



11333 N. Cedarburg Road
Mequon, WI 53092-1930
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www.cityofmequonwi.gov

Office of the City Clerk
Taped and Televised

COMMITTEE OF THE WHOLE
Regular Meeting
Tuesday, February 10, 2026 - 6:15 PM
Christine Nuernberg Hall

Agenda

- 1) Call to Order and Roll Call**
- 2) Approval of Meeting Minutes**
 - a) Meeting Minutes of January 13, 2026
- 3) Discussion Items**
 - a) Speed Deterrence/Traffic Calming
- 4) Resolutions**
 - a) **RESOLUTION 4263** - A Resolution Approving Permit Fees, Hours of Operation and Proposed Regulations for the City Brush Site During Calendar Year 2026
- 5) Informational Items**
 - a) Committee of the Whole Planning Calendar
- 6) Adjourn**

DATED: February 5, 2026

/s/ Andrew Nerbun, Mayor

Notice is hereby given that a quorum of other governmental bodies may be present at this meeting to present, discuss and/or gather information about a subject over which they have decision-making responsibility, although they will not take formal action thereto at this meeting. Persons with disabilities requiring accommodation for attendance at this meeting should contact the City Clerk's Office at 262-236-2914, twenty-four (24) hours in advance of the meeting.

Any questions regarding this agenda may be directed to the City Clerk's Office at 262-236-2914, Monday through Friday, 8:00 AM – 4:30 PM.



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**COMMITTEE OF THE WHOLE
Regular Meeting
Tuesday, January 13, 2026 - 6:15 PM
Christine Nuernberg Hall**

Minutes

1) Call to Order and Roll Call

The meeting was called to order by Mayor Nerbun at 6:26 p.m.

Present:

Mayor Nerbun, Alderman Strzelczyk, Alderman Tolocko (arrived at 6:33 p.m), Alderman Mayr, Alderman Hansher, Alderman Bach, Alderman Parrish, Alderman Gebhardt

Excused:

Alderman Bratt

Also present: City Administrator Jones, Assistant City Administrator Wolff, City Clerk Fochs, Community Development Director Tollefson, Community Development Assistant Director Zader, Finance Director Arnett, Executive Assistant Kong, City Attorney Sajdak, and interested public.

2) Approval of Meeting Minutes

MOTION:	Meeting minutes of December 9, 2025
MOVER:	Alderman Robert Strzelczyk
SECONDER:	Alderman William Gebhardt
AYES:	Mayor Andrew Nerbun, Alderman Robert Strzelczyk, Alderman Dale Mayr, Alderman Jeffrey Hansher, Alderman Gregg Bach, Alderman Brian Parrish, Alderman William Gebhardt
NAYS:	Alderman Kelly Tolocko, Alderman Peter Bratt (Deemed No)
RESULT:	Approved by Voice Acclamation

- a) Meeting Minutes of December 9, 2025

3) Discussion Items

a) Mequon Commons Master Plan

Director Tollefson accompanied by The Lakota Group representatives Kevin Clark, Lexi Paus, and Morgan Chapman, reviewed the process of the forthcoming project. Director Tollefson requested guidance from the Committee to allow The Lakota Group to further refine their concept. Ms. Chapman explained that additional studies have shown that a baseball field cannot be accommodated in the existing space for safety reasons. She provided an in-depth overview of the three finalist designs based on previous Committee feedback as well as input from the Park and Open Space Board and Bike and Pedestrian Way Commission. Mr. Clark covered the layouts in detail and expressed a focus on flexibility to make the most of the space.

Committee dialog focused primarily on pavilion location and size, pool size, elements, and amenities, private funding opportunities, maximizing open/green space, and focusing on elements that encourage year-round usage of the property.

Mayor Nerbun called for a straw poll of the three concepts, resulting in three votes in favor of concept #2, and five votes for concept #3.

b) REVPAR Inc. Hotel Room Tax Policy Analysis

Director Tollefson introduced the topic, reminding the Committee that the analysis has technically concluded, but as requested, there is an opportunity for an additional tax revenue analysis available in 5 weeks for an estimated \$6900. Committee discussion included concerns about occupancy and the effect on existing businesses, revolving loans to encourage reinvestment, suspending the project and investing into alternate City needs, and inflation and overall financial planning for the City's future expenses.

The Mayor called for a straw poll, resulting in favor of the 5-week study, 5 votes to 3 opposed.

4) Informational Items

a) Committee of the Whole Planning Calendar

5) Adjourn

MOTION:	Motion to Adjourn at 7:58 PM
MOVER:	Alderman Robert Strzelczyk
SECONDER:	Alderman Jeffrey Hansher
AYES:	Mayor Andrew Nerbun, Alderman Robert Strzelczyk, Alderman Kelly Tolocko, Alderman Dale Mayr, Alderman Jeffrey Hansher, Alderman Gregg Bach, Alderman Brian Parrish, Alderman William Gebhardt
NAYS:	Alderman Peter Bratt (Deemed No)
RESULT:	Approved by Voice Acclamation

Respectfully Submitted,
Janet Meyer
Deputy Clerk



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Public Works

TO: Committee of the Whole
FROM: Kristen Lundeen, Director Public Works/City Engineer
DATE: February 10, 2026
SUBJECT: Speed Deterrence/Traffic Calming

Background

Several committees receive inquiries from residents and/or property owners sharing concerns with speeding motorists. The Police Department is ultimately responsible for enforcement of speed limits, but the Public Welfare Committee, Public Works Committee and Public Safety Committee all have heard speeding concerns as agenda items. Staff memos from several of those meetings are included in the packet for reference.

Unfortunately, many discussions surrounding speeding start with a request for a specific solution: police presence, installation of a stop sign, lowering of the speed limit or installation of traffic calming measures (e.g. speed bumps, speed radar signs, etc). The request is unfortunate because the proposed solution does not always solve the issue as described.

Speed deterrence, or traffic calming, requires a data-driven approach, studying the location and speed of motorists, as well as viable options for speed deterrence. Road geometry, site lines and driver psychology all play a role in the success of any implemented measure.

Staff must also consider whether reported speeding concerns are actual or perceived, and either way, whether there is a public safety concern. Proliferation of signage and overuse of traffic calming measures can have the opposite effect, where motorists ignore or increase speed in and around the measures to make up for lost time maneuvering through such measures.

At the most recent standing committee discussion (Public Welfare - August 2025), members indicated that the largest concern is that residents perceive that their concern is not being heard or addressed and that the City has a lack of clear, transparent information on how speeding concerns are heard and addressed. After that meeting, staff researched other municipalities' response to speed concerns, and have proposed a document/manual as guidance.

The intent of this agenda item is to provide information on the complexities of speed deterrence, consider staff's recommendations for action items and determine whether this should be added to the organization's work program for 2026.

Analysis

Excessive vehicle speed is a safety concern because it increases both the likelihood and severity of crashes. Higher speeds reduce a driver's ability to perceive hazards, react in time, and stop safely, while also increasing stopping distances. When a crash occurs, the forces involved rise sharply with speed, resulting in more severe injuries and greater property damage. Speeding can also contribute to unsafe speed differentials within the traffic stream, further increasing the risk of conflicts and crashes.

Speed differential can also be a significant safety concern. Lower vehicle speeds are not inherently unsafe, but research indicates that large variations in speeds within a traffic stream are associated with increased crash risk. Safety issues may arise when traffic calming measures result in a subset of vehicles traveling well below or above the prevailing speed, rather than producing a uniform reduction in speeds. For this reason, traffic calming strategies should be evaluated using sound policy and a data-driven approach, with consideration given to roadway context, existing operating speeds, and potential unintended consequences.

At times, the speeding issue is perceived, not actual. At other times, the motorist may be in compliance with the law, but the speed of travel still poses a public safety issue. And further, a road may be built for traffic calming to slow motorists, and the conflict with unanticipated conditions (e.g. pedestrians, bicyclists, children at play, etc) can introduce a public safety issue.

Identifying what can or should be done is therefore complex. There must first be a data-driven understanding of the reported issue, confirmation that there is a concern with speeding, consensus that a public safety issue exists and a review of potential solutions that can actually be impactful in deterring speed.

As previously indicated, staff understanding of current concerns are that residents and elected officials do not have a clear, transparent reference for how speeding concerns are addressed by the City. Therefore staff is recommending the generation of guidelines that will be used to evaluate each concern based on the same process and the same criteria, but also acknowledge the complexity or individual nature of each concern or location.

Fiscal Impact

The generation of educational material and staff generation of a set of guidelines does not have a direct fiscal impact outside of budgeted salary costs. In the future, if traffic calming measures are contemplated with full policy implementation, staff will include budget requests for any associated infrastructure.

Recommendation

Staff is requesting consensus as to whether speed deterrence should be added to the 2026 work plan, and if so, the standing committee that will oversee this work..

If there is consensus that staff should add speed deterrence to the 2026 work plan, staff proposes the following policy analysis:

- Review and query municipal staff from other jurisdictions on the implementation and success of their speed deterrence programs.
- Generate guidelines to provide a clear, concise and transparent process for hearing speeding concerns.
- Implement the guidelines and establish a defined timeline to review its success at the Committee level.
- Review the guidelines and make recommended modifications, if applicable.

To aid the Committee in preparing for discussion of this topic, staff has assembled a number of documents for review. These include the following:

1. Speeding Facts - *An overview of the basics of speeding and speed deterrents*
2. Speed Radar Signs - *A summary of the tools the City utilizes for speed radar feedback*
3. Traffic Counters - *An explanation of the tools the City utilizes for data gathering and*

examination

4. Directed Enforcement - *An overview of how the Police Department addresses speeding concerns*
5. Staff Memo regarding Speed Deterrence/Traffic Calming (Public Welfare Committee, August 12, 2025)
6. Staff Memo summarizing the use of the Temporary Speed Radar Feedback Signs (Public Safety Committee, June 2, 2025)
7. Staff Memo responding to request for Residential Speeding Awareness Campaign (Public Safety Committee, September 10, 2024)
8. Staff Memo responding to a request for a stop sign as a means of speed control on Bonniwell/Granville (Public Safety, September 23, 2022)
9. Staff Memo introducing the policy governing Temporary Speed Radar Feedback Signs (Public Safety, October 27, 2023)
10. Staff Memo responding to concerns regarding speed on Country View Drive and stop signs at the intersection of Country View Drive and Squire Road (Public Safety, July 28, 2022)
11. Staff Memo responding to speeding concerns on Saddlebrook (Public Safety, April 19, 2018)
12. Staff Memo responding to speeding concerns on Saddlebrook (Public Safety, June 16, 2016)

Attachments:

Speeding Facts, Speed Radar Signs, Traffic Counters, Directed Enforcement, Public Welfare 8.12.25 (Speed Deterrence_Traffic Calming), Public Safety 6.5.25 (Speed Sign Update), Public Safety 9.10.24 (Residential Speed Reduction Initiative), Public Safety 9.23.22 (Stop Sign Request - Bonniwell_Granville), Public Safety 10.27.23 (Policy Guidelines for Radar Speed Signs), Public Safety 8.10.22 (Traffic Concerns on N. Country View Dr), Public Safety 4.19.18 (Saddlebrook Speeding), Public Safety 6.20.16 (Saddlebrook Speed Concerns)

SPEEDING FACTS

How are speed limits established?

Speed limits are typically initially set by State Statute based on the type of street. The local government authority has the ability to change speed limits by resolution. Any changes to speed limit should be based on sound engineering principles that consider responsible motorists' actual travel speeds. Typically, this should result in speed limits set at the 85th percentile speed of free-flowing traffic. This practice is well accepted by agencies nationally, and is referenced in guidelines like the Federal Highway Administration's (FHWA) Manual on Uniform Traffic Control Devices (MUTCD) for placing speed limit signs.

What impacts speed of travel/why do motorists speed?

Motorist speed is driven primarily by roadway design and driver perception rather than posted regulations alone, with wide lanes, straight alignments, long sight distances, low roadside activity, and minimal traffic conflict encouraging higher speeds because they feel comfortable and low risk. Traffic conditions such as low volumes and few intersections allow drivers to maintain those speeds, while familiarity, time pressure, and habit further reinforce speeding behavior. Enforcement can influence speed only when it is consistent and credible. If the posted limit does not align with how the roadway looks and functions, most drivers will travel at the speed they perceive as reasonable regardless of signage.

What are the primary concerns with speeding?

- Increased crash risk and severity
- Cars are harder to control at high speeds
- Less reaction time
- <https://wisconsin.gov/Pages/safety/education/drv-behavior/speeding.aspx>

What are speed deterrents?

- Enforcement
- Driver education
- Radar feedback signs
- Vertical deflections (like speed tables)
- Horizontal deflections (like curb extensions, chicanes, traffic circles, etc.)
- Environmental deterrents (like street trees, landscaping, presence of pedestrians, etc.)

What are NOT speed deterrents?

- **Stop signs** – Stop signs are used to assign right of way at an intersection. Nationally-accepted guidelines like the MUTCD state that stop signs should not be used for speed control. Some of these reasons include:
 - Decreased motorist compliance
 - Worsening of speed behavior between stop signs
 - Degradation of safety outcomes due to increasing certain crash types
 - Enforcement difficulty
 - Negative impact on emergency response
- **Speed limit signs** - Speed limit signs by themselves are a weak speed deterrent because they rely almost entirely on voluntary compliance. As discussed earlier, most drivers choose their speed based on roadway design, traffic conditions, and perceived risk rather than the posted number. If a street feels wide, straight, and forgiving, drivers tend to

SPEEDING FACTS

travel at a speed they consider comfortable regardless of the limit, and when posted limits are set below what drivers perceive as reasonable, compliance declines further, undermining the credibility of the sign and traffic regulation more broadly. Without consistent enforcement or supporting roadway design features, speed limit signs rarely produce meaningful or lasting reductions in speeds and are most effective only when they align with the roadway's design and are reinforced by physical traffic calming or targeted enforcement. See section on how speed limits are set for additional information.

- **“Children at Play” or “Slow” signs** – These yellow signs are largely ignored by motorists because they are permanent and static. When a driver is confronted with too many signs within a short distance, the impact of any one sign is muted.
- **Speed bumps** – “Parking lot” style speed bumps, which are very narrow, are not appropriate for City streets. It is important to distinguish between speed tables, which are engineered for public roads, and speed bumps, which are too jarring to safely accommodate vehicles.

SPEED RADAR SIGNS

Temporary Speed Radar Signs

The City has implemented the use of temporary speed radar signs to address speeding concerns in residential areas. Information about this program is available on the City's website through the Police Department.

Information can be accessed at:

<https://www.cityofmequonwi.gov/police/page/implementation-temporary-speed-radar-signs-speeding-concerns-residential-areas>

Placement of the signs is dependent on weather conditions and generally does not occur between December 1 and March 31, unless conditions allow for safe deployment.

The purpose of this program is to address and reduce speeding in residential neighborhoods through proactive measures. Temporary speed radar signs are intended to promote safer driving habits, increase awareness of posted speed limits, and improve overall road safety for residents and pedestrians. The program focuses on speed awareness and education, deterring speeding behavior, and responding to resident complaints.

Residents who have concerns about speeding in their neighborhood may request placement of a temporary speed radar sign by completing the request form located on the City or Police Department website. The form requires basic contact information and the specific location of the speeding concern. Once submitted, the Police Department reviews the request and coordinates with the Department of Public Works to place the sign when feasible.

Full deployment of the temporary speed radar signs began in 2024. During that year, the City's two signs were deployed 13 times, with most deployments lasting between 30 and 60 days, depending on weather conditions. In 2025, the signs were deployed 10 times for similar durations. Four additional requests were deferred to 2026 due to early snowfall, which reduced the available deployment window.

Overall, the use of temporary speed radar signs helps reduce speeding incidents and related complaints, encourages safer driving behavior, and enhances the sense of safety within residential areas. By increasing awareness and discouraging excessive speeds, the City continues to work toward safer streets and stronger neighborhood safety for the community.

Trailer Mounted Radar Unit

The Police Department also uses a trailer mounted radar unit (referred to as the "speed trailer") to raise awareness and communicate with drivers regarding their speed. The speed trailer is part of the deployment strategies used to address speed complaints, and its placement is guided by observations, information, and needs assessed by the Police Department. Deployments of the speed trailer are typically aimed at higher volume main thoroughfares, as the unit contains a solar recharge component to extend the battery life. This allows the unit to run for a much longer timeframe with higher traffic counts than other options. Additionally, the speed trailer is a larger and brighter device, making it less appropriate in a residential area – from both a size/parking and intrusive light perspective.

To deploy the speed trailer, an officer or sergeant will tow it to the location and complete the set-up process. There needs to be sufficient parking space, usually a large grassy area along the roadside or a raised median area. It typically takes about 30-45 minutes to either deploy or retrieve the speed trailer. Once deployed, the speed trailer generally functions for about two weeks before

SPEED RADAR SIGNS

the battery is depleted.

Conclusion

The implementation of this policy may assist with reducing speeding incidents and complaints in residential areas, promote safer driving habits, and create a greater sense of security for residents and pedestrians. By raising awareness and working towards deterring speeding, the City aims to create a culture of responsible driving that prioritizes the safety and well-being of our residential communities.

If you have any concerns or would like to request a speed sign placement in your area, please follow the procedures outlined above. Together, we can work towards creating safer streets for everyone. Thank you for your commitment to promoting road safety in our community.

TRAFFIC COUNTERS

The Mequon Police Department has radar devices that are capable of recording vehicle speed data (herein referred to as a “speed data recorder”). If reoccurring speed complaints are received and directed enforcements (see related section) do not appear to be having an impact, a speed data recorder can be deployed to collect data to determine if the speeding concern is accurate with a large percentage of vehicles speeding, an outlying issue with a small percentage of vehicles speeding, or perceived as a problem by citizens but not supported by speed data. Since the speed data recorder uses radar signals, it is not appropriate for all areas and has a potential for inaccurate results (such as when a vehicle’s speed is changing dramatically during the course of the radar capture or if it obtains data from a vehicle slowing/stopping for an intersection or private access). To use the speed data recorder, there must be a city owned wooden post present to mount the unit to and the road must be straight and flat (subdivision complaints are the most challenging to deploy the speed data recorder due to a general lack of wooden posts in these locations).

If deployment is appropriate and possible, one of several trained officers or sergeants must manually program and deploy the speed data recorder. Once deployed, it will record for approximately 4-7 days. Once the battery is exhausted, one of the trained individuals must collect the speed data recorder and manually download the data into a specialized program for analysis. Once the data is analyzed, feedback is typically provided directly to the citizen/group from which the complaint originated. If the data warrants further action, such as showing a high percentage of violations, information is forwarded to the Engineering Division.

The Engineering Division has two sets of pneumatic tube traffic counters that log hourly traffic volumes and speeds while deployed. Typically, these are used at the request of the Police Department if speeding issues are still being reported after directed enforcement efforts have been completed. Data and possible action is reviewed on a case-by-case basis. Please see attached staff reports for example analysis and conclusion.

DIRECTED ENFORCEMENT

Directed enforcement involves a police officer conducting traffic enforcement in a specific location for a specific reason. Most typically, the officer conducts a directed enforcement in response to a citizen complaint regarding an ongoing traffic issue; however, officers can self-identify traffic concerns and create their own directed enforcements. It is important to note, a “one time” complaint will not typically produce a directed enforcement; as these are generally reserved for reoccurring issues.

When a directed enforcement is developed from a citizen complaint, a call number is assigned, and a data entry is made into the record management system for officers to record future activity. As an example, in one directed enforcement in 2024, officers logged over 6.5 hours in one month at one location looking for sign violations. The result was two citations and one warning issued.

The following data represents two components: The number of speeding complaints made by citizens that resulted in direct enforcements (termed *directed enforcements*), and the total number of times an officer conducted a directed enforcement while on patrol by sitting in a specific location and seeking to enforce a certain violation (termed *deployment events*). Deployment events are officer initiated during the course of their patrols when they have down time or are not assigned to any other call for service.

- **2025:** 19 directed enforcements; 198 deployment events
- **2024:** 23 directed enforcements; 238 deployment events
- **2023:** 38 directed enforcements; 474 deployment events
- **2022:** 33 directed enforcements; 392 deployment events
- **2021:** 34 directed enforcements; 235 deployment events

Directed enforcements (i.e., citizen complaints that generate them) decreased in 2024 and 2025, in comparison to 2021 through 2023 averages.

While not directly tied to directed enforcements, traffic stop data is another important metric. While a directed enforcement may produce a traffic stop, it is more likely that a traffic stop occurs when an officer on patrol, who is not assigned to a call or case (i.e., unassigned time), observes a violation and takes action. This represents a visibility component that is often difficult to quantify, such as what impact seeing an officer on a traffic stop has on the behavior of other drivers or on the community’s perceptions of attentiveness to traffic issues.

The following data represents the approximate number of vehicle traffic stops (VTS) conducted in the associated years. All numbers below are underrepresenting total traffic stops, as they do not include the number of stops that evolved into another categorized incident (for example, when a traffic stop for speeding results in an operating while under the influence arrest – the coding in the record management system is as an “OAWI” and not a “VTS”).

- **2025:** 3,830
- **2024:** 3,771
- **2023:** 4,110
- **2022:** 3,597
- **2021:** 2,482
- **2020:** *Excluded due to Covid/reduced engagement*

DIRECTED ENFORCEMENT

- **2019:** 3,592
- **2018:** 3,393
- **2017:** 2,941

In 2025 alone, approximately 1,270 of the 3,830 traffic stops (about 33.2%) were for a speed related offenses.

In July 2022, traffic-focused beat assignments (herein referred to as “traffic beats”) were prioritized on dayshift patrol, which impacted 11 patrol officers and 2 patrol sergeants (totaling 32.5% of Mequon Police Department’s sworn staffing). Traffic beats were assigned to officers on most days where patrol staffing was above the minimum level. Dayshift patrol had (and still has) a minimum staffing of 3 patrol officers and 1 patrol sergeant per shift. Thus, the traffic beat was assigned to one officer when staffing was 4 patrol officers and 1 patrol sergeant or more. On some days with staffing of 5 or more officers, the traffic beat was assigned to multiple officers working at the same time. This approach continued through early 2025, on dayshift only. By assigning a traffic beat, one or more officers were designated to focus their patrol activities solely on traffic enforcement, directed enforcements, and proactive traffic related engagement.

With this approach, the officer was not hampered by long investigations, complex calls, or minor issues that absorb their unassigned time (like travel, interaction, and resolution time). The data reflects an increase in traffic stop numbers in 2023, 2024, and 2025 in comparison to 2017 through 2019 averages. The cause of the increase is most likely multifaceted, but added attention to traffic enforcement through the “traffic beat” approach has the potential to be a strong influence.

As Mequon Police Department continues to be responsive to the community and the concerns brought forth in the 2025 Community Survey, increased traffic and speed enforcement is paramount. Seeking to increase both dedicated responses to direct enforcement requests and speed enforcement actions, the Department is evaluating the feasibility of a dedicated traffic safety unit to enhance focus on speeding concerns and better meet the expectations of the community.



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Office of Engineering

TO: Public Welfare Committee
FROM: Kristen Lundeen, Director of Public Works/City Engineer
DATE: August 12, 2025
SUBJECT: Speed Deterrence/Traffic Calming

Background

Department of Public Works (DPW) staff understands that the Public Welfare Committee is interested in discussing speed bumps, or more likely speed tables. However, before there can be a discussion on the appropriate installation or effectiveness of speed bumps, DPW staff requires further discussion regarding the problem that the committee is looking to solve.

If this is truly a conversation regarding speed reduction (traffic calming), then the discussion and analysis should not be limited to speed bumps. There are thousands of studies on speeding and the solutions are as complex as the conditions under which the speeding occurs. Trying to solve all speed related problems with speed bumps would not be impactful or effective.

DPW staff will attend the Public Welfare meeting to obtain feedback and further understand the request. At this stage, Staff is assuming that the concern is with speeding, and what options can be considered for speed reduction.

Analysis

Generally speaking, the first step should always be data gathering. Before potential solutions are reviewed, the extent of issue must be discovered. On a short cul-de-sac or to pedestrians walking on a thoroughfare being passed by a car driving 25mph can seem fast, but not be a violation of the law. Likewise a motorist traveling at 47mph on a road posted 35mph can seem fast, and is a violation of the law. Both or any of those may require traffic calming, but the solution to effectively reduce the traveling speed of a motorist is different. After collecting data including the actual speeds and average daily volume of traffic, an analysis of the options for appropriate solutions can be examined.

If the concern is speeding, then the options for a solution should explore the road geometry, design speed, speed limit and location, among other conditions.

Another issue is clarifying what is "too fast". Often when a speed issue is reported, Engineering staff responds by dispatching the traffic cables, which collect data on both speed and traffic type and volume. That data is then used to determine the 85% of the speeds on the roads, an engineering standard when determining the appropriate speed limit on a street and for analyzing the need for traffic calming measures. For roads posted with a 25 mph speed limit, traffic is often within acceptable limits of the posted speed limit. However, it may seem too fast to be safe

to the residents living there. Therefore the specific situation should be analyzed and a specific metric utilized to define whether traffic calming is required.

Staff acknowledges that motorists, residents and elected officials are looking for solutions, specifically a reduction in speed. Staff's caution against speed bumps typically relates to the concern that the particular application would not be effective. Installing speed bumps and hoping that the speed will be reduced is not effective. Aside from the expense and maintenance issues, there would then be a speed bump and motorists still driving too fast.

After previous discussions regarding speed enforcement and traffic calming, the Common Council authorized the purchase of temporary speed radar feedback signs to be utilized for traffic calming. The outline of the process is available on the City's website:

<https://www.cityofmequonwi.gov/police/page/implementation-temporary-speed-radar-signs-speeding-concerns-residential-areas>.

Many residents find that the speed radar feedback signs are effective when installed, but as they are temporary, speeds may increase when they are not in place. This is similar to when the Police Department conducts directed speed enforcement.

In the past, Staff requested funding for the installation of permanent speed radar feedback signs, which were not funded. However, even if funded, Staff would recommend that there be policy analysis as to where and how frequently they should be installed. Installing speed radar feedback signs everywhere minimizes their effectiveness. Staff originally suggested that they be installed in School Zones, but the discussion never reached the stage of policy analysis.

Over the years, Staff has presented, discussed, analyzed and even debated this discussion topic at various committees and with numerous residents. Staff has contemplated requesting a standard operating procedure on how to respond to reports of speeding. Unfortunately, as this memo is intended to show, speeding is a complex issue that cannot fit easily into a standard. Other municipalities do have various programs and initiatives that could be reviewed.

Recommendation

Absent the background of the request for this to be a topic on an agenda, Staff assumes that the concern is not specifically about speed bumps, but rather about speeding or options for speed deterrence. If that is valid, then there should be an analysis of whether there is speeding, the specific road conditions, and if there is a need for action, a determination as to what the most effective, impactful traffic calming method would be. Traffic calming is not one size fits all and neither are speed bumps/ humps/ tables.

Staff recognizes that motorists, residents and elected officials may be looking for validation and the ability to "do something", rather than have staff analyze data and respond that there is no issue, the issue is not bad enough, or that nothing can be done to solve the issue. To be clear, that is never the intention of staff. However, since many traffic calming measures cause secondary issues related to restrictions for pedestrians or bicyclists, ongoing maintenance issues, impacts to emergency response time or simply budget and cost, Staff is simply trying to ensure that the issue is properly examined and a solution carefully selected.

As noted, Staff will attend the August meeting to gather feedback from the Public Welfare Committee to clarify what the issue is that is trying to be solved, so that staff can respond with the appropriate documentation.



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Office of Public Safety Committee

TO: Public Safety Committee
FROM: Mark Riley, Police Chief
DATE: June 5, 2025
SUBJECT: A Follow Up Discussion Regarding a Residential Speed Reduction Initiative.

In March 2024, the Police Department launched a new traffic safety initiative in response to community concerns about speeding in residential neighborhoods. This consisted of the Police Department creating a residential speed sign policy and actively promoting the use of newly acquired "Your Speed" signs in residential areas. The Department has utilized social media, the City's website, and the weekly bulletin to raise awareness. Additionally, the Department deploys a speed trailer and a small portable speed sign to help address speeding issues.

Analysis:

Since the implementation of this policy and the installation of speed radar signs, complaints about speeding have decreased. The Department is actively involved in statewide initiatives and specific speeding enforcement efforts to maintain a visible presence. Citizens can sign up to report speeding complaints and request the signs at <https://www.ci.mequon.wi.us/police/page/implementation-temporary-speed-radar-signs-speeding-concerns-residential-areas>

Each sign typically remains in one location for approximately 30 days before being moved to the next requested site.

Since the program began, the department has received 15 location requests and successfully deployed the signs to 12 different areas. Community feedback has been overwhelmingly positive. Residents have reported noticeable reductions in vehicle speeds, and some have requested repeat deployments due to the signs' effectiveness.

Demand for the radar speed signs continues to grow. The department is now scheduling deployments several months in advance.



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Office of Public Safety Committee

TO: Public Safety Committee
FROM: Patrick Pryor, Chief of Police
DATE: September 5, 2024
SUBJECT: A Discussion Regarding a Residential Speed Reduction Initiative with Active Citizen Participation.

Background:

Aldersperson Mayr asked Public Safety Chairperson Gregg Bach for a discussion about a residential speeding awareness campaign. Aldersperson Mayr emphasized the importance of involving the community in this initiative. The Police Department created a residential speed sign policy and is actively promoting the use of newly acquired "Your Speed" signs in residential areas. The Department utilizes social media, the City's website, and the weekly bulletin to raise awareness. Additionally, the Department deploys a speed trailer and a small portable speed sign to help address speeding issues.

Analysis:

Since the implementation of this policy and the installation of speed radar signs, complaints about speeding have decreased this summer. The Department is actively involved in statewide initiatives and specific speeding enforcement efforts to maintain a visible presence. Citizens can sign up to report speeding complaints and request the signs at

<https://www.ci.mequon.wi.us/police/page/implementation-temporary-speed-radar-signs-speeding-concerns-residential-areas>

The policy and deployment of the different signs and devices aims to address and alleviate concerns about speeding in residential areas by using speed radar signs. These signs are intended to promote safer driving habits, raise awareness about speed limits, and enhance overall road safety for residents and pedestrians.

One possibility for a residential speed reduction initiative is for Homeowners Associations (HOAs) to leverage their unique position within the community to foster active citizen participation and ensure the project's success. HOAs could establish a dedicated forum focused on traffic safety and speed reduction, emphasizing that the most likely speeders are residents of the neighborhood themselves.

During regular meetings, HOAs could discuss traffic issues and gather feedback from fellow homeowners, ensuring these meetings are well-publicized and accessible to all community members. They could use HOA newsletters, bulletins, and websites to inform residents about the concerns and educate them on the importance of speed reduction. Additionally, residents should be encouraged to report speeding incidents and dangerous driving behaviors as they occur.



11333 N. Cedarburg Road
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www.cityofmequonwi.gov

Office of Public Safety Committee

TO: Public Safety Committee
FROM: Patrick Pryor, Chief of Police
DATE: September 23, 2022
SUBJECT: Stop Sign Request on W. Bonniwell Road at N. Granville Road

Background:

A resident contacted the Police Department with concerns that there should be a Four Way Stop Sign at the intersection of Bonniwell and Granville Roads. Resident, Ed Soleski, contacted the department and expressed concerns of safety at this intersection. Soleski stated he has lived at this intersection for a number of years and that it has become increasingly dangerous, and it should have a four way stop sign installed or someone would likely be severely injured in an accident. Soleski stated there is no stop sign on Bonniwell Road in either direction for a large distance and that the sight lines of this intersection make it challenging to see.

I relayed this information to the City of Mequon Engineering Department. The Engineering Department deployed the traffic data measuring cables in this area and provided the attached memo with their findings.

The department conducted research on the number of accidents in this intersection for the last five years. The department found three accidents in the last five years.

On 06/29/2021, at 3:03PM, the department investigated a Property Damage Accident at this intersection. In this accident Unit #2 was facing northbound at the stop sign on Granville Road at Bonniwell Rd. Unit#1 was traveling westbound on Bonniwell Rd and while turning left on Granville Rd did not turn wide enough and struck Unit #2 on the front driver's side corner.

On 09/28/2019, at 7:09PM, the department investigated a Non-Reportable Accident at this intersection. In this accident Unit #1 was traveling south on Granville Road when it struck a black greyhound dog. Unit #1 had damage to the driver side parking light and a loose bumper on the driver side.

On 02/21/2019, at 7:31AM, the department investigated a Property Damage Accident at this intersection. Unit #1 was W/B on Bonniwell Road approaching the intersection at Granville Road. Non-Contact Unit #2 was S/B on Granville Road approaching the clearly posted 'Stop' sign at Bonniwell Road. Driver Unit #1 stated Non-Contact Unit #2 failed to stop at the 'Stop' sign, as it slid on the icy roadway and into the intersection. Driver Unit #1 braked and swerved to the left to avoid a collision. Unit #1 continued W/B through the intersection, passing in front of Non-Contact Unit #2. As Unit #1 continued W/B off-road left into the south ditch, its left outside mirror side-swiped a black & white guard post ('Penguin Pole'), on the southwest corner of the intersection, Unit #1 continued W/B thru the frozen snowbanks in the south ditch, coming to rest against some bushes.

As an additional note to the February accident the officer, while arriving at, and present on the scene, observed vehicles S/B on Granville Road slide into the intersection on the icy roadway. Mequon DPW subsequently responded to salt the roadways. This area is known to be slippery in the snow.

Analysis:

The Police Department defers to the Engineering Department for sign installation, as the city typically follows the Manual on Uniform Traffic Control for sign installation. As a possible alternative to a four way stop, the city could install an additional stop sign on the southwest corner for traffic northbound on Granville Road. These signs could also have additional “Cross Traffic Does Not Stop” signs posted on the back of each of the stop signs as additional warnings to assist with safety.

Recommendation:

Follow any improvement recommendations from City Engineering.

Attachments:

Granville and Bonniwell Stop Sign Analysis Report
Granville and Bonniwell Stop Sign Analysis Report (PDF)



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Public Works/Engineering

To: Patrick Pryor, Mequon Police Chief
From: Cole McCraw, Assistant City Engineer
Date: September 29, 2022
Subject: Granville Road and Bonniwell Road Intersection Control Evaluation

Background:

At the request of the Police Chief, Patrick Pryor, the Engineering Department measured the speeds and volumes of traffic on Granville Road and Bonniwell Road using traffic counters. The counters were placed on both sides of the intersection for both roads for a total of four, one-week measurements.

A property owner requested that the implementation of an all-way stop at the intersection be evaluated. The traffic counters were deployed from Friday, September 2nd through Thursday, September 22nd, 2022. Both roads currently have a posted speed limit of 45 mph.

Analysis:

The traffic volumes and speed measurements are summarized in the table below. The week of Monday, September 5th through Sunday, September 12th was used for the volume data in the first placement and the week of Tuesday, September 13th through Monday, September 19th was used for the volume data in the second placement. The speed statistics and vehicle count reports from the traffic counters are also attached to this memo.

Below is a tabular summary of the results:

	Bonniwell Road west (Counter 1)	Granville Road north (Counter 2)	Bonniwell Road east (Counter 1)	Granville Road south (Counter 2)
Total Vehicles Traveled (Over a 7-day period)	2,345	7,140	3,598	8,017
Average Daily Traffic	335	1,020	514	1,145
Average Speed	45.9	49.2	47.5	47.5
85th % Speed	56.1	55.6	55.9	48.9
Posted Speed	45 MPH	45 MPH	45 MPH	45 MPH

The Federal Highway Administration's Manual of Uniform Traffic Control Devices (MUTCD) gives guidance on where stop signs should be used at an intersection. Section 2B.07 gives the following criteria to be considered for multi-way stop sign installation:

- A. *Where traffic control signals are justified, the multi-way stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the installation of the traffic control signal*
- B. *Five or more reported crashes in a 12-month period that are susceptible to correction by a multi-way stop installation. Such crashes include right-turn and left-turn collisions as well as right-angle collisions.*
- C. *Minimum volumes:*
 - 1. *The vehicular volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day; and*
 - 2. *The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours, with an average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the highest hour; but*
 - 3. *If the 85th-percentile approach speed of the major-street traffic exceeds 40 mph, the minimum vehicular volume warrants are 70 percent of the values provided in Items 1 and 2.*
- D. *Where no single criterion is satisfied, but where Criteria B, C.1, and C.2 are all satisfied to 80 percent of the minimum values. Criterion C.3 is excluded from this condition.*

In applying these criteria to the data collected on the intersection:

- A. Signal control is not justified so this criterion is not applicable.
- B. Mequon Police included information on three incidents in the last five years. Additionally, none of the historical incidents are susceptible to correction by a multi-way stop application.
- C. Criterion C.3 is met, so C.1 and C.2 values reduce to 210 vehicles per hour and 140 units per hour, respectively. However, neither the major street (Granville Road) nor the minor street (Bonniwell Road) has an hour that exceeds 160 vehicles. Thus, the criteria are not met.
- D. 80 percent of minimum values are not met.

In summary, the intersection does not meet the criteria for a multi-way stop application by MUTCD guidance.

The MUTCD also gives the option to evaluate the following for multi-stop application:

Locations where a road user, after stopping, cannot see conflicting traffic and is not able to negotiate the intersection unless conflicting cross traffic is also required to stop.

The design intersection sight distance for a 45-mph is 500 ft. based on the assumed worst-case left turn from stop. It is recognized that a grade change is present east of the intersection on Bonniwell Road. Staff visited the site to determine if the grade change reduces the sight distance below the 500-foot sight distance. The sight distance exceeded 700 ft. at this location.

City staff will also inspect the intersection to determine if there are trees or vegetation that could impact driver's vision.

Recommendation:

In summary, the intersection does not meet the criteria for a multi-way stop application by MUTCD guidance. The intersection sight distances appear appropriate to the east of the intersection.

A second stop sign with a “cross traffic does not stop” indication on the southwest corner of the intersection is an option for added visibility. Though there have not been police incidents indicating evidence of motorists not noticing the stop sign, it would be consistent with the north side of the intersection and other intersections in the area.



Cole McCraw, P.E.
Assistant City Engineer

Attachments:
Traffic Count Reports
500' Sight Triangle Figure

MetroCount Traffic Executive Weekly Vehicle Counts

WeeklyVehicle-112 -- English (ENU)

Datasets:

Site: [Bonniwell Rd] Intersection Ahead Sign– west of Granville
Attribute: South Side of Road
Direction: 8 - East bound A>B, West bound B>A. **Lane:** 0
Survey Duration: 8:58 Thursday, September 01, 2022 => 13:55 Monday, September 12, 2022,
Zone:
File: Bonniwell Rd 0 2022-09-12 1355.EC0 (Plus)
Identifier: DJ07CD2H MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Factory default axle (v4.06)
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: 0:00 Friday, September 02, 2022 => 0:00 Monday, September 12, 2022 (10)
Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range: 6 - 99 mph.
Direction: North, East, South, West (bound), P = East
Separation: Headway > 0 sec, Span 0 - 328.084 ft
Name: Default Profile
Scheme: Vehicle classification (Scheme F3)
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Vehicles = 3245 / 3727 (87.07%)

Weekly Vehicle Counts

WeeklyVehicle-112

Site: Bonniwell Rd.0.1EW
Description: Intersection Ahead Sign
Filter time: 0:00 Friday, September 02, 2022 => 0:00 Monday, September 12, 2022
Scheme: Vehicle classification (Scheme F3)
Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12 13) Dir(NESW) Sp(6,99) Headway(>0) Span(0 - 328.084)

Hour	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Averages	
	29 Aug	30 Aug	31 Aug	01 Sep	02 Sep	03 Sep	04 Sep	1 - 5	1 - 7
0000-0100	*	*	*	*	2	5	3	2.0	3.3
0100-0200	*	*	*	*	1	2	0	1.0	1.0
0200-0300	*	*	*	*	1	1	0	1.0	0.7
0300-0400	*	*	*	*	5	1	1	5.0	2.3
0400-0500	*	*	*	*	1	0	1	1.0	0.7
0500-0600	*	*	*	*	5	0	0	5.0	1.7
0600-0700	*	*	*	*	22	2	1	22.0	8.3
0700-0800	*	*	*	*	26	3	7	26.0	12.0
0800-0900	*	*	*	*	17	6	9	17.0	10.7
0900-1000	*	*	*	*	16	17	13	16.0	15.3
1000-1100	*	*	*	*	15	34	16	15.0	21.7
1100-1200	*	*	*	*	27	19	18	27.0	21.3
1200-1300	*	*	*	*	21	28	23	21.0	24.0
1300-1400	*	*	*	*	40	25	30	40.0	31.7
1400-1500	*	*	*	*	25	24	25	25.0	24.7
1500-1600	*	*	*	*	36	27	17	36.0	26.7
1600-1700	*	*	*	*	42	19	18	42.0	26.3
1700-1800	*	*	*	*	33	13	27	33.0	24.3
1800-1900	*	*	*	*	23	11	4	23.0	12.7
1900-2000	*	*	*	*	17	7	12	17.0	12.0
2000-2100	*	*	*	*	3	6	8	3.0	5.7
2100-2200	*	*	*	*	8	10	5	8.0	7.7
2200-2300	*	*	*	*	6	4	3	6.0	4.3
2300-2400	*	*	*	*	2	1	0	2.0	1.0
Totals									
0700-1900	*	*	*	*	321	226	207	321.0	251.3
0600-2200	*	*	*	*	371	251	233	371.0	285.0
0600-0000	*	*	*	*	379	256	236	379.0	290.3
0000-0000	*	*	*	*	394	265	241	394.0	300.0
AM Peak	*	*	*	*	1100	1000	1100		
	*	*	*	*	27	34	18		
PM Peak	*	*	*	*	1600	1200	1300		
	*	*	*	*	42	28	30		

* - No data.

Weekly Vehicle Counts

WeeklyVehicle-112

Site: Bonniwell Rd.0.1EW
Description: Intersection Ahead Sign
Filter time: 0:00 Friday, September 02, 2022 => 0:00 Monday, September 12, 2022
Scheme: Vehicle classification (Scheme F3)
Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12 13) Dir(NESW) Sp(6,99) Headway(>0) Span(0 - 328.084)

Hour	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Averages	
	05 Sep	06 Sep	07 Sep	08 Sep	09 Sep	10 Sep	11 Sep	1 - 5	1 - 7
0000-0100	1	0	0	0	1	2	2	0.4	0.9
0100-0200	0	1	0	0	1	2	0	0.4	0.6
0200-0300	0	1	1	1	2	1	2	1.0	1.1
0300-0400	2	1	1	2	0	1	0	1.2	1.0
0400-0500	0	1	1	2	2	0	0	1.2	0.9
0500-0600	1	6	5	10	5	5	1	5.4	4.7
0600-0700	5	19	26	22	23	7	2	19.0	14.9
0700-0800	4	36	33	28	41	11	11	28.4	23.4
0800-0900	13	21	31	28	17	12	15	22.0	19.6
0900-1000	14	12	18	13	16	17	12	14.6	14.6
1000-1100	19	19	18	19	18	17	18	18.6	18.3
1100-1200	19	25	32	12	22	24	17	22.0	21.6
1200-1300	14	23	24	23	27	23	22	22.2	22.3
1300-1400	28	13	21	23	25	28	30	22.0	24.0
1400-1500	23	29	30	28	34	26	14	28.8	26.3
1500-1600	20	39	42	34	33	29	18	33.6	30.7
1600-1700	16	31	40	46	34	22	15	33.4	29.1
1700-1800	19	29	35	48	39	16	12	34.0	28.3
1800-1900	14	41	25	23	19	18	16	24.4	22.3
1900-2000	13	18	13	17	5	16	5	13.2	12.4
2000-2100	6	17	9	14	2	8	3	9.6	8.4
2100-2200	4	8	3	8	8	3	4	6.2	5.4
2200-2300	3	3	3	4	5	5	1	3.6	3.4
2300-2400	0	1	1	0	0	3	1	0.4	0.9
Totals									
0700-1900	203	318	349	325	325	243	200	304.0	280.4
0600-2200	231	380	400	386	363	277	214	352.0	321.6
0600-0000	234	384	404	390	368	285	216	356.0	325.9
0000-0000	238	394	412	405	379	296	221	365.6	335.0
AM Peak	1100	0700	0700	0800	0700	1100	1000		
	19	36	33	28	41	24	18		
PM Peak	1300	1800	1500	1700	1700	1500	1300		
	28	41	42	48	39	29	30		

* - No data.

MetroCount Traffic Executive Weekly Vehicle Counts

WeeklyVehicle-115 -- English (ENU)

Datasets:

Site: [Granville Rd] School Bus Stop Ahead Sign - North of Bonniwell
Attribute: N of Bonniwell
Direction: 7 - North bound A>B, South bound B>A. **Lane:** 0
Survey Duration: 9:24 Thursday, September 01, 2022 => 14:18 Monday, September 12, 2022,
Zone:
File: Granville Rd 0 2022-09-12 1419.EC0 (Regular)
Identifier: E962A3GE MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Factory default axle (v4.06)
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: 0:00 Friday, September 02, 2022 => 0:00 Monday, September 12, 2022 (10)
Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range: 6 - 99 mph.
Direction: North, East, South, West (bound), P = North
Separation: Headway > 0 sec, Span 0 - 328.084 ft
Name: Default Profile
Scheme: Vehicle classification (Scheme F3)
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Vehicles = 9924 / 11622 (85.39%)

Weekly Vehicle Counts

WeeklyVehicle-115

Site: Granville Rd.0.1NS
Description: School Bus Stop Ahead Sign
Filter time: 0:00 Friday, September 02, 2022 => 0:00 Monday, September 12, 2022
Scheme: Vehicle classification (Scheme F3)
Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12 13) Dir(NESW) Sp(6,99) Headway(>0) Span(0 - 328.084)

Hour	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Averages		
	29 Aug	30 Aug	31 Aug	01 Sep	02 Sep	03 Sep	04 Sep	1 - 5	1 - 7	
0000-0100	*	*	*	*	8	3	4	8.0	5.0	
0100-0200	*	*	*	*	3	0	6	3.0	3.0	
0200-0300	*	*	*	*	1	2	0	1.0	1.0	
0300-0400	*	*	*	*	6	1	2	6.0	3.0	
0400-0500	*	*	*	*	7	7	3	7.0	5.7	
0500-0600	*	*	*	*	35	8	2	35.0	15.0	
0600-0700	*	*	*	*	79	16	11	79.0	35.3	
0700-0800	*	*	*	*	120	32	21	120.0	57.7	
0800-0900	*	*	*	*	87	41	25	87.0	51.0	
0900-1000	*	*	*	*	59	58	59	59.0	58.7	
1000-1100	*	*	*	*	81	61	50	81.0	64.0	
1100-1200	*	*	*	*	82	62	56	82.0	66.7	
1200-1300	*	*	*	*	94	58	59	94.0	70.3	
1300-1400	*	*	*	*	72	85	75	72.0	77.3	
1400-1500	*	*	*	*	85	82	60	85.0	75.7	
1500-1600	*	*	*	*	99	54	50	99.0	67.7	
1600-1700	*	*	*	*	105	58	55	105.0	72.7	
1700-1800	*	*	*	*	88	46	43	88.0	59.0	
1800-1900	*	*	*	*	73	46	40	73.0	53.0	
1900-2000	*	*	*	*	49	28	34	49.0	37.0	
2000-2100	*	*	*	*	15	25	13	15.0	17.7	
2100-2200	*	*	*	*	17	17	12	17.0	15.3	
2200-2300	*	*	*	*	13	10	6	13.0	9.7	
2300-2400	*	*	*	*	10	7	3	10.0	6.7	
Totals										
0700-1900	*	*	*	*	1045	683	593	1045.0	773.7	
0600-2200	*	*	*	*	1205	769	663	1205.0	879.0	
0600-0000	*	*	*	*	1228	786	672	1228.0	895.3	
0000-0000	*	*	*	*	1288	807	689	1288.0	928.0	
AM Peak	*	*	*	*	0700	1100	0900			
	*	*	*	*	120	62	59			
PM Peak	*	*	*	*	1600	1300	1300			
	*	*	*	*	105	85	75			

* - No data.

Weekly Vehicle Counts

WeeklyVehicle-115

Site: Granville Rd.0.1NS
Description: School Bus Stop Ahead Sign
Filter time: 0:00 Friday, September 02, 2022 => 0:00 Monday, September 12, 2022
Scheme: Vehicle classification (Scheme F3)
Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12 13) Dir(NESW) Sp(6,99) Headway(>0) Span(0 - 328.084)

Hour	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Averages	
	05 Sep	06 Sep	07 Sep	08 Sep	09 Sep	10 Sep	11 Sep	1 - 5	1 - 7
0000-0100	6	1	6	4	2	9	3	3.8	4.4
0100-0200	3	1	1	2	3	0	1	2.0	1.6
0200-0300	0	1	5	5	3	1	1	2.8	2.3
0300-0400	0	6	6	3	4	3	0	3.8	3.1
0400-0500	3	8	14	10	12	0	1	9.4	6.9
0500-0600	7	39	39	36	29	9	1	30.0	22.9
0600-0700	13	86	95	86	80	14	9	72.0	54.7
0700-0800	17	152	142	160	120	37	22	118.2	92.9
0800-0900	23	84	81	95	72	40	23	71.0	59.7
0900-1000	33	58	56	61	57	66	35	53.0	52.3
1000-1100	60	55	51	55	59	69	50	56.0	57.0
1100-1200	53	67	64	62	72	82	55	63.6	65.0
1200-1300	62	62	62	70	70	71	55	65.2	64.6
1300-1400	64	83	70	70	73	69	43	72.0	67.4
1400-1500	64	87	101	84	94	80	47	86.0	79.6
1500-1600	59	112	101	127	123	69	42	104.4	90.4
1600-1700	41	126	127	117	121	64	17	106.4	87.6
1700-1800	35	93	93	96	97	56	34	82.8	72.0
1800-1900	35	61	65	68	52	57	28	56.2	52.3
1900-2000	16	51	53	38	39	31	16	39.4	34.9
2000-2100	15	20	27	25	26	30	9	22.6	21.7
2100-2200	8	13	12	11	20	15	9	12.8	12.6
2200-2300	2	8	5	15	14	14	5	8.8	9.0
2300-2400	2	5	4	3	9	12	2	4.6	5.3
Totals								|	
0700-1900	546	1040	1013	1065	1010	760	451	934.8	840.7
0600-2200	598	1210	1200	1225	1175	850	494	1081.6	964.6
0600-0000	602	1223	1209	1243	1198	876	501	1095.0	978.9
0000-0000	621	1279	1280	1303	1251	898	508	1146.8	1020.0
AM Peak	1000	0700	0700	0700	0700	1100	1100	|	
	60	152	142	160	120	82	55	|	
PM Peak	1400	1600	1600	1500	1500	1400	1200	|	
	64	126	127	127	123	80	55	|	

* - No data.

MetroCount Traffic Executive Weekly Vehicle Counts

WeeklyVehicle-119 -- English (ENU)

Datasets:

Site: [Bonniwell Rd] Intersection Ahead Sign - East of intersection at Granville
Attribute: North Side of Road
Direction: 8 - East bound A>B, West bound B>A. **Lane:** 0
Survey Duration: 14:04 Monday, September 12, 2022 => 11:15 Thursday, September 22, 2022,
Zone:
File: Bonniwell Rd 0 2022-09-22 1115.EC0 (Plus)
Identifier: DJ07CD2H MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Factory default axle (v4.06)
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: 0:00 Tuesday, September 13, 2022 => 0:00 Thursday, September 22, 2022 (9)
Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range: 6 - 99 mph.
Direction: North, East, South, West (bound), P = East
Separation: Headway > 0 sec, Span 0 - 328.084 ft
Name: Default Profile
Scheme: Vehicle classification (Scheme F3)
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Vehicles = 4599 / 4992 (92.13%)

Weekly Vehicle Counts

WeeklyVehicle-119

Site: Bonniwell Rd.0.1EW
Description: Intersection Ahead Sign - East of intersection at Granville
Filter time: 0:00 Tuesday, September 13, 2022 => 0:00 Thursday, September 22, 2022
Scheme: Vehicle classification (Scheme F3)
Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12 13) Dir(NESW) Sp(6,99) Headway(>0) Span(0 - 328.084)

Hour	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Averages	
	12 Sep	13 Sep	14 Sep	15 Sep	16 Sep	17 Sep	18 Sep	1 - 5	1 - 7
0000-0100	*	0	0	0	1	0	2	0.3	0.5
0100-0200	*	0	1	2	1	0	1	1.0	0.8
0200-0300	*	1	3	0	3	0	2	1.8	1.5
0300-0400	*	2	2	3	2	2	2	2.3	2.2
0400-0500	*	3	3	1	1	0	0	2.0	1.3
0500-0600	*	11	7	10	11	3	1	9.8	7.2
0600-0700	*	25	36	23	29	5	3	28.3	20.2
0700-0800	*	53	48	40	39	12	11	45.0	33.8
0800-0900	*	37	39	27	36	15	22	34.8	29.3
0900-1000	*	23	17	23	28	43	24	22.8	26.3
1000-1100	*	28	26	24	28	42	22	26.5	28.3
1100-1200	*	30	43	18	34	50	34	31.3	34.8
1200-1300	*	27	30	32	32	64	37	30.3	37.0
1300-1400	*	29	29	42	40	52	57	35.0	41.5
1400-1500	*	28	31	44	38	55	38	35.3	39.0
1500-1600	*	43	54	45	53	44	33	48.8	45.3
1600-1700	*	60	63	50	45	32	41	54.5	48.5
1700-1800	*	51	54	49	34	47	28	47.0	43.8
1800-1900	*	36	36	24	36	33	17	33.0	30.3
1900-2000	*	23	20	21	23	12	14	21.8	18.8
2000-2100	*	6	14	13	11	10	5	11.0	9.8
2100-2200	*	5	6	9	8	9	8	7.0	7.5
2200-2300	*	1	7	5	0	3	2	3.3	3.0
2300-2400	*	2	1	3	2	1	1	2.0	1.7
Totals									
0700-1900	*	445	470	418	443	489	364	444.0	438.2
0600-2200	*	504	546	484	514	525	394	512.0	494.5
0600-0000	*	507	554	492	516	529	397	517.3	499.2
0000-0000	*	524	570	508	535	534	405	534.3	512.7
AM Peak	*	0700	0700	0700	0700	1100	1100		
	*	53	48	40	39	50	34		
PM Peak	*	1600	1600	1600	1500	1200	1300		
	*	60	63	50	53	64	57		

* - No data.

Weekly Vehicle Counts

WeeklyVehicle-119

Site: Bonniwell Rd.0.1EW
Description: Intersection Ahead Sign - East of intersection at Granville
Filter time: 0:00 Tuesday, September 13, 2022 => 0:00 Thursday, September 22, 2022
Scheme: Vehicle classification (Scheme F3)
Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12 13) Dir(NESW) Sp(6,99) Headway(>0) Span(0 - 328.084)

Hour	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Averages	
	19 Sep	20 Sep	21 Sep	22 Sep	23 Sep	24 Sep	25 Sep	1 - 5	1 - 7
0000-0100	0	0	0	*	*	*	*	0.0	0.0
0100-0200	0	0	0	*	*	*	*	0.0	0.0
0200-0300	0	6	1	*	*	*	*	2.3	2.3
0300-0400	3	1	2	*	*	*	*	2.0	2.0
0400-0500	3	1	1	*	*	*	*	1.7	1.7
0500-0600	7	11	11	*	*	*	*	9.7	9.7
0600-0700	25	29	25	*	*	*	*	26.3	26.3
0700-0800	45	46	44	*	*	*	*	45.0	45.0
0800-0900	33	27	44	*	*	*	*	34.7	34.7
0900-1000	26	19	23	*	*	*	*	22.7	22.7
1000-1100	21	17	22	*	*	*	*	20.0	20.0
1100-1200	31	19	34	*	*	*	*	28.0	28.0
1200-1300	36	21	32	*	*	*	*	29.7	29.7
1300-1400	21	37	26	*	*	*	*	28.0	28.0
1400-1500	58	25	36	*	*	*	*	39.7	39.7
1500-1600	48	43	39	*	*	*	*	43.3	43.3
1600-1700	43	68	51	*	*	*	*	54.0	54.0
1700-1800	48	31	46	*	*	*	*	41.7	41.7
1800-1900	32	31	38	*	*	*	*	33.7	33.7
1900-2000	25	20	17	*	*	*	*	20.7	20.7
2000-2100	9	11	23	*	*	*	*	14.3	14.3
2100-2200	4	7	8	*	*	*	*	6.3	6.3
2200-2300	3	0	4	*	*	*	*	2.3	2.3
2300-2400	1	3	1	*	*	*	*	1.7	1.7
Totals									
0700-1900	442	384	435	*	*	*	*	420.3	420.3
0600-2200	505	451	508	*	*	*	*	488.0	488.0
0600-0000	509	454	513	*	*	*	*	492.0	492.0
0000-0000	522	473	528	*	*	*	*	507.7	507.7
AM Peak	0700	0700	0800	*	*	*	*		
	45	46	44	*	*	*	*		
PM Peak	1400	1600	1600	*	*	*	*		
	58	68	51	*	*	*	*		

* - No data.

MetroCount Traffic Executive Weekly Vehicle Counts

WeeklyVehicle-122 -- English (ENU)

Datasets:

Site: [Granville Rd] Stop Ahead Sign S of intersection
Attribute: S of Bonniwell
Direction: 7 - North bound A>B, South bound B>A. **Lane:** 0
Survey Duration: 14:25 Monday, September 12, 2022 => 11:16 Thursday, September 22, 2022,
Zone:
File: Granville Rd 0 2022-09-22 1116.EC0 (Regular)
Identifier: E962A3GE MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Factory default axle (v4.06)
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: 0:00 Tuesday, September 13, 2022 => 0:00 Thursday, September 22, 2022 (9)
Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range: 6 - 99 mph.
Direction: North, East, South, West (bound), P = North
Separation: Headway > 0 sec, Span 0 - 328.084 ft
Name: Default Profile
Scheme: Vehicle classification (Scheme F3)
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Vehicles = 10592 / 11716 (90.41%)

Weekly Vehicle Counts

WeeklyVehicle-122

Site: Granville Rd.0.1NS
Description: Stop Ahead Sign S of intersection
Filter time: 0:00 Tuesday, September 13, 2022 => 0:00 Thursday, September 22, 2022
Scheme: Vehicle classification (Scheme F3)
Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12 13) Dir(NESW) Sp(6,99) Headway(>0) Span(0 - 328.084)

Hour	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Averages	
	12 Sep	13 Sep	14 Sep	15 Sep	16 Sep	17 Sep	18 Sep	1 - 5	1 - 7
0000-0100	*	2	2	2	0	5	5	1.5	2.7
0100-0200	*	0	4	1	1	2	3	1.5	1.8
0200-0300	*	5	3	4	6	2	3	4.5	3.8
0300-0400	*	1	3	5	2	5	2	2.8	3.0
0400-0500	*	15	13	10	8	2	2	11.5	8.3
0500-0600	*	30	32	33	23	11	2	29.5	21.8
0600-0700	*	93	89	86	78	18	8	86.5	62.0
0700-0800	*	155	152	153	131	34	27	147.8	108.7
0800-0900	*	91	81	75	73	52	29	80.0	66.8
0900-1000	*	58	56	74	58	59	57	61.5	60.3
1000-1100	*	54	43	63	69	58	83	57.3	61.7
1100-1200	*	65	79	59	69	82	72	68.0	71.0
1200-1300	*	60	63	63	72	99	80	64.5	72.8
1300-1400	*	66	64	74	61	78	70	66.3	68.8
1400-1500	*	87	90	75	106	81	74	89.5	85.5
1500-1600	*	105	113	129	123	71	82	117.5	103.8
1600-1700	*	120	117	116	109	77	71	115.5	101.7
1700-1800	*	99	103	100	88	64	45	97.5	83.2
1800-1900	*	68	61	68	58	56	44	63.8	59.2
1900-2000	*	42	31	27	42	32	30	35.5	34.0
2000-2100	*	22	31	34	22	37	11	27.3	26.2
2100-2200	*	23	15	19	15	25	12	18.0	18.2
2200-2300	*	5	11	9	9	12	9	8.5	9.2
2300-2400	*	5	3	4	5	9	0	4.3	4.3
Totals									
0700-1900	*	1028	1022	1049	1017	811	734	1029.0	943.5
0600-2200	*	1208	1188	1215	1174	923	795	1196.3	1083.8
0600-0000	*	1218	1202	1228	1188	944	804	1209.0	1097.3
0000-0000	*	1271	1259	1283	1228	971	821	1260.3	1138.8
AM Peak	*	0700	0700	0700	0700	1100	1000		
	*	155	152	153	131	82	83		
PM Peak	*	1600	1600	1500	1500	1200	1500		
	*	120	117	129	123	99	82		

* - No data.

Weekly Vehicle Counts

WeeklyVehicle-122

Site: Granville Rd.0.1NS
Description: Stop Ahead Sign S of intersection
Filter time: 0:00 Tuesday, September 13, 2022 => 0:00 Thursday, September 22, 2022
Scheme: Vehicle classification (Scheme F3)
Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12 13) Dir(NESW) Sp(6,99) Headway(>0) Span(0 - 328.084)

Hour	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Averages	
	19 Sep	20 Sep	21 Sep	22 Sep	23 Sep	24 Sep	25 Sep	1 - 5	1 - 7
0000-0100	6	4	3	*	*	*	*	4.3	4.3
0100-0200	1	4	3	*	*	*	*	2.7	2.7
0200-0300	1	6	5	*	*	*	*	4.0	4.0
0300-0400	4	3	5	*	*	*	*	4.0	4.0
0400-0500	10	9	10	*	*	*	*	9.7	9.7
0500-0600	29	29	30	*	*	*	*	29.3	29.3
0600-0700	79	92	81	*	*	*	*	84.0	84.0
0700-0800	130	145	147	*	*	*	*	140.7	140.7
0800-0900	92	94	79	*	*	*	*	88.3	88.3
0900-1000	54	54	69	*	*	*	*	59.0	59.0
1000-1100	45	47	51	*	*	*	*	47.7	47.7
1100-1200	60	62	72	*	*	*	*	64.7	64.7
1200-1300	61	40	51	*	*	*	*	50.7	50.7
1300-1400	61	67	83	*	*	*	*	70.3	70.3
1400-1500	109	77	102	*	*	*	*	96.0	96.0
1500-1600	114	113	110	*	*	*	*	112.3	112.3
1600-1700	103	110	143	*	*	*	*	118.7	118.7
1700-1800	90	116	120	*	*	*	*	108.7	108.7
1800-1900	56	68	81	*	*	*	*	68.3	68.3
1900-2000	34	45	37	*	*	*	*	38.7	38.7
2000-2100	19	18	30	*	*	*	*	22.3	22.3
2100-2200	14	16	14	*	*	*	*	14.7	14.7
2200-2300	9	12	12	*	*	*	*	11.0	11.0
2300-2400	3	4	2	*	*	*	*	3.0	3.0
Totals									
0700-1900	975	993	1108	*	*	*	*	1025.3	1025.3
0600-2200	1121	1164	1270	*	*	*	*	1185.0	1185.0
0600-0000	1133	1180	1284	*	*	*	*	1199.0	1199.0
0000-0000	1184	1235	1340	*	*	*	*	1253.0	1253.0
AM Peak	0700	0700	0700	*	*	*	*		
	130	145	147	*	*	*	*		
PM Peak	1500	1700	1600	*	*	*	*		
	114	116	143	*	*	*	*		

* - No data.

MetroCount Traffic Executive Class Speed Matrix

ClassMatrix-109 -- English (ENU)

Datasets:

Site: [Bonniwell Rd] Intersection Ahead Sign – West of Granville
Attribute: South Side of Road
Direction: 8 - East bound A>B, West bound B>A. Lane: 0
Survey Duration: 8:58 Thursday, September 01, 2022 => 13:55 Monday, September 12, 2022,
Zone:
File: Bonniwell Rd 0 2022-09-12 1355.EC0 (Plus)
Identifier: DJ07CD2H MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Factory default axle (v4.06)
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: 0:00 Friday, September 02, 2022 => 0:00 Monday, September 12, 2022 (10)
Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range: 6 - 99 mph.
Direction: North, East, South, West (bound), P = East
Separation: Headway > 0 sec, Span 0 - 328.084 ft
Name: Default Profile
Scheme: Vehicle classification (Scheme F3)
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Vehicles = 3245 / 3727 (87.07%)

Class Speed Matrix

ClassMatrix-109

Site: Bonniwell Rd.0.1EW
Description: Intersection Ahead Sign
Filter time: 0:00 Friday, September 02, 2022 => 0:00 Monday, September 12, 2022
Scheme: Vehicle classification (Scheme F3)
Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12 13) Dir(NESW) Sp(6,99) Headway(>0) Span(0 - 328.084)

Speed (mph)	Class													Speed Totals	
	CYCLE 1	PC 2	2A-4T 3	BUS 4	2A-6T 5	3A-SU 6	4A-SU 7	<5A DBL 8	5A DBL 9	>6A DBL 10	<6A MUL 11	6A MULT 12	>6A MUL 13		
6 - 12	.	3	1	1	.	.	.	.	.	.	.	.	.	5	0.2%
12 - 19	8	14	4	.	2	.	.	.	.	.	.	.	.	28	0.9%
19 - 25	8	53	13	2	4	.	1	1	.	.	.	.	.	82	2.5%
25 - 31	2	101	23	.	12	.	.	.	.	.	.	.	.	138	4.3%
31 - 37	2	192	62	1	16	3	1	.	1	.	.	.	.	278	8.6%
37 - 43	9	490	188	3	31	5	1	.	3	.	.	.	.	730	22.5%
43 - 50	6	593	218	5	55	2	4	.	5	.	.	.	.	888	27.4%
50 - 56	7	281	212	2	76	1	.	1	2	.	.	.	.	582	17.9%
56 - 62	2	108	177	3	53	.	.	.	3	.	.	.	.	346	10.7%
62 - 68	2	29	70	1	17	.	.	.	.	.	.	.	.	119	3.7%
68 - 75	.	10	12	.	12	.	.	.	.	.	.	.	.	34	1.0%
75 - 81	.	2	5	.	2	.	.	.	.	.	.	.	.	9	0.3%
81 - 87	.	.	3	.	1	.	.	.	.	.	.	.	.	4	0.1%
87 - 93	1	1	.	.	.	.	.	.	.	.	.	.	.	2	0.1%
93 - 99	.	.	.	.	.	.	.	.	.	.	.	.	.	0	0.0%
Class Totals	47	1877	988	18	281	11	7	2	14	0	0	0	0	3245	
	1.4%	57.8%	30.4%	0.6%	8.7%	0.3%	0.2%	0.1%	0.4%	0.0%	0.0%	0.0%	0.0%		

MetroCount Traffic Executive Class Speed Matrix

ClassMatrix-113 -- English (ENU)

Datasets:

Site: [Granville Rd] School Bus Stop Ahead Sign - North of Bonniwell
Attribute: N of Bonniwell
Direction: 7 - North bound A>B, South bound B>A. **Lane:** 0
Survey Duration: 9:24 Thursday, September 01, 2022 => 14:18 Monday, September 12, 2022,
Zone:
File: Granville Rd 0 2022-09-12 1419.EC0 (Regular)
Identifier: E962A3GE MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Factory default axle (v4.06)
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: 0:00 Friday, September 02, 2022 => 0:00 Monday, September 12, 2022 (10)
Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range: 6 - 99 mph.
Direction: North, East, South, West (bound), P = North
Separation: Headway > 0 sec, Span 0 - 328.084 ft
Name: Default Profile
Scheme: Vehicle classification (Scheme F3)
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Vehicles = 9924 / 11622 (85.39%)

Class Speed Matrix

ClassMatrix-113

Site: Granville Rd.0.1NS
Description: School Bus Stop Ahead Sign
Filter time: 0:00 Friday, September 02, 2022 => 0:00 Monday, September 12, 2022
Scheme: Vehicle classification (Scheme F3)
Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12 13) Dir(NESW) Sp(6,99) Headway(>0) Span(0 - 328.084)

Speed (mph)	Class													Speed Totals	
	CYCLE 1	PC 2	2A-4T 3	BUS 4	2A-6T 5	3A-SU 6	4A-SU 7	<5A DBL 8	5A DBL 9	>6A DBL 10	<6A MUL 11	6A MULT 12	>6A MUL 13		
6 - 12	1	2	1	.	.	.	.	.	.	.	.	.	.	4	0.0%
12 - 19	15	19	5	.	1	1	1	1	.	.	.	.	1	44	0.4%
19 - 25	16	9	8	.	.	1	.	2	.	.	.	.	.	36	0.4%
25 - 31	5	29	10	.	1	1	.	.	1	.	.	.	.	47	0.5%
31 - 37	6	203	87	3	9	3	1	.	4	.	.	.	1	317	3.2%
37 - 43	30	1161	369	15	47	21	2	1	5	4	.	.	1	1656	16.7%
43 - 50	85	2096	709	9	113	29	4	1	12	2	.	.	.	3060	30.8%
50 - 56	80	1920	776	14	161	23	2	.	5	1	.	.	.	2982	30.0%
56 - 62	54	847	402	2	60	7	1	.	.	.	.	.	.	1373	13.8%
62 - 68	24	208	79	.	10	1	.	.	.	.	.	.	.	322	3.2%
68 - 75	9	36	14	1	7	1	.	.	.	.	.	.	.	68	0.7%
75 - 81	4	3	2	.	1	.	.	.	.	.	.	.	.	10	0.1%
81 - 87	2	.	.	.	.	.	.	.	.	.	.	.	.	2	0.0%
87 - 93	1	1	.	.	.	.	.	.	.	.	.	.	.	2	0.0%
93 - 99	.	1	.	.	.	.	.	.	.	.	.	.	.	1	0.0%
Class Totals	332	6535	2462	44	410	88	11	5	27	7	0	0	3	9924	
	3.3%	65.9%	24.8%	0.4%	4.1%	0.9%	0.1%	0.1%	0.3%	0.1%	0.0%	0.0%	0.0%		

MetroCount Traffic Executive Class Speed Matrix

ClassMatrix-116 -- English (ENU)

Datasets:

Site: [Bonniwell Rd] Intersection Ahead Sign - East of intersection at Granville
Attribute: North Side of Road
Direction: 8 - East bound A>B, West bound B>A. Lane: 0
Survey Duration: 14:04 Monday, September 12, 2022 => 11:15 Thursday, September 22, 2022,
Zone:
File: Bonniwell Rd 0 2022-09-22 1115.EC0 (Plus)
Identifier: DJ07CD2H MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Factory default axle (v4.06)
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: 0:00 Tuesday, September 13, 2022 => 0:00 Thursday, September 22, 2022 (9)
Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range: 6 - 99 mph.
Direction: North, East, South, West (bound), P = East
Separation: Headway > 0 sec, Span 0 - 328.084 ft
Name: Default Profile
Scheme: Vehicle classification (Scheme F3)
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Vehicles = 4599 / 4992 (92.13%)

Class Speed Matrix

ClassMatrix-116

Site: Bonniwell Rd.0.1EW
Description: Intersection Ahead Sign - East of intersection at Granville
Filter time: 0:00 Tuesday, September 13, 2022 => 0:00 Thursday, September 22, 2022
Scheme: Vehicle classification (Scheme F3)
Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12 13) Dir(NESW) Sp(6,99) Headway(>0) Span(0 - 328.084)

Speed (mph)	Class													Speed Totals	
	CYCLE 1	PC 2	2A-4T 3	BUS 4	2A-6T 5	3A-SU 6	4A-SU 7	<5A DBL 8	5A DBL 9	>6A DBL 10	<6A MUL 11	6A MULT 12	>6A MUL 13		
6 - 12	.	.	.	.	.	.	.	.	.	.	.	.	.	0	0.0%
12 - 19	.	22	4	.	1	.	1	.	.	.	.	.	.	28	0.6%
19 - 25	1	3	1	.	.	1	.	.	1	.	.	.	.	7	0.2%
25 - 31	1	14	13	.	2	4	.	.	.	.	.	.	.	34	0.7%
31 - 37	8	219	65	3	17	2	6	.	1	.	.	.	.	321	7.0%
37 - 43	20	835	225	12	33	4	.	.	2	.	.	.	.	1131	24.6%
43 - 50	27	917	346	7	84	2	1	1	6	2	.	.	.	1393	30.3%
50 - 56	14	476	348	8	116	3	.	2	3	1	.	.	1	972	21.1%
56 - 62	2	169	226	3	74	2	.	1	1	.	.	.	1	479	10.4%
62 - 68	3	44	84	1	30	1	1	.	.	.	.	.	.	164	3.6%
68 - 75	1	12	30	.	10	.	1	.	.	.	.	.	.	54	1.2%
75 - 81	1	2	5	.	6	.	.	.	.	.	.	.	.	14	0.3%
81 - 87	.	.	.	.	.	.	.	.	.	.	.	.	.	0	0.0%
87 - 93	.	.	.	.	.	.	.	.	.	.	.	.	.	0	0.0%
93 - 99	.	.	2	.	.	.	.	.	.	.	.	.	.	2	0.0%
Class Totals	78	2713	1349	34	373	19	10	4	14	3	0	0	2	4599	
	1.7%	59.0%	29.3%	0.7%	8.1%	0.4%	0.2%	0.1%	0.3%	0.1%	0.0%	0.0%	0.0%		

MetroCount Traffic Executive Class Speed Matrix

ClassMatrix-120 -- English (ENU)

Datasets:

Site: [Granville Rd] Stop Ahead Sign S of intersection
Attribute: S of Bonniwell
Direction: 7 - North bound A>B, South bound B>A. **Lane:** 0
Survey Duration: 14:25 Monday, September 12, 2022 => 11:16 Thursday, September 22, 2022,
Zone:
File: Granville Rd 0 2022-09-22 1116.EC0 (Regular)
Identifier: E962A3GE MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Factory default axle (v4.06)
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: 0:00 Tuesday, September 13, 2022 => 0:00 Thursday, September 22, 2022 (9)
Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range: 6 - 99 mph.
Direction: North, East, South, West (bound), P = North
Separation: Headway > 0 sec, Span 0 - 328.084 ft
Name: Default Profile
Scheme: Vehicle classification (Scheme F3)
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Vehicles = 10592 / 11716 (90.41%)

Class Speed Matrix

ClassMatrix-120

Site: Granville Rd.0.1NS
Description: Stop Ahead Sign S of intersection
Filter time: 0:00 Tuesday, September 13, 2022 => 0:00 Thursday, September 22, 2022
Scheme: Vehicle classification (Scheme F3)
Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12 13) Dir(NESW) Sp(6,99) Headway(>0) Span(0 - 328.084)

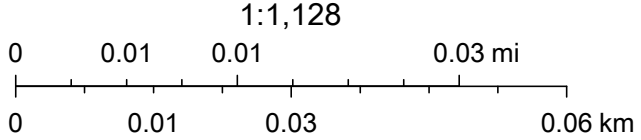
Speed (mph)	Class														Speed Totals	
	CYCLE	PC	2A-4T	BUS	2A-6T	3A-SU	4A-SU	<5A DBL	5A DBL	>6A DBL	<6A MUL	6A MULT	>6A MUL			
	1	2	3	4	5	6	7	8	9	10	11	12	13			
6 - 12	3	1	.	.	.	.	.	.	.	.	.	.	.	4	0.0%
12 - 19	20	2	5	.	.	.	.	.	1	.	.	.	.	28	0.3%
19 - 25	15	7	1	.	2	.	.	.	.	.	.	.	.	25	0.2%
25 - 31	1	27	13	.	2	2	1	.	1	.	.	.	.	47	0.4%
31 - 37	18	168	69	3	12	24	6	.	4	.	.	.	.	304	2.9%
37 - 43	32	1313	446	28	70	61	8	.	15	6	.	.	.	1979	18.7%	
43 - 50	41	3340	1051	24	140	37	3	1	3	.	.	.	.	4640	43.8%
50 - 56	40	1897	687	9	115	8	.	1	.	.	.	.	1	2758	26.0%
56 - 62	23	427	166	.	38	2	1	.	.	.	.	.	.	657	6.2%
62 - 68	10	66	27	.	9	.	1	.	.	.	.	.	.	113	1.1%
68 - 75	5	7	5	.	1	.	.	.	.	.	.	.	.	18	0.2%
75 - 81	1	7	2	.	1	.	1	.	.	.	.	.	.	12	0.1%
81 - 87	4	1	.	.	.	.	.	.	.	.	.	.	.	5	0.0%
87 - 93	1	.	.	.	.	.	.	.	.	.	.	.	.	1	0.0%
93 - 99	1	.	.	.	.	.	.	.	.	.	.	.	.	1	0.0%
Class Totals	215	7263	2472	64	390	134	21	2	24	6	0	0	1	10592		
	2.0%	68.6%	23.3%	0.6%	3.7%	1.3%	0.2%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%			

City of Mequon - 500' Sight Triangle



9/27/2022, 12:42:23 PM

- | | | | | |
|-------------------|------------|-------------------------|---------------|---------------------|
| Parcels | Gap | Historical Parcel Lines | Highways | Ramp |
| Road Reservation | Overlap | Local Roads | US Highway | Railroad Centerline |
| Road Right-of-Way | Tax Parcel | Private Road | State Highway | |
| Condominium | | Town/Public Road | County Road | |





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www.cityofmequonwi.gov

Office of Public Safety Committee

TO: Public Safety Committee
FROM: Patrick Pryor, Chief of Police
DATE: October 27, 2023
SUBJECT: A Discussion on Policy Guidelines for the Implementation of Radar Speed Signs to assist with Citizen Complaints of Speeding Vehicles.

Background:

Alderman Mayr has proposed the inclusion of funds in the budget for the acquisition of "Speed Radar Detector Signs." These signs would be temporarily installed in areas where residents have expressed concerns about speeding vehicles. The Mequon Appropriations Committee, at their October 2023 meeting, has agreed with this suggestion and has decided to allocate funds for this purpose. Additionally, the committee has suggested that the Public Safety Committee should develop policy guidelines for the implementation and usage of these signs.

Analysis:

Making a Request for Speed Sign Placement:

A PDF fillable "speed sign request" form would be available on the City/Police Department website. The form would include the name, address, and contact information of the requester (no phone or anonymous requests) and location of the speeding concern (indicating specific direction of travel). Wording should be included that the placement will be made in relation to the requester's address. Once completed, the speed sign request form would be emailed by the requester to responsible PD representative (Sgt. Schiller and Sgt. Heinen).

Received Request:

PD representative would receive the request and survey the requested location. Upon identification of a suitable location, it should be marked (flag or other item) so that it can be readily identified by DPW (for exact placement). Once the site is marked, notification for placement would be made to DPW by email. Movement of the speed signs would be coordinated with DPW, so that all signs would be moved on one day (to limit time impact to DPW and aid in scheduling). If a speed sign does not have a specific request location, the PD representative would be responsible for selecting a suitable location that would meet community/department needs/interests (to ensure all signs are deployed). The PF representative would respond to the requester, providing the anticipated deployment date.

All speed signs should be rotated and deployed continuously/simultaneously.

DPW:

DPW representative would place the speed sign in the location/direction as identified by the PD representative. Placement details would be sent by email from the PD representative to the DPW representative.

Speed Sign Terms:

Requests must be assessed in terms of placement safety and community needs.

Requests must be reviewed in relation to placement and the requester, ensuring the requester is connected (by address) to the location where the speed sign is being placed. Requests should identify a location related/in proximity to the requester to prevent a request being made to have the speed sign placed to intimidate, harass, or target a specific driver, neighborhood, or location.

Placement would be granted for 30 days (with extension up to 60 days, if a speed sign is available and with the approval of the PD representative).

Placement is weather dependent (no placements from December 1 through March 31, or when conditions warrant).

The PD representative reserves the right to deny any request and must make notification to the Police Chief and requester of the denial.

Analysis (for purchase):

The Stalker (quote #2078350) would be the preferred option (it is approximately \$476 more than the Kustom). Stalker is the same brand as our current speed trailer, and it appears that the data download/evaluation system and software is the same (reducing learning time and support operations). Additionally, the Stalker unit allows for various message displays, providing the potential for greater safety use (such as placing them on Highland Road, near Rotary Park, during special events). Lastly, the Stalker is a slightly larger unit (15" compared to the 12" Kustom unit), allowing for greater visibility and impact.

An alternative use of some of the funds could be to purchase newer radar systems for the patrol squads, rather than solely investing in speed signs. Currently, only one squad has a mounted radar unit, while the others rely on handheld units. By equipping more squads with the latest radar technology, the department can enhance speed enforcement capabilities, improving accuracy and efficiency in monitoring and enforcing speed limits. With an estimated cost of \$3,600 per squad, reallocating some of the funds towards this purpose would ensure that more patrol units have access to advanced speed enforcement tools, ultimately enhancing traffic safety in the community.



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Office of Public Safety Committee

TO: Public Safety Committee
FROM: Patrick Pryor, Chief of Police
DATE: July 29, 2022
SUBJECT: A Discussion of Traffic Concerns on N. Country View Drive from W. Mequon Road to N. River Road.

Background:

A resident contacted Alderman Bushee with concerns about excessive speeds in a residential area by Homestead High School. The resident also requested a stop sign be placed at the intersection of County View Dr and Squire Road, creating a 3 way stop. The email from the citizen and two attachments, a map, and a speeding chart, provided by the citizen are also attached to this memo.

I relayed this information to the City of Mequon Engineering Department. The Engineering Department deployed the traffic data measuring cables in this area and provided the attached memo with their findings.

The Police Department's speedboard was deployed in this area for three days in an effort to alert drivers to their speeds. Officers also monitored this area randomly in the last month. They did not observe any significant speeding issues however it should be noted that their presence was visible and usually creates a deterrent with this visibility.

The Police Department defers to the Engineering Department for sign installation, as the city typically follows the Manual on Uniform Traffic Control for sign installation.

Recommendation:

Follow any improvement recommendations from City Engineering. The police department will continue to patrol for speeding violations in this area as time permits.

Attachments:

Country View and Squire Speed and Stop Sign Analysis (PDF)
Email from Resident (PDF)
map from Resident (JPG)
stop speeding from Resident (JPG)



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Public Works/Engineering

To: Patrick Pryor, Mequon Police Chief
From: Cole McCraw, Assistant City Engineer
Date: July 28, 2022
Subject: Country View Drive and Squire Road Speed and Intersection Control Evaluation

Background:

At the request of the Police Chief, Patrick Pryor, the Engineering Department measured the speed and volume of traffic on Country View Drive and Squire Road using traffic counters. The counters were placed on Country View Drive near the Squire Road intersection and on Squire Road east of Country View Drive.

Alderman have requested an evaluation of speeds on Country View Drive as well as an evaluation for stop signs at the Country View Drive/Squire Road intersection. The traffic counters were deployed from Thursday, June 30th through Thursday, July 7th, 2022. Country View Drive and Squire Road currently have a speed limit of 25 mph.

Analysis:

During the week of traffic counts, there were 1,247 vehicles counted on Country View Drive and 564 vehicles counted on Squire Road. On Country View Drive, the mean vehicle speed was 25.6 mph and the 85th percentile speed was 31.3 mph. On Squire Road, the mean vehicle speed was 22.2 mph and the 85th percentile speed was 26.4 mph. The speed statistics and vehicle count reports from the traffic counters are attached to this memo.

Below is a tabular summary of the results:

	Counter 1 (Country View Drive)	Counter 2 (Squire Road)
Total Vehicles Traveled (Over a 1-week period)	1,247	564
Average Speed	25.6 MPH	22.2 MPH
85th % Speed	31.3 MPH	26.4 MPH
Posted Speed	25 MPH	25 MPH

The Federal Highway Administration’s Manual of Uniform Traffic Control Devices (MUTCD) gives guidance on where stop signs should be used at an intersection. Section 2B.07 gives the following criteria to be considered for multi-way stop sign installation:

- A. *Where traffic control signals are justified, the multi-way stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the installation of the traffic control signal*

- B. *Five or more reported crashes in a 12-month period that are susceptible to correction by a multi-way stop installation. Such crashes include right-turn and left-turn collisions as well as right-angle collisions.*
- C. *Minimum volumes:*
 - 1. *The vehicular volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day; and*
 - 2. *The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours, with an average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the highest hour; but*
 - 3. *If the 85th-percentile approach speed of the major-street traffic exceeds 40 mph, the minimum vehicular volume warrants are 70 percent of the values provided in Items 1 and 2.*
- D. *Where no single criterion is satisfied, but where Criteria B, C.1, and C.2 are all satisfied to 80 percent of the minimum values. Criterion C.3 is excluded from this condition.*

In applying these criteria to the data collected on the intersection:

- A. Signal control is not justified.
- B. Mequon Police did not have any records of crashes at this intersection.
- C. For minimum volumes, the vehicular volume is not met
- D. 80 percent of minimum values are not met

In summary, the intersection does not meet the criteria for a multi-way stop application.

Recommendation:

The intent of this memo is not to provide a recommendation regarding a change in speed limit but to provide information regarding the current traffic volumes and speed. General engineering practice requires that a speed is posted within 5 MPH of the 85th percentile speed of free-flowing traffic. Lowering the speed limit below this threshold can promote speeding on roadways and can also promote a false sense of security among residents and pedestrians who may expect that posting lower limits will change driver behavior as explained in the WisDOT Wisconsin Transportation Bulletin No. 21 (attached). Other factors to be considered when determining the posted speed of a roadway are roadway characteristics, pace speed, development, parking practices, and crash history.

In addition to the intersection not meeting any of the evaluated criteria for multi-way stop sign installation, the MUTCD also states that yield or stop signs should not be used for speed control. Several studies indicate that unwarranted stop signs do not control speeds except under very rare conditions. Unintended consequences of installing unwarranted stop signs include poor stop compliance, increased speeding some distance from the intersection, higher operating costs including added travel times, fuel consumption, fuel emissions, and others.



Cole McCraw, P.E.
Assistant City Engineer

Attachments:
Traffic Count Reports
WisDOT Wisconsin Transportation Bulletin No. 21

MetroCount Traffic Executive Speed Statistics by Hour

SpeedStatHour-93 -- English (ENU)

Datasets:

Site: [Country View] North of Intersection at Squire Rd
Attribute: East side of road
Direction: 7 - North bound A>B, South bound B>A. **Lane:** 0
Survey Duration: 9:21 Thursday, June 30, 2022 => 15:33 Thursday, July 07, 2022,
Zone:
File: Country View 0 2022-07-07 1533.EC0 (Plus)
Identifier: DJ07CD2H MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Factory default axle (v4.06)
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: 12:00 Thursday, June 30, 2022 => 12:00 Thursday, July 07, 2022 (7)
Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range: 6 - 99 mph.
Direction: North, East, South, West (bound), P = North
Separation: Headway > 0 sec, Span 0 - 328.084 ft
Name: Default Profile
Scheme: Vehicle classification (Scheme F3)
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Vehicles = 1247 / 1321 (94.40%)

Speed Statistics by Hour

SpeedStatHour-93

Site: Country View.0.1NS
Description: North of Intersection at Squire Rd
Filter time: 12:00 Thursday, June 30, 2022 => 12:00 Thursday, July 07, 2022
Scheme: Vehicle classification (Scheme F3)
Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12 13) Dir(NESW) Sp(6,99) Headway(>0) Span(0 - 328.084)

Vehicles = 1247

Posted speed limit = 25 mph

Maximum = 47.2 mph, Minimum = 6.3 mph, Mean = 25.6 mph

85% Speed = 31.3 mph, 95% Speed = 34.2 mph, Median = 26.2 mph

12 mph Pace = 21 - 33, Number in Pace = 934 (74.90%)

Variance = 39.53, Standard Deviation = 6.29 mph

Hour Bins

Time	Bin	Min	Max	Mean	Median	85%	95%
0000	10 0.8%	13.7	28.9	23.9	23.9	27.7	28.9
0100	7 0.6%	23.0	37.2	29.1	28.0	30.4	37.1
0200	4 0.3%	17.3	32.8	23.9	18.6	26.4	32.7
0300	3 0.2%	12.9	36.0	26.4	30.2	36.0	36.0
0400	6 0.5%	14.1	31.5	25.9	27.1	29.5	31.3
0500	14 1.1%	14.2	32.5	21.8	19.9	28.4	29.3
0600	17 1.4%	14.1	33.7	23.7	26.2	29.5	31.3
0700	32 2.6%	10.4	47.2	26.4	26.4	30.0	32.9
0800	76 6.1%	9.7	37.1	24.2	25.1	30.9	32.4
0900	74 5.9%	8.8	36.9	25.8	26.6	30.2	32.4
1000	86 6.9%	8.8	34.2	24.7	26.2	30.6	32.4
1100	112 9.0%	7.8	36.0	24.5	26.2	30.0	32.9
1200	100 8.0%	11.1	44.8	26.5	26.6	31.3	33.8
1300	82 6.6%	11.0	38.5	26.2	25.9	31.3	33.8
1400	62 5.0%	9.9	34.3	24.4	25.9	30.9	31.8
1500	101 8.1%	10.7	36.5	26.1	26.4	31.5	34.4
1600	90 7.2%	6.3	39.2	25.8	26.8	31.1	34.2
1700	95 7.6%	7.3	40.1	25.8	26.4	31.8	33.8
1800	104 8.3%	10.2	45.4	26.6	25.9	34.0	36.9
1900	63 5.1%	10.7	40.6	26.6	26.6	32.2	36.0
2000	52 4.2%	7.7	37.6	23.8	23.7	29.5	33.8
2100	29 2.3%	9.4	36.5	24.7	24.6	30.6	35.6
2200	16 1.3%	22.2	38.4	29.2	28.4	32.9	35.1
2300	12 1.0%	21.1	37.7	29.6	28.6	34.7	36.2
----	1247 100.0%	6.3	47.2	25.6	26.2	31.3	34.2

MetroCount Traffic Executive Speed Statistics by Hour

SpeedStatHour-98 -- English (ENU)

Datasets:

Site: [Squire Rd] West of 4527
Attribute: South side of road
Direction: 8 - East bound A>B, West bound B>A. **Lane:** 0
Survey Duration: 15:36 Thursday, July 07, 2022 => 10:45 Tuesday, July 19, 2022,
Zone:
File: Squire Rd 0 2022-07-19 1045.EC0 (Plus)
Identifier: DJ07CD2H MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Factory default axle (v4.06)
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: 0:00 Friday, July 08, 2022 => 0:00 Tuesday, July 19, 2022 (11)
Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range: 6 - 99 mph.
Direction: North, East, South, West (bound), P = East
Separation: Headway > 0 sec, Span 0 - 328.084 ft
Name: Default Profile
Scheme: Vehicle classification (Scheme F3)
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Vehicles = 564 / 607 (92.92%)

Speed Statistics by Hour

SpeedStatHour-98

Site: Squire Rd.0.1EW
Description: West of 4527
Filter time: 0:00 Friday, July 08, 2022 => 0:00 Tuesday, July 19, 2022
Scheme: Vehicle classification (Scheme F3)
Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12 13) Dir(NESW) Sp(6,99) Headway(>0) Span(0 - 328.084)

Vehicles = 564

Posted speed limit = 25 mph

Maximum = 38.9 mph, Minimum = 9.2 mph, Mean = 22.2 mph

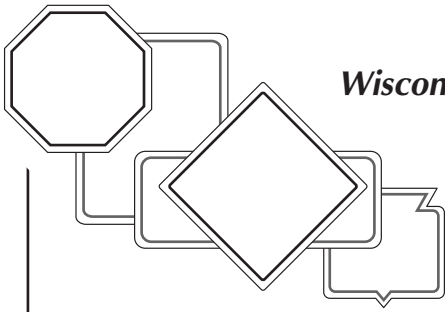
85% Speed = 26.4 mph, 95% Speed = 28.4 mph, Median = 22.4 mph

12 mph Pace = 16 - 28, Number in Pace = 492 (87.23%)

Variance = 19.01, Standard Deviation = 4.36 mph

Hour Bins

Time	Bin	Min	Max	Mean	Median	85%	95%
0000	2 0.4%	15.0	18.5	16.8	15.0	18.3	18.3
0100	0 0.0%	0.0	0.0	0.0	0.0	0.0	0.0
0200	1 0.2%	23.7	23.7	23.7	23.7	23.7	23.7
0300	0 0.0%	0.0	0.0	0.0	0.0	0.0	0.0
0400	2 0.4%	22.5	25.8	24.2	22.4	25.7	25.7
0500	15 2.7%	17.1	28.9	23.6	24.8	25.7	26.8
0600	21 3.7%	16.7	31.1	24.0	23.5	28.6	30.4
0700	15 2.7%	15.7	29.8	22.2	22.6	27.3	27.7
0800	46 8.2%	11.8	30.4	21.9	22.1	26.2	27.3
0900	46 8.2%	13.2	26.3	21.6	22.6	24.4	25.7
1000	35 6.2%	14.0	31.4	23.3	24.2	27.3	28.2
1100	30 5.3%	16.0	29.4	22.7	22.1	27.3	29.3
1200	49 8.7%	14.0	32.7	21.8	21.7	25.7	28.6
1300	45 8.0%	12.3	27.7	21.1	21.5	24.4	26.8
1400	44 7.8%	10.4	29.4	20.7	20.1	26.4	28.0
1500	57 10.1%	9.5	27.7	20.9	21.7	24.8	26.6
1600	38 6.7%	9.2	30.2	24.0	25.1	27.3	28.6
1700	45 8.0%	14.5	38.9	23.6	22.6	27.3	33.8
1800	26 4.6%	10.0	32.6	22.4	23.0	26.4	30.6
1900	14 2.5%	16.1	28.0	24.0	23.9	27.3	27.5
2000	14 2.5%	13.2	27.4	21.4	21.9	24.2	26.8
2100	16 2.8%	13.6	37.2	20.9	19.5	25.9	25.9
2200	3 0.5%	20.7	23.0	22.1	22.4	22.8	22.8
2300	0 0.0%	0.0	0.0	0.0	0.0	0.0	0.0
----	564 100.0%	9.2	38.9	22.2	22.4	26.4	28.4



Setting Speed Limits on Local Roads

Speed limits are an important tool for promoting safety on streets and highways. Limits tell drivers what is the reasonable speed for a road section. They also help traffic enforcement by setting standards for what is an unsafe speed.

The state sets speed limits for all roads. However, municipalities can change speed limits for roads under their authority, following guidelines in the *Wisconsin Statutes*. Selecting the appropriate speed limit can be a challenge because people often disagree. Residents frequently seek lower speeds, especially after a serious crash. Drivers tend to choose speeds that seem reasonable for the physical environment and that satisfy their personal needs, like saving time or seeking enjoyment.

Local officials have a key role in setting limits. They must balance the competing concerns and opinions of drivers, residents and law enforcement agencies with statutory requirements and traffic safety.

This booklet is designed to help. It includes background information and research recommendations, summarizes statutory limits, describes the process for changing limits, and discusses signs, enforcement, advisory speeds, and other speed issues on local roads. This edition reflects updates from the *2009 Wisconsin Statewide Speed Management Guidelines*.

Background

Speed-related vehicle accidents in Wisconsin from 2004 to 2008 accounted for 38% of all fatalities, 30% of all injuries and 27% of all crashes.

High speeds contribute to the severity of crashes. For example, 85% of pedestrians struck by vehicles traveling 40 mph are likely to be killed while only 5% are likely to be killed when the speed is 20 mph.

Common sense says that regulating speed is a good way to make streets and highways safer. As a result, citizens may demand lower speeds, especially if there has been a severe crash or a frightening “near miss.”



However, driving behavior is not so easy to manage. A 1997 federal speed study shows that simply lowering speed limits has little effect on actual speeds, usually reducing speeds by only one-to-two miles per hour. The difference in speeds between vehicles traveling on the same road—a common cause of crashes—usually increases when speed limits are unreasonably low, making roadways less safe. Drivers generally choose their speed based on what they think is safe and reasonable for the conditions present. An unreasonable posted speed gets little consideration from drivers.

An alternative for managing vehicle speeds is called “traffic calming.” This emphasizes physical changes to local streets—such as making them appear narrower or more restricted, adding speed bumps or traffic circles—so drivers consistently and voluntarily choose lower speeds that are both safe and comfortable.

Philosophy

Prevailing speed—the one most drivers choose—is a major consideration in setting speed limits. Engineers recommend setting limits at the 85th percentile speed, where 85% of freely flowing traffic travels at or below

that speed under ideal road conditions. The 85th percentile method is considered the best way to represent what is “reasonable” and “proper” as perceived by the motorists. When 85% of drivers voluntarily comply with speed limits, it is possible and reasonable to enforce these limits.

A recent study on Wisconsin roads compared crashes on roads with reasonable speed limits, or those accepted by the majority of drivers, with roads displaying posted speed limits considered unreasonable or irrational. The study showed that roads with reasonable speed limits had four times fewer crashes than roads with unreasonable speed limits. Other studies indicate the lowest risk of being in a crash occurs when a motorist travels at or near the 85th percentile speed. They also show that the 15% of motorists who exceed this limit cause many of the roadway crashes. These motorists are the most effective targets for enforcement.

Research in this area emphasizes considering the road’s design speed in setting speed limits. Design speed is the highest safe speed for which the road was designed. It takes into account road type, road geometry and adjacent land use. Studies show that accident rates go down when speed limits are no less than 10 mph of the design speed. When the speed difference is

greater, motorists choose a wider variety of speeds. This variance in speed between vehicles, more than the speed itself, results in higher crash rates.

However, pedestrians, bicyclists and other road users may find the prevailing speed and design speed hazardous. Modern roads often are over-designed, particularly in residential areas where they emphasize the accommodation of functions like emergency vehicles or street parking. The resulting wide and unobstructed roads can encourage drivers to travel too fast for the safety of other road users. Simply setting lower speed limits is unlikely to produce the desired results, especially without effective enforcement. In these cases, authorities may wish to consider using some traffic calming techniques.

Speeds should be consistent, safe, reasonable and enforceable. When 85% of drivers voluntarily comply with speed limits, it is possible and reasonable to enforce the limits with the 15% who drive too fast. Unreasonably low limits can promote disrespect for and disregard of other reasonable posted limits. They also promote a false sense of security among residents and pedestrians who may expect that posting lower limits will change driver behavior. Unreasonably high limits create unnecessary risks.

Speed limits and authority to change

Fixed Limits – Statute 346.57(4) ^(a)	Local Government Authority ^(b) – Statute 349.11(3) and (7) ^(a)
65 mph Freeway/Expressway	WisDOT only
55 mph State Trunk Highways (STHs)	WisDOT only
55 mph County Trunk Highways (CTHs), town roads	Lower speed limit by 10 mph or less
45 mph Rustic roads	Lower speed limit by 15 mph or less
35 mph Town road (1,000 ft min) with buildings on either side spaced an average of less than 150 ft apart	Lower speed limit by 10 mph or less
25 mph Inside corporate limits of city or village (other than outlying district)	Raise speed limit to 55 mph or less / Lower the speed limit by 10 mph or less
35 mph Outlying district ^(c) within city or village limits	Raise speed limit to 55 mph or less / Lower the speed limit by 10 mph or less
35 mph Semi-urban district ^(d) outside corporate limits of a city or village	Raise speed limit to 55 mph or less / Lower the speed limit by 10 mph or less
15 mph School zone, when conditions are met	Raise speed limit to that of the roadway / Lower speed limit by 10 mph or less
15 mph School crossing, when conditions are met	Raise speed limit to that of adjacent street / Lower speed limit by 10 mph or less
15 mph Pedestrian safety zone with public transit vehicle stopped	No changes permitted
15 mph Alley	Lower by 10 mph or less
15 mph Street or town road adjacent to a public park	Lower by 10 mph or less
Construction or maintenance zones, as appropriate ^(e)	State and local agencies have authority to establish
<p>Notes:</p> <p>(a) Source: Updated 2007-2008 Wisconsin Statutes Database</p> <p>(b) All speed limit changes shall be based on a traffic engineering study, including modifications allowed under State Statute. Local governments can implement speed limit changes on the local road system without WisDOT approval when proposals are within the constraints identified above.</p> <p>(c) Per Statute 346.57(1)(ar) “outlying district” is an area contiguous to any highway within the corporate limits of a city or village where, on each side of the highway within 1,000 feet, buildings are spaced on average more than 200 feet apart.</p> <p>(d) Per Statute 346.57(1)(b) “semiurban district” is an area contiguous to any State or County highway where, on either or both sides of the highway within 1,000 feet, buildings are spaced on average less than 200 feet apart.</p> <p>(e) Guidance on establishing speed limits in work zones is available in http://dotnet/dtid_bho/extranet/manuals/tgm/13/13-05-06.pdf.</p>	

Modified from original published in WisDOT Traffic Guidelines Manual, Chapter 13-5-1, Figure 1, June 2009.



Authority

Power to set speed limits rests with the state. Chapter 346.57 *Speed Restrictions* of the *Wisconsin Statutes* requires drivers to use a speed that is “reasonable and prudent,” to exercise “due care,” [346.57(2)] and to reduce speed under a variety of conditions such as “going around a curve...passing school children, high-way construction or maintenance workers...and when special hazard exists...” [346.57(3)].

The *Statutes* give fixed limits for more than a dozen situations depending on the road type, jurisdiction and land use [346.57 (4) (a-k)]. See Table on page 2.

Local or state officials have authority to change these limits within the limitations in Chapter 349.11, as summarized in the Table. They must conduct an engineering and traffic investigation to determine a reasonable and safe speed limit. The limit must then be legally adopted by the local authority and appropriate signs erected. When properly changed, such limits do not create additional liability. In addition, changes beyond those specified in the statutes are possible in consultation with and approval by the Wisconsin Department of Transportation (WisDOT).

All limits, whether set by statute or local authority, are only effective and enforceable when official signs have been erected to give drivers adequate warning.

Speeds also may be temporarily reduced in work zones where highways are being constructed, reconstructed, maintained or repaired [Ch.349.11(10)]. These changes must be properly posted and are not restricted by the other limitations in Chapter 349.11. A Transportation Information Center publication, *Work Zone Safety: Guidelines for Construction, Maintenance and Utility Operations*, describes correct work zone signing and set up.

The local agency that maintains the roadway has jurisdiction for determining the speed limit. In most cases the responsibility is clear. If a roadway segment has joint jurisdiction, such as a road that borders two cities, then both agencies must agree on the speed limit. Obviously, the speed must be the same in both directions. In cases where the county or state maintains a road within the corporate limits of a city or village, the county or state is responsible for setting the speed limit. Coordination with local officials and law enforcement agencies is essential to set effective speed limits.

Required studies

Local authorities are required by the statutes to conduct engineering and traffic speed studies to modify all speed limits on local roads including those shown in the Table on the previous page. Engineering studies should include the following:

- 1) Measure and determine the 85th percentile speed, 50th percentile speed, design speed and pace speed.
- 2) Evaluate crash data for the past three to five years.
- 3) Document roadside development including land use, driveway locations, and school locations.
- 4) Document roadway geometrics including lane widths, shoulder width, sight distance limitations at hills, curves and intersections, plus parking, pedestrian and bicycle activity.
- 5) Determine the functional classification of the roadway and the practical function of the road within the state and local system.
- 6) Document the current speed limit and level of enforcement.

A well-done traffic and engineering speed study requires a comprehensive effort by a trained professional. Look for additional details in the 2009 *Wisconsin Statewide Speed Management Guidelines* report. Contact local law enforcement, County Traffic Safety Commissions, the WisDOT and consultants for assistance in conducting speed studies.

Doing a speed study is time consuming but it is a necessary step for local agencies to legally modify speed limits. The effort also has the advantage of creating consistency in how **enforceable** speed limits are set across the state and increasing safety.

Speed zone recommendations

Local road authorities can initiate action to modify a speed limit and create a new speed zone on a local road. Citizens or other agencies also can request a change. Requests should be in writing and submitted to the local authority. The local agency should prepare a written response to the request describing their action and recommendations.

Speed study recommendations for modifying a speed zone should accomplish the following:

- Reduce the speed differential of vehicles
- Be reasonable so a majority of motorists will comply
- Reflect traffic engineering guidelines

When making speed zone changes, **do not** base the decision on these reasons:

- Noise complaints
- Accommodate specialty vehicles
- Correct spot safety problems
- Future concerns that have not yet occurred

Recommendations from a speed study generally fall within 5 mph of the 85th percentile speed. Factors that can alter this guideline include road function, access density, road geometry, parking, and pedestrian and bicycle activity. Using these secondary factors to



determine a recommended speed may require more law enforcement and result in increased crashes. Consider changing the road's physical environment to lower speeds where possible.

Speed zones should be at least 0.3 miles in length. Limit the number of speed limit changes along a route. Generally, it is advisable to change speed zones outside incorporated limits in 10 mph increments.

Submit speed limit changes that require WisDOT approval to a WisDOT Regional office. Changes outside the limitations outlined in Chapter 349.11 require department approval. Local governments take on liability when they make changes outside the outlined limitations without this approval.

Post speed limit changes as soon as possible using flags or other means to call attention to the change. Monitor speed limit changes once they are made to identify any problems or need for further investigation.

Proper signage



A speed limit is not in effect until the area has been properly signed. Conversely, signs must not be installed until the limit has been approved and officially authorized. The *Manual on Uniform Traffic Control Devices (MUTCD)* governs signs. Two types may be used: one for passenger cars and another for special limits for trucks and buses.

No more than three speed limits should be displayed on any one speed limit sign or assembly. Signs with special limits for trucks or other vehicles should include the word TRUCKS or a similar appropriate message. Display this below the standard message or on a separate plate that refers to SPEED or MPH.

The standard speed limit sign must be 24 by 30 inches. Locate signs at:

- Each point where the speed limit changes
- Beyond major intersections
- Other locations where it is necessary to remind motorists of the limit



REDUCED SPEED AHEAD SIGNS also may be used to give advance warning of a lower speed zone. This sign should be used in rural areas to alert motorists when they need extra time to slow to the posted limit.

Always follow it with a speed limit sign at the beginning of the new zone. Near schools, use the appropriate SPEED LIMIT sign after a school zone rather than the END OF SCHOOL ZONE sign.



Enforcement

Enforcement is critical. Without it, speed limits are not effective. When enforcement is increased considerably, violations and crashes have been reduced.

Local officials should actively involve enforcement personnel in setting speed limits to ensure they are reasonably enforceable. Always inform enforcement agencies when changes are adopted.

Enforcement requires wide public support. A first step is to ensure that the public perceives the speed limits as reasonable and fair because the voluntary cooperation of most drivers is essential. A second step is vigorous public information and education that stresses the safety benefits of enforcement. Make this a cooperative effort between highway and enforcement officials. Any information campaign should target specific aspects of the speeding problem such as young drivers, nighttime, school zones, work zones, or specific roads where potential traffic and pedestrian conflicts are high.

Within law enforcement agencies, traffic enforcement does not compete well with criminal and drug enforcement. That means local highway officials must actively seek adequate agency enforcement. These efforts are most effective when the safety benefits are clear and there is strong support from local elected officials.

Aggressive, targeted enforcement, combined with education, effectively produces better public compliance with traffic laws. The Federal Highway Administration recommends targeting enforcement programs to locations with a high incidence of crashes where speed was a contributing factor and to areas with high traffic volume.

Long-term, low-intensity speed enforcement can produce meaningful results. Studies indicate some amount of the enforcement effort (15% is recommended) be directed to random locations and times. Stationary, marked patrol vehicles are most effective in creating longer-term enforcement benefits.



Minimum speed limits and slow moving vehicles

Except on Interstate highways, there is no specific minimum speed on Wisconsin highways. However, statutes prohibit driving a motor vehicle “at a speed so slow as to impede the normal and reasonable movement of traffic, except when necessary for safe operation or to comply with the law.” [Section 346.59 Wis. Stats.]

Vehicles that normally travel slower than 25 mph must display slow moving vehicle emblems. [Section 347.245 Wis. Stats.] In addition, the operator of a vehicle moving so slowly it impedes traffic must yield the roadway to overtaking vehicles, if practicable, when the operator of an overtaking vehicle gives an audible warning. [Section 346.59(2) Wis. Stats.]

Advisory speed signs

Advisory speed signs are used to tell drivers that a lower speed may be necessary at curves, turns, intersections and other localized conditions. These signs add emphasis and specific information to other warning signs, and recommend a comfortable and safe speed to drive in these locations. Do not confuse advisory speeds with enforceable speed limits. Advisory speeds do not imply the maximum operating speed at which skid and rollover occurs.

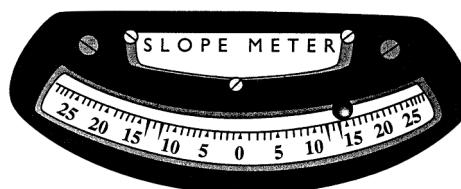


two-lane highways in the study, posted advisory speeds at most curves were well below prevailing traffic speed, and below speeds established using recommended devices and criteria.

The advisory speed must be determined by an accepted traffic engineering procedure but no ordinance is required. Maintenance or sign supervisors can erect the signs. They must be in accordance with guidelines in the *MUTCD, 2C-35*.

As with other traffic signs, advisory speeds should be consistent and reasonable to promote driver respect and compliance. This is not always the case. Research published by the national Transportation Research Board (TRB) found that on the

Advisory speeds are set based on average curve speeds for different angles of deflection. One device widely used for establishing advisory speeds on curves is the ball bank indicator. Relatively inexpensive, this curved level is mounted in an engineer's car. The engineer makes successive trial runs through a curve, taking care to drive parallel to the centerline of the curve, increasing speed by 5 mph each time. The indicator shows the angle of deflection in degrees.



The TRB study reports that the generally accepted criteria, based on tests conducted in the 1930s, produce unrealistically low speeds with modern cars and should be revised upwards. The authors say ball bank readings of 12 degrees above 40 mph, 16 degrees between 30 and 40, and 20 degrees below 30 would better reflect average curve speeds.

Ball bank readings tend to fluctuate rather widely during a trial run and can be affected by loose-surfaced roads and vehicle suspension systems. As a result, setting a recommended speed depends to a significant extent on the judgment and experience of the person making the tests. The recommended speed should feel comfortable for the average driver and be lower than the maximum safe speed. It should also be sensible in comparison with prevailing speeds.

Summary

Establishing and enforcing reasonable and safe speed limits is the responsibility of local officials. This often includes balancing conflicting issues of safety, traffic movement, and community concerns.

Coordination with local law enforcement is vital to effective speed control. Most speed zones should encourage voluntary compliance by using reasonable speed limits. Traffic calming techniques that involve physical and perceptual changes also can help. Consulting enforcement officials when determining effective limits is important and they can help work with the community in difficult areas.

The traffic engineering staff of WisDOT also is a good resource. Since they participate on county Traffic Safety Commissions, this is an easy way to contact them for assistance.

Several sample speed limit ordinances are shown on page 6.



"Badger County" traffic ordinance

SPEED LIMITS. (1) The provision of sections 346.57 & 346.59 of the Wisconsin Statutes, relating to the maximum and minimum speed of vehicles, are hereby adopted as part of this section as is fully set forth herein, except as specified by section 2 of this ordinance, pursuant to section 349.11(3)(c) of the Wisconsin Statutes. (2) No vehicle shall exceed noted speed limits on the following county trunk highways:

- (a) County Trunk Highway "A"
 - (1) **Unincorporated Village of Estesville, Town of Terry.** Thirty-five miles per hour from its junction with STH 78, in Estesville, southwesterly 0.35 miles.
 - (2) **City of Covington, Town of York.** Thirty-five miles per hour from its intersection with CTH "N" (Veterans Drive), easterly to a point 0.15 miles east of its intersection with Race Track Road.
- (b) County Trunk Highway "AB"
 - (1) **Town of Finis.** Thirty miles per hour from the bridge over the Yahara River located on a line common to sections 13 and 14, Town of Finis, southwesterly to USH 51.
 - (2) **Chestnut Road, City of Centerton.** Thirty miles per hour from the intersection of USH 51, easterly to Droster Road.

Sample municipal ordinance

Section 3. **SPEED LIMITS.** [Towns, Cities, and Villages]
The _____ [Council or Village Board] hereby determines that the statutory speed limits on the following streets or portions thereof are unreasonable, unsafe and imprudent and modifies such speed limits as follows:

- (1) **SPEED LIMITS INCREASED.** Speed limits are increased as follows upon the following designated streets or portions thereof:
 - (a) **Outlying Districts**
45 miles per hour on _____ Avenue between _____ Street and the _____ [City or Village] limits;
- (2) **SPEED LIMITS DECREASED.** With the approval of the Wisconsin Department of Transportation, the speed limits are decreased as hereinafter set forth upon the following highways or portions thereof:
 - (a) **Semi-Urban Districts**
25 miles per hour on _____ Road between County Trunk _____ and the _____ [City or Village] Limits;
30 miles per hour on _____ Road between County Trunk _____ and the limits

Sample amendment to a speed ordinance

AMENDING CHAPTER 1 OF THE BADGER COUNTY CODE OF ORDINANCES SPEED LIMIT CHANGES

The County Board of Supervisors of the County of Badger does ordain as follows:

ARTICLE 1. Unless otherwise expressly stated herein, all references to section and chapter numbers are to those of the Badger County Code of Ordinances.

ARTICLE 2. Section(2)(b)(2) is created to read as follows:

- 1) Chestnut Road, City of Centerton. Twenty-five miles per hour from its intersection with USH 51 to its intersection with Winona Drive.

Sample speed limit ordinances Local boards of elected officials must adopt speed limits in ordinance form. Here are sample ordinances for county and municipal governments. Local ordinances also may include details on forfeitures and law enforcement authority. The ordinance should be reviewed by the agency's attorney.

References

Wisconsin Statewide Speed Management Guidelines, WisDOT, June 2009

Speed Management Safety, FHWA resource website at <http://safety.fhwa.dot.gov/speedmgt/>

Evaluation of Criteria for Setting Advisory Speed on Curves, Mashrur A. Chowdhury, Davey L. Warren, Howard Bissell, & Sunil Taori, Transportation Research Board Paper No. 980133, January 11-15, 1998, 21 pp.

Factors Affecting Speed Variance and Its Influence on Accidents, Nicholas J. Garber & Ravi Gadiraju, Transportation Research Record 1213, Transportation Research Board, 1998, 10 pp.

A Policy on Geometric Design of Highways and Streets, AASHTO, 2004, pp 66-72.

Spot Speed Studies, Ch.3 of Manual of Transportation Engineering Studies, Institute of Transportation Engineers, H. Douglas Robertson, Ed., 2000, pp 33-51.

Revised 12/2009 © Wisconsin Transportation Information Center (TIC). **Wisconsin Transportation Bulletin** is a series of fact sheets with information for local town, municipal and county officials on street and highway design, construction, maintenance, and management. WTB fact sheets are produced and distributed by the Wisconsin Transportation Information Center LTAP, a project of the University of Wisconsin-Madison, Department of Engineering Professional Development, funded by the Federal Highway Administration and the Wisconsin Department of Transportation. UW-Madison provides equal opportunities in employment and programming, including Title IX requirements.



Patrick Pryor

From: Glenn Bushee
Sent: Wednesday, June 29, 2022 8:15 AM
To: Kathleen Schneider; Patrick Pryor
Subject: Excessive speeds in residential area by Homestead High School
Attachments: map.jpg; stop speeding.jpg

Good morning Alderwoman Schneider and Police Chief Pryor, I received this email yesterday and am asking that it be reviewed and have the requested stop sign as a potential agenda item in a future meeting. Thank you.

- Glenn

From: Wendy Wirth <wirth23@aol.com>
Sent: Tuesday, June 28, 2022 11:36 AM
To: Glenn Bushee <gbushee@ci.mequon.wi.us>
Cc: boomsbrew7@gmail.com <boomsbrew7@gmail.com>
Subject:

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Good Morning Mr. Bushee,

I am writing to you to express my concerns about excessive traffic speeds on N Country View Drive that have been developing over the past two years and are now too problematic to allow to continue. I am requesting that a stop sign be placed at the corners of North Country View Drive (North and Southbound) and Squire Road (making it a 3 way stop). The current speed limit is 25 mph, but cars are driving at least 35-40 mph by the time they pass my house. There are many young children in the neighborhood (including my three young ones) and this speeding is a **problem waiting to happen, which could result in the death of a young child**. There are no traffic signs from Mequon Road to North River Road. As soon as cars turn off Mequon Road, they floor the gas pedal right past my house. The same issue occurs if people are driving from the North end of the subdivision towards Mequon Road. They are traveling at fast speeds at all hours of the day. I have on several occasions requested a higher police presence on Country View Drive, but that has lasted all of 2 hours after calling. **Something needs to be done!** Please help me to keep my children safe in the area, as we purchased this house thinking that a 25 mph speed limit was to be followed.

Other possible solutions:

Speed bump installation

"Your Speed" Signs (Radar that shows your actual speed. There was one installed on Riverland Road)

Warmly,
Wendy Boom
(414-881-8454)

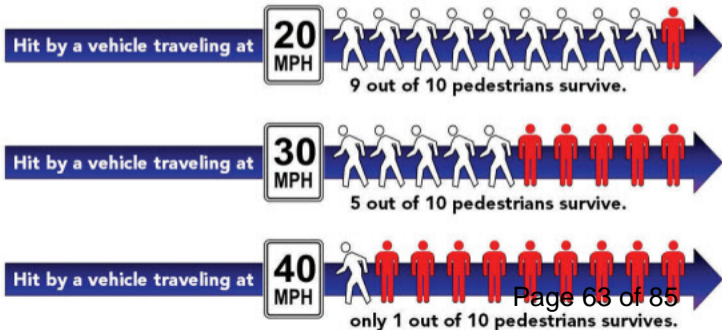
Milwaukee River

Homestead High School



STOP NEIGHBORHOOD SPEEDING

A little extra speed makes a big impact.





11333 N. Cedarburg Road
Mequon, WI 53092-1930
Phone: 262-236-2913
Fax: 262-242-9655

www.cityofmequonwi.gov

Office of Public Safety Committee

TO: Public Safety Committee
FROM: Steve Graff, Chief of Police
DATE: April 19, 2018
SUBJECT: Traffic Concerns on Saddlebrook Lane

Background

Chief Graff received an email from Saddlebrook Park residents outlining their concerns for speeding vehicles within their subdivision.

Analysis

Saddlebrook Lane runs south and west from Pioneer Road, west of Port Washington Road. There are approximately 20 homes in the subdivision and 4 more under construction. Residents are voicing their concerns about a growing speeding problem within the subdivision. Violators appear to be from varied sources: delivery trucks, school buses, contractors, visitors and residents. Vehicle speeds are estimated by residents as 45mph+.

Officers were assigned to conduct radar enforcement on various days and shifts as time allowed. Over 10 different deployment times to date, each between 30 and 45 minutes at a time, no speed violations have been observed. Officers noted speeds only 2-3mph over the 25mph limit and sometimes no vehicles even passed by during the monitoring period. This is not uncommon, as drivers tend to drive much more carefully when police vehicles are seen parked in the area. In addition, this particular neighborhood is very wide open, with minimal tree or structure coverage.

Residents have suggested stop signs, roundabouts, or speed bumps to mitigate the speed issues. Stop signs and roundabouts are not speed deterrents, they are intersection controls. With the low volume of traffic in the subdivision, the only stop sign consideration would be on the courts/cul-de-sacs, and they wouldn't meet the warrants required for installation. The City, as a general rule, has not allowed speed bumps, as they cause other issues such as road maintenance challenges and create a different speed problem when drivers try to make up the time lost slowing down for them by then speeding after passing over them. In addition, there is no budgetary funding for speed bumps, traffic signs that display your speed, or other traffic calming devices.

Fiscal Impact

N/A

Recommendation

Staff recommends no changes at this time, as there is a lack of data for a speeding concern. More enforcement time will be logged by police officers to gather additional data. Saddlebrook residents requested that the matter still be heard by the Public Safety Committee at the April of

2018 meeting.



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Office of Public Safety Committee

TO: Public Safety Committee
FROM: Steve Graff, Chief of Police
DATE: June 20, 2016
SUBJECT: Traffic Concerns on Saddlebrook Lane

Background

Abby Thompson, a resident on Saddlebrook Lane, contacted Chairwoman Pukaite regarding concerns over excessive speeding in her subdivision.

Analysis

Saddlebrook Lane is a residential road that runs south from Pioneer Road and is west of Port Washington Road. It has a posted 25mph speed limit. After Ms. Thompson initially made the Mequon Police Department aware of her concerns, officers used radar units to monitor and enforce speeds on various dates over several weeks. One warning and zero citations were issued. Many of the comments officers entered in their activity logs indicated that they either saw zero to very few cars pass by, or the speeds were between 20 and 28mph. No excessive speeding was observed.

Traffic measuring cables were deployed by the City of Mequon Engineering staff to collect traffic data for analysis. See the attached staff memo from James Keegan, Deputy Director of Engineering.

Fiscal Note

N/A

Recommendation

Staff recommends no change in the speed limit and that no additional stop signs be considered for installation.

Attachments:

Saddlebrook Analysis with Attachments (PDF)



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www.ci.mequon.wi.us

ENGINEERING/PUBLIC WORKS

To: Steve Graff, Mequon Police Chief
From: James M Keegan, P.E. Deputy Director of Engineering
Date: June 16, 2016
Subject: Saddlebrook Lane Road Traffic Counts

Background:

At the request of the Police Chief, Steve Graff, the Engineering Department measured the speed and volume of traffic on Saddlebrook Lane, both east and west of Bridal Path Court using traffic counters. Resident concerns have been voiced to the Police Department regarding speeding on the subject roadway. The traffic counters were deployed from Monday May 16th through May 24th, 2016. Saddlebrook Lane currently has a posted speed limit of 25 MPH.

Analysis:

For the counts west of the intersection, the speed counters were deployed to a location that is 100 feet west of the intersection of Saddlebrook Lane and Bridal Path Court. There were a total of 718 motorists counted during the week of traffic counts on Saddlebrook Lane. The class speed matrix from the traffic counters are attached to this report. The average speed calculated from the traffic data was 27 MPH. The 85th percentile speed is between 30 MPH and 35 MPH.

For the counts east of the intersection, the speed counters were deployed to a location that is 100 feet east of the intersection of Saddlebrook Lane and Bridal Path Court. There were a total of 1,173 motorists counted during the week of traffic counts on Saddlebrook Lane. The class speed matrix from the traffic counters are attached to this report. The average speed calculated from the traffic data was 28 MPH. The 85th percentile speed is between 30 MPH and 35 MPH.

Below is a tabular summary of the results:

	Saddlebrook Lane (West)	Saddlebrook Lane (East)
Total Vehicles Traveled (Over a 1 week period)	718	1,173
Average Speed	27 MPH	28 MPH
85th % Speed	30-35 MPH	30-35 MPH
Posted Speed	25 MPH	25 MPH

Recommendation:

The intent of this memo is not to provide a recommendation regarding a change in speed limit but to provide information regarding the current traffic volumes and speed. General practice requires that a speed is posted within 5 MPH of the 85th percentile speed of free flowing traffic. Lowering the speed

limit below this threshold can promote speeding on this and other roadways and can also promote a false sense of security among residents and pedestrians who may expect that posting lower limits will change driver behavior as explained in the WisDOT Wisconsin Transportation Bulletin No. 21 (attached). Other factors to be considered when determining the posted speed of a roadway are roadway characteristics, pace speed, development, parking practices, and crash history. In this case Saddlebrook Lane has both a horizontal and vertical curve that may accelerate traffic and contribute to higher speeds.



James M. Keegan, P.E.
Deputy Director of Engineering

Attachments:

Traffic Count Reports
WisDOT Wisconsin Transportation Bulletin No. 21

Class Speed Matrix

ClassMatrix-202

Site: Saddlebrook Lane.0.0E

Description: West of Bridalpath Court

Filter time: 0:00 Tuesday, May 17, 2016 => 0:00 Tuesday, May 24, 2016

Scheme: Vehicle classification (Scheme F)

Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12 13) Dir(EW) Sp(5,100) Headway(>0)

Speed (mph)	Class													Speed Totals	
	1	2	3	4	5	6	7	8	9	10	11	12	13		
5 - 10	8	5	.	.	.	1	.	.	.	.	.	.	.	14	1.9%
10 - 15	1	4	2	.	.	.	.	.	.	.	.	.	.	7	1.0%
15 - 20	11	40	11	1	.	.	.	.	.	.	.	.	.	63	8.8%
20 - 25	5	134	34	2	1	1	1	.	.	.	.	.	.	178	24.8%
25 - 30	1	175	32	12	2	2	2	.	.	.	.	.	.	228	31.8%
30 - 35	1	109	34	7	.	1	.	1	.	.	.	.	.	153	21.3%
35 - 40	.	38	16	.	.	.	.	.	.	.	.	.	.	54	7.5%
40 - 45	.	5	11	.	.	.	.	.	.	.	.	.	.	16	2.2%
45 - 50	.	.	4	.	.	.	.	.	.	.	.	.	.	4	0.6%
50 - 55	.	1	.	.	.	.	.	.	.	.	.	.	.	1	0.1%
55 - 60	.	.	.	.	.	.	.	.	.	.	.	.	.	0	0.0%
60 - 65	.	.	.	.	.	.	.	.	.	.	.	.	.	0	0.0%
65 - 70	.	.	.	.	.	.	.	.	.	.	.	.	.	0	0.0%
70 - 75	.	.	.	.	.	.	.	.	.	.	.	.	.	0	0.0%
75 - 80	.	.	.	.	.	.	.	.	.	.	.	.	.	0	0.0%
Class Totals	27	511	144	22	3	5	3	1	2	0	0	0	0	718	
	3.8%	71.2%	20.1%	3.1%	0.4%	0.7%	0.4%	0.1%	0.3%	0.0%	0.0%	0.0%	0.0%		

85% - 610.3

Class Speed Matrix

ClassMatrix-199

Site: Saddlebrook Lane.0.0E

Description: East of Bridalpath court

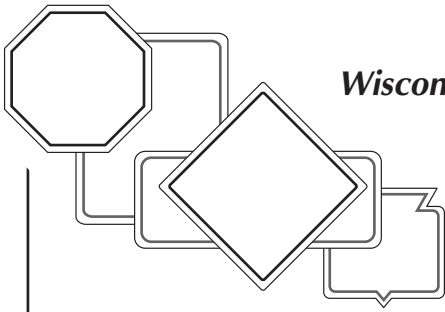
Filter time: 0:00 Tuesday, May 17, 2016 => 0:00 Tuesday, May 24, 2016

Scheme: Vehicle classification (Scheme F)

Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12 13) Dir(EW) Sp(5,100) Headway(>0)

Speed (mph)	Class													Speed Totals	
	1	2	3	4	5	6	7	8	9	10	11	12	13		
5 - 10	3	4	.	.	.	2	1	.	.	.	.	.	.	10	0.9%
10 - 15	3	5	.	.	.	1	1	.	.	.	.	.	.	9	0.8%
15 - 20	9	36	13	1	.	1	1	.	.	.	.	.	.	61	5.2%
20 - 25	1	185	38	14	1	2	1	.	.	.	.	.	.	242	20.6%
25 - 30	2	363	54	18	2	1	1	.	1	.	.	.	.	442	37.7%
30 - 35	3	218	38	21	.	1	.	.	1	.	.	.	.	282	24.0%
35 - 40	1	75	19	5	.	.	.	.	1	.	.	.	.	101	8.6%
40 - 45	.	12	11	.	.	.	.	.	.	.	.	.	.	23	2.0%
45 - 50	.	3	.	.	.	.	.	.	.	.	.	.	.	3	0.3%
50 - 55	.	.	.	.	.	.	.	.	.	.	.	.	.	0	0.0%
55 - 60	.	.	.	.	.	.	.	.	.	.	.	.	.	0	0.0%
60 - 65	.	.	.	.	.	.	.	.	.	.	.	.	.	0	0.0%
65 - 70	.	.	.	.	.	.	.	.	.	.	.	.	.	0	0.0%
70 - 75	.	.	.	.	.	.	.	.	.	.	.	.	.	0	0.0%
75 - 80	.	.	.	.	.	.	.	.	.	.	.	.	.	0	0.0%
Class Totals	22	901	173	59	3	8	4	1	2	0	0	0	0	1173	
	1.9%	76.8%	14.7%	5.0%	0.3%	0.7%	0.3%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%		

85th % = 997.05



Setting Speed Limits on Local Roads

Speed limits are an important tool for promoting safety on streets and highways. Limits tell drivers what is the reasonable speed for a road section. They also help traffic enforcement by setting standards for what is an unsafe speed.

The state sets speed limits for all roads. However, municipalities can change speed limits for roads under their authority, following guidelines in the *Wisconsin Statutes*. Selecting the appropriate speed limit can be a challenge because people often disagree. Residents frequently seek lower speeds, especially after a serious crash. Drivers tend to choose speeds that seem reasonable for the physical environment and that satisfy their personal needs, like saving time or seeking enjoyment.

Local officials have a key role in setting limits. They must balance the competing concerns and opinions of drivers, residents and law enforcement agencies with statutory requirements and traffic safety.

This booklet is designed to help. It includes background information and research recommendations, summarizes statutory limits, describes the process for changing limits, and discusses signs, enforcement, advisory speeds, and other speed issues on local roads. This edition reflects updates from the *2009 Wisconsin Statewide Speed Management Guidelines*.

Background

Speed-related vehicle accidents in Wisconsin from 2004 to 2008 accounted for 38% of all fatalities, 30% of all injuries and 27% of all crashes.

High speeds contribute to the severity of crashes. For example, 85% of pedestrians struck by vehicles traveling 40 mph are likely to be killed while only 5% are likely to be killed when the speed is 20 mph.

Common sense says that regulating speed is a good way to make streets and highways safer. As a result, citizens may demand lower speeds, especially if there has been a severe crash or a frightening “near miss.”



However, driving behavior is not so easy to manage. A 1997 federal speed study shows that simply lowering speed limits has little effect on actual speeds, usually reducing speeds by only one-to-two miles per hour. The difference in speeds between vehicles traveling on the same road—a common cause of crashes—usually increases when speed limits are unreasonably low, making roadways less safe. Drivers generally choose their speed based on what they think is safe and reasonable for the conditions present. An unreasonable posted speed gets little consideration from drivers.

An alternative for managing vehicle speeds is called “traffic calming.” This emphasizes physical changes to local streets—such as making them appear narrower or more restricted, adding speed bumps or traffic circles—so drivers consistently and voluntarily choose lower speeds that are both safe and comfortable.

Philosophy

Prevailing speed—the one most drivers choose—is a major consideration in setting speed limits. Engineers recommend setting limits at the 85th percentile speed, where 85% of freely flowing traffic travels at or below

that speed under ideal road conditions. The 85th percentile method is considered the best way to represent what is “reasonable” and “proper” as perceived by the motorists. When 85% of drivers voluntarily comply with speed limits, it is possible and reasonable to enforce these limits.

A recent study on Wisconsin roads compared crashes on roads with reasonable speed limits, or those accepted by the majority of drivers, with roads displaying posted speed limits considered unreasonable or irrational. The study showed that roads with reasonable speed limits had four times fewer crashes than roads with unreasonable speed limits. Other studies indicate the lowest risk of being in a crash occurs when a motorist travels at or near the 85th percentile speed. They also show that the 15% of motorists who exceed this limit cause many of the roadway crashes. These motorists are the most effective targets for enforcement.

Research in this area emphasizes considering the road’s design speed in setting speed limits. Design speed is the highest safe speed for which the road was designed. It takes into account road type, road geometry and adjacent land use. Studies show that accident rates go down when speed limits are no less than 10 mph of the design speed. When the speed difference is

greater, motorists choose a wider variety of speeds. This variance in speed between vehicles, more than the speed itself, results in higher crash rates.

However, pedestrians, bicyclists and other road users may find the prevailing speed and design speed hazardous. Modern roads often are over-designed, particularly in residential areas where they emphasize the accommodation of functions like emergency vehicles or street parking. The resulting wide and unobstructed roads can encourage drivers to travel too fast for the safety of other road users. Simply setting lower speed limits is unlikely to produce the desired results, especially without effective enforcement. In these cases, authorities may wish to consider using some traffic calming techniques.

Speeds should be consistent, safe, reasonable and enforceable. When 85% of drivers voluntarily comply with speed limits, it is possible and reasonable to enforce the limits with the 15% who drive too fast. Unreasonably low limits can promote disrespect for and disregard of other reasonable posted limits. They also promote a false sense of security among residents and pedestrians who may expect that posting lower limits will change driver behavior. Unreasonably high limits create unnecessary risks.

Speed limits and authority to change

Fixed Limits – Statute 346.57(4) ^(a)	Local Government Authority ^(b) – Statute 349.11(3) and (7) ^(a)
65 mph Freeway/Expressway	WisDOT only
55 mph State Trunk Highways (STHs)	WisDOT only
55 mph County Trunk Highways (CTHs), town roads	Lower speed limit by 10 mph or less
45 mph Rustic roads	Lower speed limit by 15 mph or less
35 mph Town road (1,000 ft min) with buildings on either side spaced an average of less than 150 ft apart	Lower speed limit by 10 mph or less
25 mph Inside corporate limits of city or village (other than outlying district)	Raise speed limit to 55 mph or less / Lower the speed limit by 10 mph or less
35 mph Outlying district ^(c) within city or village limits	Raise speed limit to 55 mph or less / Lower the speed limit by 10 mph or less
35 mph Semi-urban district ^(d) outside corporate limits of a city or village	Raise speed limit to 55 mph or less / Lower the speed limit by 10 mph or less
15 mph School zone, when conditions are met	Raise speed limit to that of the roadway / Lower speed limit by 10 mph or less
15 mph School crossing, when conditions are met	Raise speed limit to that of adjacent street / Lower speed limit by 10 mph or less
15 mph Pedestrian safety zone with public transit vehicle stopped	No changes permitted
15 mph Alley	Lower by 10 mph or less
15 mph Street or town road adjacent to a public park	Lower by 10 mph or less
Construction or maintenance zones, as appropriate ^(e)	State and local agencies have authority to establish

Notes:

- (a) Source: Updated 2007-2008 Wisconsin Statutes Database
- (b) All speed limit changes **shall** be based on a traffic engineering study, including modifications allowed under State Statute. Local governments can implement speed limit changes on the local road system without WisDOT approval when proposals are within the constraints identified above.
- (c) Per Statute 346.57(1)(ar) “outlying district” is an area contiguous to any highway within the corporate limits of a city or village where, on each side of the highway within 1,000 feet, buildings are spaced on average more than 200 feet apart.
- (d) Per Statute 346.57(1)(b) “semiurban district” is an area contiguous to any State or County highway where, on either or both sides of the highway within 1,000 feet, buildings are spaced on average less than 200 feet apart.
- (e) Guidance on establishing speed limits in work zones is available in http://dotnet/dtid_bho/extranet/manuals/tgm/13/13-05-06.pdf.

Modified from original published in WisDOT Traffic Guidelines Manual, Chapter 13-5-1, Figure 1, June 2009.



Authority

Power to set speed limits rests with the state. Chapter 346.57 *Speed Restrictions* of the *Wisconsin Statutes* requires drivers to use a speed that is “reasonable and prudent,” to exercise “due care,” [346.57(2)] and to reduce speed under a variety of conditions such as “going around a curve...passing school children, high-way construction or maintenance workers...and when special hazard exists...” [346.57(3)].

The *Statutes* give fixed limits for more than a dozen situations depending on the road type, jurisdiction and land use [346.57 (4) (a-k)]. See Table on page 2.

Local or state officials have authority to change these limits within the limitations in Chapter 349.11, as summarized in the Table. They must conduct an engineering and traffic investigation to determine a reasonable and safe speed limit. The limit must then be legally adopted by the local authority and appropriate signs erected. When properly changed, such limits do not create additional liability. In addition, changes beyond those specified in the statutes are possible in consultation with and approval by the Wisconsin Department of Transportation (WisDOT).

All limits, whether set by statute or local authority, are only effective and enforceable when official signs have been erected to give drivers adequate warning.

Speeds also may be temporarily reduced in work zones where highways are being constructed, reconstructed, maintained or repaired [Ch.349.11(10)]. These changes must be properly posted and are not restricted by the other limitations in Chapter 349.11. A Transportation Information Center publication, *Work Zone Safety: Guidelines for Construction, Maintenance and Utility Operations*, describes correct work zone signing and set up.

The local agency that maintains the roadway has jurisdiction for determining the speed limit. In most cases the responsibility is clear. If a roadway segment has joint jurisdiction, such as a road that borders two cities, then both agencies must agree on the speed limit. Obviously, the speed must be the same in both directions. In cases where the county or state maintains a road within the corporate limits of a city or village, the county or state is responsible for setting the speed limit. Coordination with local officials and law enforcement agencies is essential to set effective speed limits.

Required studies

Local authorities are required by the statutes to conduct engineering and traffic speed studies to modify all speed limits on local roads including those shown in the Table on the previous page. Engineering studies should include the following:

- 1) Measure and determine the 85th percentile speed, 50th percentile speed, design speed and pace speed.
- 2) Evaluate crash data for the past three to five years.
- 3) Document roadside development including land use, driveway locations, and school locations.
- 4) Document roadway geometrics including lane widths, shoulder width, sight distance limitations at hills, curves and intersections, plus parking, pedestrian and bicycle activity.
- 5) Determine the functional classification of the roadway and the practical function of the road within the state and local system.
- 6) Document the current speed limit and level of enforcement.

A well-done traffic and engineering speed study requires a comprehensive effort by a trained professional. Look for additional details in the 2009 *Wisconsin Statewide Speed Management Guidelines* report. Contact local law enforcement, County Traffic Safety Commissions, the WisDOT and consultants for assistance in conducting speed studies.

Doing a speed study is time consuming but it is a necessary step for local agencies to legally modify speed limits. The effort also has the advantage of creating consistency in how **enforceable** speed limits are set across the state and increasing safety.

Speed zone recommendations

Local road authorities can initiate action to modify a speed limit and create a new speed zone on a local road. Citizens or other agencies also can request a change. Requests should be in writing and submitted to the local authority. The local agency should prepare a written response to the request describing their action and recommendations.

Speed study recommendations for modifying a speed zone should accomplish the following:

- Reduce the speed differential of vehicles
- Be reasonable so a majority of motorists will comply
- Reflect traffic engineering guidelines

When making speed zone changes, **do not** base the decision on these reasons:

- Noise complaints
- Accommodate specialty vehicles
- Correct spot safety problems
- Future concerns that have not yet occurred

Recommendations from a speed study generally fall within 5 mph of the 85th percentile speed. Factors that can alter this guideline include road function, access density, road geometry, parking, and pedestrian and bicycle activity. Using these secondary factors to



determine a recommended speed may require more law enforcement and result in increased crashes. Consider changing the road's physical environment to lower speeds where possible.

Speed zones should be at least 0.3 miles in length. Limit the number of speed limit changes along a route. Generally, it is advisable to change speed zones outside incorporated limits in 10 mph increments.

Submit speed limit changes that require WisDOT approval to a WisDOT Regional office. Changes outside the limitations outlined in Chapter 349.11 require department approval. Local governments take on liability when they make changes outside the outlined limitations without this approval.

Post speed limit changes as soon as possible using flags or other means to call attention to the change. Monitor speed limit changes once they are made to identify any problems or need for further investigation.

Proper signage



A speed limit is not in effect until the area has been properly signed. Conversely, signs must not be installed until the limit has been approved and officially authorized. The *Manual on Uniform Traffic Control Devices (MUTCD)* governs signs. Two types may be used: one for passenger cars and another for special limits for trucks and buses.

No more than three speed limits should be displayed on any one speed limit sign or assembly. Signs with special limits for trucks or other vehicles should include the word TRUCKS or a similar appropriate message. Display this below the standard message or on a separate plate that refers to SPEED or MPH.

The standard speed limit sign must be 24 by 30 inches. Locate signs at:

- Each point where the speed limit changes
- Beyond major intersections
- Other locations where it is necessary to remind motorists of the limit



REDUCED SPEED AHEAD SIGNS also may be used to give advance warning of a lower speed zone. This sign should be used in rural areas to alert motorists when they need extra time to slow to the posted limit.

Always follow it with a speed limit sign at the beginning of the new zone. Near schools, use the appropriate SPEED LIMIT sign after a school zone rather than the END OF SCHOOL ZONE sign.



Enforcement

Enforcement is critical. Without it, speed limits are not effective. When enforcement is increased considerably, violations and crashes have been reduced.

Local officials should actively involve enforcement personnel in setting speed limits to ensure they are reasonably enforceable. Always inform enforcement agencies when changes are adopted.

Enforcement requires wide public support. A first step is to ensure that the public perceives the speed limits as reasonable and fair because the voluntary cooperation of most drivers is essential. A second step is vigorous public information and education that stresses the safety benefits of enforcement. Make this a cooperative effort between highway and enforcement officials. Any information campaign should target specific aspects of the speeding problem such as young drivers, nighttime, school zones, work zones, or specific roads where potential traffic and pedestrian conflicts are high.

Within law enforcement agencies, traffic enforcement does not compete well with criminal and drug enforcement. That means local highway officials must actively seek adequate agency enforcement. These efforts are most effective when the safety benefits are clear and there is strong support from local elected officials.

Aggressive, targeted enforcement, combined with education, effectively produces better public compliance with traffic laws. The Federal Highway Administration recommends targeting enforcement programs to locations with a high incidence of crashes where speed was a contributing factor and to areas with high traffic volume.

Long-term, low-intensity speed enforcement can produce meaningful results. Studies indicate some amount of the enforcement effort (15% is recommended) be directed to random locations and times. Stationary, marked patrol vehicles are most effective in creating longer-term enforcement benefits.



Minimum speed limits and slow moving vehicles

Except on Interstate highways, there is no specific minimum speed on Wisconsin highways. However, statutes prohibit driving a motor vehicle "at a speed so slow as to impede the normal and reasonable movement of traffic, except when necessary for safe operation or to comply with the law." [Section 346.59 Wis. Stats.]

Vehicles that normally travel slower than 25 mph must display slow moving vehicle emblems. [Section 347.245 Wis. Stats.] In addition, the operator of a vehicle moving so slowly it impedes traffic must yield the roadway to overtaking vehicles, if practicable, when the operator of an overtaking vehicle gives an audible warning. [Section 346.59(2) Wis. Stats.]

Advisory speed signs

Advisory speed signs are used to tell drivers that a lower speed may be necessary at curves, turns, intersections and other localized conditions. These signs add emphasis and specific information to other warning signs, and recommend a comfortable and safe speed to drive in these locations. Do not confuse advisory speeds with enforceable speed limits. Advisory speeds do not imply the maximum operating speed at which skid and rollover occurs.

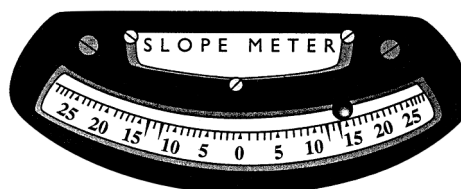


two-lane highways in the study, posted advisory speeds at most curves were well below prevailing traffic speed, and below speeds established using recommended devices and criteria.

The advisory speed must be determined by an accepted traffic engineering procedure but no ordinance is required. Maintenance or sign supervisors can erect the signs. They must be in accordance with guidelines in the *MUTCD, 2C-35*.

As with other traffic signs, advisory speeds should be consistent and reasonable to promote driver respect and compliance. This is not always the case. Research published by the national Transportation Research Board (TRB) found that on the

Advisory speeds are set based on average curve speeds for different angles of deflection. One device widely used for establishing advisory speeds on curves is the ball bank indicator. Relatively inexpensive, this curved level is mounted in an engineer's car. The engineer makes successive trial runs through a curve, taking care to drive parallel to the centerline of the curve, increasing speed by 5 mph each time. The indicator shows the angle of deflection in degrees.



The TRB study reports that the generally accepted criteria, based on tests conducted in the 1930s, produce unrealistically low speeds with modern cars and should be revised upwards. The authors say ball bank readings of 12 degrees above 40 mph, 16 degrees between 30 and 40, and 20 degrees below 30 would better reflect average curve speeds.

Ball bank readings tend to fluctuate rather widely during a trial run and can be affected by loose-surfaced roads and vehicle suspension systems. As a result, setting a recommended speed depends to a significant extent on the judgment and experience of the person making the tests. The recommended speed should feel comfortable for the average driver and be lower than the maximum safe speed. It should also be sensible in comparison with prevailing speeds.

Summary

Establishing and enforcing reasonable and safe speed limits is the responsibility of local officials. This often includes balancing conflicting issues of safety, traffic movement, and community concerns.

Coordination with local law enforcement is vital to effective speed control. Most speed zones should encourage voluntary compliance by using reasonable speed limits. Traffic calming techniques that involve physical and perceptual changes also can help. Consulting enforcement officials when determining effective limits is important and they can help work with the community in difficult areas.

The traffic engineering staff of WisDOT also is a good resource. Since they participate on county Traffic Safety Commissions, this is an easy way to contact them for assistance.

Several sample speed limit ordinances are shown on page 6.



"Badger County" traffic ordinance

SPEED LIMITS. (1) The provision of sections 346.57 & 346.59 of the Wisconsin Statutes, relating to the maximum and minimum speed of vehicles, are hereby adopted as part of this section as is fully set forth herein, except as specified by section 2 of this ordinance, pursuant to section 349.11(3)(c) of the Wisconsin Statutes. (2) No vehicle shall exceed noted speed limits on the following county trunk highways:

- (a) County Trunk Highway "A"
 - (1) **Unincorporated Village of Estesville, Town of Terry.** Thirty-five miles per hour from its junction with STH 78, in Estesville, southwesterly 0.35 miles.
 - (2) **City of Covington, Town of York.** Thirty-five miles per hour from its intersection with CTH "N" (Veterans Drive), easterly to a point 0.15 miles east of its intersection with Race Track Road.
- (b) County Trunk Highway "AB"
 - (1) **Town of Finis.** Thirty miles per hour from the bridge over the Yahara River located on a line common to sections 13 and 14, Town of Finis, southwesterly to USH 51.
 - (2) **Chestnut Road, City of Centerton.** Thirty miles per hour from the intersection of USH 51, easterly to Droster Road.

Sample municipal ordinance

Section 3. **SPEED LIMITS.** [Towns, Cities, and Villages]
The _____ [Council or Village Board] hereby determines that the statutory speed limits on the following streets or portions thereof are unreasonable, unsafe and imprudent and modifies such speed limits as follows:

- (1) **SPEED LIMITS INCREASED.** Speed limits are increased as follows upon the following designated streets or portions thereof:
 - (a) **Outlying Districts**
45 miles per hour on _____ Avenue between _____ Street and the _____ [City or Village] limits;
- (2) **SPEED LIMITS DECREASED.** With the approval of the Wisconsin Department of Transportation, the speed limits are decreased as hereinafter set forth upon the following highways or portions thereof:
 - (a) **Semi-Urban Districts**
25 miles per hour on _____ Road between County Trunk _____ and the _____ [City or Village] Limits;
30 miles per hour on _____ Road between County Trunk _____ and the limits

Sample amendment to a speed ordinance

AMENDING CHAPTER 1 OF THE BADGER COUNTY CODE OF ORDINANCES SPEED LIMIT CHANGES

The County Board of Supervisors of the County of Badger does ordain as follows:

ARTICLE 1. Unless otherwise expressly stated herein, all references to section and chapter numbers are to those of the Badger County Code of Ordinances.

ARTICLE 2. Section(2)(b)(2) is created to read as follows:

- 1) Chestnut Road, City of Centerton. Twenty-five miles per hour from its intersection with USH 51 to its intersection with Winona Drive.

Sample speed limit ordinances Local boards of elected officials must adopt speed limits in ordinance form. Here are sample ordinances for county and municipal governments. Local ordinances also may include details on forfeitures and law enforcement authority. The ordinance should be reviewed by the agency's attorney.

References

- Wisconsin Statewide Speed Management Guidelines*, WisDOT, June 2009
- Speed Management Safety*, FHWA resource website at <http://safety.fhwa.dot.gov/speedmgt/>
- Evaluation of Criteria for Setting Advisory Speed on Curves*, Mashrur A. Chowdhury, Davey L. Warren, Howard Bissell, & Sunil Taori, Transportation Research Board Paper No. 980133, January 11-15, 1998, 21 pp.
- Factors Affecting Speed Variance and Its Influence on Accidents*, Nicholas J. Garber & Ravi Gadiraju, Transportation Research Record 1213, Transportation Research Board, 1998, 10 pp.
- A Policy on Geometric Design of Highways and Streets*, AASHTO, 2004, pp 66-72.
- Spot Speed Studies, Ch.3 of Manual of Transportation Engineering Studies*, Institute of Transportation Engineers, H. Douglas Robertson, Ed., 2000, pp 33-51.

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www.cityofmequonwi.gov

Public Works

TO: Committee of the Whole
FROM: Timothy Weyker, Deputy Director Public Works
DATE: February 10, 2026
SUBJECT: RESOLUTION 4263 - A Resolution Approving Permit Fees, Hours of Operation and Proposed Regulations for the City Brush Site During Calendar Year 2026

Background

On July 10, 2022, the Common Council adopted the City's Strategic Plan for 2022-2025 and one of the projects identified was "City Brush Site Automation".

On December 10, 2024, the Common Council awarded construction of the City Brush Site Improvement Project to Vinton Construction of Two Rivers, Wisconsin. The project started after the 4th of July Holiday in 2025 and was substantially completed in November 2025. By utilizing staged construction, the City Brush Site operated during the 2025 season under the previous dates & hours of operation on Wednesdays and Saturdays from April through November.

Analysis

Over time, many residents have requested that the brush site be open later in the year and open more days per week. A new automated gate will allow the City greater flexibility to expand the availability of the brush site starting in 2026, and the newly expanded brush site yard has greatly improved the available space at the brush site.

The following shows previous dates & hours of operation, as well as proposed dates and hours of operation, brush permit fees and regulations for 2026:

Previous Dates & Hours of Operation:

April through August
Wednesdays 7:30 AM - 7:00 PM
Saturdays 8:00 AM - 4:00 PM

September through November
Wednesdays & Saturdays 8:00 AM - 4:00 PM

Proposed 2026 Dates & Hours of Operation:

1st Tuesday of April (April 7) through 2nd Sunday of December (December 13)
(Tuesday - Sunday) 7:30 AM - 7:00 PM

Closed on Mondays for Site Management

Brush Permit Fees, Regulations, and Penalties:

The previous annual permit fee for the brush site was \$25. Based on comparisons from other communities and the additional cost for card reader-enabled permits, staff propose an initial 2026

permit fee of \$40, a card replacement fee of \$35, and an annual renewal fee of \$30. All fees are non-refundable.

The brush site is intended for Mequon residential use only. In the past, a brush site attendant checked residential permits as they entered the brush site. With the automated gate and no brush site attendant, residential permits will be scanned with a card reader and the associated license plate will be recorded by camera. The brush site attendant also monitored what was being dropped off at the site to verify brush site regulations were being followed. With the new automated gate, brush site regulations will still need to be enforced, but the use of security cameras and a license plate camera in conjunction with the card readers will allow the City to determine potential violations of the brush site's regulations. Signs posted at the brush site will let residents know where to put their brush/branches, yard waste, and logs 12" in diameter or less. A sign will also be posted for residents to take free wood chips or compost if available.

A copy of the proposed brush site brochure containing permit fees, brush site regulations, and hours of operation is attached. The brush site brochure has more detailed information concerning invasive weed disposal, but the following general regulations listed in the brochure will continue to be enforced:

- Only brush and yard waste from a permit holder's residential lot in the City of Mequon is accepted. Residents are allowed to register a maximum of two license plates with each brush site permit. License plate numbers may be updated in the permit system by contacting the Department of Public Works.
- No commercial dumping.
- No dumping outside the fenced site.
- No dumping of anything other than grass, leaves, non-invasive weeds, pumpkins, garden waste, brush and branches up to 12" in diameter, and soft-bodied green herbaceous material under 1" in diameter.

Penalties for violating any brush site regulations will be enforced as follows:

1. First Violation - The violator will be issued a notice of violation and be required to remove any material not allowed at the brush site.
2. Second Violation - The violator will be issued a notice of violation and be required to remove any material not allowed at the brush site, **and** the Brush Permit will be suspended for the remainder of the season.
3. Third Violation - The violator will be issued a notice of violation and be required to remove any material not allowed at the brush site **and** will have brush site privileges permanently revoked.

Fiscal Impact

The fiscal impact should be neutral. The increase in the Brush Permit Fees is intended to cover the increased costs of electronic permit cards, increased electrical and communications costs associated with the automated gate, and additional site cleanup required with expanded brush site hours of operation.

Recommendation

A recommendation is forthcoming from the Committee of the Whole on February 10, 2026.

Attachments:

BrushSite2026_Brochure

COMMON COUNCIL
OF THE
CITY OF MEQUON

RESOLUTION - 4263

RESOLUTION 4263 - A Resolution Approving Permit Fees, Hours of Operation and Proposed Regulations for the City Brush Site During Calendar Year 2026

RECITALS

A. The City Brush Site Improvement Project, including an automated gate and expanded yard, was substantially completed in November 2025.

B. With the addition of an automated gate for the 2026 season, the brush site will no longer have a brush site attendant, and instead access will be granted electronically with a brush site permit card reader at the entrance gate.

C. Due to the added expense of electronic brush site permit cards, utility costs, and site management costs, fees for brush site permits require adjustment.

D. With the addition of an automated gate, the brush site will have expanded access with increased hours and days of operation, requiring adoption of a new brush site season schedule.

E. Without a brush site attendant, brush site regulations will be enforced after-the-fact using security and license plate cameras and the brush site's card readers. Penalties for violations will need to be issued. The brush site regulations include:

- Only brush and yard waste from a permit holder's residential lot in the City of Mequon is accepted. Residents are allowed to register a maximum of two license plates with each brush site permit. License plate numbers may be updated in the permit system by contacting the Department of Public Works.

- No commercial dumping.

- No dumping outside the fenced site.

- No dumping of anything other than grass, leaves, non-invasive weeds, pumpkins, garden waste, brush and branches up to 12" in diameter, and soft-bodied green herbaceous material under 1" in diameter.

F. The Committee of the Whole at its meeting on February 10th, 2026, approved staff recommendations.

BASED UPON THE FOREGOING RECITALS, IT IS RESOLVED by the Common Council of the City of Mequon, Wisconsin that:

1. The "Brush Permit" fee in the City of Mequon Fee Schedule is increased from \$25.00 to \$40.00 for the initial 2026 electronic brush permit cards issued to residents.

2. The "Lost Brush Permit Replacement Fee" in the City of Mequon Fee Schedule is renamed the "Replacement Brush Permit Card" fee, and is increased from \$5.00 to \$35.00.

3. An “Annual Renewal” fee of \$30.00 for Brush Permit renewals shall be added to the City of Mequon Fee Schedule.

4. The dates and hours of operation of the Brush Site are approved to be the 1st Tuesday of April through the 2nd Sunday of December, (Tuesday–Sunday) 7:30 AM - 7:00 PM. The site will be closed on Mondays for site management.

5. Penalties for violating any brush site regulations will be enforced as follows:

a. First Violation – The violator will be issued a notice of violation and be required to remove any material not allowed at the brush site.

b. Second Violation - The violator will be issued a notice of violation and be required to remove any material not allowed at the brush site, and the Brush Permit will be suspended for the remainder of the season.

c. Third Violation - The violator will be issued a notice of violation and be required to remove any material not allowed at the brush site and will have brush site privileges revoked permanently.

Approved by: Andrew Nerbun, Mayor

Date Approved: February 10, 2026

I certify that the foregoing Ordinance was adopted by the Common Council of the City of Mequon, Wisconsin, at a meeting held on February 10, 2026.

Caroline Fochs, City Clerk



Materials Accepted

- Grass
- Leaves
- Non-invasive weeds
- Pumpkins
- Garden waste
- Brush and branches up to 12" in diameter
- Soft body green herbaceous material under 1" in diameter

More Information



Curbside pickup is **not provided** by the City of Mequon.



The City provides **no assistance** in loading.



Place all material in the **designated areas**.



Contact Us



262-236-8159



dpwadmin@cityofmequonwi.gov



www.cityofmequonwi.gov/brush-site



Department of Public Works
10800 N Industrial Drive
Mequon, WI 53092



City of Mequon
Department of Public Works

2026 Brush Site

Annual Permit

New Card	\$40.00
Replacement Card	\$35.00
Annual Renewal	\$30.00

Available for purchase during normal business hours at the locations listed below. Check, cash, and credit cards accepted (credit card convenience fees apply).

Mequon City Hall
11333 N Cedarburg Road
Mequon, WI 53092

Department of Public Works
10800 N Industrial Drive
Mequon, WI 53092

Schedule

The Brush Site will be open each year from the first Tuesday of April through the second Sunday of December.

2026 Dates and Times

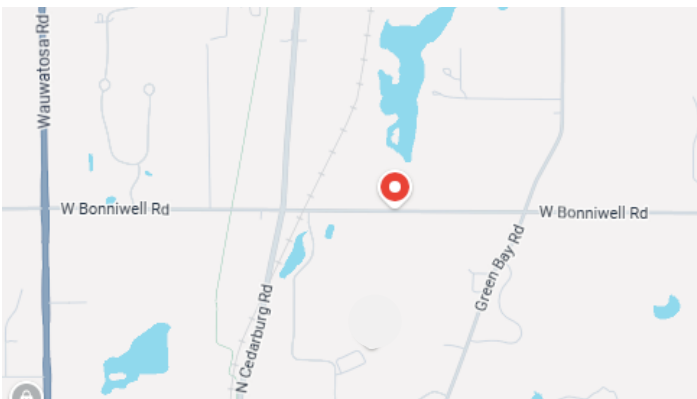
April 7, 2026 to December 13, 2026

Tuesday-Sunday
7:30 AM to 7:00 PM

The Brush Site is closed on Mondays.

Location

6000 W Bonniwell Road
Mequon, WI 53097



Invasive Weeds

Invasive weeds are **not** collected at the Brush Site, they **must** be disposed of separately from other yard waste.

- 1 Place the whole plant (or their flower/seed heads) in a clear bag labeled "Invasive Plants—Please Landfill".
- 2 Place these bags out for collection by your contracted licensed garbage hauler.

Contracted licensed haulers are authorized to accept these invasive plants by the DNR.

Find more information on Invasive species to be bagged and collected by your contracted licensed garbage hauler.



Regulations



Only brush and yard waste from a permit holder's **residential lot** in the City of Mequon is accepted.



No commercial dumping.



No dumping outside of the fenced site.



No dumping of anything other than grass, leaves, non-invasive weeds, pumpkins, garden waste, brush and branches up to 12" in diameter, soft body green herbaceous material under 1" in diameter.

Violations

Penalties for violating any brush site regulations will be enforced as follows:

- 1 **First Violation:** The violator will be issued a notice of violation and be required to remove any material not allowed at the brush site.
- 2 **Second Violation:** The violator will be issued a notice of violation and be required to remove any material not allowed at the brush site, **and** the Brush Permit will be suspended for the remainder of the season.
- 3 **Third Violation:** The violator will be issued a notice of violation and be required to remove any material not allowed at the brush site **and** will have brush site privileges revoked permanently.

COMMITTEE OF THE WHOLE PLANNING CALENDAR - 2026

ITEM	PRINCIPAL	TIME
January 13		
Civic Campus Master Plan	Tollefson	60
Hotel/Motel Tax Proposal	Tollefson	15
February 10		
Traffic Calming/Speed Deterrence	Lundeen/Riley	60
Brush Site Improvements	Lundeen	15
March 10		
Joint Extraterritorial Zoning Commission Proposal	Tollefson	30
Miller Marriot Development Consultation (Sewer Utility)	Tollefson	45
April 14		
Port Washington Road Rezoning	Zader	45
FEMA Floodplain Map Amendment	Zader	30
May 12		
Emerald Ash Borer Policy	Lundeen	30
Specimen Tree Ordinance	Lundeen	30
June 9		
ARPA Expense Reallocation(s)	Jones	30
ITEM	PRINCIPAL	TIME

COMMITTEE OF THE WHOLE PLANNING CALENDAR - 2026

July 14		
Personnel Handbook Update	Wolff	75
August 11		
Legal Compliance Update	Sajdak	60
September 8		
October 13		
November 10		
December 8		
Future/Other Policy Items for Discussion/Consideration/Analysis		
JCC Redevelopment Consultation; SW Industrial Re-Zoning; Deer Management; Road Program/ROW Asset Prioritization; ADA Compliance; TID #3 Public Improvements; Opitz Cemetery; Facilities Study Update; Fleet Study Update		