$149,999
  - i. \$150,000 to \$199,999
  - j. \$200,000 or more
2. What is your age?  
[open response]
3. How many people reside in your home? (related and unrelated)  
[open response]
4. Do you rent or own your home?  
Rent  
Own
5. Which description best fits your home?
  - a. Single-family home detached from other units
  - b. Duplex
  - c. Structure with multiple units
  - d. Trailer or mobile home

6. Do you farm or receive income from farming operations in Bristol?
  - a. Yes
  - b. No
7. What percent of your total household income is spent on housing costs? (rent, mortgage payments, property taxes, utilities, etc.)
  - a. Less than 30%
  - b. 30% or more
8. What percent of your total household income is spent of transportation costs? (vehicle payments, maintenance, fuel, etc.)
  - a. Less than 15%
  - b. 15% or more
9. What is your race?
  - a. White
  - b. Black or African American
  - c. American Indian or Alaska Native
  - d. Asian
  - e. Native Hawaiian or Other Pacific Islander
  - f. Some Other Race
  - g. Two or More Races
10. Are you of Hispanic, Latino, or Spanish origin? (For this survey, Hispanic origins are not races.)
  - a. No, not of Hispanic, Latino, or Spanish origin.
  - b. Yes, Mexican, Mexican Am., Chicano.
  - c. Yes, Puerto Rican.
  - d. Yes, Cuban.
  - e. Yes, another Hispanic, Latino, or Spanish origin.

11. The Town's current Comprehensive Plan (adopted in 2005) covers many topics. As required by law, the Town is currently updating the plan. A key component of the update is ensuring that the vision and goals laid out in 2005 still apply today. The primary goals in the current plan are listed below. More information about each goal is available by clicking the hyperlink provided. Goals are supported by one or more objectives, recommendations, and policies. More detail can be found on pages B-1 through B-14 of the Comprehensive Plan.

1. Organize and plan a complete strategy for Town improvement and growth management.
2. Improve the quality of life within the Town.
3. Keep real estate taxes as low as practicable.
4. Explore sharing services and equipment with other municipalities.
5. Promote the development of housing for residents of Bristol and encourage a range of housing choices that meets the needs of persons of various income levels and of all age groups and persons with special needs.
6. Support the maintenance and rehabilitation of the town of Bristol's existing housing stock.
7. Consider the construction of multi-family housing in appropriate areas of the Planning Area.
8. Preserve and develop high quality housing areas to satisfy the demand for an adequate amount of dwellings of various types and densities.
9. Plan for new streets and improve the efficiency of the major street network in the Planning Area.
10. Embrace other forms of transit other than automobiles.
11. Maintain and improve the Town's park and open space areas.

12. Maintain an adequate system of public infrastructure and buildings in the town of Bristol.
13. Protect the agriculture base of the Town.
14. Recognize the many natural resources of the area.
15. Strengthen the human and cultural resources of the area.
16. Recognize the value of the community's groundwater.
17. Develop a policy of providing limited local park and recreation facilities serve the Town.
18. Identify and preserve where possible, historical, geological, and archaeological sites.
19. Accommodate the changing commercial economy.
20. Place an emphasis on retaining businesses in the Planning Area.

21. Support ongoing education and technical training.
22. Recognize the importance of common concerns and interests of area governmental units.
23. Create a balanced pattern of related land uses.
24. Limit the growth of non-farm land uses within the Town.
25. Preserve, enhance, and expand single-family housing in the planned development areas.
26. Control the location of new, non-farm residential development
27. Provide greater efficiency of services and preserve agriculture uses.
28. Provide an adequate framework for the expansion of commercial uses in Town of Bristol.
29. Provide for farm related industrial development.
30. Provide for mineral extraction opportunities.
31. Coordinate and share community facilities and services where possible.
32. Resolve annexation and boundary issues with the city of Sun Prairie.
33. Encourage the participation of the public in carrying out the Comprehensive Plan.

**Based on your understanding of the goals (and their associated objectives, recommendations, and policies) would you like to see any changed/updated?** [pop-up for each goal listing associated objectives; button selection with comment lines]

12. Which of the following issues concern you? (Select all that apply.)

- Provision of recreational trails, including bicycling, walking, and equestrian
- Provision for UTV and/or golf cart use on Town roads
- Short-term residential rentals through services such as AirBnB
- Flooding and drainage
- Environmental pollutants such as nitrates
- Light pollution and/or maintaining dark skies
- Utility-scale solar in the town within agricultural zoning (i.e. projects generating energy for offsite rather than personal/local use)
- Farm animals kept on smaller, non-farm parcels
- The ability for residential property owners to add additional dwelling units to lots with preexisting dwellings. [pop-up explanation] *This could include Accessory Dwelling*

*Units (ADUs) that are standalone structures like “tiny homes” or en suite units that are attached to or created within a primary structure. Other terms for these sorts of housing include “granny flats” or “mother-in-law units.”*

- Non-traditional commercial use of agriculture-zoned lands e.g. wedding barns

- The rural atmosphere and vistas/views of agricultural life
- Protection of high-quality soils
- Ensuring the viability of farming within Bristol through large, contiguous tracts of farmland
- Another long-range, Town issue or issues (please list)

13. Of the above issues, which three are *most important* to you?

[Ranked selection #1–3, with “say more about this issue” option]

14. The Town is initiating discussions with Windsor and Sun Prairie about long-range planning. These discussions include areas of mutual interest and points of conflict between the communities. Which of the following would you like to see the Town pursue? [Select all that apply]

- a. Work with area landowners and operators to designate lands in the northwestern/western portion of the Town adjacent to Windsor as Agricultural Enterprise Area (AEA) and collaborate with Windsor on other initiatives that encourage development of agri-business in the border area of the communities.
- b. Work with Sun Prairie to find ways to minimize development adjacent to Token Creek and protect lands that would enhance Token Creek as an environmental resource. Possible steps include special designations for the lands, purchase and protection through conservation easements, transfer of development rights away from the area, or cooperative agreements that prevent development.
- c. Create a collaborative plan with Sun Prairie for the eventual extension of Egge Road to Highway 151.
- d. A boundary agreement between Windsor and Bristol that formalizes the intended timing for annexation, development, or preservation.
- e. A boundary agreement between Sun Prairie and Bristol that formalizes the intended timing for annexation, development, and preservation.



- f. Work with Sun Prairie on a plan that transitions style, scale, height, massing, etc. of development from an urban character to a more rural character where the communities meet.
  - g. Work with both Sun Prairie and Windsor to jointly plan potential recreational and non-motorized transportation networks existing between the three communities.
  - h. Other issue(s) [Describe]
15. Dane County has grown rapidly over the past several decades and it is projected to continue to grow rapidly in the coming decades. How do you feel about the pace of development in Bristol?
- a. Growth has been much too slow!
  - b. Growth has been too slow.
  - c. Growth has been about right.
  - d. Growth has been too fast.
  - e. Growth has been much too fast!
16. Are there any facilities or services that the Town does not offer that you wish it would?  
[open response]
17. Major changes to levels of Town services, new facilities, and improvements to existing facilities would require increasing the mill rate (raising taxes) in the Town. Recall the issues that concern you (Question 12), your top three priority issues (Question 13), and any additional facilities and services you would like to see (Question 16). How aggressively should Town officials pursue the ability to raise the mill rate and increase taxation to fund these outcomes?
- a. Very aggressively. I am willing to be taxed considerably more to address these topics.
  - b. Somewhat aggressively. I am willing to be taxed a little bit more.
  - c. Not at all. I do not wish to see any changes to taxes to address these topics.
18. Do you have any other thoughts or suggestions that you would like to share with the Town about long-range planning in Bristol? [open response]

Appendix II:  
Implementation Schedule  
2024-09-19

Goals	Objectives	Strategies	Tasks	Responsibility	Timeframe	Notes
Support the future of farming	1. Preserve and enhance prime agricultural soils and connected agricultural tracts.	a. Discourage subdividing agricultural land and other land use changes that negatively affect the connectedness of agricultural lands	i. Create a decision matrix that evaluates the impact of land development decisions on farming operations	Plan Commission	6 months to 1 year from start. Within 5 years to complete all development review processes. (See "Natural Resources" Objective #2 for other tasks.)	
			ii. Establish Purchase of Development Rights (PDR) or Transfer of Development Rights (TDR) programs	Town Board, Plan Commission	5 years	
			iii. Apply to have appropriate farmlands designated as Agricultural Enterprise Areas (AEA) by the State	Town, Operators	5 years	Town Chair reach out to landowners who may be willing to champion - start with Windsor landowners who lead the program there, as many also have land in Bristol
			iv. Establish a group to support AEA designation	Town, Operators	2 to 3 years	
		b. Discourage the development of lands with high-quality soil	i. Map soils and reference during rezone and variance requests	CARPC, Plan Commission, Town Board	Ongoing	
			ii. Create a decision matrix for use while making development decisions	Plan Commission, Town Board	6 months to 1 year from start. Within 5 years to complete all development review processes. (See "Natural Resources" Objective #2 for other tasks.)	
		c. Mitigate impacts on drainage districts, downstream properties and water resources resulting from stormwater runoff	i. Review existing local, county and state standards regulating stormwater management and consider whether the Town can or should adopt a stricter local standard to protect downstream property from stormwater runoff.	Town Board, drainage districts	2 to 3 years	
			ii. Promote stormwater management on private property through practices such as rain gardens and native plantings	Town	Ongoing	
			iii. Encourage practices such as cover-cropping and native buffers that can lower stormwater runoff and soil erosion	CARPC, Town	Ongoing	
		d. Encourage the implementation of best management practices that improve soil health and nutrient management while preventing degradation of downstream water resources	i. Aid local farmers in participating in a producer-led group focused on nonpoint source pollution abatement.	CARPC, Town	Ongoing	
	2. Remove barriers to additional commercial agricultural development	a. Accommodate non-traditional agricultural land uses and changes to agribusiness practices	i. Closely monitor agribusiness trends. Periodically discuss new developments at Plan Commission and Town Board	Town	Ongoing, Annual updates	
			ii. Audit Town zoning code and ordinances. Review which business practices are permitted as-of-right, conditionally by permit, or that are not discussed. Adjust this to be inclusive and encouraging of new agribusiness and agritourism ventures	Plan Commission	6 months to 1 year	
			iii. Apply for state grant for ag transportation projects—upgrade 3 mi of Bristol Rd from VV to N to county roads standards—ARIP program—Sept 30 deadline	Town	Annually or as needed	
		b. Encourage agriculture-related commercial light industrial development within designated areas	i. Maintain in the Future Land Use Map areas appropriate for commercial and industrial development.	Town	Ongoing	
	3. Keep non-agricultural land development rates slow	a. Limit non-agricultural uses.	Acomplishing this objective is reliant on tasks listed above under Objective 1, strategies a. and b.	Plan Commission, Town Board	Ongoing	
		b. Plan for an approximate 1 percent or lower compound annual growth rate—roughly 18 new housing units per year over 30 years. Eighteen unit houses approximately 50 people and requires about 40 acres of land.		Plan Commission, Town Board	Ongoing	
		c. Limit residential development to designated areas in the Town as described and mapped in this plan.	Map designated areas.	Plan Commission, Town Board	Ongoing	

Goals	Objectives	Strategies	Tasks	Responsibility	Timeframe	Notes
Value local history and cultural resources as a part of the Town's heritage and identity	1. Document oral and informal histories of Bristol.	a. Support local senior programs.	i. Organize history chats with Bristol seniors to document oral histories.	Town	6 months to 1 year	
			iii. Seek assistance from residents to create a local history document.	Town, Residents	1 to 2 years	
		b. Support the efforts of Dane County Historical Society, DeForest Area Historical Society, Sun Prairie Historical Library & Museum, and Sun Prairie Historical Society and their efforts to document local histories that are a part of Bristol's past.	i. Play an active role in Bristol residents' efforts to record historical information.	Town	Ongoing	
	2. Catalog physical traces of local history.	a. Document town cemeteries.	i. Photograph and record information from headstones.	Town	1 to 2 years	
			ii. Map burial plots and digitize burial records.	Town	1 to 2 years	
			iii. Publish an online map for residents conducting genealogical research.	Town	1 to 2 years	
		b. Survey and document any historical structures and sites in the town.	i. Add a local history section to the Town website.	Town	6 months to 1 year	
		c. Discourage development in areas where landforms and conditions suggest high potential for archaeological sites.	<i>This is an ongoing process. No immediate task is required. (See note below regarding landform and conditions)</i>		Ongoing	
	3. Increase public awareness and appreciation of local history and culture.	a. Work with WHS, county/local historical societies, tribes, and/or residents to provide interpretive materials, plaques, markers, etc.	i. Publicize the small structure currently located in Bristol Gardens Park as a town museum. This building was repainted and moved from the Davis Farm to a permanent foundation in its current location by a local housing developer.	Town	1-3 Years	
		b. Support local events, community festivals, and tourism activities that celebrate Town history, heritage, culture.	Plan a "History Night" event at one of the Town parks.	Town, Parks Committee	6 months to 1 year	
	4. Protect historic and archaeological resources during the development review process.	a. Consult with WHS (and/or Dane County Planning/Dane County Historical Society) when reviewing development proposals, rezones, land divisions, highway projects, etc. in areas with known or potential historic/archaeological sites.	<i>This is an ongoing process. No immediate task is required. Certain land forms, like riparian corridors, have higher likelihood for the presense of archeological resources. Several sites have been identified already by the Wisconsin Historical Society. Precise locations of these sites is published selectively to discourage distrubance and looting. Town staff and officials should contact WHS to familiarize themselves with these areas. Additionally, State law requires all ground disturbing development cease and WHS be contacted if human remains are discovered.</i>	Town, WHS	Ongoing	
		b. When historic/archaeological resources are present in a proposed development area, encourage preservation/integration into the new development (for example, make a historic barn a part of a new subdivision).		Town, WHS	Ongoing	

Goals	Objectives	Strategies	Tasks	Responsibility	Timeframe	Notes
Plan growth and development in partnership with neighboring communities.	1. Maintain strong working relationships with the City of Sun Prairie and the Village of Windsor, including joint enforcement and decision-making for border areas.	a. Resolve annexation and boundary conflicts with neighboring communities.	i. As necessary, renew boundary agreements with partner communities, e.g. Sun Prairie and Windsor.	Town	Every 10 years	
			ii. Revisit the terms of boundary agreements with partner communities every 10 years.	Town	Every 10 years	
		b. Maintain communication with the City of Sun Prairie and the Village of Windsor about their growth and development plans.	i. Schedule check-ins with Sun Prairie and Windsor planning staff about upcoming developments along or near shared borders once per quarter.	Town Board Chair, Town Staff	Ongoing	
			ii. Send communication directly to Sun Prairie and Windsor planning staff when considering rezones, conditional use permits, etc. near community borders.	Town Staff	Ongoing	
		c. Work with the City of Sun Prairie to smoothly transition development intensity/density to rural levels where urban and rural development is planned to meet.	i. Establish a joint planning area with Sun Prairie.	Town Board Chair, Town Staff	5 years	
			ii. Explore the viability of other options, such as: Writing a Cooperative Plan with the City of Sun Prairie. Establishing an Extraterritorial Zoning ordinance with the City of Sun Prairie.	Town Board Chair, Town Staff	5 years	

Public Hearing Draft

2024-09-19

Goals	Objectives	Strategies	Tasks	Responsibility	Timeframe	Notes
Protect and improve natural resources that contribute to residents' health, the rural atmosphere, and recreational opportunities.	1. Develop standards to ensure that new development is compatible with the Town's rural character.	a. Limit light pollution from new and existing developments to protect the rural atmosphere and views of the night sky.	i. Form an ad hoc committee to assist the Town with the following types of tasks: Adopt a lighting ordinance, work with City of Sun Prairie and Village of Windsor staff to adopt lighting standards for development adjacent to the Town, or seek recognition as a dark sky community.	Town Board	5 years	
	2. Prioritize farmland and environmental resource preservation in the development process.	a. Draft policies for the development review process which favors projects that:Avoid disturbance of productive agricultural land; Avoid disturbance of floodplains, wetlands and other areas adjacent to water resources or wooded steep slopes and require appropriate vegetated buffers surrounding such resources; Minimize the number and length of driveways; Avoid fragmentation of contiguous wooded lots over 20 acres.	Actions may be divided by topic area.	Town Board, Plan Commission	6 months to 1 year from start. Within 5 years to complete all development review processes. (See "Farming" Objective #2 for other tasks.)	
	3. Protect and improve the Town's natural environment.	a. Improve surface and groundwater quality through adoption of local ordinances, where appropriate, or through educational / awareness programs.	i. Provide residents with educational resources about point source and non-point pollution prevention and detection.	Town	Ongoing	Discreet Steps Include: Schedule WDNR and UW Cooperative Extension information sessions for residents and producers. • Publicize/schedule DATCP assistance with nutrient management plans for farm operators.
			ii. Review existing local, county and state standards regulating stormwater management and groundwater protection and consider whether the Town can or should adopt stricter local standards to protect groundwater from contamination and downstream property from stormwater runoff.	Town, Town Board	3 to 4 years	
			iii. Reduce chlorides pollution in surface waters and drinking water by encouraging and implementing best management practices to reduce the use of salt for de-icing and in water softeners.	Town, Town Board	Ongoing	
			iv. Regularly send Public Works staff to Wisconsin Salt Wise trainings and local equipment open house events and implement best practices to reduce salt usage while maintaining safe roads (you can do both).	Public Works	Annual	
			v. Provide residents and private businesses with materials about the efficient use of salt for de-icing driveways and sidewalks and in water softeners.	Town	Ongoing	
		b. Limit potentially disruptive land uses and activities adjacent to bodies of water and where such land uses or activities can't be avoided, provide mitigation practices to prevent detrimental impacts on water resources.	i. Encourage greater buffer distances for development adjacent to bodies of water such that detrimental impacts are avoided (refer to "Stewardship Areas" delineated by CARPC).	CARPC, Town	Ongoing	
			ii. Encourage use of native landscaping, vegetated buffer strips in riparian areas, ag conservation practices, etc.	CARPC, Town	Ongoing	
		c. Work with CARPC and other agencies to identify areas that are sensitive to disruption or present an opportunity for restoration while making land use decisions.	i. Prevent land disturbances or development in designated "Protection Areas."	CARPC, Town	Ongoing	
			ii. Discourage land disturbances or development within designated "Stewardship Areas," unless such disturbances are intended to enhance or restore the natural functions of the area (e.g., wetland restoration on formerly drained wetland).	CARPC, Town	Ongoing	
		d. Work with the Dane County Tree Board and CARPC to survey and protect high-quality or old growth forest remnants.	i. Protect the Town's remaining acres of old growth forest through conservation easements, public land dedication, and encouraging development in more suitable locations.	CARPC, Town	1 to 2 years	
			ii. Aid local landowners in conservation efforts or securement of grant funding.	Town	Ongoing	
			iii. Provide residents with educational resources about the value of woodlands and management techniques.	CARPC, Town	Ongoing	
			iv. Apply to Dane County Office of Energy and Climate Change's (OECC) Climate Champions program for recognition of completed woodland protection efforts.	Town	2 to 3 years	
		e. Encourage pollinator-friendly native trees, shrubs, and flowering plants and minimize land management activities (prescribed fires, haying, herbicide use, etc.) within the High Potential Zone (species likely present) for the federally endangered Rusty Patched Bumble Bee in the southwest corner of the Town.		CARPC, Town	Ongoing	



Goals	Objectives	Strategies	Tasks	Responsibility	Timeframe	Notes
Keep property taxes as low as practicable while providing essential services to residents.	1. Provide residents with essential services.	a. Communicate to residents what type and quality of service they can expect.	i. Provide a list of services in a format that is readily available to residents, e.g. on the Town website and in important Town documents such as this plan.	Town	1 year	
			ii. Maintain recreational facilities for the use and enjoyment of Town residents, e.g. lighted ice rink and baseball backstop at Star Crest Trail Park, volleyball court and picnic area at the Town Hall, picnic shelter, grills, volleyball court and baseball backstop at Sunset Meadow Park, etc.	Public Works	Ongoing	
			iii. Return roads to safe and passable conditions within 24 hours after a storm event.	Public Works	Ongoing	
			iii. Maintain hours of operation at the recycling center that are consistent and convenient for Town residents.	Public Works	Ongoing	
			iv. Draft a service plan or service plans where necessary.	Public Works	Varies, Ongoing	
			v. Select a consistent way to distribute information to residents (flyers, email, social media site, etc.) and advertise this to new and existing residents.	Town	1 year	
			vi. Distribute postcards to all residents (and via flyers, email list, Facebook, NextDoor, etc.) clearly explaining where to find up-to-date info.	Town		
			vii. Add language such as "Visit Town website for updates / Sign up for notifications at __" on all meeting agendas and other town documents.	Town	1 year	
			viii. Create posters/flyers with basic information about how to get information about Town meetings at local destinations like the recycling center, Weber Tires, the golf course, etc.	Town	1 to 2 years	
		b. Maintain stable and equitable levels of service.	i. Note service levels and monitor for changes and inconsistencies due to geography or income, for example.	Town, Public Works	Ongoing, Annually	
			ii. Plan for future population growth by an average of one percent (1%) per year.	Town	Ongoing	
	2. Seek out opportunities to lower expenditures.	a. Coordinate and, where possible, share infrastructure, facilities, services, and equipment with neighboring municipalities.	i. Schedule quarterly meetings with parties from adjacent municipalities responsible for facilities planning and maintenance, e.g. snowplow operators.	Town	Ongoing, Quarterly	
		b. Monitor and apply for grant opportunities to fund upkeep and improvement of infrastructure, facilities, services, and equipment.		Town, Public Works, Parks Committee	Ongoing, Annually	
		c. Support the Public Works department to adopt industry best practices in snow and ice management .		Town, Public Works	Ongoing	

**Appendix III:**  
**Green Infrastructure**  
**Best Management Practices**  
**(BMPs)**



1



2



3



4



5



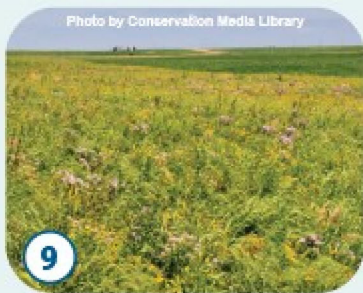
6



7



8



9



10

### 1. **Farm Ponds:**

Ponds formed by excavation or embankments are commonly used as water sources for livestock or irrigation and can also detain runoff and remove some pollutants.

### 2. **Water and Sediment Control Basins:**

Basins formed by an embankment across a drainageway detain runoff and trap sediment from farmland, reducing downstream flooding and improving water quality.

### 3. **Wetland Restoration:**

Restoring drained wetlands can detain and infiltrate runoff, storing floodwaters, improving water quality and providing valuable habitat.

### 4. **Floodplain and Oxbow Restoration:**

A connected, functional floodplain attenuates floods, dissipates energy, enhances water quality and stream and wetland habitat, and retains water during periods of high flow and releases it back into the stream when flows are lower. Oxbow lakes provide valuable habitat and water quality benefits.

### 5. **Saturated Buffers:**

Areas of perennial vegetation between agricultural fields and waterways are designed to capture tile outlet drainage and distribute water along the buffer, which absorbs water and removes nitrate.

### 6. **Terraces:**

Earthen structures transform long slopes into a series of shorter slopes, intercepting runoff, slowing runoff, reducing erosion, and improving downstream water quality. They can also provide cover for wildlife.

### 7. **Prairie Strips:**

Strategically placed strips of native perennial vegetation (grasses and forbs) within farm fields retain rainfall while capturing soil and nutrient runoff & enhancing biodiversity.

### 8. **Cover Crops:**

Rotating cover crops with annual crops can reduce soil disturbance and maintain living plant cover, reducing runoff and nutrient losses while enhancing agricultural resilience.

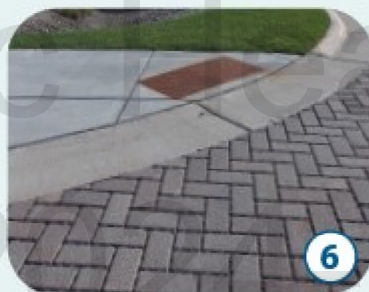
### 9. **Native Plant Vegetation:**

Deep-rooted native plants build deep, permeable soils that enhance infiltration and reduce runoff while enhancing biodiversity.

### 10. **Soil Health Improvements**

Managing for soil health reduces erosion and improves water quality, maximizes water infiltration to reduce flooding, improves nutrient cycling, saves money on inputs, and improves resiliency of farmland.





### 1. **Greenways:**

Vegetated drainageways can slow down runoff and provide water quality and ecological benefits.

### 2. **Raingardens/Bioretention:**

These shallow, vegetated basins collect and infiltrate runoff from rooftops, sidewalks, streets, etc. to reduce storm runoff.

### 3. **Tree Trenches/Urban Forest Enhancements:**

Urban trees can intercept water in their canopies and infiltrate water in their root zones, reducing storm runoff.

### 4. **Greenroofs:**

Vegetated roofing systems with live plants and a growing medium over a waterproof barrier reduce runoff, keeps buildings cooler in summer, and provides aesthetic and ecological benefits.

### 5. **Bioswales:**

These vegetated channels are designed to safely slow down stormwater runoff to reduce peak runoff rates, reduce pollutants and runoff volume through infiltration, and provide aesthetic and ecological benefits.

### 6. **Porous Pavement:**

Paved surfaces designed to allow water to infiltrate through them to an underlying storage layer can reduce runoff and remove pollutants.

### 7. **Native Landscaping:**

The deep roots of native plant species can enhance water infiltration into the soil, reducing stormwater runoff while providing habitat and aesthetic value.

### 8. **Rain Barrels/Cisterns:**

Stormwater can be collected for reuse for irrigation, toilet flushing and industrial processes, reducing stormwater runoff and conserving potable water supplies.

### 9. **Green Alleys/Streets/Parking Lots:**

Integrated stormwater management systems incorporating vegetation, soil, and engineered elements (e.g., permeable pavement) slow, filter, and cleanse stormwater runoff.

### 10. **Urban Floodplain/Stream Restoration**

A connected, functional floodplain attenuates floods, dissipates energy, enhances water quality and stream and wetland habitat, and retains water during periods of high flow and releases it back into the stream when flows are lower. Urban green space also provides recreational and aesthetic benefits.

# Appendix IV: PASER Ratings

2024-09-19



*Pavement Surface Evaluation and Rating*

# PASER Asphalt Roads Manual

RATING  
**10**



RATING  
**7**



RATING  
**4**



RATING  
**1**





# Contents

Introduction	2
Asphalt pavement distress	3
Evaluation	4
Surface defects	4
Surface deformation	5
Cracks	7
Patches and potholes	12
Rating pavement surface condition	14
Rating system	15
Rating 10 & 9 – Excellent	16
Rating 8 – Very Good	17
Rating 7 – Good	18
Rating 6 – Good	19
Rating 5 – Fair	20
Rating 4 – Fair	21
Rating 3 – Poor	22
Rating 2 – Very Poor	24
Rating 1 – Failed	25
Practical advice on rating roads	26

This manual is intended to assist local officials in understanding and rating the surface condition of asphalt pavement. It describes types of defects and provides a simple system to visually rate pavement condition. The rating procedure can be used as condition data for the Wisconsin DOT local road inventory and as part of a computerized pavement management system like PASERWARE.

The PASER system described here and in other T.I.C. publications is based in part on a roadway management system originally developed by Phil Scherer, transportation planner, Northwest Wisconsin Regional Planning Commission.

Produced by the T.I.C. with support from the Federal Highway Administration, the Wisconsin Department of Transportation, and the University of Wisconsin-Extension. The T.I.C., part of the nationwide Local Technical Assistance Program (LTAP), is a Center of the College of Engineering, Department of Engineering Professional Development, University of Wisconsin–Madison.

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Printed on recycled paper

*Pavement Surface Evaluation and Rating*

# **Asphalt Roads**

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Susan Kummer, Artifax, *designer*

## *Pavement Surface Evaluation and Rating*

# Asphalt PASER Manual

A local highway agency's major goal is to use public funds to provide a comfortable, safe and economical road surface—no simple task. It requires balancing priorities and making difficult decisions in order to manage pavements. Local rural and small city pavements are often managed informally, based on the staff's judgment and experience. While this process is both important and functional, using a slightly more formalized technique can make it easier to manage pavements effectively.

Experience has shown that there are three especially useful steps in managing local roads:

1. Inventory all local roads and streets.
2. Periodically evaluate the condition of all pavements.
3. Use the condition evaluations to set priorities for projects and select alternative treatments.

A comprehensive pavement management system involves collecting data and assessing several road characteristics: roughness (ride), surface distress (condition), surface skid characteristics, and structure (pavement strength and deflection). Planners can combine this condition data with economic analysis to develop short-range and long-range plans for a variety of budget levels. However, many local agencies lack the resources for such a full-scale system.

Since surface condition is the most vital element in any pavement management system, local agencies can use the simplified rating system presented in this *Asphalt PASER Manual* to evaluate their roads. The PASER ratings combined with other inventory data (width, length, shoulder, pavement type, etc.) from the WisDOT local roads inventory (WISLR) can be very helpful in planning future budgets and priorities.

WISLR inventory information and PASER ratings can be used in a computerized pavement management system, PASERWARE, developed by the T.I.C and WisDOT. Local officials can use PASERWARE to evaluate whether their annual road budgets are adequate to maintain or improve current road conditions and to select the most cost-effective strategies and priorities for annual projects.

PASER Manuals for gravel, concrete, and other road surfaces, with compatible rating systems are also available (page 29). Together they make a comprehensive condition rating method for all road types. PASER ratings are accepted for WISLR condition data.

## *Asphalt pavement distress*

PASER uses visual inspection to evaluate pavement surface conditions. The key to a useful evaluation is identifying different types of pavement distress and linking them to a cause. Understanding the cause for current conditions is extremely important in selecting an appropriate maintenance or rehabilitation technique.

There are four major categories of common asphalt pavement surface distress:

### **Surface defects**

Raveling, flushing, polishing.

### **Surface deformation**

Rutting, distortion—rippling and shoving, settling, frost heave.

### **Cracks**

Transverse, reflection, slippage, longitudinal, block, and alligator cracks.

### **Patches and potholes**

Deterioration has two general causes: environmental due to weathering and aging, and structural caused by repeated traffic loadings.

Obviously, most pavement deterioration results from both environmental and structural causes. However, it is important to try to distinguish between the two in order to select the most effective rehabilitation techniques.

The rate at which pavement deteriorates depends on its environment, traffic loading conditions, original construction quality, and interim maintenance procedures. Poor quality materials or poor construction procedures can significantly reduce the life of a pavement. As a result, two pavements constructed at the same time may have significantly different lives, or certain portions of a pavement may deteriorate more rapidly than others. On the other hand, timely and effective maintenance can extend a pavement's life. Crack sealing and seal coating can reduce the effect of moisture in aging of asphalt pavement.

With all of these variables, it is easy to see why pavements deteriorate at various rates and why we find them in various stages of disrepair. Recognizing defects and understanding their causes helps us rate pavement condition and select cost-effective repairs. The pavement defects shown on the following pages provide a background for this process.

Periodic inspection is necessary to provide current and useful evaluation data. It is recommended that PASER ratings be updated every two years, and an annual update is even better.

## SURFACE DEFECTS

### Raveling

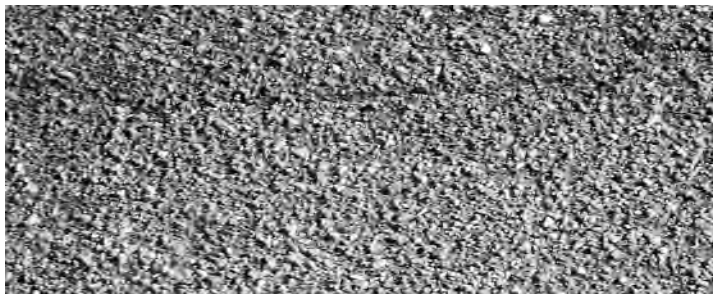
Raveling is progressive loss of pavement material from the surface downward, caused by: stripping of the bituminous film from the aggregate, asphalt hardening due to aging, poor compaction especially in cold weather construction, or insufficient asphalt content. Slight to moderate raveling has loss of fines. Severe raveling has loss of coarse aggregate. Raveling in the wheelpaths can be accelerated by traffic. Protect pavement surfaces from the environment with a sealcoat or a thin overlay if additional strength is required.

### Flushing

Flushing is excess asphalt on the surface caused by a poor initial asphalt mix design or by paving or sealcoating over a flushed surface. Repair by blotting with sand or by overlaying with properly designed asphalt mix.

### Polishing

Polishing is a smooth slippery surface caused by traffic wearing off sharp edges of aggregates. Repair with sealcoat or thin bituminous overlay using skid-resistant aggregate.



◀ Slight raveling. Small aggregate particles have worn away exposing tops of large aggregate.



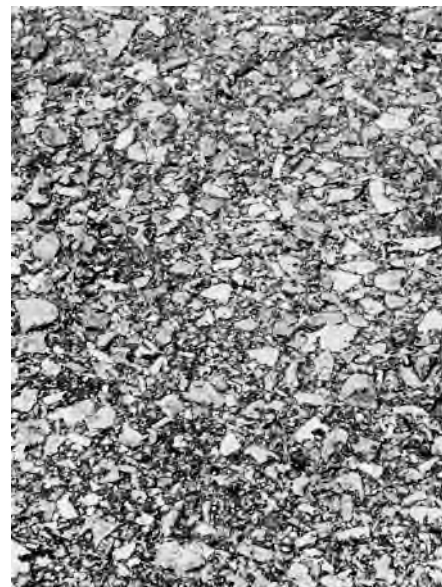
◀ Moderate to severe raveling. Erosion further exposes large aggregate.



◀ Severe raveling and loss of surface material.

Polished, worn aggregate needs repair. ▼

► Flushing. Dark patches show where asphalt has worked to surface.





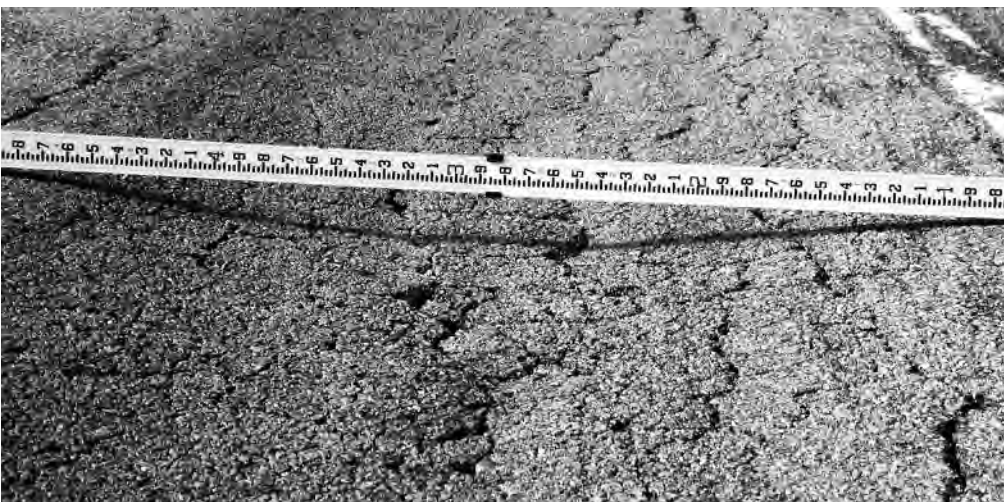
**SURFACE DEFORMATION***Rutting*

Rutting is displacement of material, creating channels in wheelpaths. It is caused by traffic compaction or displacement of unstable material. Rutting of any severity can cause safety concerns because water can collect in ruts increasing vehicle stopping distances and increasing the chances of hydroplaning. In freezing temperatures ice can form in ruts. Severe rutting (2 inches or more in depth) may be caused by base or subgrade consolidation. Repair minor rutting with microsurfacing or overlays. Severe rutting requires milling the old surface or reconstructing the roadbed before resurfacing.

◀ Even slight rutting is evident after a rain.



◀ Severe rutting over 2" caused by poor mix design.



◀ Severe rutting caused by poor base or subgrade.



## Distortion

Shoving or rippling is surfacing material displaced crossways to the direction of traffic. It can develop into washboarding when the asphalt mixture is unstable because of poor quality aggregate or improper mix design. Repair by milling smooth and overlaying with stable asphalt mix.

Other pavement distortions may be caused by settling, frost heave, etc. Patching may provide temporary repair. Permanent correction usually involves removal of unsuitable

▼ Heavy traffic has shoved pavement into washboard ripples and bumps.



► Severe settling from utility trench.



► Frost heave damage from spring break-up.



## ▼ Widely spaced, well-sealed cracks.



subgrade material and reconstruction.

## CRACKS

### *Transverse cracks*

A crack at approximately right angles to the center line is a transverse crack. They are often regularly spaced. The cause is movement due to temperature changes and hardening of the asphalt with aging.

Transverse cracks will initially be widely spaced (over 50'). Additional cracking will occur with aging until they are closely spaced (within several feet). These usually begin as hairline or very narrow cracks; with aging they widen. If not properly sealed and maintained, secondary or multiple cracks develop parallel to the initial crack. The crack edges can further deteriorate by raveling and eroding the adjacent pavement.

Prevent water intrusion and damage by sealing cracks which are more than 1/4" wide.

Sealed cracks,  
a few feet  
apart.



▲ Tight cracks less than 1/4" in width.



▲ Open crack – 1/2" or more in width.



▲ Water enters unsealed cracks softening pavement and causing secondary cracks.



▲ Pavement ravels and erodes along open cracks causing deterioration.



### *Reflection cracks*

Cracks in overlays reflect the crack pattern in the pavement underneath. They are difficult to prevent and correct. Thick overlays or reconstruction is usually required.

►  
Concrete joints  
reflected through  
bituminous  
overlay.



### *Slippage cracks*

Crescent or rounded cracks in the direction of traffic, caused by slippage between an overlay and an underlying pavement. Slippage is most likely to occur at intersections where traffic is stopping and starting. Repair by removing the top surface and resurfacing using a tack coat.

►  
Crescent-  
shaped cracks  
characteristic  
of slippage.



►  
Loss of  
bond between  
pavement layers  
allows traffic  
to break loose  
pieces of surface.





Centerline crack  
(still tight). ▶



Edge cracking  
from weakened  
subbase and  
traffic loads. ▼



## Longitudinal cracks

Cracks running in the direction of traffic are longitudinal cracks. Center line or lane cracks are caused by inadequate bonding during construction or reflect cracks in underlying pavement. Longitudinal cracks in the wheel path indicate fatigue failure from heavy vehicle loads. Cracks within one foot of the edge are caused by insufficient shoulder support, poor drainage, or frost action. Cracks usually start as hairline or vary narrow and widen and erode with age. Without crack filling, they can ravel, develop multiple cracks, and become wide enough to require patching.

Filling and sealing cracks will reduce moisture penetration and prevent further subgrade weakening. Multiple longitudinal cracks in the wheel path or pavement edge indicate a need for strengthening with an overlay or reconstruction.

▶  
First stage  
of wheelpath  
cracking caused by  
heavy traffic loads.



Load-related cracks  
in wheel path. ▼



Multiple open,  
longitudinal  
cracks that are  
raveling. ▼





## Block cracks

Block cracking is interconnected cracks forming large blocks. Cracks usually intersect at nearly right angles. Blocks may range from one foot to approximately 10' or more across. The closer spacing indicates more advanced aging caused by shrinking and hardening of the asphalt over time. Repair with sealcoating during early stages to reduce weathering of the asphalt. Overlay or reconstruction required in the advanced stages.

►  
Large blocks,  
approximately  
10' across.



►  
Intermediate-size  
block cracking,  
1'-5' across with  
open cracks.



▲ Extensive block  
cracking in an  
irregular pattern.

►  
Severe block  
cracking – 1' or  
smaller blocks.  
Tight cracks with  
no raveling.





## *Alligator cracks*

Interconnected cracks forming small pieces ranging in size from about 1" to 6". This is caused by failure of the surfacing due to traffic loading (fatigue) and very often also due to inadequate base or subgrade support. Repair by excavating localized areas and replacing base and surface. Large areas require reconstruction. Improvements in drainage may often be required.

◀  
**Alligator crack pattern. Tight cracks and one patch.**



◀  
**Characteristic "chicken wire" crack pattern shows smaller pavement pieces and patching.**



◀  
**Open raveled alligator cracking with settlement along lane edge most likely due to very soft subgrade.**





## PATCHES AND POTHOLES

### Patches

Original surface repaired with new asphalt patch material. This indicates a pavement defect or utility excavation which has been repaired. Patches with cracking, settlement or distortions indicate underlying causes still remain. Recycling or reconstruction are required when extensive patching shows distress.

►  
Typical repair of  
utility excavation.  
Patch in fair to  
good condition.



►  
Edge wedging.  
Pavement edges  
strengthened  
with wedges of  
asphalt. Patch is  
in very good  
condition.



►  
Extensive  
patching in  
very poor  
condition.







### *Potholes*

Holes and loss of pavement material caused by traffic loading, fatigue and inadequate strength. Often combined with poor drainage. Repair by excavating or rebuilding localized potholes. Reconstruction required for extensive defects.

◀ **Small pothole where top course has broken away.**



◀ **Multiple potholes show pavement failure, probably due to poor subgrade soils, frost heave, and bad drainage.**



◀ **Large, isolated potholes extend through base. Note adjacent alligator cracks which commonly deteriorate into potholes.**

## Rating pavement surface condition

With an understanding of surface distress, you can evaluate and rate asphalt pavement surfaces. The rating scale ranges from **10–excellent** condition to **1–failed**. Most pavements will deteriorate through the phases listed in the rating scale. The time it takes to go from excellent condition (10) to complete failure (1) depends largely on the quality of the original construction and the amount of heavy traffic loading.

Once significant deterioration begins, it is common to see pavement decline rapidly. This is usually due to a combination of loading and the effects of additional moisture. As a pavement ages and additional cracking develops, more moisture can enter the pavement and accelerate the rate of deterioration.

Look at the photographs in this section to become familiar with the descriptions of the individual rating categories. To evaluate an individual pavement segment, first determine its general condition. Is it relatively new,

toward the top end of the scale? In very poor condition and at the bottom of the scale? Or somewhere in between? Next, think generally about the appropriate maintenance method. Use the rating categories outlined below.

Finally, review the individual pavement distress and select the appropriate surface rating. Individual pavements will **not** have all of the types of distress listed for any particular rating. They may have only one or two types.



In addition to indicating the surface condition of a road, a given rating also includes a recommendation for needed maintenance or repair. This feature of the rating system facilitates its use and enhances its value as a tool in ongoing road maintenance.

### RATINGS ARE RELATED TO NEEDED MAINTENANCE OR REPAIR

<b>Rating 9 &amp; 10</b>	No maintenance required
<b>Rating 8</b>	Little or no maintenance
<b>Rating 7</b>	Routine maintenance, cracksealing and minor patching
<b>Rating 5 &amp; 6</b>	Preservative treatments (sealcoating)
<b>Rating 3 &amp; 4</b>	Structural improvement and leveling (overlay or recycling)
<b>Rating 1 &amp; 2</b>	Reconstruction

## Rating system

Surface rating	Visible distress*	General condition/ treatment measures
<b>10</b> Excellent	None.	New construction.
<b>9</b> Excellent	None.	Recent overlay. Like new.
<b>8</b> Very Good	No longitudinal cracks except reflection of paving joints. Occasional transverse cracks, widely spaced (40' or greater). All cracks sealed or tight (open less than 1/4").	Recent sealcoat or new cold mix. Little or no maintenance required.
<b>7</b> Good	Very slight or no raveling, surface shows some traffic wear. Longitudinal cracks (open 1/4") due to reflection or paving joints. Transverse cracks (open 1/4") spaced 10' or more apart, little or slight crack raveling. No patching or very few patches in excellent condition.	First signs of aging. Maintain with routine crack filling.
<b>6</b> Good	Slight raveling (loss of fines) and traffic wear. Longitudinal cracks (open 1/4"–1/2"). Transverse cracks (open 1/4"–1/2"), some spaced less than 10'. First sign of block cracking. Slight to moderate flushing or polishing. Occasional patching in good condition.	Shows signs of aging. Sound structural condition. Could extend life with sealcoat.
<b>5</b> Fair	Moderate to severe raveling (loss of fine and coarse aggregate). Longitudinal and transverse cracks (open 1/2" or more) show first signs of slight raveling and secondary cracks. First signs of longitudinal cracks near pavement edge. Block cracking up to 50% of surface. Extensive to severe flushing or polishing. Some patching or edge wedging in good condition.	Surface aging. Sound structural condition. Needs sealcoat or thin non-structural overlay (less than 2")
<b>4</b> Fair	Severe surface raveling. Multiple longitudinal and transverse cracking with slight raveling. Longitudinal cracking in wheel path. Block cracking (over 50% of surface). Patching in fair condition. Slight rutting or distortions (1/2" deep or less).	Significant aging and first signs of need for strengthening. Would benefit from a structural overlay (2" or more).
<b>3</b> Poor	Closely spaced longitudinal and transverse cracks often showing raveling and crack erosion. Severe block cracking. Some alligator cracking (less than 25% of surface). Patches in fair to poor condition. Moderate rutting or distortion (greater than 1/2" but less than 2" deep). Occasional potholes.	Needs patching and repair prior to major overlay. Milling and removal of deterioration extends the life of overlay.
<b>2</b> Very Poor	Alligator cracking (over 25% of surface). Severe rutting or distortions (2" or more deep). Extensive patching in poor condition. Potholes.	Severe deterioration. Needs reconstruction with extensive base repair. Pulverization of old pavement is effective.
<b>1</b> Failed	Severe distress with extensive loss of surface integrity.	Failed. Needs total reconstruction.

\* Individual pavements will not have all of the types of distress listed for any particular rating. They may have only one or two types.



## RATING 10 & 9

### EXCELLENT — No maintenance required

Newly constructed or recently overlaid roads are in excellent condition and require no maintenance.

▶  
**RATING 10**  
New construction.



▶  
**RATING 9**  
Recent overlay,  
rural.



▶  
**RATING 9**  
Recent overlay,  
urban.





**RATING 8****VERY GOOD —****Little or no maintenance required**

This category includes roads which have been recently sealcoated or overlaid with new cold mix. It also includes recently constructed or overlaid roads which may show longitudinal or transverse cracks. All cracks are tight or sealed.



**Recent  
chip seal.**



**Recent  
slurry seal.**

**▼ Widely spaced,  
sealed cracks.**



**▲ New cold mix surface.**



## RATING 7

### GOOD —

#### Routine crack sealing recommended

Roads show first signs of aging, and they may have very slight raveling. Any longitudinal cracks are along paving joint. Transverse cracks may be approximately 10' or more apart. All cracks are 1/4" or less, with little or no crack erosion. Few if any patches, all in very good condition. Maintain a crack sealing program.

►  
Tight and sealed  
transverse and  
longitudinal cracks.  
Maintain crack  
sealing program.



►  
Tight longitudinal  
crack and sealed  
transverse cracks.



►  
Transverse cracks  
about 10' or more  
apart. Maintain crack  
sealing program.







## RATING 6

### GOOD —

#### Consider preservative treatment

Roads are in sound structural condition but show definite signs of aging. Seal-coating could extend their useful life. There may be slight surface raveling. Transverse cracks can be frequent, less than 10' apart. Cracks may be 1/4–1/2" and sealed or open. Pavement is generally sound adjacent to cracks. First signs of block cracking may be evident. May have slight or moderate bleeding or polishing. Patches are in good condition.

◀ Slight surface raveling with tight cracks, less than 10' apart.

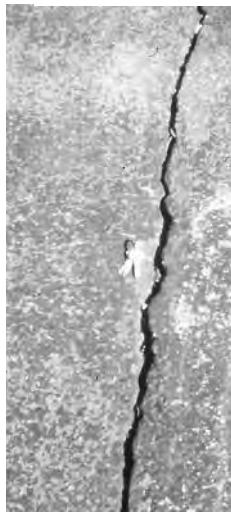


◀ Transverse cracks less than 10' apart; cracks well-sealed.

▼ Large blocks, early signs of raveling and block cracking.



▼ Open crack, 1/2" wide; adjoining pavement sound.



▼ Moderate flushing.





## RATING 5

**FAIR —**

**Preservative maintenance treatment required**

Roads are still in good structural condition but clearly need sealcoating or overlay. They may have moderate to severe surface raveling with significant loss of aggregate. First signs of longitudinal cracks near the edge. First signs of raveling along cracks. Block cracking up to 50% of surface. Extensive to severe flushing or polishing. Any patches or edge wedges are in good condition.

▼ Block cracking with open cracks.



► Moderate to severe raveling in wheel paths.



▼ Severe flushing.



▲ Wedges and patches extensive but in good condition.



Severe raveling with  
▼ extreme loss of aggregate.



Load cracking and slight  
▼ rutting in wheel path.



## RATING 4

### FAIR —

#### Structural improvement required

Roads show first signs of needing strengthening by overlay. They have very severe surface raveling which should no longer be sealed. First longitudinal cracking in wheel path. Many transverse cracks and some may be raveling slightly. Over 50% of the surface may have block cracking. Patches are in fair condition. They may have rutting 1/2" deep or less, or slight distortion.

◀ Longitudinal cracking;  
early load-related  
distress in wheel path.  
Strengthening needed.



▼ Slight rutting; patch  
in good condition.



▼ Extensive block cracking.  
Blocks tight and sound.  
◀ Slight rutting in  
wheel path.



**RATING 3****POOR—****Structural improvement required**

Roads must be strengthened with a structural overlay (2" or more). Will benefit from milling and very likely will require pavement patching and repair beforehand. Cracking will likely be extensive. Raveling and erosion in cracks may be common. Surface may have severe block cracking and show first signs of alligator cracking. Patches are in fair to poor condition. There is moderate distortion or rutting (more than 1/2" and less than 2" in depth), and occasional potholes.

►  
**Many wide and raveled cracks indicate need for milling and overlay.**



►  
**Ruts need mill and overlay.**



►  
**Open and raveled block cracks.**



**RATING 3**

**POOR** — (continued)

**Structural improvement required**

◀ Alligator cracking.  
Edge needs repair  
and drainage needs  
improvement prior  
to rehabilitation.

▼ Distortion with patches  
in poor condition. Repair  
and overlay.





## RATING 2

### VERY POOR— Reconstruction required

Roads are severely deteriorated and need reconstruction. Surface pulverization and additional base may be cost-effective. These roads have more than 25% alligator cracking, distortion or rutting 2 inches or more in depth, as well as potholes or extensive patches in poor condition.

►  
Extensive alligator cracking. Pulverize and rebuild.



▲ Severe rutting.  
Strengthen base and reconstruct.

▲ Patches in poor condition, wheelpath rutting. Pulverize, strengthen and reconstruct.



►  
Severe frost damage. Reconstruct.



**RATING 1****FAILED —****Reconstruction required**

Roads have failed, showing severe distress and extensive loss of surface integrity.



Potholes from frost damage. Reconstruct.



Potholes and severe alligator cracking. Failed pavement. Reconstruct.



Extensive loss of surface. Rebuild.

## Practical advice on rating roads

### Inventory and field inspection

Most agencies routinely observe roadway conditions as a part of their normal work and travel. However, an actual inspection means looking at the entire roadway system as a whole and preparing a written summary of conditions. This inspection has many benefits over casual observations. It can be helpful to compare segments, and ratings decisions are likely to be more consistent because the roadway system is considered as a whole within a relatively short time.

An inspection also encourages a review of specific conditions important in roadway maintenance, such as drainage, adequate strength, and safety.

A simple written inventory is useful in making decisions where other people are involved. You do not have to trust your memory, and you can usually answer questions in more detail. Having a written record and objective information also improves your credibility with the public.

Finally, a written inventory is very useful in documenting changing roadway conditions. Without records over several years it is impossible to know if road conditions are improving, holding their own, or declining.

Annual budgets and long range planning are best done when based on actual needs as documented with a written inventory.

The Wisconsin DOT local road inventory (WISLR) is a valuable resource for managing your local roads. Adding PASER surface condition ratings is an important improvement.

### Averaging and comparing sections

For evaluation, divide the local road system into individual segments which are similar in construction and condition. Rural segments may vary from

1/2 mile to a mile long, while sections in urban areas will likely be 1-4 blocks long or more. If you are starting with the WISLR Inventory, the segments have already been established. You may want to review them for consistent road conditions.

Obviously, no roadway segment is entirely consistent. Also, surfaces in one section will not have all of the types of distress listed for any particular rating. They may have only one or two types. Therefore, some averaging is necessary.

The objective is to rate the condition that represents the majority of the roadway. Small or isolated conditions should not influence the rating. It is useful to note these special conditions on the inventory form so this information can be used in planning specific improvement projects. For example, some spot repairs may be required.

Occasionally surface conditions vary significantly within a segment. For example, short sections of good condition may be followed by sections of poor surface conditions. In these cases, it is best to rate the segment according to the worst conditions and note the variation on the form.

The overall purpose of condition rating is to be able to compare each

segment relative to all the other segments in your roadway system. On completion you should be able to look at any two pavement segments and find that the better surface has a higher rating.

Within a given rating, say 6, not all pavements will be exactly the same. However, they should all be considered to be in better condition than those with lower ratings, say 5. Sometimes it is helpful in rating a difficult segment to compare it to other previously rated segments. For example, if it is better than one you rated 5 and worse than a typical 7, then a rating of 6 is appropriate. Having all pavement segments rated in the proper relative order is most important and useful.

### Assessing drainage conditions

Moisture and poor pavement drainage are significant factors in pavement deterioration. Some assessment of drainage conditions during pavement rating is highly recommended. While you should review drainage in detail at the project level, at this stage simply include an overview drainage evaluation at the same time as you evaluate surface condition.



**Urban drainage.**  
**RATING:**  
**Excellent**



Good rural ditch and driveway culvert. Culvert end needs cleaning.

RATING: Good



High shoulder and no ditch lead to pavement damage. Needs major ditch improvement for a short distance.

RATING: Fair



No drainage leads to failed pavement.

RATING: Poor



Consider both pavement surface drainage and lateral drainage (ditches or storm sewers). Pavement should be able to quickly shed water off the surface into the lateral ditches. Ditches should be large and deep enough to drain the pavement and remove the surface water efficiently into adjacent waterways.

Look at the roadway crown and check for low surface areas that permit ponding. Paved surfaces should have approximately a 2% cross slope or crown across the roadway. This will provide approximately 3" of fall on a 12' traffic lane. Shoulders should have a greater slope to improve surface drainage.

A pavement's ability to carry heavy traffic loads depends on both the pavement materials (asphalt surfacing and granular base) and the strength of the underlying soils. Most soils lose strength when they are very wet. Therefore, it is important to provide drainage to the top layer of the subgrade supporting the pavement structure.

In rural areas, drainage is provided most economically by open ditches that allow soil moisture to drain laterally. As a rule of thumb, the bottom of the ditch ought to be at least one foot below the base course of the pavement in order to drain the soils. This means that minimum ditch depth should be about 2' below the center of the pavement. Deeper ditches, of course, are required to accommodate roadway culverts and maintain the flow line to adjacent drainage channels or streams.

You should also check culverts and storm drain systems. Storm drainage systems that are silted in, have a large accumulation of debris, or are in poor structural condition will also degrade pavement performance.

The T.I.C. publication, *Drainage Manual: Local Road Assessment and Improvement*, describes the elements of drainage systems, depicts them in detailed photographs, and explains how to rate their condition. Copies are available from the Transportation Information Center.

### **Planning annual maintenance and repair budgets**

We have found that relating a normal maintenance or rehabilitation procedure to the surface rating scheme helps local officials use the rating system. However, an individual surface rating should not automatically dictate the final maintenance or rehabilitation technique.

You should consider safety, future traffic projections, original construc -

tion, and pavement strength since these may dictate a more comprehensive rehabilitation than the rating suggests. On the other hand, it may be appropriate under special conditions to do nothing and let the pavement fully deteriorate, then rebuild when funds are available.

### **Summary**

Using local road funds most efficiently requires good planning and accurate

identification of appropriate rehabilitation projects. Assessing roadway conditions is an essential first step in this process. This asphalt pavement surface condition rating procedure has proved effective in improving decision making and using highway funds more efficiently. It can be used directly by local officials and staff. It may be combined with additional testing and data collection in a more comprehensive pavement management system.

Public Hearing Draft  
2024-09-19

**Transportation  
Information  
Center  
Publications**

**Pavement Surface Evaluation and Rating (PASER) Manuals**

- Asphalt PASER Manual**, 28 pp.
- Brick and Block PASER Manual**, 8 pp.
- Concrete PASER Manual**, 28 pp.
- Gravel PASER Manual**, 20 pp.
- Sealcoat PASER Manual**, 16 pp.
- Unimproved Roads PASER Manual**, 12 pp.

**Drainage Manual**

Local Road Assessment and Improvement, 6 pp.

**SAFER Manual**

Safety Evaluation for Roadways, 40 pp.

**Flagger's Handbook** (pocket-sized guide), 22 pp.

**Work Zone Safety**, Guidelines for Construction, Maintenance, and Utility Operations, (pocket-sized guide), 58 pp.

**Wisconsin Transportation Bulletins**

- #1 Understanding and Using Asphalt
- #2 How Vehicle Loads Affect Pavement Performance
- #3 LCC—Life Cycle Cost Analysis
- #4 Road Drainage
- #5 Gravel Roads
- #6 Using Salt and Sand for Winter Road Maintenance
- #7 Signing for Local Roads
- #8 Using Weight Limits to Protect Local Roads
- #9 Pavement Markings
- #10 Seal Coating and Other Asphalt Surface Treatments
- #11 Compaction Improves Pavement Performance
- #12 Roadway Safety and Guardrail
- #13 Dust Control on Unpaved Roads
- #14 Mailbox Safety
- #15 Culverts-Proper Use and Installation
- #16 Geotextiles in Road Construction/Maintenance and Erosion Control
- #17 Managing Utility Cuts
- #18 Roadway Management and Tort Liability in Wisconsin
- #19 The Basics of a Good Road
- #20 Using Recovered Materials in Highway Construction
- #21 Setting Speed Limits on Local Roads
- #22 Pre-wetting and Anti-icing
- #23 Meeting Minimum Sign Retroreflectivity Standards

# Public Hearing Draft

## 2024-09-19



Asphalt Roads



**Appendix V:**  
**Adoption Resolution**  
**2024-09-19**