



GREEN LAKE COUNTY

571 County Road A, Green Lake, WI 54941

Original Post Date: 02/02/2021

Revised Post Date: 02/09/2021

The following documents are included in the packet for the Highway Committee on 02/10/2021:

- 1) Agenda
- 2) Minutes of 01/13/2021
- 3) Traffic Speed Studies, CTH A and CTH F ***added CTH A Lane Width Reduction Information**
- 4) Financials – December 2020
- 5) Commissioner's Report
- 6) **Added Material Bid Results (Asphalt, Pulverizing, Culverts, Crushed Stone and Road Oil)**



GREEN LAKE COUNTY HIGHWAY DEPARTMENT

Office: 920-294-4060
FAX: 920-294-4066

Highway Committee Meeting Notice

Date: February 10, 2021 Time: 4:00 pm

The Green Lake County Highway Committee will meet via virtual communication with limited available seating at the Green Lake County Government Center, County Board Room #0902, 571 County Rd A, Green Lake WI

AGENDA

Committee Members

*David
Abendroth
Chuck Buss
Dennis
Mulder
Robert
Schweder
Charlie
Wielgosh*

*Becky
Pence,
Secretary*

1. Call to Order
2. Certification of Open Meeting Law
3. Pledge of Allegiance
4. Approval of Minutes 01/13/2021
5. Public Comment
6. Traffic Speed Studies
 - CTH A, Town of Brooklyn from STH 23/49 Intersection to CTH K East Intersection
 - CTH F, Town of Berlin from the Berlin City Limits/Forest Ridge Road to CTH V Intersection
7. Material Bids
 - Asphaltic Concrete Pavement and Pulverizing/Relay
 - Culverts
 - Crushed Stone & Gravel
 - Road Oil/Application
8. Financial Reports
9. Commissioner's Report
10. Future Meeting Date
 - Regular Meeting March 10, 2021
11. Future Agenda items for action & discussion
12. Adjourn

Due to the COVID-19 Pandemic, this meeting will be conducted and available through in person attendance (6 ft. social distancing required and face masks required) or audio/visual communication. Remote access can be obtained through the following link.

Join Zoom Meeting

<https://zoom.us/j/97816739019?pwd=V1IxUFdiamlGMVZzTU9XMVN0TWRjdz09>

Meeting ID: 978 1673 9019

Passcode: 383331

Dial by your location

- +1 301 715 8592 US (Washington DC)
- +1 312 626 6799 US (Chicago)
- +1 929 436 2866 US (New York)

Kindly arrange to be present, if unable to do so, please notify our office. Sincerely, Becky Pence

Please note: Meeting area is accessible to the physically disabled. Anyone planning to attend who needs visual or Audio assistance, should contact the Highway Office, 920-294-4060 not later than 3 days before date of the meeting.

HIGHWAY COMMITTEE MEETING January 13, 2021

The meeting of the Highway Committee was called to order by Vice Chair Wielgosh at 4:00 PM on Wednesday January 13, 2021 in the County Board Room, and via Zoom format at the Government Center, Green Lake, WI. The requirements of the open meeting law were certified as being met. The Pledge of Allegiance was recited.

Present: David Abendroth, Absent:
Chuck Buss,
Dennis Mulder, via Zoom
Robert Schweder,
Charlie Wielgosh

Other county employees Present: Barry Mashuda, Highway Commissioner; Becky Pence, Administrative Assistant; Harley Reabe, County Board Chair; Liz Otto, County Clerk; Others Present via Zoom: Dawn Klockow, Corporation Counsel; Cathy Schmit, County Administrator

Approval of Minutes 10/14/20

Motion/second (Abendroth/Buss) to approve the Minutes of 0/13/21 upon correction of Packer City bid price. All Ayes. Motion Carried.

Public Comment None

Ordinance Amending Chapter 257 Vehicles, All-Terrain/Utility-Terrain

Motion/second (Schweder/Buss) to approve the Ordinance Amending Chapter 257 Vehicles, All-Terrain/Utility-Terrain as presented. All Ayes. Motion Carried.

Purchase of (2) Scale Kiosks

Request for Quote received from AWS \$24,765.00 plus installation costs; Badger Scale \$23,624.00 plus installation costs; and Cream City Scale \$28,981.00. Option 2 Request for Quotes for Basic Kiosks (no IT Support required) received from Badger Scale \$20,797.92 plus installation costs; and Cream City Scale \$16,972.00.

Motion/section (Buss/Abendroth) to purchase the 2 Basic Scale Kiosks from Cream City Scale for \$16,972.00. All Ayes. Motion Carried.

Used Snow Blower Purchase

Commissioner updated Committee Members that a used snow blower was purchased for \$20,165.00 through the Wisconsin Surplus Auction. Commissioner Mashuda also explained the need for purchasing the snow blower. Discussion held, and questions answered.

Motion/second (Abendroth/Buss) to approve the purchase. All Ayes. Motion Carried.

North Central Region Mutual Aid Agreement

Commissioner Mashuda explained the Intergovernmental Agreement between North Central Wisconsin Counties for Highway Department Mutual Aid in certain situations such as in emergencies, catastrophes, natural disasters, etc.

Motion/second (Buss/Abendroth) to approve the Agreement between North Central Wisconsin Counties for Highway Department Mutual Aid. All Ayes. Motion Carried.

Financial Reports

Highway financial reports were reviewed.

Commissioner's Report

Committee reviewed the Commissioner's Report.

Future Committee Meeting Date February 10, 2021.

Adjournment: Vice Chair Wielgosh adjourned the meeting at 4:26 PM

Submitted by,
Becky Pence,
Highway Committee Secretary

CTH A Speed Study, Town of Brooklyn

Traffic Safety Commission

January 19 2021

At the January TSC meeting, the CTH A Speed Study prepared by MSA Professional Services was reviewed. After looking at the gathered speed and crash statistics, the committee came to the conclusion that lowering the speed limit in the study area could possibly have a negative effect. If lowered, there would be a greater deviation in the speeds traveled creating a greater risk of crashes.

A recommendation made by MSA is to narrow the driving lanes to 11' wide from the current 12' lanes. This would make the shoulder area wider giving more room for bikers and pedestrians. Narrowing the lanes tends to have a general traffic calming effect.

In addition, there are some recommendations to make the Park area safer. Possibly making it a one way loop (other than the boat launch area), entering at the north end and exiting the south end. The Highway Department could work with the Maintenance Department to make these changes if needed. Signage could also be installed on CTH A for enter/exit to reduce confusion for motorists wanting to visit the park.

Barry

CTH A SOUTH STREET – SPRING GROVE ROAD

Lane width reduction

Reducing driving lanes from 2-12' lanes to 2-11' lanes will leave on the average of 4' for bikes and pedestrians.

Length of white lines to be removed is a total of 22050'

Water Jetting removal @ \$.50 per foot = \$11,025.00

Diamond Blade Grinding @ \$.60 per foot = \$13,230.00

New white lines = \$2,700.00

Total = \$13,725.00 - \$15,930.00



CTH A Speed Study, Town of Brooklyn STH 23/49 Intersection to CTH K East Intersection

**Green Lake County Highway Department
Green Lake County, Wisconsin
November 2020**

Prepared by:

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Project No. 11507010

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INTRODUCTION

This report contains the results of an Engineering and Traffic Speed Study for a portion of the existing CTH A roadway in the Town of Brooklyn, Green Lake County Wisconsin. The project area includes approximately 3.5 miles of CTH A beginning from the intersection of STH 23/49 and continuing south to the intersection at CTH K - East. CTH A is a 2-lane roadway with a rural cross section and is classified as a major collector. While rural in construction, the corridor has a residential feel with approximately 60 access points along CTH A from the intersection of CTH A & South St/Sunnyside Road to the north side of Sunset Park. Currently, CTH A has three posted speed limits, 45mph from STH 23/49 to approximately the intersection of CTH A & South St/Sunnyside Road. From there, the speed limit is 40 mph for approximately 2 miles past Sunset Park where it becomes 55 mph for the final approximately 0.8 miles to CTH K.

WISCONSIN STATEWIDE SPEED MANAGEMENT GUIDELINES, JUNE 2009

Wisconsin State Statutes Section 346.57(4) defines speed limits for all public roadways. These statutes also allow for state and local governments to create Speed Zones within defined constraints. The Wisconsin Department of Transportation (WisDOT) used this authority to create their own set of guidelines for determining changes to the statute speed limits around the state, which are outlined in the Wisconsin Statewide Speed Management Guidelines. These guidelines help define appropriate speed limits which can lead to better voluntary driver compliance, efficient traffic flow and increased safety. The following evaluation was completed utilizing these guidelines with conclusions and recommendations included at the end of the report.

TRAFFIC DATA COLLECTION

Vehicle speed data was collected at three different locations along CTH A during the week of October 26 to October 30, 2020. All three locations were set within the posted 40 mph speed zone. Weather conditions were dry for the duration of the counts. See **Attachment A** for count locations and project limits.

Each location was collected for approximately three days. The data that was collected and used for this study can be found in **Attachment B**. The speed recording equipment was placed on relatively straight sections of the corridor with clear vision in both directions. Two recording devices were placed within the residential segment of the subject corridor with the third placed south of Sunset Park to gain an understanding of both how vehicles are traveling near residences as well as along the long, straight segment south of the park access. The following sample sizes were collected at each location:

Location 1: 10,385

Location 2: 11,355

Location 3: 11,118

The speed data for each location is summarized below. The "Percentiles" are the speeds at or below which "X"% of the vehicles are traveling. The "Pace" is the ten-mile-per-hour increment in speed in which the highest number of vehicles were observed.

LOCATION 1	
Vehicles Observed:	10,385
50th Percentile (Average):	46 MPH
85th Percentile:	50 MPH
Median Speed:	45 MPH
Pace Speed:	40 - 50 MPH
Lowest Recorded Speed:	10 MPH
Highest Recorded Speed:	82 MPH

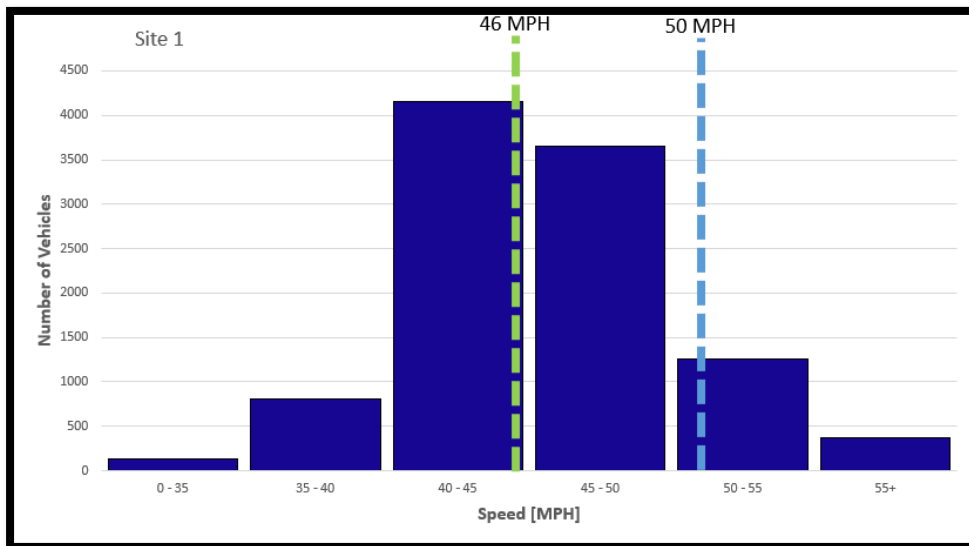


Figure 1 – Location 1 Speed Distribution

LOCATION 2	
Vehicles Observed:	11,355
50th Percentile (Average):	43 MPH
85th Percentile:	47 MPH
Median Speed:	43 MPH
Pace Speed:	38 - 48 MPH
Lowest Recorded Speed:	7 MPH
Highest Recorded Speed:	72 MPH

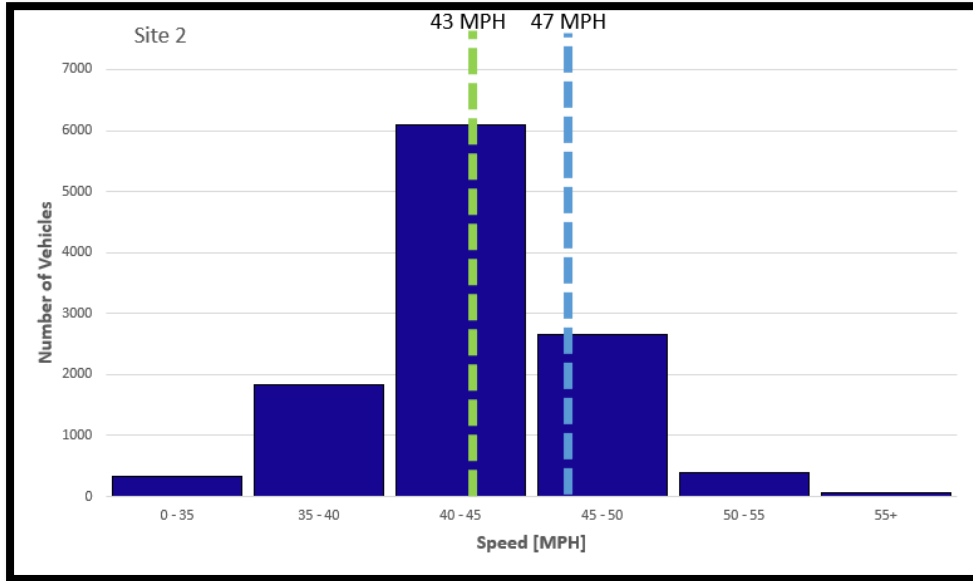


Figure 2 – Location 2 Speed Distribution

LOCATION 3	
Vehicles Observed:	11,118
50th Percentile (Average):	42 MPH
85th Percentile:	46 MPH
Median Speed:	42 MPH
Pace Speed:	37 - 47 MPH
Lowest Recorded Speed:	8 MPH
Highest Recorded Speed:	64 MPH

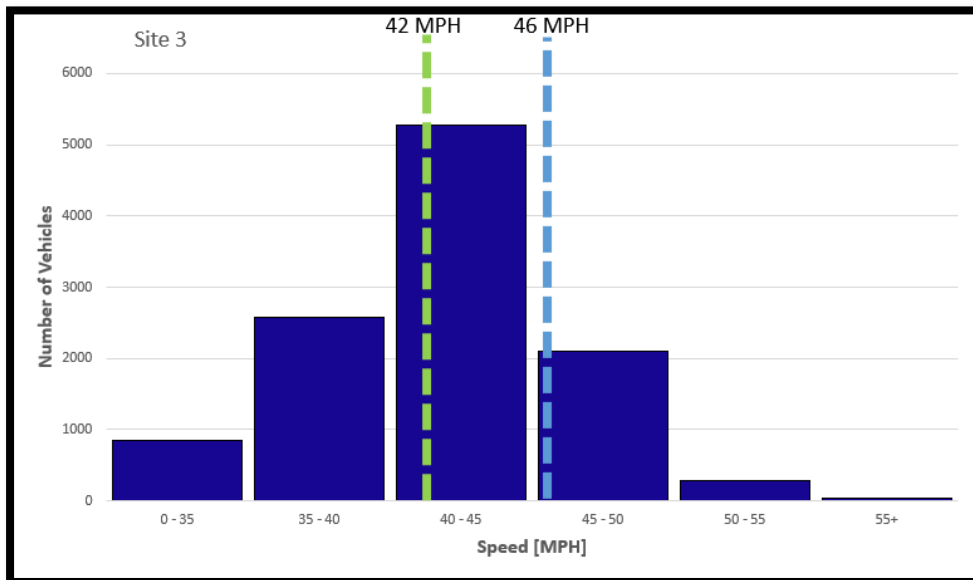


Figure 3 – Location 3 Speed Distribution

SITE DISTANCE AND REVIEW OF ROAD GEOMETRICS

Field observations were collected at the time of setting traffic counters which included a review of existing roadway conditions, typical section measurements, and site-specific topographic and geometric features. Topographical survey was not included as part of the review, however, photos were taken at each intersection to gain a general understanding of whether existing intersection sight distances seemed appropriate. In addition, both Sunset Park access driveways were reviewed. An anecdotal review of each of the findings follows below.

Pavement Conditions

The existing pavement along CTH A is asphaltic pavement. The images below show examples of existing pavement throughout the corridor. In general, it appears the pavement surface is in fair condition with only minor rutting. Most existing cracks have been sealed previously.



Figure 4 – North of Commercial Ave



Figure 5 –South of South St/Sunnyside Rd



Figure 6 – North Sunset Park Access



Figure 7 – South of Structure B-24-005

Typical Section

The existing typical section throughout the corridor measures from east to west, 4-foot paved shoulder, 2 12-foot travel lanes, 3-foot paved shoulder. There is existing beam guard on both sides of the road about 450-feet north and 950-feet south of Spring Grove Road. Beam guard starts again on the east side of CTH A along nearly the entire isthmus with beam guard on both sides of the road at structure B-24-005 just south of Sunset Park. There is also approximately 175' of beam guard on the west side of CTH A about 150-feet north of Illinois Ave.

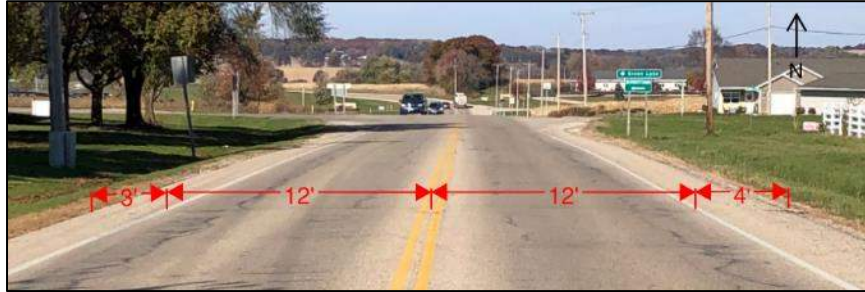


Figure 8 – Existing Typical Section

Horizontal and Vertical Curves

Horizontal Curves

Five horizontal curves were identified within the project area. Three of the five curves (curves 1 – 3 shown in Figure 9) were identified during the corridor visit as possibly not having radii large enough for the posted speed. A desktop review was completed for each of the three horizontal curves identifying approximate radii and approximate maximum super elevations based on measurements in the field. This information was compared to horizontal design speed criteria charts located in the Facilities Development Manual (FDM) Chapter 11, Section 10, Exhibit 5.1. See **Appendix A – Superelevation Tables**. The associated design speed for each of the three curves is stated below.



Figure 9 – Horizontal Curves

	~ Radius	~ Cross Slope	~ Design Speed	Posted Speed Met?
Curve 1	~800'	~6%	45/50 mph	Yes
Curve 2	~1,000'	~6%	50 mph	Yes
Curve 3	~1,400'	~4.2%	40 mph	Yes
*Curve 4	N/A	N/A	N/A	Yes
*Curve 5	N/A	N/A	N/A	Yes

*Denotes curves which were identified in the field as likely meeting current posted speeds and therefore were not reviewed.

Vertical Curves

When visiting the site, one vertical curve was identified as possibly not meeting current design speed standards for crest vertical curves per the FDM. Using Google Earth's "Elevation Profile" tool along a user-defined path, we can get a general idea of the location which was identified on the south end of the isthmus and shown at the red arrow in Figure 10 below. It should be noted, the speed limit changes between 45 and 55 mph at approximately the crest of the curve. Actual field survey would be necessary to confirm the design speed at this location. While not confirming/correcting as part of this study, if the County has any planned construction projects incorporating this location in the future, it would be prudent to investigate updating the curve to meet the design speed at that time.



Figure 10 – Approximate Roadway Profile

Intersection Sight Distance

Anecdotal Intersection Sight distance was reviewed at each intersection. A summary of the findings including a general assessment regarding whether sight distance appears to be met or not met is included in Table 1 below. Pictures looking left and right from the side road at each intersection can be seen in **Attachment C – Intersection Sight Distance Assessment**. All side roads are stop controlled to CTH A. Like both the horizontal and vertical curve review, actual site survey would be necessary to confirm assessments.

Table 1: Intersection Sight Distance

Intersection	Sight Distance Assessment
<i>Commercial Avenue & CTH A</i>	Likely Met
<i>South St/Sunnyside Rd & CTH A</i>	Likely Met
<i>Klaver St & CTH A</i>	May not be met looking left, combination of vertical and horizontal curve may restrict visibility. May meet minimums. Likely met looking right.
<i>Crystal Ln & CTH A</i>	May no be met looking left, existing vegetation may prevent. Existing hillside also makes looking right questionable. Both may meet minimums.
<i>Illinois Ave/Whitetail Ct & CTH A</i>	Likely met from the west approach. May not be met looking right from Whitetail Ct.
<i>Silver Creek Rd & CTH A</i>	Likely met
<i>Spring Grove Rd & CTH A</i>	May not be met looking left due to vertical curve. Likely met looking right.

Scott Hill Rd/ CTH K & CTH A

Appears very unlikely that sight distance is met looking left from Scott Hill Rd or right from CTH K. Sight distance is likely met looking south from both approaches. The movements to and from CTH A and CTH K were observed to be fairly heavy. Northbound CTH A to eastbound CTH K is also a designated long truck route. Substandard sight distance could create safety concerns at this intersection.

Sunset Park

Sunset Park is a County Park located to the south of the existing residential area along the west side of the isthmus between Green Lake and Silver Creek. The park has an access on both the north and south end and offers several recreational activities including a boat launch, picnic shelter with grills, bathroom facilities and general public access to Green Lake. These amenities draw not only vehicular traffic, but also pedestrians and bicyclists utilizing CTH A to gain access to the park which local officials have identified as creating safety concerns for all users. In addition to limited facilities along CTH A, no pedestrian or bicycle facilities currently exist within the park with all users sharing the paved road through the park.

A review of sight distance at both access locations is shown below.

North Access:

Looking Left:



Looking Right:



Sight Distance Assessment: Sight distance is likely met looking both left and right. However, there are a number of trees and shrubs immediately to the north of the access likely limit visibility as users of all modes approach the access from both CTH A and the driveway. See the photo below. Clearing this corner may help users to identify approaching conflicts sooner creating a safer access driveway.



South Access:
Looking Left:



Looking Right:



Sight Distance Assessment: Sight distance is likely met looking left. Sight distance may be obstructed looking right due to the existing beam guard at the bridge structure B-24-005. A zoomed in version of the same “looking right” photo is shown below to illustrate the possible obstruction.



Consideration of Multimodal Users

The existing corridor has very limited facilities for pedestrian and bicyclists with only 4-foot and 3-foot shoulders on the east and west sides of CTH A respectively. A lack of facilities has caused local officials to identify this as a major safety concern for these multimodal users both along CTH A and at the access points for Sunset Park. Listed below are a few options by location, ordered from the lowest anticipated cost and effort, to the highest, that the community could take to try to help improve upon these safety concerns.

CTH A:

- Restripe CTH A within the residential area (Sunset Park to the South St/Sunnyside Rd intersection) to narrow the existing travel lanes and create more space for multimodal users to share the road with vehicles. Referencing the WisDOT Facilities Development Manual (FDM) Section 11-40, Attachment 7.6, it is recommended the typical section change from an existing 3' shoulder, 2-12' travel lanes and a 4' shoulder to 2-4.5' shoulders and 2-11' travel lanes.
 - Costs associated with this conversion would be nominal and consist of mostly pavement marking removal and restriping.

- Improve corridor lighting within the residential area. Currently there are a small number of overhead lights along the corridor, mostly at existing intersections. Having a more well-lit corridor would give the area a more urban feel and create more visibility of pedestrian and bicyclists.
 - Costs associated with this effort could range significantly based on whether the community would attach overhead lights to existing power poles along the corridor or opt for a more decorative pole and fixture.
 - These could also be a shorter “pedestrian” light pole in the range of 10-15' high rather than a more traditional 25-30' pole.
 - If a more decorative pole is chosen, the community may want to convert the corridor to more of an urban section with curb and gutter to provide a level of protection for the poles.

- Add an 8 or 10-foot wide multiuse path to the west side of CTH A within the residential area. This would be the ultimate solution to remove conflicts and improve safety for multimodal users, however it would also likely come at a significant cost. Additional considerations while evaluating this alternative include:
 - Additional right-of-way investigation to establish the exact location and assess the level of impacts that would occur. If it can be assumed that the existing fence lines and power pole locations are near the existing right-of-way line, there may be enough to install a path with limited acquisition needs.





- The path would fill in the existing ditch on the west side and therefore at a minimum, the west side of the road would need curb and gutter and a drainage study to confirm that storm water could be controlled.
- Filling in the existing ditch would create drainage obstacles behind the proposed path. Further investigation would be necessary to determine and minimize impacts.
- The existing beam guard north of Illinois Ave and subsequent steep slope behind the beam guard would create a unique engineering obstacle. Further investigation would be necessary to determine and minimize impacts.

Sunset Park:

- Convert the park circulation to one-way with a recommended flow of traffic entering on the north and exiting on the south end. See **Attachment D** – Conceptual Geometric Adjustments at Sunset Park. This would minimize conflict points both at the access locations and within the park. One-way traffic also creates more width for all users on the existing road through the park. Note that the County will likely want to confirm sight distance with the existing beam guard at structure B-24-005 prior to routing additional traffic to that location
 - Cost would be nominal with likely only pavement markings and signage.
- Remove the existing trees on the north side of the north access to create a vision triangle that improves visibility for all users. This would provide vehicles more time to see and react to approaching pedestrians and bicycles.
 - Depending on existing right-of-way and/or property owner coordination cost could be low.
- Install a raised sidewalk beginning from the north access at CTH A routing along the north and west side of the park road along the lake side to allow non-vehicle users safe access to the lake. Note that this could also just be delineated with pavement markings as a walking area on the existing paved road if a raised sidewalk is not desired. However, having a raised sidewalk provides a more defined space for pedestrians and would likely feel safer for users.
 - This configuration could include a marked and signed crossing near the park bathroom/shelter.
 - Cost would be low to moderate depending on drainage and stormwater needs.

CRASH RECORD ANALYSIS

A review of existing crash reports along CTH A was completed to determine if a pattern exists that warrants lowering the speed limit. The crash reports were obtained from the University of Wisconsin Transportation Operations and Safety (TOPS) Lab for the most recent five years of crash data, (2015-2020). 54 crashes were returned during this time period within the study area. Of those crashes, 38 involved deer or other animals and two involved snow leaving 14 non-animal or weather-related crashes. Of the 14 crashes, nine resulted in injuries, five were angle crashes and four involved either leaving the road or were flagged for negotiating a curve. While not conclusive that any of the crashes were related to speed, crashes involving curves and leaving the roadway could be attributed to drivers going too fast for road conditions. In addition, it's possible some of the angle crashes and animal crashes could have been avoided at a reduced speed.

Current Level of Enforcement:

CTH A falls under the jurisdiction of the Green Lake County Sheriff's Department. In communication with the representatives of Green Lake County, CTH A receives an above average amount of enforcement compared to most other areas, especially near Sunset Park.

CONCLUSIONS

CTH A within the majority of the project limits appears to fall with the criteria for classification as a semi-urban district. This type of roadway is generally a rural road that falls outside the corporate limits of a community but has an "area contiguous to any highway where on either or both sides of the highway within 1,000 feet buildings are spaced on average less than 200 feet apart". Per the regulatory guidelines, the County would be able to set the speed limit to 35 mph on that area of road and be consistent with the fixed speed limit defined in the state statutes. However, the County would also be within their right to set the speed limit to better align with the observed 85th percentile speed or even 50th percentile speed up to a maximum of 55 mph.

The statewide speed limit guidelines provide secondary roadway factors to also consider while establishing a speed limit. These include access density, median type, parking along the street and pedestrian activity level. CTH A has relatively high access density and local officials have indicated pedestrian levels are high. In addition, there are a few intersections where sight distance may not be met or is only meeting minimum distances. If these secondary roadway factors come into play, a jurisdiction could then evaluate lowering the speed to the nearest 5 mph increment of the 50th percentile operating speed.

RECOMMENDATIONS

The statewide guidance and results of this project-specific speed data provide conflicting conclusions between the recommended fixed limit and the 85th percentile guidance. It is MSA's recommendation that safety should be a top priority. Local officials have expressed concerns for pedestrian and bicycle safety along the corridor and at Sunset Park. Due to this expressed concern, and because the area falls within a semi-urban district, MSA recommends the following:

- If the existing roadway configuration remains, i.e. rural cross section with narrow on-street bicycle/pedestrian facilities, MSA recommends following the state's fixed speed limit criteria as it relates to an semi-urban area and setting the speed limit to 35 mph from the

intersection of South St/Sunnyside Road until approximately 710 feet south of the southern Sunset Park access. This distance would meet the desired intersection sight distance of the south access for a posted 35 mph (40 mph design speed) as well. To the south of that location, it would be our recommendation to establish a 45 mph speed zone for the remaining project limits. This speed limit falls in line with the 85th percentile speed and does not require WisDOT approval to go greater than 10 mph below the fixed 55 mph speed limit set for a traditional rural highway.

When completing speed studies, it is important to note that if a jurisdiction does pursue lowering the speed limit outside of what is observed as the 85th percentile speed, there are some possible negative effects to be aware of. These effects could include higher costs for increased enforcement to ensure driver compliance, potential for increased crashes due to larger variability in vehicle speeds and the potential to disregard speed limits because drivers do not perceive the need for lower speeds. In addition, the Statewide Speed Management Guidelines recommend changes to the physical environment (such as more signs with warning flags) and public outreach campaigns to help promote the lower speeds. There are a few possible traffic calming alternatives for CTH A including:

- Narrowing travel lane widths with pavement markings. This was also a recommendation for pedestrian and bicycle safety.
- Adding signage including pedestrian warning signs
- Converting the rural section to an urban section and adding sidewalk or a multiuse path.

Attachment A

Traffic Count Locations and Project Limits



Attachment B
Traffic Count Data

Location 1

Speed Statistics

Vehicles = 10385

Posted speed limit = 40 mph, Exceeding = 9438 (90.88%), Mean Exceeding = 46.32 mph

Maximum = 82.3 mph, Minimum = 10.2 mph, Mean = 45.5 mph

85% Speed = 50.22 mph, 95% Speed = 53.91 mph, Median = 45.07 mph

12 mph Pace = 40 - 50, Number in Pace = 7797 (75.08%)

Variance = 24.60, Standard Deviation = 4.96 mph

Speed	Bin		Below		Above	
0 - 20	14	0.14%	14	0.14%	10371	99.87%
20 - 25	21	0.20%	35	0.34%	10350	99.66%
25 - 30	30	0.29%	65	0.63%	10320	99.37%
30 - 35	73	0.70%	138	1.33%	10247	98.67%
35 - 40	809	7.79%	947	9.12%	9438	90.88%
40 - 45	4154	40.00%	5101	49.12%	5284	50.88%
45 - 50	3656	35.20%	8757	84.32%	1628	15.68%
50 - 55	1252	12.06%	10009	96.38%	376	3.62%
55 - 60	310	2.99%	10319	99.36%	66	0.64%
60 - 65	52	0.50%	10371	99.87%	14	0.14%
65 - 70	9	0.09%	10380	100.00%	5	0.05%
70 - 75	3	0.03%	10383	100.00%	2	0.02%
75 - 80	1	0.01%	10384	100.00%	1	0.01%
80 - 85	1	0.01%	10385	100.00%	0	0.00%
85 - 90	0	0.00%	10385	100.00%	0	0.00%
90 - 95	0	0.00%	10385	100.00%	0	0.00%
95 - 100	0	0.00%	10385	100.00%	0	0.00%

Location 2

Speed Statistics

Vehicles = 11355

Posted speed limit = 40 mph, Exceeding = 9210 (81.11%), Mean Exceeding = 44.30 mph

Maximum = 72.2 mph, Minimum = 7.1 mph, Mean = 42.9 mph

85% Speed = 46.64 mph, 95% Speed = 49.44 mph, Median = 42.95 mph

10 mph Pace = 38 - 48, Number in Pace = 9392 (82.71%)

Variance = 18.37, Standard Deviation = 4.29 mph

Speed	Bin		Below		Above	
0 - 20	27	0.24%	27	0.24%	11328	99.76%
20 - 25	17	0.15%	44	0.39%	11311	99.61%
25 - 30	50	0.44%	94	0.83%	11261	99.17%
30 - 35	227	2.00%	321	2.83%	11034	97.17%
35 - 40	1824	16.06%	2145	18.89%	9210	81.11%
40 - 45	6085	53.59%	8230	72.48%	3125	27.52%
45 - 50	2664	23.46%	10894	95.94%	461	4.06%
50 - 55	389	3.43%	11283	99.37%	72	0.63%
55 - 60	55	0.48%	11338	99.85%	17	0.15%
60 - 65	15	0.13%	11353	100.00%	2	0.02%
65 - 70	1	0.01%	11354	100.00%	1	0.01%
70 - 75	1	0.01%	11355	100.00%	0	0.00%
75 - 80	0	0.00%	11355	100.00%	0	0.00%
80 - 85	0	0.00%	11355	100.00%	0	0.00%
85 - 90	0	0.00%	11355	100.00%	0	0.00%
90 - 95	0	0.00%	11355	100.00%	0	0.00%
95 - 100	0	0.00%	11355	100.00%	0	0.00%

Location 3

Speed Statistics						
Vehicles = 11118						
Posted speed limit = 40 mph, Exceeding = 7687 (69.14%), Mean Exceeding = 44.06 mph						
Maximum = 64.3 mph, Minimum = 7.6 mph, Mean = 41.7 mph						
85% Speed = 45.97 mph, 95% Speed = 48.65 mph, Median = 42.05 mph						
10 mph Pace = 37 - 47, Number in Pace = 8497 (76.43%)						
Variance = 23.73, Standard Deviation = 4.87 mph						
Speed	Bin		Below		Above	
0 - 20	38	0.34%	38	0.34%	11080	99.66%
20 - 25	40	0.36%	78	0.70%	11040	99.30%
25 - 30	132	1.19%	210	1.89%	10908	98.11%
30 - 35	636	5.72%	846	7.61%	10272	92.39%
35 - 40	2585	23.25%	3431	30.86%	7687	69.14%
40 - 45	5280	47.49%	8711	78.35%	2407	21.65%
45 - 50	2094	18.83%	10805	97.18%	313	2.82%
50 - 55	284	2.55%	11089	99.74%	29	0.26%
55 - 60	28	0.25%	11117	100.00%	1	0.01%
60 - 65	1	0.01%	11118	100.00%	0	0.00%
65 - 70	0	0.00%	11118	100.00%	0	0.00%
70 - 75	0	0.00%	11118	100.00%	0	0.00%
75 - 80	0	0.00%	11118	100.00%	0	0.00%
80 - 85	0	0.00%	11118	100.00%	0	0.00%
85 - 90	0	0.00%	11118	100.00%	0	0.00%
90 - 95	0	0.00%	11118	100.00%	0	0.00%
95 - 100	0	0.00%	11118	100.00%	0	0.00%

Attachment C

Intersection Sight Distance Assessment

ATTACHMENT C – Intersection Sight Distance Evaluation

Commercial Avenue & CTH A

West Approach

Looking Left:



Looking Right:



East Approach

Looking Left:



Looking Right:



Sight Distance Assessment: Likely Met

South St/Sunnyside Rd & CTH A

West Approach (South St)

Looking Left:



Looking Right:



ATTACHMENT C – Intersection Sight Distance Evaluation

East Approach (Sunnyside Rd)

Looking Left:



Looking Right:



Sight Distance Assessment: Likely Met

Klaver St & CTH A

Looking Left:



Looking Right:



Sight Distance Assessment: May not be met looking left, combination of vertical and horizontal curve may restrict visibility. May meet minimums. Likely met looking right.

ATTACHMENT C – Intersection Sight Distance Evaluation

Crystal Ln & CTH A

Looking Left:



Looking Right:



Sight Distance Assessment: May not be met looking left, existing vegetation may prevent. Existing hillside also makes looking right questionable. Both may meet minimums.

Illinois Ave/Whitetail Ct & CTH A

West Approach (Illinois Ave)

Looking Left:



Looking Right:

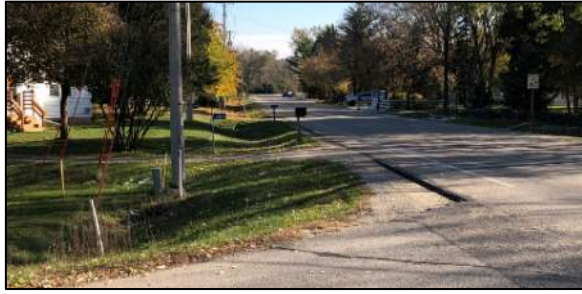


East Approach (Whitetail Ct)

Looking Left:

Looking Right:

ATTACHMENT C – Intersection Sight Distance Evaluation



Sight Distance Assessment: Likely met from the west approach. May not be met looking right from Whitetail Ct.

Silver Creek Rd & CTH A

Looking Left:



Looking Right:



Sight Distance Assessment: Likely met

ATTACHMENT C – Intersection Sight Distance Evaluation

Spring Grove Rd & CTH A

Looking Left:



Looking Right:



Sight Distance Assessment: May not be met looking left due to vertical curve. Likely met looking right.

Scott Hill Rd/ CTH K & CTH A

West Approach (Scott Hill Rd)

Looking Left:



Looking Right:



East Approach (CTH K)

Looking Left:



Looking Right:



ATTACHMENT C – Intersection Sight Distance Evaluation

Sight Distance Assessment: Appears very unlikely that sight distance is met looking left from Scott Hill Rd or right from CTH K. Sight distance is likely met looking south from both approaches. The movements to and from CTH A and CTH K were observed to be fairly heavy. Northbound CTH A to eastbound CTH K is also a designated long truck route. Substandard sight distance could create safety concerns at this intersection.

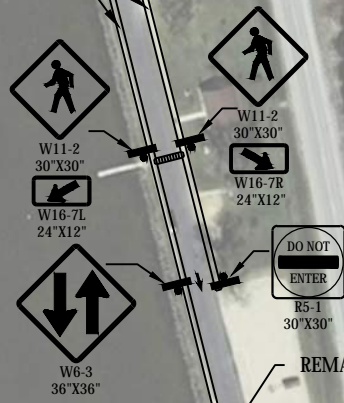
Attachment D

Conceptual Geometric Adjustments at Sunset Park

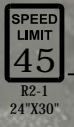


RAISED CONCRETE SIDEWALK

CONVERT TO ONE-WAY
FROM NORTH ENTRANCE
TO START OF BOAT LAUNCH
PARKING



REMAIN TWO-WAY NEAR BOAT LAUNCH



ATTACHMENT D - CONCEPTUAL GEOMETRIC ADJUSTMENTS AT SUNSET PARK

Appendix A
Superelevation Tables

CTH F Speed Study, Town of Berlin

Traffic Safety Commission Meeting

January 19, 2021

The CTH F Speed Study topic was brought up and discussed at the January 2021 TSC meeting. After reviewing the results of the study done by MSA Professional Services Inc. It was decided that the speed limit remain unchanged at 45 m.p.h. Some modifications could be made to the advisory speeds for the two curves in the study area. These changes would bring the advised speed for the curves into spec with the design speed tables.

In looking at the speed statistics, the committee felt lowering the speed limit could cause more accidents with a larger variation of traveled speeds.

Barry



CTH F Speed Study, Town of Berlin **Berlin City Limits/Forest Ridge Road to CTH V Intersection**

Green Lake County Highway Department
Green Lake County, Wisconsin
November 2020

Prepared by:

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Project No. 11507010

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INTRODUCTION

This report contains the results of an Engineering and Traffic Speed Study for a portion of the existing CTH F roadway in the Town of Berlin, Green Lake County Wisconsin. The project area includes approximately 1.3 miles of CTH F beginning from the Berlin City Limits/intersection of Forest Ridge Road and continuing south to the intersection at CTH V. CTH F is a 2-lane roadway with a rural cross section and is classified as a major collector. While rural in construction, the north half of the corridor has a more residential feel with approximately 23 access points within approximately 4,600 linear feet along CTH F from the intersection of Forest Ridge Road to the end of the residential area 1,000 feet south of the Oak Drive intersection. Currently, CTH F has two posted speed limits, 45 mph from Forest Ridge Road to just south of Oak Drive. From there, the speed limit changes to 55 mph going south through the CTH V intersection. It should be noted there are two curves with posted advisory speeds along the corridor. Curve One, approximately 1,700 feet east of Forest Ridge Road has an advisory speed of 40 mph in both directions. Curve Two, approximately 2,700 feet east of Forest Ridge Road has an advisory speed of 30 mph in both directions.

WISCONSIN STATEWIDE SPEED MANAGEMENT GUIDELINES, JUNE 2009

Wisconsin State Statutes Section 346.57(4) defines speed limits for all public roadways. These statutes also allow for state and local governments to create Speed Zones within defined constraints. The Wisconsin Department of Transportation (WisDOT) used this authority to create their own set of guidelines for determining changes to the statute speed limits around the state, which are outlined in the Wisconsin Statewide Speed Management Guidelines. These guidelines help define appropriate speed limits which can lead to better voluntary driver compliance, efficient traffic flow and increased safety. The following evaluation was completed utilizing these guidelines with conclusions and recommendations included at the end of the report.

TRAFFIC DATA COLLECTION

Vehicle speed data was collected at two different locations along CTH F during the week of October 26 to October 30, 2020. One location was set within the 45 mph speed zone between the two horizontal curves and the second was set within the 55 mph speed limit approximately 550 feet south of Oak Dr. Weather conditions were dry for the duration of the counts. See **Attachment A** for count locations and project limits.

Each location was collected for approximately three days. The data that was collected and used for this study can be found in **Attachment B**. The speed recording equipment was placed on relatively straight sections of the corridor with clear vision in both directions. Both recording devices were placed within the more residential segment of the subject corridor to gain and understanding of how drivers are driving both between the horizontal curves and when entering/exiting the 45 mph speed zone. The following sample sizes were collected at each location:

Location 1: 3,856

Location 2: 3,657

The speed data for each location is summarized below. The “Percentiles” are the speeds at or below which “X”% of the vehicles are traveling. The “Pace” is the ten-mile-per-hour increment in speed in which the highest number of vehicles were observed.

LOCATION 1	
Vehicles Observed:	3,856
50th Percentile (Average):	43 MPH
85th Percentile:	48 MPH
Median Speed:	43 MPH
Pace Speed:	38 - 48 MPH
Lowest Recorded Speed:	12 MPH
Highest Recorded Speed:	71 MPH

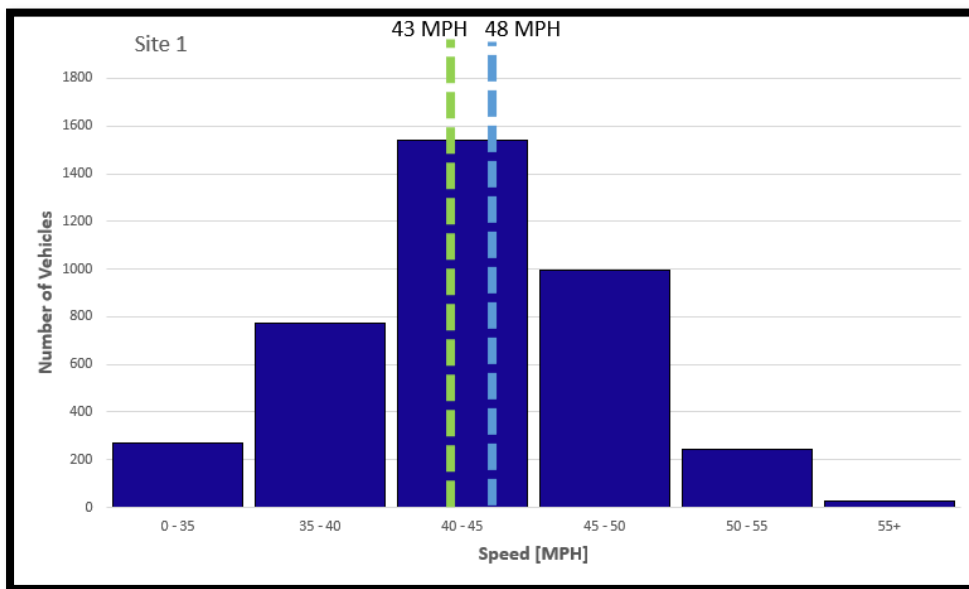


Figure 1 – Location 1 Speed Distribution

LOCATION 2	
Vehicles Observed:	3,657
50th Percentile (Average):	50 MPH
85th Percentile:	57 MPH
Median Speed:	51 MPH
Pace Speed:	45 - 55 MPH
Lowest Recorded Speed:	7 MPH
Highest Recorded Speed:	74 MPH

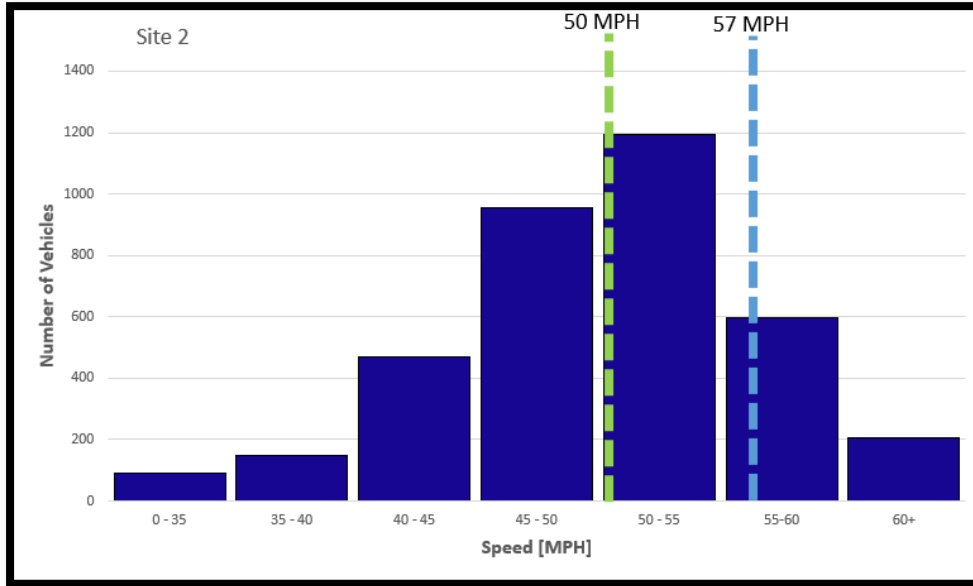


Figure 2 – Location 2 Speed Distribution

SITE DISTANCE AND REVIEW OF ROAD GEOMETRICS

Field observations were collected at the time of setting traffic counters which included a review of existing roadway conditions, typical section measurements, and site-specific topographic and geometric features. Topographical survey was not included as part of the review, however, photos were taken at each intersection to gain a general understanding of whether existing intersection sight distances seemed appropriate. An anecdotal review of each of the findings follows below.

Pavement Conditions

The existing pavement along CTH F is asphaltic pavement. The images below show examples of existing pavement throughout the corridor. In general, it appears the pavement surface is nearing the end of its useful life. Figure 3 below shows the pavement through curve one was recently resurfaced, however figures 4-6 show pavement that is experiencing transverse, longitudinal and alligator cracking at several locations within the study area.

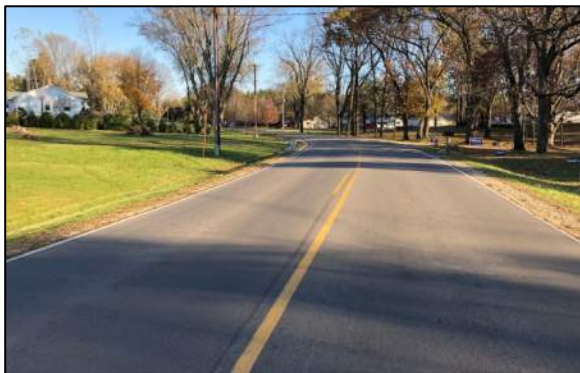


Figure 3 – Location of Curve One



Figure 4 – Pavement Between Horizontal Curves



Figure 6 – South of Oak Drive



Figure 7 – Intersection of CTH F & CTH V

Typical Section

The existing typical section through the residential part of the corridor varies with approximately 2-3 foot grass/gravel shoulders and 2 10.5-11-foot travel lanes. After the residential area the typical section has 3-4' shoulders and 2 11-foot travel lanes for approximately the final 2,000 feet.



Figure 8 – Existing Typical Section Within Residential Area



Figure 9 – Existing Typical Section For Final ~2,000'

Horizontal and Vertical Curves

Horizontal Curves

Two horizontal curves were identified within the project area. Both were identified during the corridor visit as possibly not having radii large enough for the posted advisory speed. As mentioned previously, Curve One had a posted advisory of 40 mph in both directions and Curve Two has a posted advisory speed of 30 mph in both directions. A desktop review was completed for each of the horizontal curves identifying approximate radii and approximate maximum super elevations based on measurements in the field. This information was compared to horizontal design speed criteria charts located in the Facilities Development Manual (FDM) Chapter 11, Section 10, Exhibit 5.1 and Chapter 3 of the American Association of State Highway and Transportation Officials (AASHTO) "A Policy on Geometric Design of Highways and Streets". See **Appendix A – Superelevation Tables**. The associated design speed for each of the curves is stated below. Note that the curves appeared to have significantly different superelevation rates between inside and outside lanes as noted below. These differing rates impact design speeds considerably and it would be beneficial to confirm both curve radii and superelevation rates with field survey.



Figure 10 – Horizontal Curves

	~ Radius		~ Cross Slope		~ Design Speed		Advisory Speed Met?	
	Inside	Outside	Inside	Outside	Inside	Outside	Inside	Outside
Curve 1	~645'	~655'	~6%	~3%	40	20	Yes	No
Curve 2	~270'	~280'	~8%	~4%	30	15	Yes	No

Vertical Curves

No vertical curves were identified within the study limits for possible concerns related to meeting current design speed standards for crest vertical curves per the FDM. Actual field survey would be necessary to confirm these findings but does not appear to be a concern.

Intersection Sight Distance

Anecdotal Intersection Sight distance was reviewed at each intersection. A summary of the findings including a general assessment regarding whether sight distance appears to be met or not met is included in Table 1 below. Pictures looking left and right from the side road at each intersection can be seen in **Attachment C – Intersection Sight Distance Assessment**. All side roads are stop controlled to CTH F. Like both the horizontal and vertical curve review, actual site survey would be necessary to confirm assessments.

Table 1: Intersection Sight Distance

Intersection	Sight Distance Assessment
Forest Ridge Road & CTH F	Likely Met

Oak Drive & CTH F	Looking left, sight distance is restricted by the horizontal curve. Minimum sight distance is likely met. May not be met looking right due to a low vertical curve about 750' south of the intersection.
CTH V & CTH F	Likely met looking north. May not be met from either approach looking south due to vertical curve.

Consideration of Multimodal Users

The existing corridor has very limited facilities for pedestrian and bicyclists with only 2-3' mostly grass covered gravel shoulders within the residential area. A lack of facilities has caused local officials to identify this as a major safety concern for these multimodal users along CTH F. Listed below are a few options, ordered from the lowest anticipated cost and effort, to the highest, that the community could take to try to help improve upon these safety concerns.

- Improve corridor lighting within the residential area. Currently there are no overhead lights along the corridor. Having a more well-lit corridor would give the area a more urban feel and create more visibility of pedestrian and bicyclists.
 - Costs associated with this effort could range significantly based on whether the community would attach overhead lights to existing power poles along the corridor or opt for a more decorative pole and fixture.
 - These could also be a shorter “pedestrian” light pole in the range of 10-15’ high rather than a more traditional 25-30’ pole.
 - If a more decorative pole is chosen, the community may want to convert the corridor to more of an urban section with curb and gutter to provide a level of protection for the poles.

- Widen the existing roadway to include 4-5 foot paved shoulders and stripe for bike lanes. This would help provide space for non-vehicular users while minimizing impacts to surrounding properties. It is anticipated that these bike lanes would match in to the newly resurfaced CTH F west of Forest Ridge Road. Limits to the south would ideally continue to CTH V but could end at the residential limits if desired.
 - Depending on limits, this could be a moderate cost as a standalone project. However, given the safety concerns and poor existing pavement condition, an improvement like this could potentially be eligible for Highway Safety Improvement Funds (HSIP) and could be included as part of a larger reconstruction project with federal funding.

- Adding sidewalk or an 8 or 10-foot wide multiuse path to CTH F within the residential area would be the ultimate solution to remove conflicts and improve safety for multimodal users. However, there are no existing sidewalks or paths on other nearby roads to tie into and therefore this alternative does not seem like an appropriate alternative unless the County or surrounding community has a long-term plan to build out a larger connected network.

CRASH RECORD ANALYSIS

A review of existing crash reports along CTH F was completed to determine if a pattern exists that warrants lowering the speed limit. The crash reports were obtained from the University of Wisconsin Transportation Operations and Safety (TOPS) Lab for the most recent five years of crash data, (2015-2020). 13 crashes were returned during this time period within the study area. Of those crashes, two involved deer and five involved snow or wet conditions. Of the 11 non-deer crashes, three resulted in injuries, five were flagged for occurring within curves and five were sighted for speeding and/or failure to keep the vehicle under control. Eight of 11 crashes involved only one vehicle. Results like this almost certainly can be attributed to drivers going too fast for road conditions.

CONCLUSIONS

CTH F within the residential area of the project limits appears to fall with the criteria for classification as a semi-urban district. This type of roadway is generally a rural road that falls outside the corporate limits of a community but has an “area contiguous to any highway where on either or both sides of the highway within 1,000 feet buildings are spaced on average less than 200 feet apart”. Per the regulatory guidelines, the County would be able to set the speed limit to 35 mph on that area of road and be consistent with the fixed speed limit defined in the state statutes. However, the County would also be within their right to set the speed limit to better align with the observed 85th percentile speed or even 50th percentile speed up to a maximum of 55 mph. Outside of this semi-urban area, the highway should remain set at 55 mph to meet the statutory speed of a traditional rural highway.

The statewide speed limit guidelines provide secondary roadway factors to also consider while establishing a speed limit. These include access density, median type, parking along the street and pedestrian activity level. CTH F has relatively high access density and local officials have indicated pedestrian levels are high. In addition, there are intersections where sight distance may not be met or is only meeting minimum distances. If these secondary roadway factors come into play, a jurisdiction could then evaluate lowering the speed to the nearest 5 mph increment of the 50th percentile operating speed.

RECOMMENDATIONS

The statewide guidance and results of this project-specific speed data provide conflicting conclusions between the recommended fixed limit and the 85th percentile guidance. It is MSA's recommendation that safety should be a top priority and the types of crashes along this corridor appear to indicate that vehicles traveling at or above the 85th percentile speed are likely travelling at a speed that increases the likelihood of a crash due to the existing roadway geometry. Due to this expressed concern, and because the area falls within a semi-urban district, MSA recommends the following:

- If the existing roadway configuration remains, i.e. rural cross section with minimal bicycle/pedestrian facilities, MSA recommends following the state's fixed speed limit criteria as it relates to a semi-urban area and setting the speed limit to 35 mph from the intersection of Forest Ridge Road to the end of the residential area, approximately 1,000' south of the Oak Drive intersection. MSA also recommends adding permanent aluminum Type II sign flags to the new 35 mph sign to draw attention to the changed speed limit.

From the end of the residential area continuing south, the road is recommended to continue to be posted 55 mph through the CTH V intersection.

- Based on the information collected, MSA recommends the following curve advisory adjustments based on the Wisconsin Manual on Uniform Traffic Control Devices (WMUTCD):
 - Curve One:
 - Remove and replace the existing 40 mph southbound advisory speed plaque and W1-2L sign on curve one with a 20 mph advisory speed (W13-1P) and sign W1-1L, relocated to approximately 175' north of the curve to account for the change in posted speed. Since the advisory speed is 15 mph lower than the posted speed, a one-direction large arrow (W1-6) should also be added within the curve per Table 2C-5 of the WMUTCD. If concerns remain after the speed is reduced, optional chevron signs (W1-8L) could also be added to the curve, spaced at 80 feet apart.
 - Remove the existing 40 mph northbound advisory speed plaque. The existing curve warning sign (W1-2R) could remain if desired as long as the speed placard is removed.
 - Curve Two:
 - The existing northbound W1-1L left-turn sign should be relocated approximately 175' south of the start of curve two in the northbound direction. A new advisory speed plaque of 15 mph should be added below the W1-1L sign.
 - The existing northbound reduce speed ahead sign (W3-5) should be removed. A new W3-5 sign should be added approximately 550' south of the new 35 mph speed limit sign.
 - The existing southbound W1-1 and 30 mph advisory speed plaque should be moved to within approximately 100-feet of the start of the curve to account for the change in posted roadway speed.
 - The two existing one-direction large arrow signs (W1-6) can remain. If concerns remain after the speed is reduced in the northbound direction, optional chevron signs (W1-8L) could also be added to the curve, spaced at 40 feet apart.

See **Attachment D** for a conceptual exhibit of recommended sign updates.

When completing speed studies, it is important to note that if a jurisdiction does pursue lowering the speed limit outside of what is observed as the 85th percentile speed, there are some possible negative effects to be aware of. These effects could include higher costs for increased enforcement to ensure driver compliance, potential for increased crashes due to larger variability in vehicle speeds and the potential to disregard speed limits because drivers do not perceive the need for lower speeds. In addition, the Statewide Speed Management Guidelines recommend changes to the physical environment (such as more signs with warning flags) and public outreach campaigns to help promote the lower speeds.

Attachment A

Traffic Count Locations and Project Limits



Attachment B
Traffic Count Data

Location 1

Speed Statistics

Vehicles = 3856

Posted speed limit = 45 mph, Exceeding = 2814 (72.98%), Mean Exceeding = 45.18 mph

Maximum = 71.3 mph, Minimum = 11.5 mph, Mean = 42.7 mph

85% Speed = 47.92 mph, 95% Speed = 50.89 mph, Median = 43.06 mph

10 mph Pace = 38 - 48, Number in Pace = 2663 (69.06%)

Variance = 32.32, Standard Deviation = 5.68 mph

Speed	Bin		Below		Above	
0 - 20	20	0.14%	20	0.52%	3836	99.48%
20 - 25	33	0.20%	53	1.37%	3803	98.63%
25 - 30	45	0.29%	98	2.54%	3758	97.46%
30 - 35	172	0.70%	270	7.00%	3586	93.00%
35 - 40	772	7.79%	1042	27.02%	2814	72.98%
40 - 45	1542	40.00%	2584	67.01%	1272	32.99%
45 - 50	997	35.20%	3581	92.87%	275	7.13%
50 - 55	246	12.06%	3827	99.25%	29	0.75%
55 - 60	26	2.99%	3853	99.92%	3	0.08%
60 - 65	1	0.50%	3854	99.95%	2	0.05%
65 - 70	1	0.09%	3855	99.97%	1	0.03%
70 - 75	1	0.03%	3856	100.00%	0	0.00%
75 - 80	0	0.01%	3856	100.00%	0	0.00%
80 - 85	0	0.01%	3856	100.00%	0	0.00%
85 - 90	0	0.00%	3856	100.00%	0	0.00%
90 - 95	0	0.00%	3856	100.00%	0	0.00%
95 - 100	0	0.00%	3856	100.00%	0	0.00%

Location 2

Speed Statistics

Vehicles = 3657

Posted speed limit = 55 mph, Exceeding = 800 (21.88%), Mean Exceeding = 58.49 mph

Maximum = 74.1 mph, Minimum = 7.1 mph, Mean = 50.1 mph

85% Speed = 56.59 mph, 95% Speed = 60.29 mph, Median = 50.67 mph

10 mph Pace = 45 - 55, Number in Pace = 2167 (59.26%)

Variance = 49.05, Standard Deviation = 7.00 mph

Speed	Bin		Below		Above	
0 - 20	16	0.44%	16	0.44%	3641	99.56%
20 - 25	13	0.36%	29	0.79%	3628	99.21%
25 - 30	20	0.55%	49	1.34%	3608	98.66%
30 - 35	43	1.18%	92	2.52%	3565	97.48%
35 - 40	149	4.07%	241	6.59%	3416	93.41%
40 - 45	468	12.80%	709	19.39%	2948	80.61%
45 - 50	955	26.11%	1664	45.50%	1993	54.50%
50 - 55	1193	32.62%	2857	78.12%	800	21.88%
55 - 60	596	16.30%	3453	94.42%	204	5.58%
60 - 65	181	4.95%	3634	99.37%	23	0.63%
65 - 70	17	0.47%	3651	99.84%	6	0.16%
70 - 75	6	0.16%	3657	100.00%	0	0.00%
75 - 80	0	0.00%	3657	100.00%	0	0.00%
80 - 85	0	0.00%	3657	100.00%	0	0.00%
85 - 90	0	0.00%	3657	100.00%	0	0.00%
90 - 95	0	0.00%	3657	100.00%	0	0.00%
95 - 100	0	0.00%	3657	100.00%	0	0.00%

Attachment C

Intersection Sight Distance Assessment

ATTACHMENT C – Intersection Sight Distance Evaluation

Forest Ridge Road & CTH F

Looking Left:



Looking Right:



Sight Distance Assessment: Likely Met

Oak Drive & CTH F

Looking Left:



Looking Right:



Sight Distance Assessment: Looking left, sight distance is restricted by the horizontal curve. Minimum sight distance is likely met. May not be met looking right due to a low vertical curve about 750' south of the intersection.

ATTACHMENT C – Intersection Sight Distance Evaluation

CTH V & CTH A

West Approach

Looking Left:



Looking Right:



East Approach

Looking Left:



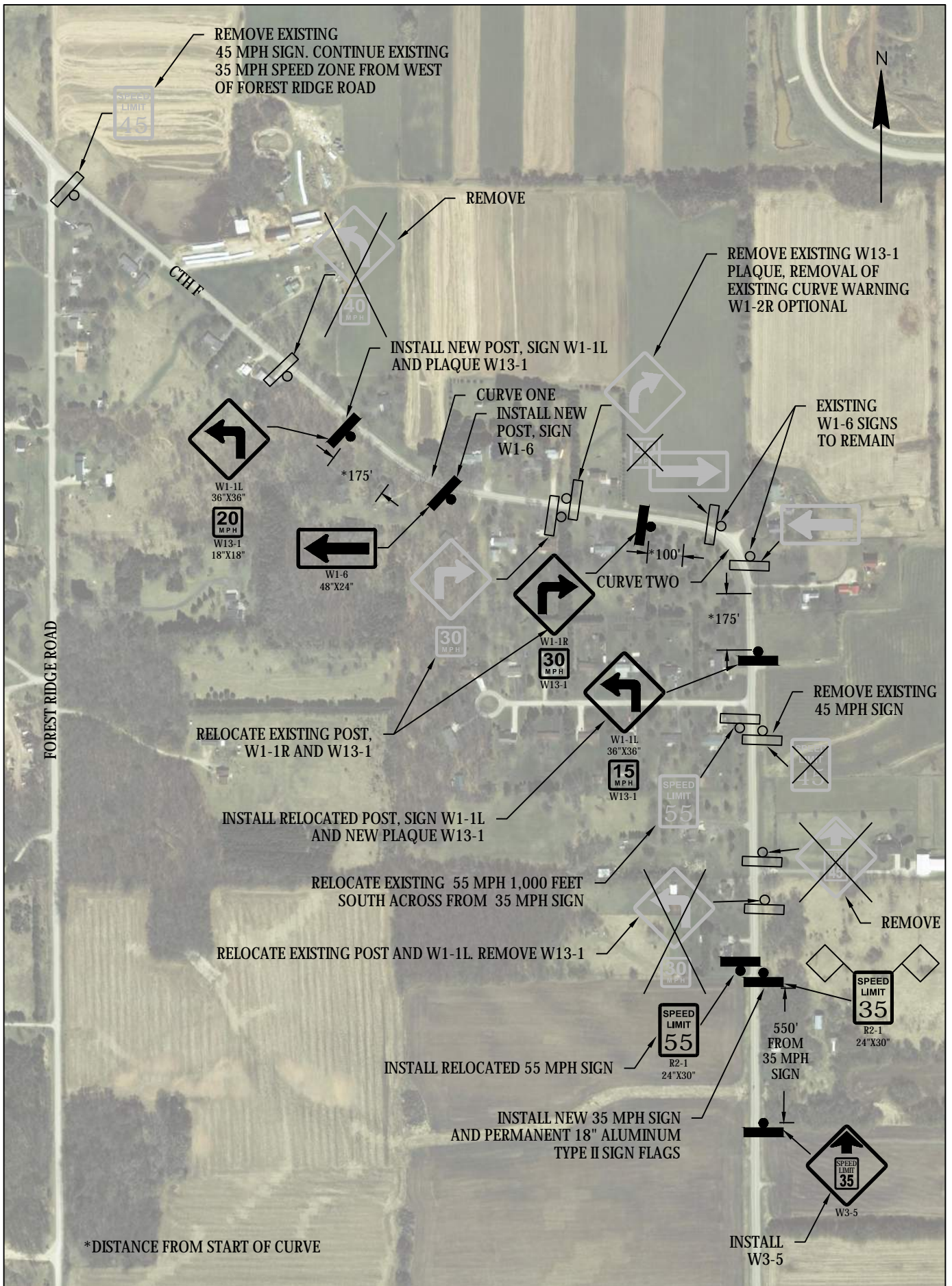
Looking Right:



Sight Distance Assessment: Likely met looking north. May not be met from either approach looking south due to vertical curve.

Attachment D

Recommended Sign Updates



Appendix A
Superelevation Tables

Table 3-9. Minimum Radii for Design Superelevation Rates, Design Speeds, and $e_{max} = 6\%$

		Metric											
e (%)	$V_d = 20$	$V_d = 30$	$V_d = 40$	$V_d = 50$	$V_d = 60$	$V_d = 70$	$V_d = 80$	$V_d = 90$	$V_d = 100$	$V_d = 110$	$V_d = 120$	$V_d = 130$	
	km/h	km/h	km/h	km/h	km/h	km/h	km/h	km/h	km/h	km/h	km/h	km/h	
	R (m)	R (m)	R (m)	R (m)	R (m)	R (m)	R (m)	R (m)	R (m)	R (m)	R (m)	R (m)	
NC	194	421	738	1050	1440	1910	2360	2880	3510	4060	4770	5240	
RC	138	299	525	750	1030	1380	1710	2090	2560	2970	3510	3880	
2.2	122	265	465	668	919	1230	1530	1880	2300	2670	3160	3500	
2.4	109	236	415	599	825	1110	1380	1700	2080	2420	2870	3190	
2.6	97	212	372	540	746	1000	1260	1540	1890	2210	2630	2930	
2.8	87	190	334	488	676	910	1150	1410	1730	2020	2420	2700	
3.0	78	170	300	443	615	831	1050	1290	1590	1870	2240	2510	
3.2	70	152	269	402	561	761	959	1190	1470	1730	2080	2330	
3.4	61	133	239	364	511	697	882	1100	1360	1600	1940	2180	
3.6	51	113	206	329	465	640	813	1020	1260	1490	1810	2050	
3.8	42	96	177	294	422	586	749	939	1170	1390	1700	1930	
4.0	36	82	155	261	380	535	690	870	1090	1300	1590	1820	
4.2	31	72	136	234	343	488	635	806	1010	1220	1500	1720	
4.4	27	63	121	210	311	446	584	746	938	1140	1410	1630	
4.6	24	56	108	190	283	408	538	692	873	1070	1330	1540	
4.8	21	50	97	172	258	374	496	641	812	997	1260	1470	
5.0	19	45	88	156	235	343	457	594	755	933	1190	1400	
5.2	17	40	79	142	214	315	421	540	701	871	1120	1330	
5.4	15	36	71	128	197	285	385	500	648	810	1060	1260	
5.6	13	32	63	115	177	260	355	460	594	747	980	1190	
5.8	11	28	56	102	157	235	325	430	537	679	900	1110	
6.0	8	21	43	79	121	175	245	330	437	560	756	951	

Curve 1 - Outside Lane meets 20 mph design speed for a radius of ~655'

		U.S. Customary													
e (%)	$V_d = 15$	$V_d = 20$	$V_d = 25$	$V_d = 30$	$V_d = 35$	$V_d = 40$	$V_d = 45$	$V_d = 50$	$V_d = 55$	$V_d = 60$	$V_d = 65$	$V_d = 70$	$V_d = 75$	$V_d = 80$	
	mph	mph	mph	mph	mph	mph	mph	mph	mph	mph	mph	mph	mph	mph	
	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	
NC	868	1580	2290	3130	4100	5230	6480	7870	9410	11100	12600	14100	15700	17400	
RC	614	1120	1630	2240	2950	3770	4680	5700	6820	8060	9130	10300	11500	12900	
2.2	543	991	1450	2000	2630	3370	4190	5100	6110	7230	8200	9240	10400	11600	
2.4	482	884	1300	1790	2360	3030	3770	4600	5520	6540	7430	8380	9420	10600	
2.6	430	791	1170	1610	2130	2740	3420	4170	5020	5950	6770	7660	8620	9670	
2.8	384	701	1050	1460	1930	2490	3110	3800	4580	5440	6200	7030	7930	8910	
3.0	341	635	944	1320	1760	2270	2840	3480	4200	4990	5710	6490	7330	8260	
3.2	300	566	850	1200	1600	2080	2600	3200	3860	4600	5280	6010	6810	7680	
3.4	256	498	761	1080	1460	1900	2390	2940	3560	4250	4890	5580	6340	7180	
3.6	209	422	673	972	1320	1740	2190	2710	3290	3940	4540	5210	5930	6720	
3.8	176	358	583	864	1190	1590	2010	2490	3050	3680	4280	4940	5660	6320	
4.0	151	309	511	766	1070	1440	1840	2300	2850	3480	4080	4740	5220	5950	
4.2	131	270	452	684	960	1310	1680	2110	2660	3290	3890	4550	4910	5620	
4.4	116	238	402	615	868	1190	1540	1940	2490	3120	3720	4380	4630	5320	
4.6	102	212	360	555	788	1090	1410	1780	2330	2960	3560	4220	4380	5040	
4.8	91	189	324	502	718	995	1300	1640	2050	2510	3000	3550	4140	4790	
5.0	82	169	292	456	654	911	1190	1510	1890	2330	2800	3330	3910	4550	
5.2	73	152	264	413	595	833	1090	1390	1750	2160	2610	3120	3690	4320	
5.4	65	136	237	373	540	759	995	1280	1610	1990	2420	2910	3460	4090	
5.6	58	121	212	335	487	687	903	1160	1470	1830	2230	2700	3230	3840	
5.8	51	106	186	296	431	617	806	1040	1320	1650	2020	2460	2970	3560	
6.0	39	81	144	231	340	485	643	833	1060	1330	1660	2040	2500	3050	

Curve 1 - Outside Lane meets 40 mph design speed for a radius of ~645'

Table 3-10b. Minimum Radii for Design Superelevation Rates, Design Speeds, and $e_{max} = 8\%$

U.S. Customary														
e (%)	$V_d = 15$	$V_d = 20$	$V_d = 25$	$V_d = 30$	$V_d = 35$	$V_d = 40$	$V_d = 45$	$V_d = 50$	$V_d = 55$	$V_d = 60$	$V_d = 65$	$V_d = 70$	$V_d = 75$	$V_d = 80$
	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)
NC	932	1640	2370	3240	4260	5410	6710	8150	9720	11500	12900	14500	16100	17800
RC	676	1190	1720	2370	3120	3970	4930	5990	7150	8440	9510	10700	12000	13300
2.2	605	1070	1550	2130	2800	3570	4440	5400	6450	7620	8600	9660	10800	12000
2.4	546	959	1400						870	6930	7830	8810	9850	11000
2.6	496	872	1280						370	6350	7180	8090	9050	10100
2.8	453	796	1170						950	5850	6630	7470	8370	9340
3.0	415	730	1070						580	5420	6140	6930	7780	8700
3.2	382	672	985						250	5040	5720	6460	7260	8130
3.4	352	620	911						970	4700	5350	6050	6800	7620
3.6	324	572	845	1180	1570	2020	2520	3090	3710	4400	5010	5680	6400	7180
3.8	300	530	784	1100	1470	1890	2360	2890	3480	4140	4710	5350	6030	6780
4.0	277	490	729	1030	1370	1770	2220	2720	3270	3890	4450	5050	5710	6420
4.2	255	453	678	955	1280	1660	2080	2560	3080	3670	4200	4780	5410	6090
4.4	235	418	630	893	1200	1560	1960	2410	2910	3470	3980	4540	5140	5800
4.6	215	384	585	834	1130	1470	1850	2280	2750	3290	3770	4310	4890	5530
4.8	193	349	542	779	1060	1390	1750	2160	2610	3120	3590	4100	4670	5280
5.0	172	314	499	727	991	1310	1650	2040	2470	2960	3410	3910	4460	5050
5.2	154	284	457	676	929	1230	1560	1930	2350	2820	3250	3740	4260	4840
5.4	139	258	420	627	870	1160	1480	1830	2230	2680	3110	3570	4090	4640
5.6	126	236	387	582	813	1090	1390	1740	2120	2550	2970	3420	3920	4460
5.8	115	216	358	542	761	1030	1320	1650	2010	2430	2840	3280	3760	4290
6.0	105	199	332	506	713	965	1250	1560	1920	2320	2710	3150	3620	4140
6.2	97	184	308	472	669	909	1180	1480	1820	2210	2600	3020	3480	3990
6.4	89	170	287	442	628	857	1110	1400	1730	2110	2490	2910	3360	3850
6.6	82	157	267	413	590	808	1050	1330	1650	2010	2380	2790	3240	3720
6.8	76	146	248	386	553	761	990	1260	1560	1910	2280	2690	3120	3600
7.0	70	135	231	360	518	716	933	1190	1480	1820	2180	2580	3010	3480
7.2	64	125	214	336	485	672	878	1120	1400	1720	2070	2470	2900	3370
7.4	59	115	198	312	451	628	822	1060	1320	1630	1970	2350	2780	3250
7.6	54	105	182	287	417	583	765	980	1230	1530	1850	2230	2650	3120
7.8	48	94	164	261	380	533	701	901	1140	1410	1720	2090	2500	2970
8.0	38	76	134	214	314	444	587	758	960	1200	1480	1810	2210	2670

Curve 2 - Outside Lane meets 15 mph design speed for a radius of ~280'

Curve 2 - Inside Lane meets 30 mph design speed for a radius of ~270'

Green Lake County Highway Commission

Asphaltic Concrete Pavement 2021

MATERIAL	UNIT Ton	BID A Kartechner Brothers			BID B Northeast Asphalt			BID C Stark Asphalt		BID D Tri County Paving			BID E Wolf Paving	
		UNIT BID	PLANT		UNIT BID	PLANT		UNIT BID	PLANT		UNIT BID	PLANT		UNIT BID
CTH D (C Princeton-White River) 2.25 Miles		Total			Total					Total				
Lower Layer 3 MT 58-28S 19.0 mm	3,575	130,308.75	36.45		136,207.50	38.10	Ripon			143,000.00	40.00			
Upper Layer 4 MT 58-28S 12.5 mm	3,575	139,246.25	38.95		148,720.00	41.60	Ripon			160,875.00	45.00			
Total		269,555.00			284,927.50					303,875.00				
CTH D (White River - Wollitz) 1.2 Miles		Total			Total					Total				
Lower Layer 3 MT 58-28S 19.0 mm	1,925	70,166.25	36.45		73,342.50	38.10	Ripon			77,000.00	40.00			
Upper Layer 4 MT 58-28S 12.5 mm	1,925	74,978.75	38.95		80,080.00	41.60	Ripon			86,625.00	45.00			
Total		145,145.00			153,422.50					163,625.00				
CTH Q (CTH S - CTH AW) 5 Miles		Total			Total					Total				
Lower Layer 3 MT 58-28S 19.0 mm	7,650	278,842.50	36.45		291,465.00	38.10	Ripon			306,000.00	40.00			
Upper Layer 4 MT 58-28S 12.5 mm	7,650	297,967.50	38.95		318,240.00	41.60	Ripon			344,250.00	45.00			
Total		576,810.00			609,705.00					650,250.00				
CTH Y (Black Credk - STH 73) 1.3 Miles		Total			Total					Total				
Lower Layer 3 MT 58-28S 19.0 mm	1,850	67,432.50	36.45		70,485.00	38.10	Ripon			74,000.00	40.00			
Upper Layer 4 MT 58-28S 12.5 mm	1,850	72,057.50	38.95		76,960.00	41.60	Ripon			83,250.00	45.00			
Total		139,490.00			147,445.00					157,250.00				

Green Lake County Highway Commission

Asphaltic Concrete Pavement 2021

MATERIAL	UNIT Ton	BID A Kartechner Brothers		BID B Northeast Asphalt		BID C Stark Asphalt		BID D Tri County Paving		BID E Wolf Paving			
		UNIT BID	PLANT	UNIT BID	PLANT	UNIT BID	PLANT	UNIT BID	PLANT	UNIT BID	PLANT		
Undistributed		Total											
Lower Layer 3 MT 58-28S 19.0 mm		0.00	36.45			38.10	Ripon			0.00	40.00		
Upper Layer 4 MT 58-28S 12.5 mm		0.00	38.95			41.60	Ripon			0.00	45.00		
PAVING CREW & LABOR													
Mainline - Rural	Ton		4.80			4.85					6.30		
Wedging	Ton		11.50			12.10					16.00		
Intersections	Ton		21.25			20.75					20.00		
Tack Coat	Gallons		3.50			3.15					3.00		
Mobilization into County	Each		1,000.00			1,300.00					1,600.00		
Mobilization within County	Each		600.00			625.00					1,200.00		
Truck Rental	Hour		100.00			100.00					98.00		

**Green Lake County Highway Commission
Pulverizing and Relay 2021**

LOCATION	UNIT SY	BID A		BID B		BID C		BID D		BID E	
		Kartechner		Northeast Asphalt		Tri-County					
		UNIT BID	AMOUNT BID	UNIT BID	AMOUNT BID	UNIT BID	AMOUNT BID	UNIT BID	AMOUNT BID	UNIT BID	AMOUNT BID
CTH D (C Princeton-White River)	29,972	0.74	22,179	0.74	22,179	0.80	23,978				
CTH D (White River Rd-Wollitz)	14,478	0.74	10,714	0.74	10,714	0.80	11,582				
CTH Q (CTH S - CTH AW)	64,533	0.74	47,754	0.74	47,754	0.80	51,626				
CTH Y (Black Creek - STH 73))	16,256	0.74	12,029	0.74	12,029	0.84	13,655				
Total			92,677		92,677		100,841				

Green Lake County Highway Commission

Culverts and Supplies 2021

CTH's D, Q, Y		BID A BW Supply		BID B Contech		BID C FDL Culvert		BID D Metal Culverts		BID F WI Tubing	
Culvert Pipe (Linear Foot)	QTY	Price	Total	Price	Total	Price	Total	Price	Total	Price	Total
18" Galvanized	764		0.00	19.20	14,668.80	19.81	15,134.84	15.83	12,094.12		0.00
24" Galvanized	272		0.00	24.32	6,615.04	24.90	6,772.80	21.18	5,760.96		0.00
30" Galvanized	40		0.00	38.40	1,536.00	39.25	1,570.00	32.45	1,298.00		0.00
49" x 33" Arch Galvanized	40		0.00	78.05	3,122.00	82.53	3,301.20	65.50	2,620.00		0.00
			0.00	25,941.84		26,778.84		21,773.08		0.00	
5C Band (each)		Price	Total	Price	Total	Price	Total	Price	Total	Total	
18" Galvanized	2		0.00	23.70	47.40	19.81	39.62	23.75	47.50		0.00
24" Galvanized	7		0.00	31.70	221.90	24.90	174.30	24.36	170.52		0.00
30" Galvanized	1		0.00	48.60	48.60	39.25	39.25	48.68	48.68		0.00
49" x 33" Arch Galvanized	1		0.00	98.00	98.00	82.53	82.53	98.25	98.25		0.00
			0.00	415.90		335.70		364.95		0.00	
Endwalls-Galv Apron (each)		Price	Total	Price	Total	Price	Total	Price	Total	Total	
18" Galvanized	64		0.00	87.00	5,568.00	94.00	6,016.00	82.55	5,283.20		0.00
24" Galvanized	12		0.00	130.00	1,560.00	138.00	1,656.00	123.20	1,478.40		0.00
30" Galvanized	6		0.00	223.00	1,338.00	251.00	1,506.00	211.00	1,266.00		0.00
49" x 33" Arch Galvanized	2		0.00	475.00	950.00	499.00	998.00	529.75	1,059.50		0.00
			0.00	9,416.00		10,176.00		9,087.10		0.00	
			0.00	35,773.74		37,290.54		31,225.13		0.00	

Green Lake County Highway Commission

Crushed Stone and Gravel 2021

2/9/2021

LOCATION / SIZE	QTY/TON	BID A Carew Concrete			BID B Egbert Exc			BID C Kinas Exc			BID D Kopplin & Kinas			BID E Michels Materials		
		TOTAL	UNIT BID	QUARRY	TOTAL	UNIT BID	QUARRY	TOTAL	UNIT BID	QUARRY	TOTAL	UNIT BID	QUARRY	TOTAL	UNIT BID	QUARRY
Reconstruction (CTH's: D, Q, Y)								Q ONLY								
3/4" Aggregate Dense Base	9,000	38,700.00	4.30	Markesan				53,100.00	5.90	Kinas	51,750.00	5.75	Mashuda - PH	45,000.00	5.00	UtleyMarkesan
1 1/4" Aggregate Dense Base	8,000	35,200.00	4.40	Markesan				47,200.00	5.90	Kinas	46,000.00	5.75	Mashuda - PH	40,000.00	5.00	UtleyMarkesan
Total		<u>73,900.00</u>						<u>100,300.00</u>			<u>97,750.00</u>			<u>85,000.00</u>		
3/8" Fractured Washed Chips																
CTH B (STH 73 - CTH H)	585										4,826.25	8.25	Keipe			
CTH F (Oak St - FDL Co. Line)	835										6,888.75	8.25	Keipe			
CTH K (CTH A - STH 73)	1,220										10,065.00	8.25	Keipe			
											<u>21,780.00</u>					
General Maintenance																
3" Aggregate Dense Base	Undist.		4.30	Markesan		5.75						5.60	Mashuda,Morris,Triemstra,PH		5.00	Markesan
3/4" Limestone Clear	Undist.		6.00	Markesan		6.10						7.00	Mashuda,Morris,Triemstra,PH		7.50	Markesan
3-6" Limestone Clear	Undist.		7.65	Markesan		6.55						7.00	Mashuda,Morris,Triemstra,PH		16.50	Waupun
3/8" Limestone Screenings	Undist.		3.55	Markesan		5.75						5.00	Mashuda,Morris,Triemstra,PH		3.95	Markesan
4-16" Limestone Rip Rap	Undist.					8.50			12.75	Kinas		18.10	Mashuda,Morris,Triemstra,PH		22.00	Waupun
Manufactured Fine Aggregate	Undist.								12.50	Kinas					13.5	Waupun

2/9/2021

Road Oil 2021

LOCATION	UNIT (Gallons)	Henry G. Meigs, LLC (oil and application)				Application
		CRS-2	CRS-2P	HFRS-2	HFRS-2P	
CTH B (STH 73 - H)	19,240	2.2251	2.4401	2.2251	2.4401	.25/gal application included
CTH F (Oak St - FDL Co. Line)	27,510	2.2251	2.4401	2.2251	2.4401	.25/gal application included
CTH K (CTH A - STH 73))	11,400	2.2251	2.4401	2.2251	2.4401	.25/gal application included
Various Locations	Undistributed	2.2251	2.4401	2.2251	2.4401	.25/gal application included

LOCATION	UNIT (Gallons)	Flint Hills Resources LP (Oil) / Fahner (Application)				Application (Fahner)
		CRS-2	CRS-2P	HFRS-2	HFRS-2P	
CTH B (STH 73 - H)	19,240	1.8300	2.0400	1.8300	2.0400	0.3500
CTH F (Oak St - FDL Co. Line)	27,510	1.8300	2.0400	1.8300	2.0400	0.3500
CTH K (CTH A - STH 73))	11,400	1.8300	2.0400	1.8300	2.0400	0.3500
Various Locations	Undistributed	1.8300	2.0400	1.8300	2.0400	0.3500

2.18 Oil & Application 2.39 Oil & Application 2.18 Oil & Application 2.39 Oil & Application

1/1/2020 Thru 12/31/2020 (12 MONTHS EST DPRN) (ALL WO TYPES) (ALL WO KINDS)

<u>Equipment</u>	<u>Revenue</u>	<u>Total-cost</u>	<u>Fuel</u>	<u>Lube</u>	<u>Labor</u>	<u>Fringe</u>	<u>Part</u>	<u>Overhead</u>	<u>Tire/batt</u>	<u>Sundry</u>	<u>Dprn-mnthly</u>	<u>Units</u>
944	1027.93	1394.37	0.00	0.00	275.04	141.45	416.40	561.48	0.00	0.00	0.00	75.25
945	274.59	247.31	0.00	0.00	69.55	35.77	0.00	141.99	0.00	0.00	0.00	19.50
948	821.75	846.48	0.00	0.00	234.13	120.41	13.95	477.99	0.00	0.00	0.00	59.00
950	725.04	1533.85	0.00	0.00	138.04	70.99	0.00	281.82	0.00	0.00	1043.00	53.00
951	939.14	304.26	0.00	0.00	85.57	44.01	0.00	174.68	0.00	0.00	0.00	68.75
952	846.92	2354.17	0.00	0.00	501.09	257.71	572.40	1022.97	0.00	0.00	0.00	62.00
953	683.98	1627.77	0.00	0.00	164.46	84.58	0.00	335.73	0.00	0.00	1043.00	62.75
954	30.06	422.21	0.00	0.00	106.93	54.99	42.00	218.29	0.00	0.00	0.00	2.00
958	885.17	1154.86	0.00	0.00	321.17	165.18	12.80	655.71	0.00	0.00	0.00	64.75
959	273.20	299.44	0.00	0.00	84.21	43.31	0.00	171.92	0.00	0.00	0.00	20.00
960	120.00	1299.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1299.00	4.00
B-009	0.00	3917.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3917.00	0.00
(24) GREI	1,057,062.44	992,409.26	160,389.26	9,405.50	101,971.29	52,583.39	211,056.31	206,951.82	36,217.13	0.00	213,834.56	86,153.50
(4) NORTI	1,057,062.44	992,409.26	160,389.26	9,405.50	101,971.29	52,583.39	211,056.31	206,951.82	36,217.13	0.00	213,834.56	86,153.50

Rows Processed 172

Show all data where the DOT_RGN_CD matches one of the values in this list 4
 and the DOT_CNTY_CD matches one of the values in this list 24
 and the USER_ID matches one of the values in this list 24BPENCE
 and the WKST_ADDR matches one of the values in this list MDC25232225
 and the MNTC_GL_ACCT matches one of the values in this list 185.01,185.02,185.03,185.04,185.05,185.06,185.08,185.09

For 01/01/20 - 12/31/20

Revenue Summary Report

FJRES01A

Periods 01 - 13

Dec 2020Hwy Rev Summary

100-R

<u>Account No/Description</u>	<u>Budget Amount</u>	<u>Period Amount</u>	<u>Y-T-D Amount</u>	<u>Balance</u>	<u>Percent Received</u>
20 YEAR 3					
211 County Roads and Bridges					
29 Highway					
20-211-29-41110-000-000 General Property Taxes	2,682,751.00	2,682,751.00	2,682,751.00	.00	100.00
20-211-29-43531-000-000 CTH's Revenue from State	885,670.00	887,690.28	887,690.28	-2,020.28	100.23
20-211-29-43600-000-000 APPLIED FUNDS	126,714.00	.00	.00	126,714.00	.00
20-211-29-49210-000-000 Transfer from Other Funds	754,596.00	.00	.00	754,596.00	.00
29 Highway	4,449,731.00	3,570,441.28	3,570,441.28	879,289.72	80.24
211 County Roads and Bridges	4,449,731.00	3,570,441.28	3,570,441.28	879,289.72	80.24

For 01/01/20 - 12/31/20

Revenue Summary Report

FJRES01A

Periods 01 - 13

Dec 2020Hwy Rev Summary

100-R

<u>Account No/Description</u>	<u>Budget Amount</u>	<u>Period Amount</u>	<u>Y-T-D Amount</u>	<u>Balance</u>	<u>Percent Received</u>
20 YEAR 3					
701 Highway					
29 Highway					
20-701-29-44201-000-000 Off Pavement Utility Fee	2,200.00	1,950.00	1,950.00	250.00	88.64
20-701-29-44205-000-000 Driveway/Variance	1,500.00	2,350.00	2,350.00	-850.00	156.67
20-701-29-44260-000-000 Oversize/Overweight Permits	1,000.00	725.00	725.00	275.00	72.50
20-701-29-44261-000-000 Multi-Trip Permits	1,800.00	1,000.00	1,000.00	800.00	55.56
20-701-29-47230-000-000 State PBM	.00	75,320.50	75,320.50	-75,320.50	.00
20-701-29-47231-000-000 Routine Maintenance	480,030.00	408,969.31	408,969.31	71,060.69	85.20
20-701-29-47239-000-000 Other - Sup. R&R-Radio-GPL etc	101,702.00	135,753.51	135,753.51	-34,051.51	133.48
20-701-29-47292-000-000 State - Admin	26,310.00	22,644.69	22,644.69	3,665.31	86.07
20-701-29-47300-000-000 Cities, Villages, Towns, Cty.	442,833.00	375,493.67	375,493.67	67,339.33	84.79
20-701-29-47392-000-000 Local - Admin Charges	20,193.00	17,501.07	17,501.07	2,691.93	86.67
20-701-29-47410-000-000 Interdepartmental Invoicing	85,577.00	76,589.43	76,589.43	8,987.57	89.50
20-701-29-47430-000-000 Charges for Services - CTH's	4,110,575.00	3,614,522.93	3,614,522.93	496,052.07	87.93
20-701-29-47492-000-000 CTH's - Admin	187,442.00	164,805.00	164,805.00	22,637.00	87.92
20-701-29-48000-000-000 Miscellaneous Revenues	96,536.00	61,094.56	61,094.56	35,441.44	63.29
20-701-29-48330-000-000 Sale of Materials & Supplies	1,000.00	122.50	122.50	877.50	12.25
20-701-29-48400-000-000 Insurance Recoveries	2,000.00	3,131.73	3,131.73	-1,131.73	156.59
20-701-29-48440-000-000 Revenue from Cost of Sales	24,000.00	12,405.04	12,405.04	11,594.96	51.69
20-701-29-49320-000-000 Applied Funds	237,241.00	.00	.00	237,241.00	.00
29 Highway	5,821,939.00	4,974,378.94	4,974,378.94	847,560.06	85.44
701 Highway	5,821,939.00	4,974,378.94	4,974,378.94	847,560.06	85.44
20 YEAR 3	10,271,670.00	8,544,820.22	8,544,820.22	1,726,849.78	83.19

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Expenditure Summary Report

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<u>Account No/Description</u>	<u>Adjusted Budget</u>	<u>Y-T-D Encumb</u>	<u>Period Expended</u>	<u>Y-T-D Expended</u>	<u>Available Balance</u>	<u>Percent Used</u>
20 YEAR 3						
211 County Roads and Bridges						
53309 County Supervision						
20-211-29-53309-219-000 County Supervision	99,941.00	.00	139,698.05	139,698.05	-39,757.05	139.78
53309 County Supervision	99,941.00	.00	139,698.05	139,698.05	-39,757.05	139.78
53310 General Mtn. C.T.H's						
20-211-29-53310-219-000 General Maintenance - CTH's	905,464.00	.00	1,084,698.57	1,084,698.57	-179,234.57	119.79
53310 General Mtn. C.T.H's	905,464.00	.00	1,084,698.57	1,084,698.57	-179,234.57	119.79
53311 C.T.H's Winter Mtn.						
20-211-29-53311-219-000 Winter Maintenance - CTH's	751,260.00	.00	446,968.19	446,968.19	304,291.81	59.50
53311 C.T.H's Winter Mtn.	751,260.00	.00	446,968.19	446,968.19	304,291.81	59.50
53312 C.T.H's Bridge Mtn & Insp CTH's						
20-211-29-53312-219-000 Bridge Maintenance & Inspection - CTH's	13,485.00	.00	2,022.86	2,022.86	11,462.14	15.00
53312 C.T.H's Bridge Mtn & Insp CTH's	13,485.00	.00	2,022.86	2,022.86	11,462.14	15.00
53313 Reconstruction						
20-211-29-53313-219-000 Reconstruction - CTH's	2,073,362.00	.00	1,864,389.06	1,864,389.06	208,972.94	89.92
53313 Reconstruction	2,073,362.00	.00	1,864,389.06	1,864,389.06	208,972.94	89.92
53314 Overlay						
20-211-29-53314-219-000 Overlay	.00	.00	46,687.72	46,687.72	-46,687.72	.00
53314 Overlay	.00	.00	46,687.72	46,687.72	-46,687.72	.00
53315 Chip Seal Coat						
20-211-29-53315-219-000 Chip Seal Coat	240,598.00	.00	178,427.92	178,427.92	62,170.08	74.16
53315 Chip Seal Coat	240,598.00	.00	178,427.92	178,427.92	62,170.08	74.16
53317 Bridge Construction - CTH's						
20-211-29-53317-219-000 Bridge Construction CTH's	87,193.00	.00	16,435.58	16,435.58	70,757.42	18.85
53317 Bridge Construction - CTH's	87,193.00	.00	16,435.58	16,435.58	70,757.42	18.85
53591 Railroad						
20-211-29-53591-000-000 Railroad Consortium	25,000.00	.00	25,000.00	25,000.00	.00	100.00
53591 Railroad	25,000.00	.00	25,000.00	25,000.00	.00	100.00
29 Highway	4,196,303.00	.00	3,804,327.95	3,804,327.95	391,975.05	90.66
211 County Roads and Bridges	4,196,303.00	.00	3,804,327.95	3,804,327.95	391,975.05	90.66

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Expenditure Summary Report

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Periods 01 - 13

Dec 2020 Hwy Exp Summary

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Account No/Description	Adjusted Budget	Y-T-D Encumb	Period Expended	Y-T-D Expended	Available Balance	Percent Used
20 YEAR 3						
701 Highway						
53110 Highway Administration						
20-701-29-53110-110-000	Salaries	159,650.00	.00	133,785.68	133,785.68	25,864.32 83.80
20-701-29-53110-120-000	Wages	722.00	.00	169.67	169.67	552.33 23.50
20-701-29-53110-130-000	Employee Benefits	75,825.00	.00	68,893.23	68,893.23	6,931.77 90.86
20-701-29-53110-213-000	Accounting & Auditing	4,000.00	.00	3,681.70	3,681.70	318.30 92.04
20-701-29-53110-219-000	Contracted Services	.00	.00	17.95	17.95	-17.95 .00
20-701-29-53110-225-000	Telephone	3,130.00	.00	2,569.13	2,569.13	560.87 82.08
20-701-29-53110-242-000	Print Management	50.00	.00	222.92	222.92	-172.92 **
20-701-29-53110-310-000	Office Supplies	1,012.00	.00	884.69	884.69	127.31 87.42
20-701-29-53110-311-000	Postage	200.00	.00	207.88	207.88	-7.88 103.94
20-701-29-53110-320-000	Publications	1,200.00	.00	.00	.00	1,200.00 .00
20-701-29-53110-324-000	Member Dues	.00	.00	896.00	896.00	-896.00 .00
20-701-29-53110-325-000	Registrations & Conventions	440.00	.00	95.00	95.00	345.00 21.59
20-701-29-53110-336-000	Lodging	492.00	.00	.00	.00	492.00 .00
20-701-29-53110-350-000	Repair & Maintenance	3,314.00	.00	3,601.92	3,601.92	-287.92 108.69
20-701-29-53110-532-000	Building & Grounds Allocation	6,993.00	.00	.00	.00	6,993.00 .00
20-701-29-53110-540-000	Depreciation & Amortization	5,376.00	.00	.00	.00	5,376.00 .00
20-701-29-53110-620-000	Interest	.00	.00	540.30	540.30	-540.30 .00
53110 Highway Administration		262,404.00	.00	215,566.07	215,566.07	46,837.93 82.15
53191 Supervision						
20-701-29-53191-000-000	Supervision	50.00	.00	44.13	44.13	5.87 88.26
20-701-29-53191-110-000	Salaries	70,163.00	.00	62,058.95	62,058.95	8,104.05 88.45
20-701-29-53191-120-000	Wages	312.00	.00	966.76	966.76	-654.76 **
20-701-29-53191-130-000	Employee Benefits	20,014.00	.00	32,414.10	32,414.10	-12,400.10 161.96
20-701-29-53191-225-000	Telephone	620.00	.00	1,190.71	1,190.71	-570.71 192.05
20-701-29-53191-350-000	Repair & Maintenance	8,082.00	.00	10,865.09	10,865.09	-2,783.09 134.44
20-701-29-53191-534-000	Machinery Rental	21,958.00	.00	16,020.12	16,020.12	5,937.88 72.96
53191 Supervision		121,199.00	.00	123,559.86	123,559.86	-2,360.86 101.95
53192 Radio Expenses						
20-701-29-53192-206-000	Maintenance Contracts	2,055.00	.00	1,370.00	1,370.00	685.00 66.67
20-701-29-53192-225-000	Telephone	1,044.00	.00	772.72	772.72	271.28 74.02
20-701-29-53192-314-000	Small Items of Equipment	500.00	.00	2,537.68	2,537.68	-2,037.68 **
20-701-29-53192-350-000	Repair & Maintenance	100.00	.00	.00	.00	100.00 .00
53192 Radio Expenses		3,699.00	.00	4,680.40	4,680.40	-981.40 126.53
53193 General Public Liability						
20-701-29-53193-509-000	Public Liability	21,880.00	.00	.00	.00	21,880.00 .00
53193 General Public Liability		21,880.00	.00	.00	.00	21,880.00 .00
53210 Employee Taxes and Benefits Cost Pool						
20-701-29-53210-110-000	Salaries	.00	.00	18,972.64	18,972.64	-18,972.64 .00
20-701-29-53210-120-000	Wages	.00	.00	21,721.13	21,721.13	-21,721.13 .00

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Periods 01 - 13

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Account No/Description	Adjusted Budget	Y-T-D Encumb	Period Expended	Y-T-D Expended	Available Balance	Percent Used
20 YEAR 3						
701 Highway						
53210 Employee Taxes and Benefits Cost Pool						
20-701-29-53210-125-000 Overtime	.00	.00	10,250.68	10,250.68	-10,250.68	.00
20-701-29-53210-131-000 Sick Leave Pay	.00	.00	29,565.62	29,565.62	-29,565.62	.00
20-701-29-53210-132-000 Vacation Pay	.00	.00	67,527.48	67,527.48	-67,527.48	.00
20-701-29-53210-134-000 Holiday Pay	.00	.00	58,893.82	58,893.82	-58,893.82	.00
20-701-29-53210-135-000 Floating Holiday	.00	.00	14,657.32	14,657.32	-14,657.32	.00
20-701-29-53210-137-100 Comp-Accumulated	.00	.00	-17,853.20	-17,853.20	17,853.20	.00
20-701-29-53210-137-300 Comp - Use	.00	.00	18,001.96	18,001.96	-18,001.96	.00
20-701-29-53210-138-000 Other - leave with pay	.00	.00	21,851.11	21,851.11	-21,851.11	.00
20-701-29-53210-151-000 Social Security	.00	.00	100,376.24	100,376.24	-100,376.24	.00
20-701-29-53210-153-000 Ret. Employer Share	.00	.00	92,232.15	92,232.15	-92,232.15	.00
20-701-29-53210-154-000 Health Insurance	.00	.00	337,154.58	337,154.58	-337,154.58	.00
20-701-29-53210-155-000 Life Insurance	.00	.00	3,628.30	3,628.30	-3,628.30	.00
20-701-29-53210-910-000 Employee Taxes & Benefits	.00	.00	-582,321.95	-582,321.95	582,321.95	.00
53210 Employee Taxes and Benefits Cost Pool	.00	.00	194,657.88	194,657.88	-194,657.88	.00
53220 Field Small Tools Cost Pool						
20-701-29-53220-130-120 Employee Benefits	.00	.00	485.53	485.53	-485.53	.00
20-701-29-53220-130-121 Employee Benefit	.00	.00	5,962.94	5,962.94	-5,962.94	.00
20-701-29-53220-362-120 Consumable Small Tools-Field	.00	.00	13,313.99	13,313.99	-13,313.99	.00
20-701-29-53220-362-121 Consumable Small Tools-Safety	.00	.00	28,082.26	28,082.26	-28,082.26	.00
20-701-29-53220-920-000 Small Field Tools	.00	.00	-14,375.39	-14,375.39	14,375.39	.00
53220 Field Small Tools Cost Pool	.00	.00	33,469.33	33,469.33	-33,469.33	.00
53230 Shop Operations Cost Pool						
20-701-29-53230-000-000 Shop Operations	.00	.00	488.87	488.87	-488.87	.00
20-701-29-53230-120-000 Wages	.00	.00	37,359.80	37,359.80	-37,359.80	.00
20-701-29-53230-125-000 Overtime	.00	.00	211.57	211.57	-211.57	.00
20-701-29-53230-130-000 Employee Benefits	.00	.00	19,322.98	19,322.98	-19,322.98	.00
20-701-29-53230-225-000 Telephone	.00	.00	3,179.43	3,179.43	-3,179.43	.00
20-701-29-53230-310-000 Office Supplies	.00	.00	503.72	503.72	-503.72	.00
20-701-29-53230-311-000 Postage	.00	.00	21.17	21.17	-21.17	.00
20-701-29-53230-314-000 Small Items of Equipment	.00	.00	3,599.02	3,599.02	-3,599.02	.00
20-701-29-53230-340-000 Operating Supplies	.00	.00	10,264.27	10,264.27	-10,264.27	.00
20-701-29-53230-345-000 Shop Supplies	.00	.00	7,487.28	7,487.28	-7,487.28	.00
20-701-29-53230-350-000 Repair & Maintenance	.00	.00	4,388.48	4,388.48	-4,388.48	.00
20-701-29-53230-534-000 Machinery Rental	.00	.00	818.10	818.10	-818.10	.00
53230 Shop Operations Cost Pool	.00	.00	87,644.69	87,644.69	-87,644.69	.00
53232 Fuel Handling Cost Pool						
20-701-29-53232-120-000 Wages	.00	.00	105.21	105.21	-105.21	.00
20-701-29-53232-130-000 Employee Benefits	.00	.00	54.11	54.11	-54.11	.00
20-701-29-53232-225-000 Telephone	.00	.00	723.81	723.81	-723.81	.00

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Periods 01 - 13

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Account No/Description	Adjusted Budget	Y-T-D Encumb	Period Expended	Y-T-D Expended	Available Balance	Percent Used
20 YEAR 3						
701 Highway						
53232 Fuel Handling Cost Pool						
20-701-29-53232-350-000 Repair & Maintenance	.00	.00	10,472.82	10,472.82	-10,472.82	.00
20-701-29-53232-534-000 Machinery Rental	.00	.00	26.58	26.58	-26.58	.00
20-701-29-53232-931-000 Fuel Handling Revenue	.00	.00	-8,678.06	-8,678.06	8,678.06	.00
53232 Fuel Handling Cost Pool	.00	.00	2,704.47	2,704.47	-2,704.47	.00
53240 Machinery Operating Cost Pool						
20-701-29-53240-120-000 Wages	.00	.00	95,248.27	95,248.27	-95,248.27	.00
20-701-29-53240-125-000 Overtime	.00	.00	386.83	386.83	-386.83	.00
20-701-29-53240-130-000 Employee Benefits	.00	.00	49,185.14	49,185.14	-49,185.14	.00
20-701-29-53240-350-000 Repair & Maintenance	.00	.00	394,706.40	394,706.40	-394,706.40	.00
20-701-29-53240-356-000 Work Order Lbr/ILC	.00	.00	-144.24	-144.24	144.24	.00
20-701-29-53240-381-000 Shop Overhead Recovered	.00	.00	-177.38	-177.38	177.38	.00
20-701-29-53240-534-000 Machinery Rental	.00	.00	8,023.83	8,023.83	-8,023.83	.00
20-701-29-53240-940-000 Mach. Operation Rev.	.00	.00	-1,054,836.41	-1,054,836.41	1,054,836.41	.00
53240 Machinery Operating Cost Pool	.00	.00	-507,607.56	-507,607.56	507,607.56	.00
53270 Buildings & Ground Operations Cost Pool						
20-701-29-53270-000-000 Bldgs. & Grounds Operations	.00	.00	44.99	44.99	-44.99	.00
20-701-29-53270-120-000 Wages	.00	.00	37,199.78	37,199.78	-37,199.78	.00
20-701-29-53270-125-000 Overtime	.00	.00	385.56	385.56	-385.56	.00
20-701-29-53270-130-000 Employee Benefits	.00	.00	19,330.19	19,330.19	-19,330.19	.00
20-701-29-53270-219-000 Contracted Services	.00	.00	1,139.56	1,139.56	-1,139.56	.00
20-701-29-53270-220-000 Utilities	.00	.00	23,453.17	23,453.17	-23,453.17	.00
20-701-29-53270-240-000 Contracted Maintenance	.00	.00	8,906.18	8,906.18	-8,906.18	.00
20-701-29-53270-245-000 Building & Ground Improvements	.00	.00	37,009.74	37,009.74	-37,009.74	.00
20-701-29-53270-344-000 Janitorial Supplies	.00	.00	314.78	314.78	-314.78	.00
20-701-29-53270-350-000 Repair & Maintenance	.00	.00	36,939.38	36,939.38	-36,939.38	.00
20-701-29-53270-534-000 Machinery Rental	.00	.00	17,311.53	17,311.53	-17,311.53	.00
53270 Buildings & Ground Operations Cost Pool	.00	.00	182,034.86	182,034.86	-182,034.86	.00
53271 Salt Sheds Cost Pool						
20-701-29-53271-120-000 Wages	.00	.00	70.77	70.77	-70.77	.00
20-701-29-53271-130-000 Employee Benefits	.00	.00	36.40	36.40	-36.40	.00
20-701-29-53271-534-000 Machinery Rental	.00	.00	59.20	59.20	-59.20	.00
53271 Salt Sheds Cost Pool	.00	.00	166.37	166.37	-166.37	.00
53281 Capital Equipment						
20-701-29-53281-810-000 Capital Equipment	298,181.00	.00	319,124.26	319,124.26	-20,943.26	107.02
53281 Capital Equipment	298,181.00	.00	319,124.26	319,124.26	-20,943.26	107.02
53309 County Supervision						
20-701-29-53309-110-000 Salaries	70,993.00	.00	71,463.68	71,463.68	-470.68	100.66
20-701-29-53309-120-000 Wages	250.00	.00	248.30	248.30	1.70	99.32
20-701-29-53309-130-000 Employee Benefits	37,332.00	.00	36,881.45	36,881.45	450.55	98.79

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Account No/Description	Adjusted Budget	Y-T-D Encumb	Period Expended	Y-T-D Expended	Available Balance	Percent Used
20 YEAR 3						
701 Highway						
53309 County Supervision						
20-701-29-53309-225-000 Telephone	500.00	.00	1,263.31	1,263.31	-763.31	**
20-701-29-53309-310-000 Office Supplies	75.00	.00	479.54	479.54	-404.54	**
20-701-29-53309-350-000 Repair & Maintenance	1,500.00	.00	7,072.61	7,072.61	-5,572.61	**
20-701-29-53309-534-000 Machinery Rentals	14,502.00	.00	14,084.24	14,084.24	417.76	97.12
53309 County Supervision	125,152.00	.00	131,493.13	131,493.13	-6,341.13	105.07
53310 General Mtn. C.T.H's						
20-701-29-53310-101-120 Wages	202,533.00	.00	176,219.58	176,219.58	26,313.42	87.01
20-701-29-53310-101-125 Overtime	1,059.00	.00	477.31	477.31	581.69	45.07
20-701-29-53310-101-130 Benefits	107,423.00	.00	90,927.96	90,927.96	16,495.04	84.64
20-701-29-53310-101-350 Repair & Maintenance	5,000.00	.00	10,346.72	10,346.72	-5,346.72	**
20-701-29-53310-101-362 Consumable Small Tool	5,000.00	.00	3,748.18	3,748.18	1,251.82	74.96
20-701-29-53310-101-370 Road Supplies	77,578.00	.00	170,200.47	170,200.47	-92,622.47	**
20-701-29-53310-101-534 Equipment/Machinery	133,000.00	.00	217,132.59	217,132.59	-84,132.59	163.26
20-701-29-53310-102-120 Wages	32,958.00	.00	17,513.33	17,513.33	15,444.67	53.14
20-701-29-53310-102-125 Overtime	129.00	.00	57.84	57.84	71.16	44.84
20-701-29-53310-102-130 Benefits	17,481.00	.00	9,036.84	9,036.84	8,444.16	51.70
20-701-29-53310-102-362 Consumable Small Tool	660.00	.00	372.54	372.54	287.46	56.45
20-701-29-53310-102-370 Road Supplies	83,000.00	.00	82,227.07	82,227.07	772.93	99.07
20-701-29-53310-102-534 Equipment/Machinery	15,064.00	.00	13,404.14	13,404.14	1,659.86	88.98
20-701-29-53310-103-120 Wages	55,697.00	.00	19,387.19	19,387.19	36,309.81	34.81
20-701-29-53310-103-125 Overtime	3,346.00	.00	.00	.00	3,346.00	.00
20-701-29-53310-103-130 Benefits	29,541.00	.00	2,162.93	2,162.93	27,378.07	7.32
20-701-29-53310-103-362 Consumable Small Tool	1,408.00	.00	89.15	89.15	1,318.85	6.33
20-701-29-53310-103-370 Road Supplies	13,000.00	.00	20,140.80	20,140.80	-7,140.80	154.93
20-701-29-53310-103-534 Equipment/Machinery	15,000.00	.00	8,328.71	8,328.71	6,671.29	55.52
20-701-29-53310-104-120 Wages	50,633.00	.00	52,595.43	52,595.43	-1,962.43	103.88
20-701-29-53310-104-125 OT	.00	.00	230.85	230.85	-230.85	.00
20-701-29-53310-104-130 Benefits	26,856.00	.00	34,923.41	34,923.41	-8,067.41	130.04
20-701-29-53310-104-362 Consumable Small Tool	1,228.00	.00	1,439.59	1,439.59	-211.59	117.23
20-701-29-53310-104-370 Road Supplies	50,000.00	.00	38,925.10	38,925.10	11,074.90	77.85
20-701-29-53310-104-534 Equipment/Machinery	30,000.00	.00	67,356.22	67,356.22	-37,356.22	**
53310 General Mtn. C.T.H's	957,594.00	.00	1,037,243.95	1,037,243.95	-79,649.95	108.32
53311 C.T.H's Winter Mtn.						
20-701-29-53311-120-000 Wages	162,027.00	.00	69,009.24	69,009.24	93,017.76	42.59
20-701-29-53311-125-000 Overtime	12,390.00	.00	21,138.43	21,138.43	-8,748.43	170.61
20-701-29-53311-130-000 Employee Benefits	85,938.00	.00	46,363.09	46,363.09	39,574.91	53.95
20-701-29-53311-350-000 Repair & Maintenance	.00	.00	2,403.17	2,403.17	-2,403.17	.00
20-701-29-53311-362-000 Consumable Small Tools	4,142.00	.00	1,911.17	1,911.17	2,230.83	46.14
20-701-29-53311-370-000 Road supplies	187,000.00	.00	114,608.14	114,608.14	72,391.86	61.29

For 01/01/20 - 12/31/20

Expenditure Summary Report

FJEXS01A

Periods 01 - 13

Dec 2020 Hwy Exp Summary

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Account No/Description	Adjusted Budget	Y-T-D Encumb	Period Expended	Y-T-D Expended	Available Balance	Percent Used
20 YEAR 3						
701 Highway						
53311 C.T.H's Winter Mtn.						
20-701-29-53311-534-000 Machinery Rental	267,000.00	.00	167,844.05	167,844.05	99,155.95	62.86
53311 C.T.H's Winter Mtn.	718,497.00	.00	423,277.29	423,277.29	295,219.71	58.91
53312 C.T.H's Bridge Mtn & Insp CTH's						
20-701-29-53312-000-000 Bridge Maintenance and Inspection -CTH's	6,500.00	.00	390.00	390.00	6,110.00	6.00
20-701-29-53312-120-000 Wages	4,051.00	.00	442.66	442.66	3,608.34	10.93
20-701-29-53312-130-000 Employee Benefits	2,148.00	.00	227.65	227.65	1,920.35	10.60
20-701-29-53312-362-000 Consumable Small Tools	98.00	.00	9.38	9.38	88.62	9.57
20-701-29-53312-534-000 Machinery Rental	100.00	.00	864.96	864.96	-764.96	**
53312 C.T.H's Bridge Mtn & Insp CTH's	12,897.00	.00	1,934.65	1,934.65	10,962.35	15.00
53313 Reconstruction						
20-701-29-53313-000-000 Reconstruction-CTH's	1,982,940.00	.00	1,846,475.18	1,846,475.18	136,464.82	93.12
53313 Reconstruction	1,982,940.00	.00	1,846,475.18	1,846,475.18	136,464.82	93.12
53314 Overlay						
20-701-29-53314-000-000 Overlay	.00	.00	10,365.11	10,365.11	-10,365.11	.00
53314 Overlay	.00	.00	10,365.11	10,365.11	-10,365.11	.00
53315 Chip Seal Coat						
20-701-29-53315-000-000 Chip Seal Coat	230,105.00	.00	212,572.55	212,572.55	17,532.45	92.38
53315 Chip Seal Coat	230,105.00	.00	212,572.55	212,572.55	17,532.45	92.38
53317 Bridge Construction - CTH's						
20-701-29-53317-000-000 Bridge Construction - CTH's	83,390.00	.00	15,718.80	15,718.80	67,671.20	18.85
53317 Bridge Construction - CTH's	83,390.00	.00	15,718.80	15,718.80	67,671.20	18.85
53321 Routine Maintenance						
20-701-29-53321-000-000 Routine Maintenance - State	14,402.00	.00	93,789.91	93,789.91	-79,387.91	**
20-701-29-53321-120-000 Wages	189,875.00	.00	101,084.29	101,084.29	88,790.71	53.24
20-701-29-53321-125-000 Overtime	6,331.00	.00	9,312.07	9,312.07	-2,981.07	147.09
20-701-29-53321-130-000 Employee Benefits	100,709.00	.00	46,411.52	46,411.52	54,297.48	46.08
20-701-29-53321-350-000 Repair & Maintenance	.00	.00	3,007.12	3,007.12	-3,007.12	.00
20-701-29-53321-362-000 Consumable Small Tools	4,713.00	.00	2,340.44	2,340.44	2,372.56	49.66
20-701-29-53321-370-000 Road Supplies	10,000.00	.00	19,664.09	19,664.09	-9,664.09	196.64
20-701-29-53321-534-000 Machinery Repair	154,000.00	.00	130,341.49	130,341.49	23,658.51	84.64
53321 Routine Maintenance	480,030.00	.00	405,950.93	405,950.93	74,079.07	84.57
53322 State Maintenance - PBM						
20-701-29-53322-000-000 State Maintenance - PBM	.00	.00	56,157.59	56,157.59	-56,157.59	.00
53322 State Maintenance - PBM	.00	.00	56,157.59	56,157.59	-56,157.59	.00
53333 Cities, Towns, Villages						
20-701-29-53333-120-000 Wages	68,017.00	.00	48,257.77	48,257.77	19,759.23	70.95
20-701-29-53333-125-000 Overtime	2,829.00	.00	5,419.83	5,419.83	-2,590.83	191.58
20-701-29-53333-130-000 Employee Benefits	36,076.00	.00	27,606.41	27,606.41	8,469.59	76.52

For 01/01/20 - 12/31/20

Expenditure Summary Report

FJEXS01A

Periods 01 - 13

Dec 2020 Hwy Exp Summary

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<u>Account No/Description</u>	<u>Adjusted Budget</u>	<u>Y-T-D Encumb</u>	<u>Period Expended</u>	<u>Y-T-D Expended</u>	<u>Available Balance</u>	<u>Percent Used</u>
20 YEAR 3						
701 Highway						
53333 Cities, Towns, Villages						
20-701-29-53333-350-000 Repair & Maintenance	47,057.00	.00	29,403.11	29,403.11	17,653.89	62.48
20-701-29-53333-362-000 Consumable Small Tools	1,698.00	.00	1,137.97	1,137.97	560.03	67.02
20-701-29-53333-370-000 Road Supplies	205,676.00	.00	200,733.16	200,733.16	4,942.84	97.60
20-701-29-53333-534-000 Machinery Rental	81,480.00	.00	113,670.76	113,670.76	-32,190.76	139.51
53333 Cities, Towns, Villages	442,833.00	.00	426,229.01	426,229.01	16,603.99	96.25
53334 Interdepartment Charges						
20-701-29-53334-000-000 Interdepartmental Charges	85,577.00	.00	76,589.43	76,589.43	8,987.57	89.50
53334 Interdepartment Charges	85,577.00	.00	76,589.43	76,589.43	8,987.57	89.50
29 Highway	5,826,378.00	.00	5,300,008.25	5,300,008.25	526,369.75	90.97
701 Highway	5,826,378.00	.00	5,300,008.25	5,300,008.25	526,369.75	90.97
20 YEAR 3	10,022,681.00	.00	9,104,336.20	9,104,336.20	918,344.80	90.84



GREEN LAKE COUNTY HIGHWAY COMMISSION

Barry Mashuda
Highway Commissioner

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Email: bmashuda@co.green-lake.wi.us

Commissioner's Report Highway Committee Meeting February 10, 2021

Ongoing Work Projects;

- Snow and ice removal
- Brush and tree work on the County and State System
- Installing a V-Box Spreader on Truck #30 (town route truck)
- Planning for upcoming summer projects
- Working on DNR permits for projects
- Working to finalize plans for the sign truck