### PROCEEDINGS OF THE BOARD OF COUNTY COMMISSIONERS

Date: April 23, 2024 9:00 a.m.

Place: Commissioners Room, Courthouse, Caledonia, MN

Members Present: Dewey Severson, Eric Johnson, Robert Burns, Bob Schuldt, and Greg Myhre

Others Present: Interim Auditor/Treasurer Polly Heberlein, Fillmore County Journal Reporter

Charlene Selbee, The Caledonia Argus Associate Editor Rose Korabek, Finance Director Carol Lapham, Board Clerk/EDA Director Allison Wagner, Recorder Mary Betz, Human Resources Director Theresa Arrick-Kruger, Sheriff Brian Swedberg, Chief Deputy Recorder Michelle Werner, City of Caledonia Clerk/Administrator Jake Dickson, WKBT Reporter John Hayes, Caldonia Superintendent Craig Ihrke, Chuck Schulte, DOC District Supervisor

Rena Patterson, and Amy Moen

Presiding: Chairperson Johnson

Call to order.

Pledge of Allegiance.

Motion was made by Commissioner Burns, seconded by Commissioner Severson, motion unanimously carried to approve the agenda.

Motion was made by Commissioner Schuldt, seconded by Commissioner Myhre, motion unanimously carried to approve the meeting minutes from April 16, 2024.

Public Comment:

Caledonia resident Chuck Schulte made a public comment regarding the possibility of adding a temporary hold facility for juveniles to the existing Houston County Jail. He asked why there were very few hold facilities, and questioned if the plan had been fully thought through. He said the current jail had been overbuilt as there were very few inmates in the jail. He cautioned the County to do their research before moving forward, and provided a list of questions.

### **APPOINTMENTS**

Department of Corrections (DOC) Supervisor Rena Patterson reviewed the Houston County Department of Corrections Comprehensive Plan with the Commissioners.

CONSENT AGENDA

Motion by Commissioner Burns, seconded by Commissioner Schuldt, motion unanimously carried to approve the consent agenda. Items approved are listed below.

- 1) Approve the banding and pay rate change of Assistant County Attorney Suzanne Bublitz, from D-61 Exempt to D-62 Exempt, hourly equivalent \$57.37 effective 05/06/2024.
- 2) Hire Amy Molling as a probationary 1.0 FTE, Deputy Recorder, B21, Step 4, effective 05/13/2024 conditioned upon successful completion of background check.
- 3) Assign Rachel Meyer, currently Lead Jailer/Dispatcher, as the 1.0 FTE exempt status, Interim Jail Administrator, C43, Step 6 effective retroactively to 04/07/2024 for a period not to exceed one year. Meyer retains rights otherwise accrued during this interim assignment, including hours served towards step placement upon her return to a Lead Jailer/Dispatcher position (Note MOU pending).
- 4) Initiate a competitive search for a probationary 1.0 FTE Jail Administrator.
- 5) Hire Amy Gehrke as a 67-Day Boat Patrol Deputy for the upcoming boating season at C42, step.

### **ACTION ITEMS**

File No. 1 – Commissioners discussed a request by Sheriff Swedberg to approve the Houston County Jail adding an eight day Juvenile Detention Center to the current jail facility with Sheriff Swedberg, Attorney Jandt, and Caldonia Superintendent Craig Ihrke.

Sheriff Swedberg said there were very few inmates in the jail currently due to the Winona contract ending, so him and his staff had looked into other ways to create revenue and utilize the jail. Often there were zero, one, or two inmates in jail. The County had the space to convert part of the facility into a temporary hold facility for juveniles. Sheriff Swedberg said other agencies had told him there was a need for this type of facility in the area. He said some agencies would be willing to contract a bed 365 days a year. The rate for holding juveniles would be \$300.00 per day per bed or \$250.00 per day per bed for a yearly contract. The facility could hold up to eight juveniles for eight days not including weekends and holidays. Houston County would also be able to temporarily hold their own juveniles without having to transport them to other areas of the State saving time and money. Sheriff Swedberg said there were still unknowns with the process as the creation of temporary hold facilities was not common, and there were few examples to look at. Attorney Jandt said other county attorneys had expressed a need for more temporary hold facilities in the State as there were very few options State wide.

Commissioner Johnson asked why there were so few facilities in the State, and why other counties in the area had not created temporary juvenile hold facilities. Attorney Jandt said in Winona there had been a push from the community against it. Commissioner Johnson said he had repeatedly asked for concrete details, projections, numbers, and research on the new facility. He wanted to make sure the idea had been properly researched. He questioned why the Sheriff had not provided any backup information for the packet. Johnson said he needed more information before making a decision.

Superintendent Irke said he understood there was a need for more juvenile facilities in the State, however the school was not "jumping up and down" about the idea. Ihrke said the school would work with the County on the process if they moved forward. He said because the jail was located in Caledonia's School District, Caledonia School would be required by Statute to provide education for the juveniles in the hold facility if the County created it. Ihrke said the School District would need to hire a teacher specifically for the facility. Ihrke said the school would be able to bill other school districts where the juveniles resided to recoup costs for the educational services. This would create additional administrative work for the school.

Commissioner Myhre asked how much it would cost the County to run the juvenile facility. Commissioner Burns said the training and other costs associated with the facility would be minimal. He said the current jail budget in the County Budget was 1.7 million. Sheriff Swedberg said if the jail was fully staffed with the current positions they would need to add one part time position for the temporary hold facility. He said jail staff could work with both adults and juveniles during their shifts.

Commissioner Schuldt said he saw the need for the juvenile hold facility. He said the County had increased liability when transporting juveniles long distances to other hold facilities in the State. He said there would be less liability if there was a hold facility in Houston County where Houston County juveniles could be taken.

Commissioner Severson moved, Commissioner Burns seconded, motion carried four to one to approve the Houston County Jail adding an eight day Juvenile Detention Center to the Facility. The motion was contingent on an agreement with the school district that included numbers. The Commissioners voted by roll. Commissioners Severson, Burns, Schuldt, and Myhre voted yes. Commissioner Johnson voted no. Attorney Jandt said the County could still opt out of the facility if needed.

File No. 2 – Commissioner Burns moved, Commissioner Schuldt seconded, motion unanimously carried to approve the Memorandum of Agreement with Law Enforcement Labor Services, Inc., Local #60 regarding the appointment of an Interim Jail Administrator.

File No. 3 – Commissioner Severson moved, Commissioner Myhre seconded, motion unanimously carried to review and approve payments. See payments below.

### **REVIEW LICENSE CENTER PAYMENTS**

### **2024/04/16 AUDITOR WARRANTS:**

VENDORNAMEATPAYMENT	AMOUNT
FILLMORE SWCD	4,825.24
SCHUMACHER'S NURSERY	3,720.50
SE SWCD TECHNICAL SUPPORT JPB	2,431.08
	10,976.82
10 VENDORS PAID LESS THAN \$2000.00	3,844.47
	14,821.29

### REQUEST APPROVAL FOR PAYMENT

### 2024/04/23 COMMISSIONER'S WARRANTS:

VENDOR NAME	AMOUNT
C & C MACHINE INC	6,697.09
ERICKSON ENGINEERING LLC	8,266.50
EVERETT LAW LLC	4,204.00
FASTENAL COMPANY	2,010.59
MNCCC	12,836.62
OFFICE OF MNIT SERVICES	7,351.62
SCHNEIDER CORPORATION	3,001.00
	44,367.42
20 VENDORS PAID LESS THAN \$2000.00	10,328.85
	54,696.27
PUBLIC HEALTH & HUMAN SERVICES	47,579.12
	102,275.39

### **Public Comment:**

Rose Korabek said there were State and Federal grants the County could look into for the eight day Juvenile Detention center.

### **DISCUSSION ITEMS**

Commissioners discussed recent and upcoming meetings including a Department Head meeting.

There being no further business at 10:41 a.m., a motion was made by Commissioner Myhre, seconded by Commissioner Schuldt, motion unanimously carried to adjourn the meeting. The next meeting would be a regular meeting on May 7, 2024.

BOARD OF (	COUNTY COMMISSIC	ONERS HOUSTON COUNTY, MINNESOTA
	,	By: Eric Johnson, Chairperson
Attest:		Ene voimbon, Champerson
Polly I	Heberlein, Interim Audit	tor/Treasurer

### HOUSTON COUNTY AGENDA REQUEST FORM May 7, 2024

Date Submitted: 4/23/24

By: Polly Heberlein - Interim Auditor-Treasurer

**CONSENT AGENDA REQUEST** 

Requesting approval for renewing a Consumption and Display Permit for Lawrence Lake Marina, LLC. The license is renewed and issued by the State following County approval. This license authorizes the establishment to permit the consumption and display of intoxicating liquor on the premises. The permit does not authorize the sale of intoxicating liquor.

### APPOINTMENT REQUEST

### **ACTION ITEM REQUESTS**

Reviewed by:	HR Director Finance Director	Sheriff Engineer		
	IS Director	PHHS		
	County Attorney	_XX_	Auditor-Treasurer	
December detion.	Environmental Srvcs			
Recommendation:				
<u>Decision:</u>				



**Amount Received** 

### Minnesota Department of Public Safety Alcohol & Gambling Enforcement Division 445 Minnesota Street St Paul , Minnesota 55101 651-201-7507

### RENEWAL OF CONSUMPTION AND DISPLAY PERMIT Permit Fee \$250 (Renewal Date: April 1)

Iden: 43997

License Code: CDPBL

Business Phone: 507-482-6615

Lawrence Lake Marina LLC DBA: Lawrence Lake marina 8995 St. Hwy 26

Brownsville, MN 55919

IF NAME AND ADDRESS SHOWN ARE NOT CORRECT, MAKE CHANGES BELOW

Policy No. /0/522, 804 7/21/23 - 7/21/24
City/County where permit approved Brownsuitle, Houston
Licensee Name Kim Benson D.B.A. Lawrence Lake Manina
Address, City, State, Zip 8995 State 26, BROWN SUITR, MN. 55919
Business Phone 507-482-6615 Email
By signing this renewal application, applicant certifies that there has temembership, partners, home addresses, or telephone numbers. If chatalis on the back of this renewal, then sign below.  Applicant's signature on this renewal confirms the following:  Failure to report any of the following will result in fines.  1. Applicant confirms that it has never had a liquor license rejected by any city/township/county in the state of Minnesota. If ever rejected, please give details on the back of this renewal, then sign below.  2. Applicant confirms that for the past five years it has not had a liquor license revoked for any liquor law violation (state or local). If a revocation has occurred, please give details on the back of this renewal, then sign below.  3. Applicant confirms that during the past five years it or its employees have not been cited for any civil or criminal liquor law violations. If violations have occurred, please give details on the back of this renewal, then sign below.  4. Applicant confirms that workers compensation insurance is in effect for the full license period.  5. Applicant confirms, no club on-sale intoxicating liquor license is held.  6. Applicant confirms business premises are separate from any other business establishment.
Additional information to be provided as is necessary
<ul> <li>Indicate (on back of page) changes of corporate officers, partners, home addresses or telephone numbers:</li> <li>Report (on back of page) details of liquor law violations (civil or criminal) that have occurred within the last five years. (Dates, offenses fines or other penalties, including alcohol penalties):</li> <li>Report(on back of page)any license rejections or revocations:</li> <li>City/County Comments:</li> </ul>
Kim Densen 1/29/24
Licensee Signature  Date (Signature certifies all application information to be correct and permit has been approved by city/county.)
City Clerk/County Signature  Date (Signature certifies that a consumptions and display permit has been approved by the city/county as stated above.)
MAKE CHECKS PAYABLE TO: DIRECTOR ALCOHOL AND GAMBLING ENFORCEMENT AND RETURN WITH APPLICATION.

### HOUSTON COUNTY AGENDA REQUEST FORM May 7, 2024

Date Submitted: May 2, 2024

By: Tess Kruger, HRD/Facilities Mgr.

**ACTION** 

**NONE** 

APPOINTMENT REQUEST NONE

### HR CONSENT AGENDA REQUEST

### Assessor

- Accept/confirm the resignation of Dylan Felten, Commercial Property Appraiser, effective 05/10/2024 (We thank Mr. Felten for his 3 years of service to the residents of Houston County)
- Approve a competitive search for an appraiser. (Note: Depending upon qualifications/MN DOR certifications the successful candidate may be hired as an Appraiser Trainee B22, Certified MN Appraiser B23, Certified MN Appraiser-Income B24)

### Auditor/Treasurer

• Hire Darlene Johnson as a probationary 0.5 FTE, Deputy Auditor/Treasurer-License Center, B22, Step 1, effective 05/15/2024 conditioned upon successful completion of all background checks

### **Building Maintenance**

 Hire Holly Ingvalson as a probationary 1.0 FTE, Assistant Custodian II, Step 3, effective 05/15/2024 conditioned upon successful completion of background checks

### **Public Health & Human Services**

- Accept/confirm the retirement of Sharen Lapham, Adult Mental Health Social Worker, effective 07/30/2024 (We thank Ms. Lapham for her 32 years of service to the residents of Houston County)
- Approve a competitive search for an Adult Mental Health Social Worker

- Accept/confirm the resignation of Elizabeth Knutson, Public Health Nurse, effective 06/05/2024 (We thank Ms. Knutson for her 5 years of service to the residents of Houston County)
- Approve a competitive search for a public health nurse C42

CC:	HR Director X Finance Director IS Director	Sheriff Engineer X PHHS
	County Attorney Environmental Srvcs	(indicate A/T X other dept) Assessor

### Houston County Agenda Request Form

Date Submitted:	May 1, 2024	Board Date:	May 7, 2024	
Person requesting appoir	ntment with County Board:	Brian Pogodzinsk	si	

### issue:

There currently is not a School Zone Speed Limit on CSAH 6 & CSAH 29 (Elm St) within La Crescent near the schools. The City, School District, law enforcement and the Safe Routes to School Committee would like to see a school zone speed limit for when children are present.

### Attachments/Documentation for the Board's Review:

Letters of Support, SRTS plan sheets Resolution establishing speed zones

### Justification:

The County may establish a school zone speed limit in accordance with MN Statutes 169.14, Subd. 5a.

### **Action Requested:**

Establish a 20mph school zone speed limit on Elm St (CSAH 6 & CSAH 29) near La Crescent-Hokah Elementary School and Crucifixion School.

	For Co	unty Use Only	
Reviewed by: ————————————————————————————————————	County Auditor Finance Director IS Director	County Attorney County Engineer Other (indicate dept)	Zoning Administrator Environmental Services
Recommendation:			
<u>Decision:</u>			

All agenda request forms must be submitted to Allison Wagner at BOC@co.houston.mn.us by 12:00 p.m. on Thursday in order to be considered for inclusion on the following week's agenda. The Board will review all requests and determine if the request will be heard at a County Board meeting.

### RESOLUTION 24-XX DRAFT

### **Establishment of School Zone Speed Limit**

May 14, 2024

WHEREAS, there are schools located along <u>Houston County</u> highways within the City of La Crescent; and

WHEREAS, <u>Houston County</u> may establish school zone speed limits in accordance with MN Statutes 169.14, Subd. 5a; and

WHEREAS, a review of the school zone route has been conducted; and

WHEREAS, recommendations for establishing school zone speed limits were made;

NOW THEREFORE, be it resolved that <u>Houston County</u> does hereby agree to the establishment of school zone speed limit postings of "20mph When Children Are Present" at the following locations are hereby approved:

On Houston County State Aid Highway 6 between S 4<sup>th</sup> St & S 6<sup>th</sup> St, approximately 872 feet.

On Houston County State Aid Highway 29 between S 1st St & S 3rd St Alley, approximately 450 feet.

The County Engineer shall arrange for installation of said signage.

This resolution shall be in full force and effect upon installation of said signage.

\*\*\*\*\*CERTIFICATION\*\*\*\*\*
STATE OF MINNESOTA
COUNTY OF HOUSTON

I, Polly Heberlein, Interim County Auditor/Treasurer, do certify that the above is a true and correct copy of a resolution adopted by the Houston County Board of Commissioners at the session dated May 14, 2024.

WITNESS my hand and the seal of my office this 14th day of May 2024.

Signed b	oy		
	Interim Houston	County	Auditor-Treasurer



**Houston County Commissioners** 

Dewey Severson, Eric Johnson, Bob Burns, Bob Schuldt and Greg Myhre

RE: Safe Routes to School Support for School Speed Zones

In the summer of 2019, the City of La Crescent was awarded a Minnesota Department of Transportation (MnDOT) Safe Routes to School (SRTS) planning assistance grant. This grant enabled the city to host a planning workshop and create a SRTS plan for the four schools in La Crescent. The SRTS plan includes recommendations for La Crescent-Hokah Elementary, La Crescent-Hokah Secondary, La Crescent Montessori School and Crucifixion Catholic School. A link to the full SRTS plan can be found <a href="https://example.com/hokah-secondary">here</a>.

The La Crescent SRTS Team provided feedback to create a SRTS program that considers the needs of all La Crescent students and families — not just those that attend one of the two ISD 300 schools. Indeed, the Montessori and STEM School and Crucifixion bring another network of passionate parents and caregivers to this city-wide effort. La Crescent's vision for a sustainable SRTS plan calls for both programmatic and engineering improvements. This planning process has brought together engineers, planners, public health staff from the City, State, and Houston County, as well as school and district staff to identify issues, opportunities, and solutions to make walking and biking for all students safe and comfortable. The local planning team also turned to the community for input, too. A number of community and family events gave people in La Crescent the opportunity to share their ideas about walking and biking to school.

The Safe Routes to School team understands that speed is a reliable indicator of risk for pedestrians. The likelihood of a fatality when a pedestrian is hit by a motor vehicle traveling 30 mph is 45%. The likelihood of a fatality for a pedestrian hit by a vehicle traveling at 20 mph is only 5%. Higher speed roads and wider crossing can make walking or biking to school more dangerous for students. When these types of dangers exist, students are far less likely to be allowed to walk or bike to school and may have to be bused across a dangerous intersection even when the student lives across the street from his or her school. In addition to improved pedestrian safety established school speed limits provide students with an opportunity for increased physical activity. If implemented the Safe Routes to School team would play an active role in the awareness campaign for the new school speed limits.



The Safe Routes to School vision is to make walking and biking to school safe, comfortable, and fun for all students in La Crescent. The efforts of the City of La Crescent and Houston County to implement school speed zones for all schools in La Crescent align with this vision. We enthusiastically support the efforts to implement school speed zones in La Crescent.

La Crescent Safe Routes to School Team

### CITY OF LA CRESCENT



### **Department of Police**

Chief Luke M. Ahlschlager



March 26, 2024

**Houston County Commissioners** 

Dewey Severson, Eric Johnson, Bob Burns, Bob Schuldt and Greg Myhre

### **RE:** Establishment of School Speed Zones

As the Police Chief of La Crescent, I am writing to bring to your attention a matter of utmost importance regarding the safety of our community's children.

Over the years, the City of La Crescent has experienced growth, leading to increased traffic in residential areas, particularly those surrounding educational institutions. Four such areas that warrants attention is the La Crescent-Hokah Elementary School, La Crescent-Hokah Middle/High School, Crucifixion School and the La Crescent Montessori School. With a significant number of students attending these educational institutions, it is crucial that we take proactive measures to ensure their safety during peak traffic hours.

I am formally requesting the Houston County Board to consider the establishment of a School Speed Zone in the immediate vicinity of La Crescent-Hokah Elementary School and Crucifixion School. A School Speed Zone is a designated area where school speed limits shall be in effect when children are present, going to or leaving school during opening or closing hours or during school recess periods. Such zones are essential in safeguarding our young pedestrians who may be crossing streets and commuting to and from school.

The proposed School Speed Zones would extend from the following:

### La Crescent-Hokah Elementary School

• On South Elm Street (north & south) from South 4<sup>th</sup> Street to South 6<sup>th</sup> Street covering approximately 872 feet.

### Crucifixion School

 On South Elm Street from the South 3<sup>rd</sup> Street Alley North to South 1<sup>st</sup> Street covering approximately 450 feet.

### CITY OF LA CRESCENT

### Department of Police

Chief Luke M. Ahlschlager

I should note, I am fully aware the two designated areas up for your consideration do experience morning commute traffic congestion which does slow traffic down in those areas. However, the after-school or afternoon commute does not have the same congestion and vehicles are fully able to gather\_speed from South 7<sup>th</sup> Street to South 3<sup>rd</sup> Street. In addition, one of the aims of School Speed Zones is to serve as visual reminders to drivers that are entering an area with a higher concentration of pedestrians, particularly children. This increased awareness can lead to more cautious driving behavior. Lastly, having <u>uniformity</u> with other city streets around the schools with the speed zone designation will help avoid confusion and ensure that drivers know what speed is appropriate when entering a school zone, regardless of its location.

I recommend implementing the following speed limit within the designated zones:

**School Zone Speed Limit:** The speed limit should be reduced to <u>20 miles per hour</u> "when children are present". This reduction in speed will allow motorists ample time to react to potential hazards and ensure a safer environment for students and all pedestrians.

**Speed Zone Signage:** The school speed limit shall be effective upon the erection of appropriate signs (When children are present) designating the speed and indicating the beginning and end of the reduced speed zone. Any speed in excess of such posted school speed limit is unlawful. All such signs shall be erected by the local authorities on those streets and highways under their respective jurisdictions and by the commissioner of transportation on trunk highways.

**Awareness Campaign:** A comprehensive awareness campaign should be initiated in collaboration with the school administration, local media, and community organizations. This campaign will educate residents and motorists about the importance of the School Speed Zone and the need to exercise caution around our schools.

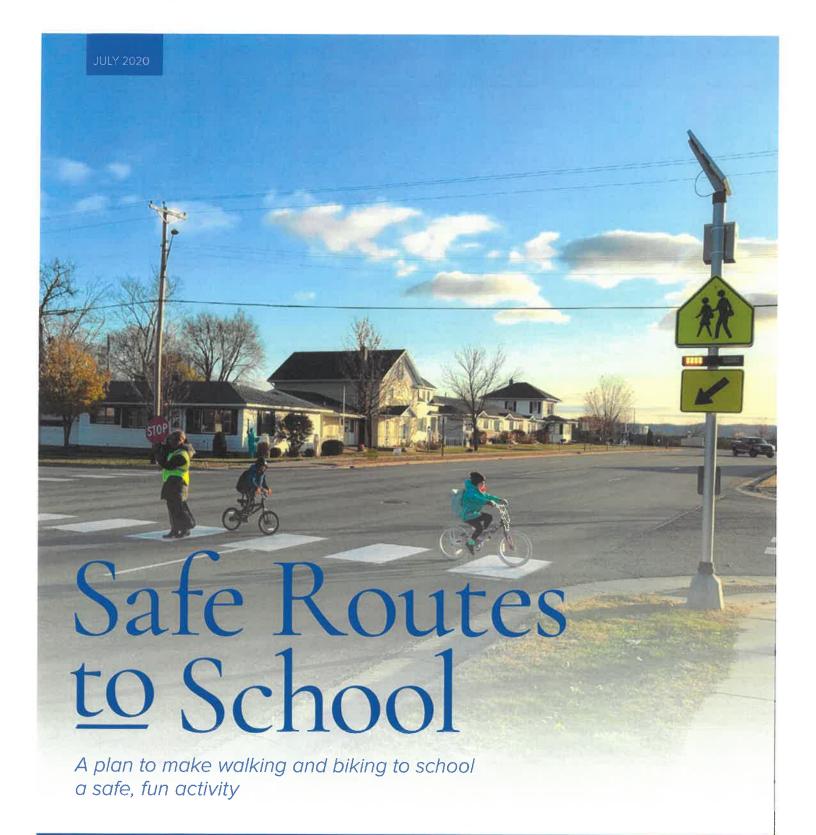
**Enforcement:** It is vital to enforce the School Speed Zone rigorously to ensure compliance with the reduced speed limit. Patrol officers will be actively monitoring the designated areas to deter speeding and ensure compliance with the reduced speed limit.

The implementation of a School Speed Zone will undoubtedly contribute to a safer environment for students, parents, and teachers. Moreover, it will serve as a testament to our city's commitment to prioritizing the safety and well-being of its young residents.

I kindly request the County Board's consideration of this proposal, as the safety of our children is of the utmost importance. Should you require any additional information or clarification regarding this matter, please do not hesitate to contact me.

Luke Ahlschlager, Chief of Police

flally



### LA CRESCENT, MINNESOTA

La Crescent-Hokah Elementary
La Crescent-Hokah Secondary
La Crescent Montessori and STEM School
Crucifixion School





### Community Engagement

Many people helped develop the recommendations found in this plan. Besides stakeholders listed in the acknowledgments section above, project staff engaged the local community through a variety of tools described in the table below. This information came from people who know the issues faced better than anyone else — those who walk and bike in La Crescent and Houston County.

For more information related to engagement results and early data collection including the School Zone Hazard Observation Assessment and Student Travel Tally, see the Appendix section that accompanies this document.

ENGAGEMENT TOOL	GROUP ENGAGED; PROJECT TIMING	FEEDBACK GATHERED
Parent Survey  An online survey sent to families that asks parents and caregivers how they feel about their child walking and biking to school.  Administration Survey	Parents and caregivers of students Fall 2019 School principals and administrators	<ul> <li>Bike to school day and walking school bus are popular amongst families</li> <li>Fear of student drivers being reckless or not watching for people walking</li> <li>Better crossings are needed at the Secondary School along Lancer Blvd and 11th St</li> <li>There is a desire for more sidewalks in the City</li> <li>A school policy to promote walking and biking exists at the Montessori and STEM School</li> </ul>
An online survey sent to principals and administrators that asks about school and district policies or practices that support walking and biking to school. It also asks about the physical and built environment surrounding school.	Fall 2019	<ul> <li>Policies do not exist at the Elementary School that promote walking and biking to school</li> <li>The Elementary School does not formally partner with law enforcement, but the Elementary places a staff member at the crossing of 3rd St and Oak St during arrival and dismissal. This adult crossing guard has collected data on walkers and bikers at this intersection</li> </ul>
Pop up engagement tabling In-person events held at schools or community events where project staff talk with families about ways to improve comfort while walking and biking to school.	Students, parents, caregivers, families Fall 2019	<ul> <li>Other destinations in town include the Aquatic Center/Pool and Old Hickory Park</li> <li>Walking and biking on and across Elm St and 3rd St can be a challenge</li> <li>Driver yielding compliance is an issue near schools and in the community</li> <li>Even with the Elm St bike lane, students still feel unsafe because of driver speeds and separation from traffic</li> </ul>
Student conversations In person conversations with students about their experiences walking and biking in the community.	La Crescent students Fall 2019	<ul> <li>Students driving, biking, and walking use the Oak St corridor to connect to destinations in La Crescent</li> <li>Students informally participate in SRTS programs like walking school buses and bike trains by traveling together in groups</li> </ul>

### **EQUITY IN SRTS**

Equity in SRTS means that every student is able to safely, comfortably, and conveniently walk and bike to school, regardless of race, cultural identity, tribal affiliation, immigrant or refugee status, language, gender or sexual identity, income, religion, and whether or not a student receives special education, has a physical or mental disability, or is homeless or highly mobile.

An equity approach requires working with local partners to tailor programs and allocate resources to meet the unique needs of the community.



LA CRESCENT HOKAH ELEMENTARY SCHOOL

LA CRESCENT, MN

# La Crescent Hokah Elementary Infrastructure Recommendations

	LOCATION	PROBLEM/issue	POTENTIAL SOLUTION/RECOMMENDATION	ANTICIPATED OUTCOME	LEAD	PRIORITY
⋖	S 3rd St and Oak St	Long and uncomfortable crossing distances; poor driver yleiding behavior, high traffic volumes and speeds, especially during arrival and dismissal	Install curb extensions; install advance yield lines on S 3rd St; coordinate with location D; install forward stop bars on S Oak St	Increased comfort for people crossing S 3rd St	MnDOT; Houston County; City of La Crescent	Medium
	Oak St south of S 3rd St	Drivers often use Oak St as a cut through to avoid Hwy 16, leading to an uncomfortable experience for people walking and biking to school	Install traffic calming along Oak St corridor including raised crossings, chicanes, curb extensions, neighborhood traffic circles, or diverters. Coordinate with future development at S 3rd St.	Slower vehicle speeds; less vehide traffic; increased comfort for people walking along Oak St	City of La Crescent; MnDOT	High
	Alley south of campus	Currently used as a drop off and pick up for drivers, resulting in potential conflicts and uncomfortable conditions	Install temporary gate or barrier to restrict access to cars during pick up and drop off, coordinate with redesign of Elementary School	More comfortable space for peo- ple walking and biking	ISD 300; City of La Crescent	Low
	S 3rd St between Elm St and Walnut St	Long and uncomfortable crossing distances; poor driver yielding behavior, high vehicle speeds and volumes as drivers travel to and from S 3rd St and Hwy 14/16/61	Consider reducing S 3rd St from four lanes to three; coordinate with locations A and H	Increased comfort for people crossing S 3rd St	MnDOT; Houston County; City of La Crescent	High
	6th St S and Elm St	Long and uncomfortable crossing distances; poor driver yielding behavior; poor visibility, tigh traffic volumes and speeds, especially during arrivel and dismissal	Install curb extensions on the west side of Elm St; maintain trees and vegetation on the west side of Elm St; install ADA compliant curb ramps where missing; install forward stop bars	Improved visibility, and increased comfort for people crossing Elm St	Houston County; City of La Crescent	High
	S 4th St and Elm <b>St</b>	Long and uncomfortable crossing distances; poor driver yielding behavior; poor visibility; thigh traffic volumes and speeds, especially during arrival and dismissal	Install curb extensions on the west side of Elm St; maintain trees and vegetation on the west side of Elm St; install ADA compliant curb ramps where missing	Improved visibility, and increased comfort for people crossing Elm St	Houston County; City of La Crescent	High
	S 5th St and Elm St	Long and uncomfortable crossing distances; poor driver yielding behavior; poor visibility; high traffic volumes and speeds, especially during arrival and dismissel	Install curb extensions on the west side of Elm St. maintain trees and vegetation on the west side of Elm St; install ADA compilant curb ramps where missing; install forward stop bars	Improved visibility, and increased comfort for people crossing Elm St	Houston County; City of La Crescent	Low
	S 3rd St and Elm St	Long and uncomfortable crossing distances; poor visibility; high traffic volumes and speeds, especially during arrival and dismissal	Install curb extensions on the west side of Elm S and on S 3rd St; coordnate with location D; install ADA compilant curb ramps where missing	Improved visibility, and increased comfort for people crossing Elm St and S 3rd St	MnDOT; Houston County; City of La Crescent	Medium
	7th St S and Elm St	Long and uncomfortable crossing distances; poor visibility; high traffic volumes and speeds, especially during arrival and dismissal	install curb extensions on the west side of Elm S; install ADA compliant curb ramps where missing	Improved visibility, and increased comfort for people crossing Elm St	Houston County; City of La Crescent	Low
	Playground area, back of school	No high quality bicycle parking	Install high quality bicycle parking described in Appendix K	More students biking to school	ISD 300	Medium
	Where 6th St S meets Aquatic Center/Pool	Fence is difficult to newgate with bicycle, no formal path down hill	Install shared use path down hill to Aquatic Center/Pool; install gate that allows people on bikes to pass through comfortably	More students biking from neigh- borhoods west and south of 7th St S and Elm St	City of La Crescent	Low



### **CRUCIFIXION ELEMENTARY**

LA CRESCENT, MN

## Crucifixion Elementary Infrastructure Recommendations

	LOCATION	PROBLEM/ISSUE	POTENTIAL SOLUTION/RECOMMENDATION	ANTICIPATED OUTCOME	LEAD	PRIORITY
⋖	S 2nd St and Elm St	Long and uncomfortable crossing distances; high vehicle volumes, especially during arrival and dismissal; poor visibility; missing ADA compilant curb ramps	Install curb extensions on the west side of Elm St; maintain trees and vegetation on the west side of Elm St; install ADA compliant curb ramps where missing; install forward stop bars	Improved visibility, and increased comfort for people crossing Elm St	Houston County; City of La Crescent	High
20	S 2nd St and Oak St	Long and uncomfortable crossing distances; missing ADA compliant curb ramps	Install curb extensions past parking spaces on S.2nd St or prohibit parking in the two spaces closet to crosswalk on northwest corner; install ADA compliant curb ramps where missing; install forward stop bars	Improved visibility, and increased comfort for people crossing	City of La Crescent	Medium
()	S 1st St and Elm <b>St</b>	Long and uncomfortable crossing distances; high vehicle volumes, especially during arrival and dismissal; poor visibility; missing ADA compilant curb ramps	Install curb extensions on the west side of Elm St; install high visibility crosswalks; install ADA compliant curb ramps where missing; install forward stop bars	Improved visibility, and increased comfort for people crossing Elm St	Houston County, City of La Crescent	High
۵	S 1st St and Oak St	Long and uncomfortable crossing distances; missing ADA compliant curb ramps	Install curb extensions; install high visibility crosswalks; install ADA compliant curb ramps; install forward stop bars	Improved visibility and increased comfort for people walking	City of La Crescent	Low
ш	Parking lane along S 2nd St	Parked vehicles encroach on the sidewalk space	Install curb to delineate parking space extent	Fewer vehicles encroaching on pedestrian space; increased comfort for people walking along S 2nd St.	Crucifixion Elementary	Low
	Outside front door on \$ 2nd St	No high quality bike parking	Install high quality bicycle parking described in Appendix K	More students biking to school	Crucifixion Elementary	Low

### Appendix F. Parent/Caregiver Survey

The following shows a summary of results of a survey sent home to parents and caregivers of children attending schools in La Crescent. Notice there are separate survey results from middle and high school students. The graphics and charts summarize responses to questions designed by the National Safe Routes to School Data Collection System.

### LA CRESCENT-HOKAH ELEMENTARY

### Parent Survey Report: One School in One Data Collection Period

School Name: La Crescent-Hokah Elementary School Set ID: 19084

School Group: ISD 300 Month and Year Collected: October 2019

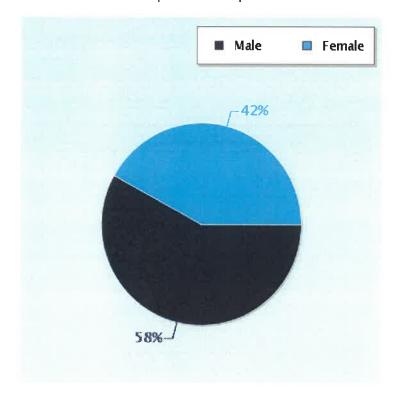
School Enrollment: 0 Date Report Generated: 11/04/2019

% Range of Students Involved in SRTS: Don't Know Tags:

Number of Questionnaires Distributed: 0 Number of Questionnaires
Analyzed for Report: 46

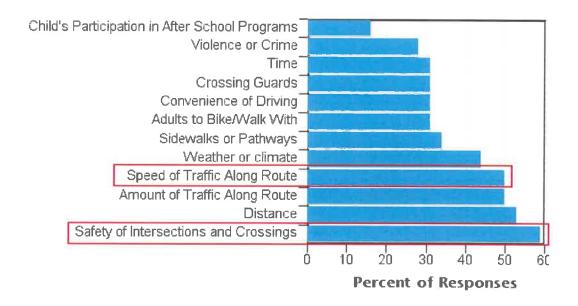
This report contains information from parents about their children's trip to and from school. The report also reflects parents' perceptions regarding whether walking and bicycling to school is appropriate for their child. The data used in this report were collected using the Survey about Walking and Biking to School for Parents form from the National Center for Safe Routes to School.

### Sex of children for parents that provided information

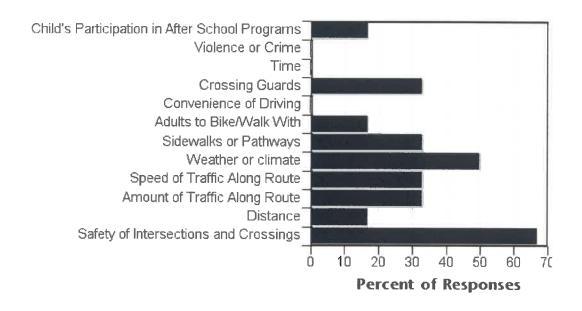


### Issues reported to affect the decision to not allow a child to walk or bike to/from school by

### parents of children who do not walk or bike to/from school



Issues reported to affect the decision to allow a child to walk or bike to/from school by parents of children who already walk or bike to/from school



### **Comments Section**

SurveyID	Comment	
1682752	The drop off lane, corner of 6th and Oak, desperately need a crossing guard cars come flying aroun the corner into the lot there	
1681860	Crossing guards could stAy at intersections longer. I also worry about my child's safety with the highway so close by. Kwik Trip makes traffic and presence of strangers close to school a huge concern for me.  Strangers at Kwik Trip plus highway so close spells SCARED PARENT in my book.	
1681877	Bike to school day, and walking school bus, are big hits for our kids.	
1681681	County 6 has a little too much traffic at too high of a speed for us to feel comfortable with our children walking/biking to school. They would have to be quite a bit older to ride a bike to school as things are now. If there were sidewalks the entire way from our house to school, we would probably consider it.	
1681686	The intersections have cross walks and stop signs in many places. Cars are very good about letting children cross the street in the mornings. I've never had a problem letting my children walk to school. People driving know school children are out and about between 7:30ish and 8. My 3rd grader walks my kindergartener to school some days and there's never been an issue. We don't live in Chicago or La Crosse where traffic is so horrible you wouldn't want your kids walking alone.	
1681700	Need significant improvement in drop off and parking	
1681727	We live in Hokah, and the drive to La Crescent is not safe for any of the kids to be biking in the morning.  The shoulder of the road is pretty much nonexistent and damaged, and there is too much traffic. I do appreciate how much our school promotes bike to school as an option.	
1681796	Live too far away to walk/ride bike to school	
1681887	We participate in the before and after school child care program so we drive our children there as we have to be to work earlier than they have to be to school. This is a big reason why our children do not walk/bike to school. We also live out past a main highway, which I do not trust my children to ride on without sidewalks without an adult, so they ride the bus if we do not drop them off at school.	
1681684	We live out of town. If there were a bike path off of the road between the Pine Creek golf course and town I would consider letting her walk or bike to school when she gets older. People drive too fast on Pine Creek Rd and on County Rd 6.	
1681923	I would like to have more police watch during the times before and after school. Too many people don't stop for the crossing Guard and I feel the kids are in danger cuz of the speed they travel on that road	
1682453	We don't walk or bike to school because of the distance. We are 10 miles from La Crescent	
1681689	Stoplight at S. 3rd and S. Oak would be nice	
1681697	My kindergartener rides his bike with his older sister who is in second grade.	

### **CRUCIFIXION SCHOOL**

### Parent Survey Report: One School in One Data Collection Period

School Name: Crucifixion Elementary School Set ID: 19082

School Group: ISD 300 Month and Year Collected: October 2019

School Enrollment: 0 Date Report Generated: 11/04/2019

% Range of Students Involved in SRTS: Don't Know Tags:

Number of Questionnaires Distributed: 0 Number of Questionnaires

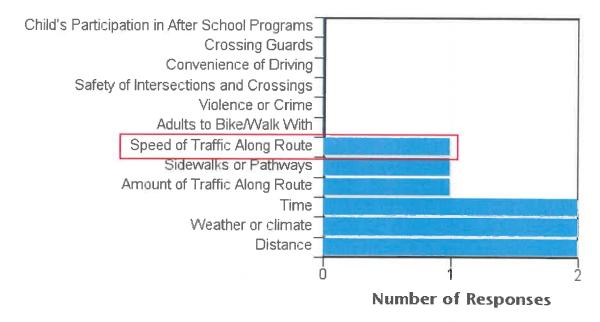
**Analyzed for Report: 3** 

This report contains information from parents about their children's trip to and from school. The report also reflects parents' perceptions regarding whether walking and bicycling to school is appropriate for their child. The data used in this report were collected using the Survey about Walking and Biking to School for Parents form from the National Center for Safe Routes to School.

\*\*Because less than 30 questionnaires are included in this report, each graph and table display counts rather than percentage information.

### Issues reported to affect the decision to not allow a child to walk or bike to/from

school by parents of children who do not walk or bike to/from school



Issues reported to affect the decision to allow a child to walk or bike to/from school by parents of children who already walk or bike to/from school

Issue	Child does not walk/bike to school	Child walks/bikes to school
Distance	2	0
Weather or climate	2	0
Time	2	0
Amount of Traffic Along Route	1	0
Sidewalks or Pathways	1	0
Speed of Traffic Along Route	1	0
Adults to Bike/Walk With	0	0
Violence or Crime	0	0
Safety of Intersections and Crossings	0	0

### SCHOOL SPEED ZONE

### Description

School speed zones reduce speed limits near schools, and alert motorists that they are driving near a school. School speed zones are defined as the section of road adjacent to school grounds, or where an established school crossing with advance school signs is present. Each road authority may establish school speed zone limits on roads under their jurisdiction. In general, school speed limits shall not be more than 30 mph below the established speed limit, and may not be lower than 15 mph. Speed violations within school speed zones are subject to a double fine.



### Resources

- MnDOT Minnesota's Best Practice for Pedestrian and Bicycle Safety Pages: 48-51
- MnDOT School Zone Speed Limits
- MN MUTCD: Part 7. Traffic Controls for School Areas Section: 7E

### Estimated Costs<sup>A, C</sup>

\$600 for sign and post in each direction

### SHARED USE PATH

### Description

Shared-use paths provide off-road connections for people walking and biking. Paths are often located along wa-

terways, abandoned or active railroad corridors, limited access highways, or parks and open spaces. Shared-use paths may also be located along high-speed, high-volume roads as an alternative to sidewalks and on-street bikeways; however, intersections with roadways should be minimal. Shared-use paths are generally very comfortable for users of all ages and abilities.

### Resources

- MnDOT Minnesota's Best Practice for Pedestrian and Bicycle Safety – Page: 2
- MnDOT Bikeway Facility Design Manual Pages: 123-168
- AASHTO Guide for the Development of Bicycle Facilities – Chapter 5



### Estimated Costs<sup>B</sup>

• \$55 per linear foot, 10 ft trail with aggregate base and associated costs



### **Reduced School Area Speed Limits**



### INTRODUCTION

Higher vehicle speeds are strongly associated with a greater likelihood of both a pedestrian crash and serious pedestrian injury. A 1999 National Highway Traffic Safety Administration study found that 5 percent of pedestrians are fatally injured when struck by a vehicle traveling at 20 mph or less. This compares with fatality rates of 40, 80, and nearly 100 percent when the pedestrian is struck at 30, 40, and 50 mph or more, respectively.<sup>1</sup>

Simply setting a reduced speed limit in a school zone is not likely to produce the entire desired speed reduction on its own. Tools used to assist in reducing vehicle speeds in school zones include police enforcement (for example, conventional, automated speed cameras, double fines), public awareness campaigns, and engineering countermeasures. Traffic engineering tools include school speed limit zones and traffic calming (such as curb extensions or raised crosswalks). See ITE Briefing Sheet—The Use of Traffic Calming Near Schools for more information. Applying a combination of measures in conjunction with a reduced speed limit is more likely to slow traffic.

### SCHOOL SPEED ZONES

Many parents and school and community groups request that the school speed limit be reduced by the greatest possible extent, with the expectation that motorists will obey the posted speed limit. While speeds are lower in a school speed limit zone as compared to when the posted regulatory speed is in effect, the average operating speed does not always reach the posted school speed limit even when combined with flashing lights. Research shows that the measured 85th percentile speed is about 5 to 7 mph higher than the posted school speed limit (see Figure 1). Therefore, while a school speed limit zone does have lower speeds, drivers still exceed the posted school speed limit.

Principal questions with reduced school speed limits include:

- Should speed limits be reduced for the school?
- What limit should be selected for the reduced school speed limit?
- Where should the reduced school speed limit zone begin and end?
- When should the reduced school speed limit be in effect?

The answers to these questions vary widely between states and individual jurisdictions. In many cases, some of these issues are settled by state statute or local ordinance. In the absence of state or local requirements, a jurisdiction should establish uniform procedures for considering the need for and the implementation of school speed limit zones.

### Should Speed Limits Be Reduced for the School?

The evaluation process needs to measure existing speeds on the street in question during school hours and determine whether speeds are higher than desired. The evaluation process should consider whether other actions might bring about the desired results more effectively.

A school speed limit zone typically is considered when children are crossing a roadway going to and from school. The zone may be considered on any street along the school frontage.

In some regions, school speed limit zones are generally not used when signalized or stop-controlled intersections are present at the school crossings, because their traffic control creates gaps that children can use to cross a roadway. A school speed limit zone may be installed or retained at a roundabout, at a signalized or stop-controlled intersection (for example, as a mitigation measure for concerns related to sight distance), or in other situations as determined by an engineering study.



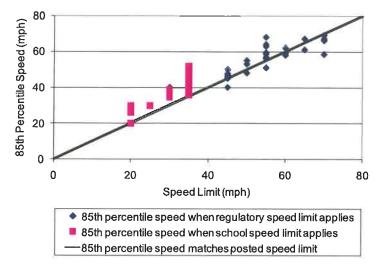


Figure 1. Measured 85th percentile speeds for school sites in Texas when reduced school speed limits are and are not active.<sup>2</sup>

Young

students need slower speeds in school zones because children do not have the same abilities as adults in:

- Seeing and evaluating traffic conditions because of their height;
- Processing information because of their limited peripheral vision and visual acuity;
- · Perceiving correctly the direction and sound of traffic; and
- Understanding the use of traffic control devices and crosswalks.

### What Speed Limit Should Be Selected for the School Zone?

The value used for the reduced school speed limit varies and is influenced by state and local laws. In some states, the value is the same for all reduced-speed school zones. In other locations, the value must fall within a range depending on the established speed limit or is entirely determined on a case-by-case basis. See Table 1 for examples of school speed limit zone values.

Table 1. A Sample of School Speed Limit Zone Values

State	Speed Limit in School Zone			
Arizona <sup>3</sup>	15 mph			
Delaware <sup>4</sup>	20 mph			
lowa <sup>5</sup>	No fixed value. Locations are evaluated on a case-by-case basis, usually 10 mph below posted speed limit.			
Massachusetts <sup>6</sup>	20 mph			
Minnesota <sup>7</sup>	No more than 30 mph below the established speed limit and no lower than 15 mph.			
Montana <sup>8</sup>	No fixed value. Locations are evaluated on a case-by-case basis.			
New Hampshire <sup>9</sup>	10 mph under the posted speed limit.			
New Jersey <sup>10</sup>	25 mph			
Ohio <sup>11</sup>	20 mph			
Oregon <sup>12</sup>	20 mph			
Pennsylvania 13	15 mph			
South Dakota <sup>14</sup>	15 mph			
Texas <sup>15</sup>	85 <sup>th</sup> Percentile Speed	Suggested School Speed Limit		
	Below 55 mph	Not more than 15 mph below 85th percentile speed or posted speed. Not to exceed a 35 mph school speed limit.		
	55 mph	20 mph below the 85th percentile speed or posted speed.		
	Greater than 55 mph	Use buffer zone to transition to a 35 mph speed limit.		
Washington 16	20 mph			



Speed studies provide a sound basis for selecting the proper speed limits for school zones. While it is not common practice to set speed limits significantly lower than the 85th percentile speed for regulatory speed zones, exceptions to this practice are often found in school zones.

Factual studies, reason, and sound engineering judgment, rather than emotion, should govern the final decision on the maximum deviation from the 85th percentile speed that will provide a reasonable and prudent school speed limit.

### Where Should the School Speed Limit Zone Begin and End?

In some states, the start and end of the school speed zone are established by state law. The *Manual on Uniform Traffic Control Devices* (MUTCD) states that the beginning point of a reduced school speed limit zone should be at least 200 ft. in advance of the school grounds, a school crossing, or other school-related activities. This 200-ft. distance should be increased, however, if the reduced school speed limit is 30 mph or higher. Researchers suggest the beginning of the school speed limit zone be based upon the school speed limit as follows:<sup>2</sup>

Table 2. Suggested beginning of school speed limit zone

School Speed Limit (mph)	Distance to Crosswalk or First Driveway (ft.)		
20	200		
25	200		
30	300		
35	400		

The location of the beginning and end of a school speed limit zone should be based on engineering judgment rather than the exact location of the school property line or fence. The school speed limit zone should be centered at the location(s) where children cross the roadway. The beginning and ending points should be selected with appropriate consideration for the location of other traffic control devices and/or features that could affect the effective implementation of the school speed limit zone.

School speed limit zones in urban areas, where speeds are 30 mph or less, may have school zones as short as 400 ft. School speed limit zones in rural areas, where regulatory posted speeds are typically 55 mph or more, will have longer school zones. The suggested length of school zones in rural areas is 1,000 ft.

Research has shown that speeds are approximately 1 mph higher for every 500 ft. driven within a school zone; therefore, longer school zones are associated with greater speed variability within the zone.<sup>2</sup>

### When Should a Reduced School Speed Limit Be in Effect?

Generally, the reduced school speed limit zones should be in effect only during specified intervals such as at the start and end of a school day. While the transportation agency responsible for the roadway operations and maintenance installs the signs, the times are generally set through consulting with the local school district. Close cooperation is needed between school officials and those who operate the roadway.



Figure 2. Example of school speed limit sign. Source: Aliyah N. Horton

In some locations, the intervals of operation of the flashing beacons (if used) on the school speed limit sign assemblies may be extended or revised for school events, as agreed upon by the school district and the entity responsible for operating the flashing beacons. In this case, the flashing beacons should be in operation only when there is an increase in vehicular activity and/or pedestrian or bicycle traffic in and around the roadway associated with the school event.

Research has also shown that operating speeds in an active school speed limit zone are at their lowest close to the start time or end time of the school day. Approximately 20 minutes past these times, the speed increases 1 mph. Automated flashers (example shown in Figure 2) used with reduced school speed limit assemblies must be coordinated with school officials for half-day sessions and early release to ensure that the reduced speed is in effect during school crossing times. Local traffic officials need to coordinate with school officials each year to ensure that the traffic control plans fit the school arrival and dismissal schedule.



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GUIDE FOR ESTABLISHING SCHOOL ZONE SPEED LIMITS

**JUNE 2023** 

CHAPTER 1 - BACKGROUND	1	<b>建</b>
Purpose	2	
Existing Resources, Statutes and Guidance	3	SE STATE
Research	6	
CHAPTER 2 - PROCESS FOR ESTABLISHING A SCHOOL ZONE SPEED LIMIT (SZSL)	10	
Step 1: Establish/review school route plan and crash history	11	112
Step 2: Select an appropriate School Zone Speed Limit	12	
Step 3: Engineering and Traffic Investigation	16	
Step 4: Design the School Zone	17	SERVICE TO
Step 5: Implementation	20	1
CHAPTER 3 - COMPLEMENTARY COUNTERMEASURES	22	
APPENDICES		
Appendix A – Engineering and Traffic Investigation	24	
Appendix B – MN MUTCD Figures	30	A
Appendix C – Sample School Route Plans	34	U
Appendix D – Reporting Worksheet	36	
Appendix E – Examples of Applying the Guidance	38	
Appendix F – Project Advisory Committee	47	
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### **CHAPTER 1 - BACKGROUND**

This document is an update to the 2012 "A Guide to Establishing Speed Limits in School Zones." Since the 2012 version, changes in research and best practices have occurred in relation to the safety of people walking and biking as well as school zone safety. Safe Routes to School (SRTS) resources and Safe Systems initiatives now offer more holistic evaluation of school area safety, stressing the importance of a layered and redundant safety approach.

This document provides guidance on setting appropriate School Zone Speed Limits (SZSLs). It is based on current best practices and provides a step-by-step process for identifying and implementing an appropriate SZSL as well as other important characteristics for designing a school zone. This document also provides links to valuable resources that are meant to compliment a SZSL. While research shows that appropriate SZSLs on their own have the ability to lower motorist speeds within school zones, the multifaceted approach covered in a SRTS plan is considered best practice for improving school area safety.

SZSLs should be considered just one of many steps for improving the safety of students, parents and staff walking, biking and rolling to school.

### **BACKGROUND**

### **PURPOSE**

### This document:

- Defines procedures that will satisfy the engineering and traffic investigation requirements of Minnesota Statute 169.14 subd 5a.
  - The statute states that "local authorities may establish a school speed limit within a school zone of a public or nonpublic school upon the basis of an engineering and traffic investigation as prescribed by the commissioner of transportation."
  - The school zone investigation set forth in this document constitutes the prescribed engineering and traffic investigation. This is a coordinated effort requiring several disciplines to accurately perform and process the duties described within this document.
- Is a resource for links to research and guidance on school zone safety and speed management countermeasures.
- Is intended for use by engineers and community leaders as a decision-making tool to assist in the setting of appropriate SZSLs.
- Provides a five-step process for establishing a SZSL.



This document does NOT replace the need for a Safe Routes to School (SRTS) Plan and comprehensive school transportation safety planning.

### **Five-Step Process for Establishing a SZSL**



### STEP 1

Establish or review a School Route Plan and crash history



### STEP 2

Select an appropriate SZSL



### STFP 3

Engineering and traffic (E&T) investigation (if needed)



### STEP 4

Design the school zone



STEP 5

Implementation

### BACKGROUND

### **EXISTING RESOURCES, STATUTES AND GUIDANCE**

As noted previously, a variety of resources, guidance and statutes exist that pertain to SZSLs. This section summarizes:

- Minnesota Safe Routes to School Program (MnSRTS)
- State statutes and definitions
- Changes to the Minnesota Manual on Uniform Traffic Control Devices (MN MUTCD)

### Minnesota Safe Routes to School

Minnesota Safe Routes to School is the primary resource recommended to assist with improving safety around schools. The MnSRTS vision is for youth in Minnesota to be able to safely, confidently, and conveniently walk, bike, and roll to school and in daily life. The program provides resources to improve safety, reduce traffic and improve air quality near schools through a multidisciplinary approach that is structured around the 6 E's:





- EVALUATION
- ENCOURAGEMENT
- EQUITY
- ENGAGEMENT
- ENGINEERING

School Zone Speed Limits covered in this guide are just one aspect of the Engineering portion of a SRTS program. Other engineering improvements can include geometric changes to the roadway, signing, crosswalk markings, etc. For best results, a multidisciplinary approach to school zones and school walksheds<sup>1</sup> should be considered to address all 6 E's to provide lasting safety benefits around schools. The Safe Routes to School Resource Index provides a wealth of information on designing, funding and evaluating safe streets and active transportation facilities around schools.

<sup>1</sup> A walkshed is the total walkable area from the school. It can be measured as a radius from the school or along a road or sidewalk network. Typical walkshed distances range from 0.5 miles to 1.5 miles for school age students dependent on age and ability.

#### State statutes and definition

The State of Minnesota has a variety of state statutes and definitions related to school zones. As of the date of this document, the following statutes and definitions are in effect which allow local roadway authorities to establish school zone speed limits.

#### SCHOOL SPEED LIMIT STATUTE

#### Statute 169.14.5a.(a)

"Local authorities may establish a school speed limit within a school zone of a public or nonpublic school upon the basis of an engineering and traffic investigation as prescribed by the commissioner of transportation<sup>2</sup>.

The establishment of a school speed limit on any trunk highway shall be with the consent of the commissioner of transportation. Such school speed limits shall be in effect when children are present, going to or leaving school during opening or closing hours or during school recess periods.

The school speed limit shall not be lower than 15 miles per hour and shall not be more than 30 miles per hour below the established speed limit on an affected street or highway."

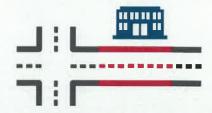
#### Statute 169.14.5a.(b)

"The school speed limit shall be effective upon the erection of appropriate signs designating the speed and indicating the beginning and end of the reduced speed zone. Any speed in excess of such posted school speed limit is unlawful. All such signs shall be erected by the local authorities on those streets and highways under their respective jurisdictions and by the commissioner of transportation on trunk highways."

#### **SCHOOL ZONE DEFINITION**

#### Section 169.14.5a.(c)

"(c) For the purpose of this subdivision, "school zone" means that section of a street or highway which abuts the grounds of a school where children have access to the street or highway from the school property or where an established school crossing is located provided the school advance sign prescribed by the Manual on Uniform Traffic Control Devices adopted by the commissioner of transportation pursuant to section 169.06 is in place. All signs erected by local authorities to designate speed limits in school zones shall conform to the Manual on Uniform Traffic Control Devices."



#### **DEFINITION OF A SCHOOL**

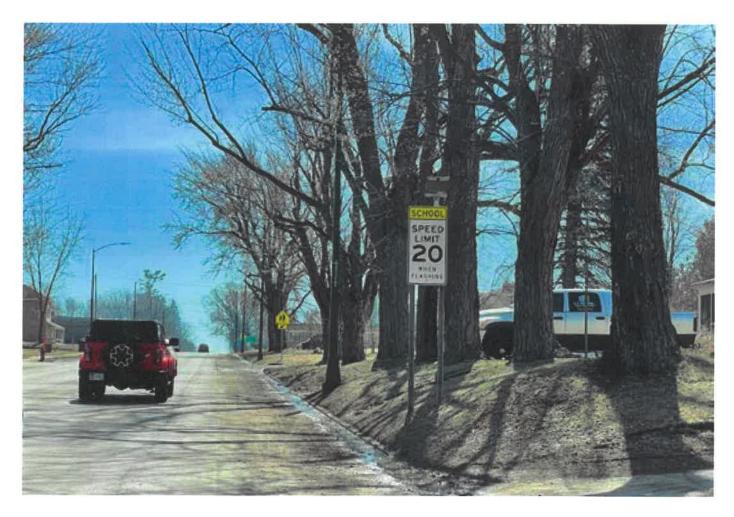
Minnesota Statute <u>120A.05</u> provides various definitions of schools such as elementary, middle and secondary schools, as well as school districts. The guidance in this document specifically applies to schools as defined by Statute 120A.05.

<sup>2</sup> This document and completion of the five-step process outlined in Chapter 2 satisfies the Engineering and Traffic Investigation requirements of Statute 169.14 subd 5a

Because the current statute on SZSLs leaves a large range of possible speeds, the Minnesota Department of Transportation (MnDOT) has developed this guide to assist in selecting an appropriate SZSL based on school zone characteristics and best practices. This document also provides guidance on the recommended elements of an engineering and traffic (E&T) investigation and when an E&T investigation is required. Regardless of the content put forth in this guide, all SZSLs must continue to comply with current state statutes at the time of installation. The user of this guide is responsible for reviewing and complying with current statutes at the time of use.

#### **Changes to the MN MUTCD**

The previous guide completed in 2012 was embedded within the MN MUTCD. In revision 10 of the MN MUTCD, the text was changed from a Standard statement to a Support statement. "A Guide to Establishing Speed Limits in School Zones-2011" was removed from Chapter 7E, Speed Limits in School Zones, but the guide is still referenced in the Section 7E.1. This guide replaces the 2012 guide as the "engineering and traffic investigation as prescribed by the Commissioner of Transportation" in Minnesota Statute 169.14 subd 5a.



#### RESEARCH

To ensure that the contents within this guide align with current best practices for SZSLs, a variety of research was conducted. The primary research for this guide has been published by MnDOT as Transportation Research Synthesis (TRS) number 2301³ and the key findings are summarized below. Additional resources reviewed and summarized include the 2022 update to the National Roadway Safety Strategy. In addition to the research, a Project Advisory Committee (PAC) provided expert guidance and feedback throughout the completion of this guide. Information on the PAC can be found in Appendix F.

#### School Zone Speed Limits (SZSLs) Transportation Research Synthesis (TRS2301)

The following summarizes the objectives and findings of the School Zone Speed Limits TRS published by MnDOT in January of 2023.

#### **Research Objectives:**

- To provide a summary of current research on the effectiveness of SZSLs in reducing vehicle speeds and the severity and frequency of crashes, particularly for vulnerable roadway users.
- A summary of current state statutes and guidance on SZSLs and additional resources on countermeasures for traffic calming and safety.

#### **Key Findings:**

#### **Policy Findings:**

- The majority of states (36) use a statute to define a SZSL, with over half of those states having a statutory SZSL set at 15, 20 or 25 mph.
- Many states allow jurisdictions to lower SZSLs below the statutory SZSL based on an engineering and traffic study.
- Minnesota statute allows for a larger range in SZSLs than most states.



#### Speed and Crash Reductions Findings:

- SZSLs are overall effective at reducing speeds and improving safety, but the extent of their impact is often limited and dependent on additional countermeasures such as the use of flashing beacons, differences in roadway geometry, etc.
- Speed differentials (the difference between the existing speed limit and the SZSL) should be limited to 5-10 mph, with no more than 15 mph without the use of speed limit buffers zones<sup>4</sup>.
- Additional countermeasures such as geometric changes to the roadway and flashing beacons, combined with SZSLs, have shown to result in a greater level of speed reduction.
- Properly set SZSLs appear to have limited to no unintended consequences<sup>5</sup>. Further information can be found in MnDOT TRS 2301.

Note: The findings are primarily applicable to lower speed limit settings. The available research on SZSLs on higher speed limit roadways is limited.

<sup>3. &</sup>lt;u>MnDOT TRS2301</u> -- School Zone Speed Limits (SZSLs): Effectiveness of SZSLs in reducing vehicle speeds, crash severity and crash frequency

<sup>4.</sup> Fitzpatrick, K., Brewer, M., Obeng-Boampong, K., Eun Sug, P., & Trout, N. (2009). Speeds in school zones (No. FHWA/TX-09/0-5470-1). Texas Transportation Institute.

<sup>5</sup> Unintended consequences would be findings such as increased vehicle speed, increase crash rates or lengthening of speed distribution curves.

#### **Trends and Policies**

The relationship between vehicle speed and the safety of vulnerable roadway users has been well documented both nationally and internationally. Vehicle speeds impact the amount of time needed to come to a complete stop<sup>6</sup> as well as the likelihood of a pedestrian being killed if hit by a motorist<sup>7</sup>. Reduction of vehicle speeds on local roads are a top priority at the national, state and local levels to reduce severe injury and fatal crashes for vulnerable users.

#### National Roadway Safety Strategy

In 2022, the United States Department of Transportation (US DOT) officially adopted the Safe System approach as it's National Roadway Safety Strategy. At the core of this strategy is a department-wide adoption of a comprehensive Safe System approach, which focuses on five key objectives: safer people, safer roads, safer vehicles, safer speeds, and post-crash care. A Safe System approach to safer speeds leverages road design and other infrastructure interventions, speed limit setting, education, and enforcement. Based on the guidance from the US DOT, speed limits should be set to provide a safe, consistent, and reasonable speed to protect drivers, other people in motor vehicles, and people walking, biking, and rolling along the roadway8.

<sup>8. &</sup>lt;u>USDOT National Roadway Safety Strategy</u>



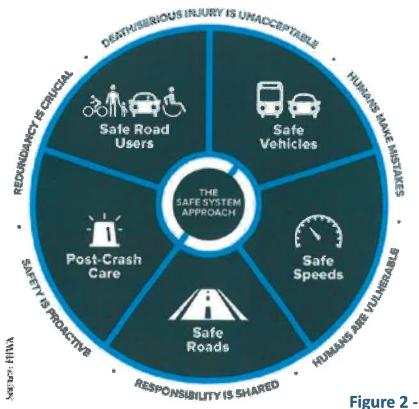
<sup>6. &</sup>quot;Reduced speeds allow motorists more time to avoid collisions. A motor vehicle traveling at 50 mph requires 424 feet to come to a complete stop, while a vehicle traveling at 25 mph requires only 152 feet." Slowing Down Traffic, Nat'l Ctr. For Safe Routes to School, <a href="http://guide.saferoutesinfo.org/engineering/slowing\_down\_traffic.cfm">http://guide.saferoutesinfo.org/engineering/slowing\_down\_traffic.cfm</a>.

<sup>7. &</sup>quot;A pedestrian hit by a vehicle traveling at 40 mph has an 85% likelihood of being killed, whereas the likelihood of death for a pedestrian hit by a vehicle traveling at 20 mph is only 5%." Safe Routes to Schools Guide, Nat'l Ctr. For Safe Routes to School (2011), 3-63, available at <a href="http://guide.saferoutesinfo.org/pdf/SRTS-Guide-full.pdf">http://guide.saferoutesinfo.org/pdf/SRTS-Guide-full.pdf</a>.

Other organizations or plans that emphasize the importance of managing speeds to improve safety include, but are not limited to: Vision Zero Network, US DOTs Safe Routes to School Programs, MinnesotaGO, Minnesota Statewide Speed Limit Vision and Toward Zero Deaths.



Cities across the country have begun to adopt 20 mph city-wide speed limits on local roads to set speed limits that prioritize the safety of the most vulnerable users and align with Safe System guidance.



Safe System approach (Source: US DOT's National Roadway Safety Strategy)

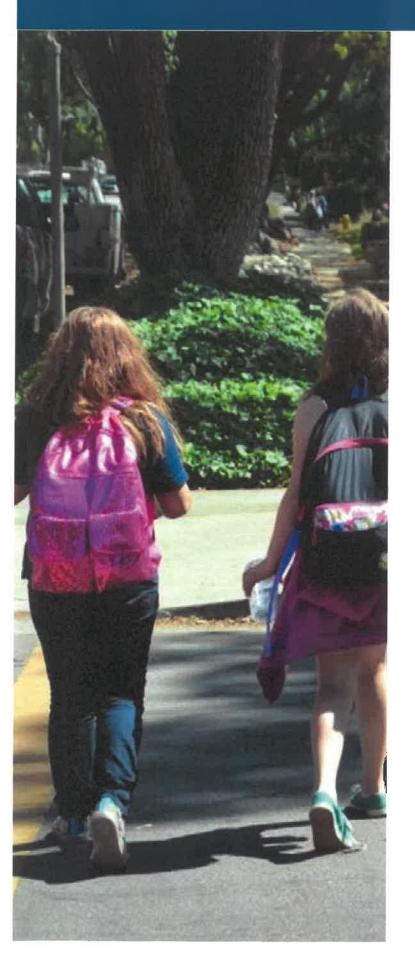
#### Minnesota Statewide Speed Limit Vision

In December of 2020, MnDOT adopted the following Minnesota Statewide Speed Limit Vision which states that: "Speed limits are set with an emphasis on all users with key influences of safety, engineering and surrounding land use. The vision is guided by three core values."

#### "Speed limits are:

- Affected by community context, land use, and road design
- Governed by voluntary compliance through education and accepted social norms
- Established through consistent technical evaluation and applied equitably across all communities."

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## CHAPTER 2 - PROCESS FOR ESTABLISHING A SCHOOL ZONE SPEED LIMIT (SZSL)

Based on the research finding from the previous section, SZSLs are safe and appropriate countermeasures to be considered by road authorities for reducing speeds and improving safety near schools. As also previously stated, SZSLs are just one aspect of school zone safety and a full SRTS plan is always recommended as a best practice for transportation safety planning around a school.

If a SZSL is desired, this chapter provides the five-step process for selecting and implementing a new SZSL. This section may also be used to evaluate and update an existing SZSL to meet best practices.



**STEP 1:** Establish or review a School Route Plan and crash history



**STEP 2:** Select an appropriate SZSL using the guidance chart (Figure A)



STEP 3: Identify if an engineering and traffic (E&T) investigation is needed and if additional safety and speed management countermeasures should be considered



STEP 4: Design the school zone



**STEP 5:** Implementation



#### STEP 1: ESTABLISH/REVIEW SCHOOL ROUTE PLAN AND CRASH HISTORY

The first step in the process is identifying the location of the school zone and reviewing a three to five-year crash history for the location in question. Steps two through five will help identify an appropriate SZSL, determine whether a full engineering and traffic (E&T) investigation is required, and aid in the design and implementation process.

#### 1.1 School Route Plan

A School Route Plan, not to be confused with a SRTS Plan, is a simple map that shows the locations where students typically cross to get to school when walking, biking or rolling. Coordination with school

administration and road authority is recommended to ensure that school zones are placed in the best locations. School routes and the school route plan are described in more detail in Section 7A.2 of the Minnesota Manual on Uniform Traffic Control Devices. Additional School Route Plan examples from the Dakota County School Safety Assessment and Minnesota SRTS information can be found in Appendix C of this guide.

#### 1.2 Crash History

A crash history should be obtained for all potential SZSL locations to understand any existing safety issues that are present. This information will be used in Step 2 to identify if a full E&T investigation is required and if additional countermeasures should be considered. Under certain situations, (outlined in Step 2) a full E&T investigation may not be necessary before implementing a SZSL.

#### STEP 1 CHECK-LIST

1.1 Establishing a School Route Plan:	☐ Identify preliminary location for school zone.		
If a School Route Plan or full SRTS plan already exists:  ☐ Review route plan to identify all crossings or access locations that students use to walk, bike or roll to school.  ☐ Identify preliminary location for school zone.  • School Name:	<ul> <li>School Name:</li> <li>Grades:</li> <li>Existing speed limit = mph</li> <li>Existing speed management countermeasures:</li> </ul>		
Grades: mph     Existing speed limit = mph     Existing speed management countermeasures:	1.2 Crash History  Does the obtained crash history show existing safety issues in the proposed school zone (particularly pedestrian or bicyclist involved crashes)?		
If a School Route Plan does not exist or is outdated:  ☐ Identify all crossings or access locations that students use to walk, bike or roll to school (see Appendix C for a sample map).	☐ Yes ☐ No  (Note: A review of the most recent three to five years of crash data is recommended for the entire area under consideration for a school zone speed limit)		





#### STEP 2: SELECT AN APPROPRIATE SCHOOL ZONE **SPEED LIMIT**

This section guides the selection of an appropriate SZSL, whether or not an E&T investigation is required, and if additional speed management countermeasures are recommended to improve driver speed compliance. The SZSL guidance is based on four elements that were identified during the research process (described in Chapter 1) as well as guidance from the Project Advisory Committee<sup>1</sup>. The elements that impact the effectiveness of SZSLs for reducing speeds and improving safety include:

- Selecting a SZSL that reduces severe injury and fatal crashes for vulnerable users.
- Minimizing the speed differential (5-10 mph preferred, not to exceed 15 mph).
- Using a SZSL buffer zone (a zone with an intermediate SZSL between higher and lower speed zones) or advance warning signage on highspeed roadways when the speed differential exceeds 15 mph.
- Redundancy with countermeasures to improve compliance and safety (such as changes in roadway geometry and enhanced signing).

Figure A is designed to provide recommendations for a range of appropriate SZSLs based on existing speed limits, state statutes and the four items listed above. Based on the desired SZSL, one of three conditions apply.

#### 1 A Project Advisory Committee (PAC) provided feedback throughout the development of this guide. Information on the PAC can be found in Appendix F.

#### Condition 1

SZSLs that fall within Condition 1 satisfy best practices for both lowering the SZSL and reducing the speed differential. This group has an existing speed limit of 30 mph or less and a speed differential of 10 mph or less. This group does not require an E&T investigation and may skip Step 3.

#### Condition 2

SZSLs that fall within Condition 2 have existing speed limits of 30 to 50 mph and keep the speed differential to 10 mph or less. SZSLs that fall within this group require an E&T investigation because they are not able to reduce the SZSL to 20 mph and keep a 10 mph or less differential.

#### Condition 3

SZSLs that fall within Condition 3 have a speed differential greater than 15 mph and are typically on higher speed roadways. This group of SZSLs require an E&T investigation in addition to the recommended use of SZSL buffer zone or advance warning signage. Further definition and guidance on SZSL buffer zones is provided in Step 4.

#### STEP 2 CHECK-LIST

2.1 Selected School Zone Speed Limit
The selected SZSL is mph
Complying with current state statutes
All SZSLs must continue to adhere to state statute regardless of the content posted within this document. The information below summarizes the existing Minnesota state statute [Statute 169.14.5a.(a)] for SZSLs at the time this document was published. The user of this document is responsible for reviewing and complying with current statutes at the time of use.
☐ The selected SZSL is not lower than 15 mph (additionally, MnDOT prohibits lower than 20 mph SZSLs on trunk highways)
AND  ☐ The selected SZSL is not more than 30 mph below the existing speed limit
2.2 Identify if any additional requirements apply to your location:
Using Figure A, which Condition box applies to the selected SZSL?
☐ Condition 1
☐ Condition 2 ☐ Condition 3
Is a SZSL buffer zone or advance warning signing recommended?  ☐ Yes (Step 4 provides further guidance)
□ No
Is a full Engineering and Traffic investigation required?  ☐ Yes
☐ No (Skip Step 3, the Engineering and Traffic investigation, and proceed to Step 4)
Should additional countermeasures be considered?
☐ Yes (Chapter 3 provides resources on speed management countermeasures)
□ No



Figure A - Appropriate SZSL ranges and requirements based on MN State Statute 169.14.5a and MnDOT identified best practices

55 60 65	
20	
45	
40	
35	
30	
25	
20	
EXIST. ROAD SPEED LIMIT	

# Range of School Zone Speed Limits

15-mph SZSL	CI	IJ	ខ							
20-mph SZSL		Image: Control of the	IJ	ខ	ខ					
25-mph SZSL			2	8	ខ	8				
30-mph SZSL				8	8	ខ	8	8	ខ	
35-mph SZSL					8	2	ខ	ខ	8	8

## Condition 1 (C1)

## Satisfies SZSL best practices

- unless there is a history of non- No E&T investigation required motorist crashes
- No SZSL buffer zone or advance warning signing required
- be considered if pedestrian safety is Additional countermeasures should the justification of the SZSL

## Condition 3 (C3)

Satisfies one, but not all best practices

Condition 2 (C2)

No SZSL buffer zone or advance

warning signing required

E&T investigation required

## without additional countermeasures Does not satisfy any best practices and/or warnings

- E&T investigation required
- SZSL buffer zone or advance warning signing required

should be considered regardless of

Additional countermeasures

crash history, if pedestrian safety

is the justification for the SZSL

should be considered regardless Additional countermeasures of crash history

# Summary of SZSL Best Practices:

- Selecting a SZSL that reduces crashes for vulnerable users
- mph is best, no more that 15 mph) existing speed limit and SZSL (5-10 Minimize differential between
  - Use of a SZSL buffer zone or there is a 15 mph or more .
- Redundancy with additional countermeasures

- the risk of severe injury and fatal
- advance warning signage when differential





#### **STEP 3: ENGINEERING AND TRAFFIC INVESTIGATION**

Based on findings of how other states approach and implement SZSLs and research findings of no measurable unintended consequences from implementing SZSLs, an E&T investigation may sometimes be necessary to implement a SZSL.

Conditions 2 and 3 of Figure A require an E&T investigation because they do not meet all best practices. The information collected and reviewed during an E&T investigation is meant to help identify additional safety and speed management countermeasures outlined in Chapter 3.

The following elements are recommended as part of an E&T investigation. Further definitions and guidance can be found in Appendix A.

## Sample Engineering and Traffic Investigation Elements

- Roadway geometry
- Traffic volume
- Pedestrian volume
- Parking
- Traffic control devices
- Sidewalks
- Fencing
- Crash history
- Speed study
- Land use and pedestrian generators
- Obstructions and vegetation

#### Other considerations

- Roadway classification
  - Intersection spacing
  - Driveway density
- Roadway owner
- Student enrollment/mode of transportation used



#### STEP 4: DESIGN THE SCHOOL ZONE

In addition to the SZSL, where and how the speed limit signs are placed can impact driver compliance. The following section outlines recommendations for location and length of school zones, indicating hours of operation, whether or not a SZSL buffer zone or advance warning signage are recommended on high-speed roadways, and signing allowed under the MN MUTCD.

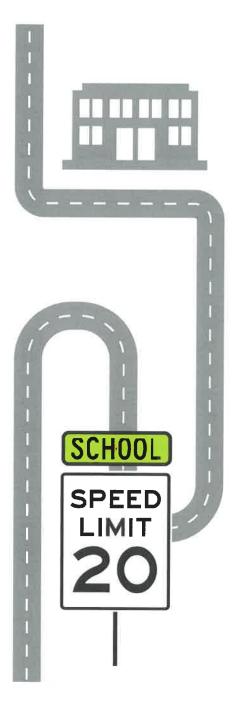
#### **Location and length of School Zone**

The placement and length of the school zone impacts driver compliance. The following summarizes best practices for SZSL signing placement.

- Length of School Zone: Research has shown that speeds are approximately 1 mph higher for every 500 ft. driven within a school zone; therefore, longer school zones are associated with greater speed variability and lower speed compliance<sup>2</sup>.
- Beginning of School Zone: The Minnesota Manual on Uniform Traffic Control Devices (MN MUTCD) states that "The beginning point of a reduced school speed limit zone should be at least 200 feet in advance of a school crossing, or other school related activities; however, this 200-foot distance should be increased if the reduced school speed limit is 30 mph or higher." The federal MUTCD provides further guidance stating "300 ft with a 30 mph SZSL and 400 ft with a 35 mph SZSL".

Safe Routes to School Guidance<sup>3</sup> from the National Center for Safe Routes to School identifies the following recommendations for SZSL sign placement.

- The location of the beginning and end of a school speed limit zone should be based on engineering judgment rather than the exact location of the school property line or fence.
- The school speed limit zone should be centered at the location(s) where students cross the roadway.
- The beginning and ending points should be selected with appropriate consideration for the location of other traffic control devices and/or features [such as visual clutter and vegetation] that could affect the implementation [or effectiveness] of the school zone speed limit.



<sup>2</sup> Fitzpatrick, K., M.A. Brewer, K.O. Obeng-Boampong, E. Park., and N.D. Trout. Speeds in School Zones. Report No. 0-5470-1. College Station, TX, USA: Texas A&M Transportation Institute, 2009.

<sup>3</sup> Reduced School Area Speed Limits, Safe Routes to School Brief Sheet, ITE

#### **Hours of operation**

Minnesota Statutes, Section 169.14.5a.(a), states that "such school speed limits shall be in effect when children are present, going to or leaving school during opening or closing hours or during school recess periods." It is up to the roadway authority to determine what signing type will be used to communicate hours of enforcement.

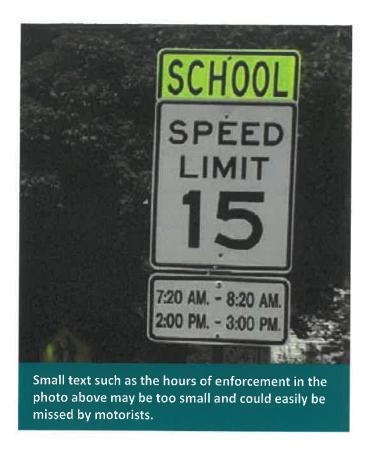
When a SZSL should be enforced is often cited by law enforcement as a challenge in the field, particularly when SZSLs are paired with "when children are present" signing. The use of flashing beacons (whether activated by school administration, by push button, or by timer) when paired with signing such as "when flashing" can help to clarify when the SZSL should be enforced. Additionally, coordination with local law enforcement may help the roadway authority better understand what works best in their community.

#### Signing and equipment

#### MN MUTCD

Part 7 of the MN MUTCD outlines the traffic control devices for school areas. All traffic control devices must conform to the requirements of the current Minnesota Manual on Uniform Traffic Control Devices (MN MUTCD). Attached as Appendix B is signing guidance related to SZSLs.

Mounting heights and visibility should be adjusted based on engineering judgement to ensure visibility by motorists. Signs hidden by vegetation or poles should be made visible. The sign placement and panel sizes need to be MN MUTCD compliant. Pavement markings and signs should be replaced if they no longer meet Mn MUTCD standards. Once the route plan has been developed, locations needing new or additional controls can be identified.



#### **Additional Controls**

In addition to the SZSL signs outlined in the MN MUTCD, other traffic control devices and markings may be used in school zones to communicate with motorists that a reduced speed is required. Some of these common traffic control strategies include:

- Overhead school flasher speed limit sign
- Changeable message sign
- Speed feedback sign or flashing speed signs
- School advance warning and crosswalk signs
- Pavement markings
- Left/right turn restrictions

Many of the sources listed in Table 3.1 of Chapter 3 provide additional information on the traffic control devices and markings listed above.

#### SZSL buffer zone and advance warning signs

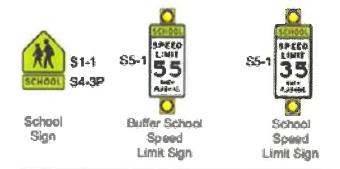
With the importance of maintaining smaller speed differentials (15 mph or less) and minimizing the SZSL (<= 35 mph), high-speed roadways may require additional measures to reduce speed limits and driver speeds. Section 7B.16 of the MN MUTCD states that "a Reduced School Speed Limit Ahead (S4-5 or S4-5a) sign should be used to inform road users of a reduced speed zone when the speed limit is being reduced by more than 10 mph or when engineering judgement indicates".

The Texas Department of Transportation (TxDOT) uses a buffered SZSL approach to step down to the desired SZSL closest to the school. This approach has not been widely applied or studied in Minnesota but may provide an opportunity to slow speeds on high-speed roadways when grade-separated crossings are not an option. Appendix E provides a sample application on a 60 mph roadway based on the Texas approach<sup>4</sup>. Roadway authorities interested in this approach are encouraged to reach out to the District Traffic Engineer at MnDOT for further guidance on implementation and evaluation.

Figure 3 – Reduced School Speed Limit Ahead Sign (S4-5, S4-5a), Source MN MUTCD



Figure 4 - SZSL buffer zone signs used on a 70 mph roadway by the TxDOT.



#### Excerpt from the Texas Guidelines for Traffic Control for School Areas:

"Any roadway with an 85th percentile speed greater than 55 mph is to have a buffer zone to transition to a 35-mph school speed limit. Buffer zones permit motorists to travel at the higher posted speeds through both zones when slower speeds are not necessary. An example of a buffer zone is where the regulatory posted speed limit is 70 mph and the school speed limit is 35 mph. In this case a buffer zone of 55 mph can be used on the approach and departure sides of the 35-mph school speed limit zone." (see Figure 4)

"The basic design for a Buffer School Zone (S5-1) sign is the same as for a regular School Speed Limit (S5-1) sign. The SCHOOL SPEED LIMIT XX WHEN FLASHING sign should be used where TxDOT is responsible for signing school speed limit zones and school buffer zones. The buffer zone beacons can be activated up to 5 minutes earlier than the school speed limit zone to eliminate drivers who pass through the buffer zone while it is inactive seeing active beacons only in the lower speed zone."

<sup>4</sup> FHWA/TX-09/TTI 0-5470-1 Report



#### **STEP 5: IMPLEMENTATION**

#### **Recording and Reporting**

As stated previously, the SZSL process set forth in this document constitutes the "engineering and traffic investigation as prescribed by the commissioner of transportation" under Minnesota Statute 169.14 subd 5a.(a). While it's not a requirement to record and report the process completed in this document to MnDOT, it's recommended that record of this process be completed and retained by the roadway authority. Reporting of this information to MnDOT is voluntary and will be used to help track and evaluate how school zone speed limits are being applied throughout the state.

Appendix D has been provided as a user-friendly reporting worksheet to keep for internal recording and/or to be sent to MnDOT for data collection. It is recommended that the reporting worksheet be signed by a duly certified professional engineer licensed in the State of Minnesota since SZSLs impact the health, safety, and welfare of the general public.

Additional recording and reporting steps are recommended, but not required to satisfy the E&T investigation as prescribed by state statute. These may include updating GIS files and tracking documents such as speed limit and signing databases to reflect changes.



#### **Education and Enforcement**

Education and enforcement can help enhance driver awareness and compliance and requires minimal budget. A public education campaign using school newspapers, parent bulletins and local news outlets can help build awareness and understanding for the importance of traffic calming near schools. Coordination with law enforcement to enforce the new SZSL is also important to the overall effectiveness of the posted SZSL.

#### **Evaluation**

While evaluation is not a required step to satisfy the engineering and traffic investigation as prescribed by the commissioner of transportation, it is recommended to understand the effectiveness of the SZSL. Suggested evaluation includes:

- Completion of a before-and-after speed study to evaluate the effectiveness of the SZSL (with voluntary reporting to MnDOT)
- A three or five-year review of crash history post implementation to evaluate the effectiveness of the SZSL (with voluntary reporting to MnDOT)

EDUCATION AND
ENFORCEMENT ARE
COST EFFECTIVE WAYS TO
IMPROVE COMPLIANCE





#### **Implementation**

Once issues have been identified and additional countermeasures selected, an implementation and funding plan is recommended to assist with follow through. When possible, this process should involve multiple stakeholder agencies such as the roadway authority, city, county or state officials, public safety, and school administrators to encourage follow through and funding acquisition. The reporting worksheet in Appendix D provides a location to document selected complementary countermeasures to improve compliance for SZSLs and lobby for funding. When necessary, temporary installations such as SRTS demonstration projects can provide short term solutions while additional countermeasures are being funded and constructed.

#### **COMPLEMENTARY COUNTERMEASURES**

### CHAPTER 3 - COMPLEMENTARY COUNTERMEASURES

Chapter 2 outlined the process for setting and implementing a SZSL, but as noted previously, a comprehensive Safe System approach is multifaceted and redundant. Additional safety and speed management countermeasures to complement a SZSL can improve compliance of a SZSL and further improve safety in and around a school zone. These

countermeasures typically fall within the "Engineering" section of a SRTS plan or the "Safer Roads" section of a Safe Systems approach. Example countermeasures include elements such as geometric changes to the roadway (bump outs, speed tables, center pedestrian refuge islands, etc) and enhanced signing such as flashing beacons and speed feedback signs.

Table 3.1 provides resources specific to Speed Management Countermeasures and Safe Routes to School best practices.

Table 3.1 – Resources for speed management countermeasures and SRTS best practices

DOCUMENT	YEAR	SUMMARY OF RESOURCE
FHWA Proven Safety Countermeasures website	_	https://highways.dot.gov/safety/proven-safety- countermeasures
Engineering Speed Management Countermeasures (FHWA-SA-14-101)	2014	Summarizes various speed reduction countermeasure, research findings and anticipated reduction in mean and 85th percentile speeds.
Mn <u>Safe Routes to School Resource</u> <u>Index</u>	_	Resource for facility design and other state guidance
Noteworthy Speed Management Practices (FHWA-SA-20-047)	2020	Information for practitioners covering eight case studies highlighting speed management practices.
NCHRP Synthesis 535: Pedestrian Safety Relative to Traffic-Speed Management	2019	Documents known strategies and countermeasures in confined, urban cities for pedestrian safety.
Minnesota's Best Practices for Pedestrian and Bicycle Safety	2021	Provides a mix of treatments that are considered proven strategies, along with emerging treatments that are considered experimental.
MnDOT Speed Safety Cameras TRS	2022	Literature review of before-and-after evaluations of Speed Safety Cameras.
Dakota County School Travel Safety Assessment	2021	Recommends improvements based on safety benefits relative to cost of the treatment.
FHWA Safe Transportation for Every Pedestrian (STEP)	_	A guide to help agencies select pedestrian crash countermeasures at uncontrolled intersections.
FHWA Traffic Calming ePrimer Toolbox	_	Descriptions, applicability, key effects and issues, and design considerations for traffic calming.
Methods and Practices for Setting Speed Limits (FHWA-SA-12-004)	2004	Best practices for location and signing for school zone speed limit, and advance warning assembly recommendations.

#### **COMPLEMENTARY COUNTERMEASURES**

#### **Speed Safety Cameras**

A Speed Safety Cameras (SSCs) TRS<sup>1</sup> was completed in 2022 to provide a summary of current research on the effectiveness of SSCs, also referred to as Automated Speed Enforcement (ASE). Three US programs were identified that evaluated the use of SSCs within school zones.

All three studies evaluated the impact of SSCs on driver speeds within school zones. Findings indicate that SSCs within school zones are effective at reducing mean vehicle speeds and threshold speeding<sup>2</sup>. The combination of SSCs and flashing beacons within a school zone provided added speed reduction benefits.

One study out of New York City evaluated the effect of SSCs on injury and fatal crashes within school zones<sup>3</sup>. Results from the study showed that SSCs within school zones resulted in a reduction in crashes, particularly those resulting in fatality.

Based on these findings and the 2021 addition of SSCs as a proven safety countermeasure by the Federal Highway Administration<sup>4</sup> (FHWA), it was determined that SSCs were an appropriate countermeasure to pair with SZSLs to improve speed compliance within school zones.

As of the publication date of this document, SSCs are not allowed under Minnesota law. Enabling legislation outlined in the TRS report would be needed before SSCs could be lawfully used within the state.

<sup>1</sup> MnDOT TRS2303 - Speed Safety Cameras

<sup>2</sup> Threshold speeding refers to motorists driving above the posted speed limit by a certain amount at which point the SSCs would issue a citation. Typically, the threshold speed for issuing a citation is speeds of greater than 10 mph, however, thresholds of greater than 5 mph have also been used on lower speed limit roadways.

<sup>3</sup> All school zones included in the NYC SSC study had speed limits of 35 mph or less. New York City DOT. (2014-2017). Automated speed enforcement program report. New York City: NYC DOT.

<sup>4</sup> FHWA-SA-21-070. (2021). Proven safety countermeasures, Speed Safety Cameras. US Department of Transportation, Washington DC.

### Houston County Agenda Request Form

Date Submitted:	April 30, 2024	Board Date:	May 7, 2024
Person requesting app	pointment with County Board:	Brian Pogodzinski	i
Issue: Board appproval needs approach.	ed to accept the scope of work to	conduct an aer	onautical survey for the RNAV
	ntation for the Board's Review: onts from Bolten and Menk.		
Justification:			
Action Requested: Approve Work Order #	4.		

	For Co	unty Use Only	
Reviewed by:	County Auditor Finance Director IS Director	County Attorney County Engineer Other (indicate dept)	Zoning Administrator Environmental Services
Recommendation:			
<u>Decision:</u>			

All agenda request forms must be submitted to Allison Wagner at BOC@co.houston.mn.us by 12:00 p.m. on Thursday in order to be considered for inclusion on the following week's agenda. The Board will review all requests and determine if the request will be heard at a County Board meeting.



Real People. Real Solutions.

7533 Sunwood Drive NW Suite 206 Ramsey, MN 55303-5119

> Ph: (763) 433-2851 Fax: (763) 427-0833 Bolton-Menk.com

April 30, 2024

Mr. Brian Pogodzinski, P.E. County Engineer Houston County 1124 East Washington Street Caledonia, MN 55921

RE: Houston County Airport (CHU)

AGIS Airport Airspace Analysis (AAA)

**BMI Work Order #4** 

**Proposal for Professional Services** 

Dear Ms. Pogodzinski,

The Houston County Airport desires an instrument approach to Runway 13/31. Runway 13/31 previously had an instrument approach, but it was terminated by the FAA due to unmitigated obstacles to Federal Aviation Regulation (FAR) Part 77 airspace surfaces. For the FAA to design a new approach to Runway 13/31, an Airport Geographic Information System (AGIS) Airport Airspace Analysis (AAA) survey is required. The AGIS AAA survey will collect all safety-critical data identified in FAA Advisory Circular 150/5300-18B General Guidance and Specifications for Submission of Aeronautical Surveys to NGS: Field Data Collection and Geographic Information System (GIS) Standards to allow FAA to design the new instrument approach.

The proposal for services includes the following tasks:

#### Task 1.0 Project Initiation and Coordination

#### Task 1.1 - Project Scoping and Contract Development

Bolton & Menk, Inc. (BMI) will coordinate with Houston County and FAA to develop the appropriate work scope, define tasks, lines of communication and establish project goals, objectives, or areas of interest. Project fees will be prepared using the final Proposal. An agreement will be developed from the Final Proposal and approved fees. The agreement will be provided to FAA for review and approval prior to a contract being executed. This task includes one (1) project scoping meeting with the County and FAA.

#### Task 1.2 - Client and Agency Meetings

Up to three (3) meetings with the County and FAA are included. It is anticipated the meetings will take place virtually and may cover the following topics or decision points:

1. AGIS AAA Statement of Work Review

Date: April 30, 2024

Page: 2 of 5

2. Safety-Critical Data Collection Review

3. Final AGIS AAA Report Submittal Review

In between meetings, BMI will maintain contact with the County, FAA, and MnDOT through e-mail, regular mail, phone, and deliverables. The County, FAA, and MnDOT will have the opportunity to review and comment on the project deliverables.

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This project requires aeronautical survey and mapping services to develop the airport's GIS dataset that meets the standards outlined in *FAA Advisory Circulars 150/5300-16A, 17C, and 18B*. Data collection will be accomplished for Runway 13/31 through a combination of field survey and remote-sensing technologies. The dataset will include both safety-critical (airspace, runway, and NAVAID data) and non-safety critical (planimetric and topographic mapping) elements.

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Consideration for specific included/excluded task will be based upon relevance to the Houston County Airport and direction from the FAA.

This task will be completed by the subconsultant as outlined in the attached scope of work provided by NV5 with the additional services provided by BMI as outlined below.

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BMI will provide quality control reviews of the AGIS Statement of Work (SOW) and Imagery/Remote Sensing Plan.

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Date: April 30, 2024

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BMI will upload the data based upon the results of the new survey. Safety critical data will be reviewed in accordance with *FAA Advisory Circular 150/5300-18B* and the FAA 2022 AGIS Policy Guidance.

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BMI will assist subconsultant by coordinating sponsor provided airport information and attribute data for inclusion with completion of the AGIS data. BMI will provide quality control reviews of the completed Final Survey File and prepare the Final Project Report for AGIS website upload.

#### Task 3.0 Airport Layout Plan (ALP) Sheet Update

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This sheet update will be limited to:

Date: April 30, 2024

Page: 4 of 5

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Date: April 30, 2024

Page: 5 of 5

Sheet 13 Airport Property Data Tables Exhibit "A" will be renumbered to Sheet 12
 Airport Property Data Tables Exhibit "A". Changes will be documented with dates in the revision block.

#### Consideration

The services described in this proposal shall be assessed on a lump sum basis of \$ 94,000.00.

FAA Share 90% \$ 84,600.00
 State Share 5% \$ 4,700.00
 County Share 5% \$ 4,700.00

Bolton & Menk, Inc. puts a high priority on ensuring that our company's efforts are consistent with our clients' needs. If you find this proposal acceptable, please return to me a signed and dated copy of this document.

Bolt	on & Menk, Inc.		
2	Bilasparman		
Silas	Parmar, P.E.		
	tion Project Manager ***************************	***********	*****
Auth	norization and acceptance of this letter pro	pposal.	
Hous	ston County, Minnesota		
By:			
-	Mr. Brian Pogodzinski	Date	
	County Engineer		



February 2, 2024

Christopher M Gardner Bolton & Menk, Inc. 12224 Nicollet Ave Burnsville, MN 55337

Project: 040855 | Aeronautical Obstruction Survey – Houston County Airport (CHU)

Dear Mr. Gardner,

This summary of work describes our understanding of the scope of work and services required for an aeronautical obstruction survey at the Houston County Airport (CHU) located in Caledonia, MN. The project will be done in compliance with Airports GIS Program policies and will include an airport airspace analysis for vertically guided operations for existing Runway 13/31. The Advisory Circulars identified below detail the data collection requirements and accuracies for the project and the verification process by the Federal Aviation Administration (FAA) and the National Geodetic Survey (NGS).

- → AC 150/5300-16B "General Guidance and Specifications for Aeronautical Surveys: Establishment of Geodetic Control and Submission to the National Geodetic Survey"
- → AC 150/5300-17C, Change 1 "Standards for Using Remote Sensing Technologies in Airport Surveys"
- → AC 150/5300-18B, Change 1 "General Guidance and Specifications for Submission of Aeronautical Surveys to NGS: Airport Survey Data Collection and Geographic Information System (GIS) Standards"

#### Summary of Work

We understand that the purpose of this project is to accomplish an FAA Airport Airspace Analysis Survey for all surfaces defined in FAA Advisory Circular 150/5300 - 18B: 2.7.1.1 Runways with Vertical Guidance.

In addition, and per FAA Policy Guidance issued 9/22/22, we will be reviewing the existing Obstacle Authoritative Source (OAS) obstacle data (11 existing objects in OAS within 18B surfaces) and potentially removing obstacles as a part of this project. Any obstacle removals will be completed by NV5 Geospatial using the FAA's Runway Airspace Management tool.

For this project, we will acquire new vertical stereo digital imagery at a physical image scale of 1"=3,846' of the obstruction surface areas and 1"=1,923 of the VGPS surfaces area. The aerial imagery will cover all of the VG Airspace Analysis surfaces using a Digital Mapping Camera III (DMC-III) camera system, or comparable, during leaf-on conditions.

From the 1"=3,846' imagery, we will produce the following:

- Limited landmark feature planimetric mapping
- Color digital orthophotos with a 1.0' pixel resolution
- Identification and mapping of obstruction obstacles for all of the VG surfaces

From the 1"=1,923' imagery, we will produce the following:

Identification and mapping of obstruction obstacles for the VGRPS, VGPCS, and VGPS surfaces

#### **Quality Standards**

The project has been designed to conform to the National Map Accuracy Standards for limited landmark planimetric feature collection and twelve inch orthophoto production. In addition, we ensure that the photogrammetric mapping will meet all FAA and NGS standards. We will exercise reasonable care and will conform to the standards of practice ordinarily used by the photogrammetric profession.



#### **Project Area**

The project area encompasses all of Houston County Airport (CHU) inclusive of the obstruction surfaces as defined in the attached exhibits.

#### Control Surveying

The aerial photography will be completed with ABGPS control which will be used for the base control for the geo-referencing of the aerial imagery. NV5 Geospatial will process the ABGPS data using COR stations and reference it to the project control datums:

Horizontal: North American Datum of 1983/2011 (NAD 83(2011)), in the MN State Plane Coordinate System, South Zone, US survey feet.

Vertical: North American Vertical Datum of 1988 (NAVD 88)

Bolton & Menk will complete all of the remaining on-site ground control surveys, including:

- Geodetic control validation of the existing airport PACS and SACS stations or establish temporary airport control according to the guidelines established in AC 150/5300-16B
- Establishing all necessary photo-identifiable ground control and FAA mandated check-points required to validate the ABGPS and IMU control.
- Collection of the airport runway end positions
- Collection of vertical profile for runway
- Collection of the position, elevation, and where required the appropriate navigational aid perpendicular
  point of all electronic and visual navigational aids (NAVAIDS) located on the airport and associated with
  any current instrument approach servicing the airport
- All other tasks, not specifically listed above, as outlined in FAA AC-18B, Table 2-1 "Survey Requirements Matrix" for Instrument Procedure Development.
- Final Survey Report

#### Orthophoto Mapping

We will use the control solution and imagery to generate a Digital Elevation Model (DEM) of the VG surfaces. The imagery will be processed into color digital orthophotos using the aforementioned DEM to rectify the images. Orthophotos for the entire project area will be developed with a 1.0' pixel resolution. Orthos will be delivered in a GeoTIFF file format.

#### 18B Obstruction Surveys

The Obstructions Surfaces to be uploaded to ADIP will satisfy the requirements of AC 150/5300-18B:

 2.7.1.2 Analysis of Existing Runway 13/31 with Vertically Guided Operations (Surfaces include the VGRPS, VGPCS, VGAS, VGPS, VGATS, VGHS and VGCS)

The specific types and quantities of obstructions for each surface are outlined and clearly defined for the particular surface in each circular section. Any obstructions that meet the requirement of the circular, but are of a nature that elevations at the highest point of the obstruction are virtually impossible to read through photogrammetric methods (cell tower, electrical tower, etc.), will be identified and relayed to the surveyor to initiate field surveyed elevations for the obstruction.

The obstruction delivery will include the limited landmark planimetric feature collection.

The final data will be uploaded to ADIP in ESRI Shapefile format.



#### Production Schedule

We will work with you to finalize a mutually agreeable schedule for the project. We will make a reasonable effort to maintain the agreed-upon schedule. However, should the project be interrupted by technical problems beyond our control, including control deficiencies or map file re-deliveries rescheduling may become necessary.

#### Deliverables

NV5 Geospatial will submit all data collected and associated required deliverable in the formats specified in the appropriate advisory circulars to the FAA Office of Airports, Airports Surveying-GIS Program. All data submissions to the FAA will be through the program's web site at https://adip.faa.gov/agis/public/.

The AC 150/5300-17C project data deliveries that will not be submitted through the web site will be delivered on external hard drives or DVDs.

The 18B deliverables that will be uploaded to ADIP include:

- Imagery Plan and Survey and Quality Control Plan
- Image Delivery (sent to FAA)
- Color digital orthophotos (sent to FAA)
- Digital limited landmark detail outside the airport
- Obstruction survey data for Existing Runway 13/31
- Photogrammetrically derived and surveyed attributes in defined format
- Surveyed ends and profile for runway
- NAVAID data
- FGDC compliant metadata
- Final Report

We will deliver the following items to Bolton & Menk:

- Color digital orthophotos with a 1.0' pixel resolution in GeoTIFF (project area)
- 2 color enlargements (30"x40") covering the airport and surrounding area (mounted/laminated/framed)

All digital files will be delivered on external hard drive, FTP or email.

#### Cost and Payment Terms

Compensation for the above services will be provided as a lump sum cost of U.S. \$48,329.00.

#### Client Responsibilities

The successful and timely completion of this project is dependent upon a number of elements and work tasks, some of which involve participation by Bolton & Menk. You will be responsible for designating a representative for the project who will have the authority to transmit instructions, receive information, and make timely decisions with respect to the services provided by NV5 Geospatial.

#### **NV5** Geospatial Representative

Jill Mahoney, Project Manager and Marlin Zook, Technical Manager, will represent us during the performance of the services to be provided under this agreement. Each has the authority to transmit and receive instructions and make decisions with respect to the services. Each is authorized to commit the necessary resources towards completing the services described herein.



We look forward to working with you and your staff to complete this project in a timely and cost effective manner. Should you have any questions, please call our office at 803-351-3136 or email me at the address shown below.

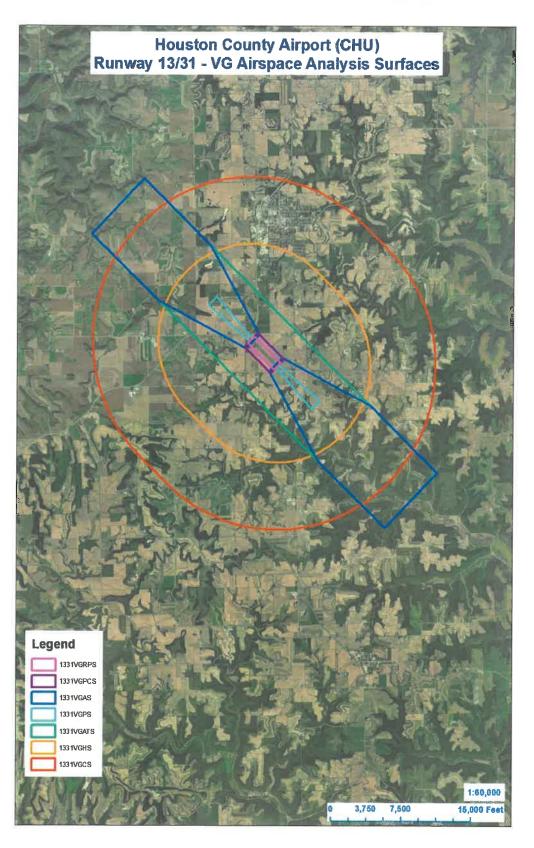
Sincerely,

NV5 Geospatial, Inc

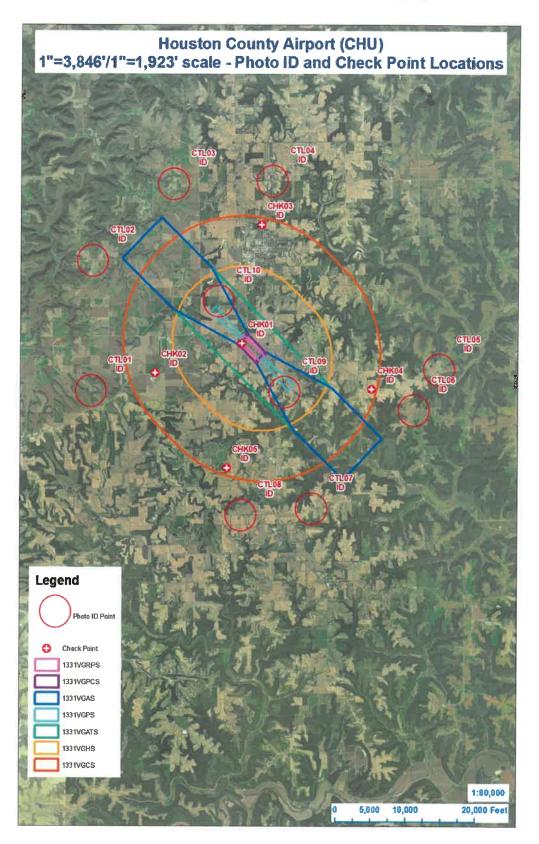
David Grigg

Aviation Program Director David.Grigg@nv5.com

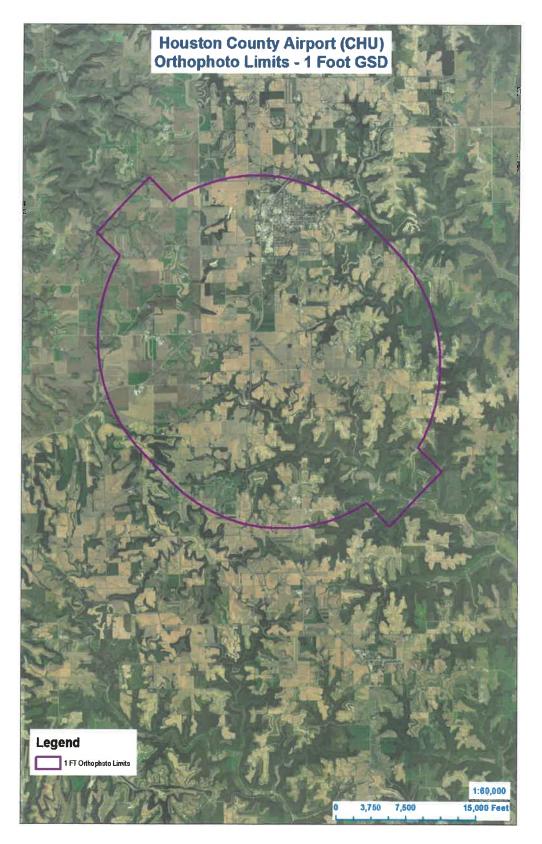














#### **PROJECT FEE ESTIMATE**

CLIEN	NT:	Houston County, MN					DATE:		4/30/2024
PROJ	ECT:	Houston County Airport (CHU): AGIS Airport	Airspace Ana	lysis			PREPARED B	Y:	SP
				Esti	mated Perso	n Hours Requ	iired		
Task		Task Description	Sr. Eng.	Sr. Planner	Planner	GIS Tech.	Surveyor	Admin.	Totals
1	Projec	t Initiation and Coordination							
1.1	Projec	t Scoping and Contract Development	2	2	0	0	0	1	5
1.2	Client	and Agency Meetings	8	16	4	0	0	0	28
1.3	Grant	Applicaton	2	4	0	0	0	1	7
1.4	Grant	Closeout	2	8	0	0	0	8	18
2	AGIS A	Airport Airspace Analysis (AAA)							
2.1	FAA A	GIS Project Initiation	1	4	0	0	0	0	5
2.2	Projec	t Geodetic Control	1	4	0	0	40	0	45
2.3	Planin	netric and Topographic Basemaps	1	8	0	0	0	0	9
2.4	Runwa	ay and Navigational Aides Survey	1	8	0	0	40	0	49
2.5	Airpor	t Airspace Analysis	1	8	0	0	0	0	9
2.6	FAR Pa	art 77 Obstruction Analysis	1	4	12	0	0	0	17
2.7	Updat	e Safety Critical Data	1	4	4	0	4	0	13
2.8	Non-S	afety Critical Data Submission	1	4	4	0	4	0	13
2.9	FAA A	GIS Data Processing and Submission	1	4	0	0	4	0	9
3	Airpor	t Layout Plan (ALP) Sheet Update						وساتاني	
3.1	ALP Sh	neet Update	4	20	40	0	0	0	64
		Total Person Hours	27	98	64	0	92	10	291
		Direct Labor Rate	\$57.00	\$40.00	\$30.00	\$30.00	\$40.00	\$27.00	
		Total Direct Labor Cost	\$1,539.00	\$3,920.00	\$1,920.00	\$0.00	\$3,680.00	\$270.00	\$11,329.00
		Overhead Rate 2.1373	\$3,289.30	\$8,378.22	\$4,103.62	\$0.00	\$7,865.26	\$577.07	\$24,213.47
		Subtotal Labor Cost							\$35,542.47
		Direct Expenses (10% Markup)							
			AGIS Survey	- NV5					\$53,162.00
		Total Expenses							\$53,162.00
		Fixed Fee 15% x Subtotal Labor Cost							\$5,331.37
		Total Project Fee							\$94,036.00

## Houston County Agenda Request Form

Date Submitted:	April 30, 2024	Board Date:	May 7, 2024
Person requesting appo	intment with County Board:	Brian Pogodzinsk	i
Issue:			
Board appproval needed approach.	d to accept the scope of work to	conduct an aer	onautical survey for the RNAV
Attachments/Documen	tation for the Board's Review:		
Scope of work documen	ts from Bolten and Menk.		
Justification:			
Action Requested:			
Approve Work Order #4			

	For Co	unty Use Only	
Reviewed by:	County Auditor Finance Director IS Director	County Attorney County Engineer Other (indicate dept)	Zoning Administrator Environmental Services
Recommendation:			
<u>Decision:</u>			

All agenda request forms must be submitted to Allison Wagner at BOC@co.houston.mn.us by 12:00 p.m. on Thursday in order to be considered for inclusion on the following week's agenda. The Board will review all requests and determine if the request will be heard at a County Board meeting.



Real People. Real Solutions.

7533 Sunwood Drive NW Suite 206 Ramsey, MN 55303-5119

> Ph: (763) 433-2851 Fax: (763) 427-0833 Bolton-Menk.com

April 30, 2024

Mr. Brian Pogodzinski, P.E. County Engineer Houston County 1124 East Washington Street Caledonia, MN 55921

RE: Houston County Airport (CHU)

AGIS Airport Airspace Analysis (AAA)

BMI Work Order #4

**Proposal for Professional Services** 

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Name: Houston County Airport: AGIS Airport Airspace Analysis (AAA)

Date: April 30, 2024

Page: 3 of 5

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Name: Houston County Airport: AGIS Airport Airspace Analysis (AAA)

Date: April 30, 2024

Page: 5 of 5

Sheet 13 Airport Property Data Tables Exhibit "A" will be renumbered to Sheet 12
 Airport Property Data Tables Exhibit "A". Changes will be documented with dates in the revision block.

### Consideration

The services described in this proposal shall be assessed on a lump sum basis of \$ 94,000.00.

FAA Share 90% \$ 84,600.00
 State Share 5% \$ 4,700.00
 County Share 5% \$ 4,700.00

Bolton & Menk, Inc. puts a high priority on ensuring that our company's efforts are consistent with our clients' needs. If you find this proposal acceptable, please return to me a signed and dated copy of this document.

Rolta	on & Menk, Inc.		
	ilaspaman		
Silas	Parmar, P.E.		
Aviat	tion Project Manager		
***	**********	************	***
Auth	orization and acceptance of this letter pro	pposal.	
Hous	ston County, Minnesota		
Ву:			
	Mr. Brian Pogodzinski	Date	
	County Engineer		



February 2, 2024

Christopher M Gardner Bolton & Menk, Inc. 12224 Nicollet Ave Burnsville, MN 55337

Project: 040855 | Aeronautical Obstruction Survey - Houston County Airport (CHU)

Dear Mr. Gardner.

This summary of work describes our understanding of the scope of work and services required for an aeronautical obstruction survey at the Houston County Airport (CHU) located in Caledonia, MN. The project will be done in compliance with Airports GIS Program policies and will include an airport airspace analysis for vertically guided operations for existing Runway 13/31. The Advisory Circulars identified below detail the data collection requirements and accuracies for the project and the verification process by the Federal Aviation Administration (FAA) and the National Geodetic Survey (NGS).

- → AC 150/5300-16B "General Guidance and Specifications for Aeronautical Surveys: Establishment of Geodetic Control and Submission to the National Geodetic Survey"
- → AC 150/5300-17C, Change 1 "Standards for Using Remote Sensing Technologies in Airport Surveys"
- → AC 150/5300-18B, Change 1 "General Guidance and Specifications for Submission of Aeronautical Surveys to NGS: Airport Survey Data Collection and Geographic Information System (GIS) Standards"

# Summary of Work

We understand that the purpose of this project is to accomplish an FAA Airport Airspace Analysis Survey for all surfaces defined in FAA Advisory Circular 150/5300 - 18B: 2.7.1.1 Runways with Vertical Guidance.

In addition, and per FAA Policy Guidance issued 9/22/22, we will be reviewing the existing Obstacle Authoritative Source (OAS) obstacle data (11 existing objects in OAS within 18B surfaces) and potentially removing obstacles as a part of this project. Any obstacle removals will be completed by NV5 Geospatial using the FAA's Runway Airspace Management tool.

For this project, we will acquire new vertical stereo digital imagery at a physical image scale of 1"=3,846' of the obstruction surface areas and 1"=1,923 of the VGPS surfaces area. The aerial imagery will cover all of the VG Airspace Analysis surfaces using a Digital Mapping Camera III (DMC-III) camera system, or comparable, during leaf-on conditions.

From the 1"=3,846' imagery, we will produce the following:

- Limited landmark feature planimetric mapping
- Color digital orthophotos with a 1.0' pixel resolution
- Identification and mapping of obstruction obstacles for all of the VG surfaces

From the 1"=1,923' imagery, we will produce the following:

Identification and mapping of obstruction obstacles for the VGRPS, VGPCS, and VGPS surfaces

# Quality Standards

The project has been designed to conform to the National Map Accuracy Standards for limited landmark planimetric feature collection and twelve inch orthophoto production. In addition, we ensure that the photogrammetric mapping will meet all FAA and NGS standards. We will exercise reasonable care and will conform to the standards of practice ordinarily used by the photogrammetric profession.



# Project Area

The project area encompasses all of Houston County Airport (CHU) inclusive of the obstruction surfaces as defined in the attached exhibits.

# **Control Surveying**

The aerial photography will be completed with ABGPS control which will be used for the base control for the geo-referencing of the aerial imagery. NV5 Geospatial will process the ABGPS data using COR stations and reference it to the project control datums:

Horizontal: North American Datum of 1983/2011 (NAD 83(2011)), in the MN State Plane Coordinate System, South Zone, US survey feet.

Vertical: North American Vertical Datum of 1988 (NAVD 88)

Bolton & Menk will complete all of the remaining on-site ground control surveys, including:

- Geodetic control validation of the existing airport PACS and SACS stations or establish temporary airport control according to the guidelines established in AC 150/5300-16B
- Establishing all necessary photo-identifiable ground control and FAA mandated check-points required to validate the ABGPS and IMU control.
- Collection of the airport runway end positions
- Collection of vertical profile for runway
- Collection of the position, elevation, and where required the appropriate navigational aid perpendicular
  point of all electronic and visual navigational aids (NAVAIDS) located on the airport and associated with
  any current instrument approach servicing the airport
- All other tasks, not specifically listed above, as outlined in FAA AC-18B, Table 2-1 "Survey Requirements Matrix" for Instrument Procedure Development.
- Final Survey Report

# Orthophoto Mapping

We will use the control solution and imagery to generate a Digital Elevation Model (DEM) of the VG surfaces. The imagery will be processed into color digital orthophotos using the aforementioned DEM to rectify the images. Orthophotos for the entire project area will be developed with a 1.0' pixel resolution. Orthos will be delivered in a GeoTIFF file format.

# 18B Obstruction Surveys

The Obstructions Surfaces to be uploaded to ADIP will satisfy the requirements of AC 150/5300-18B:

 2.7.1.2 Analysis of Existing Runway 13/31 with Vertically Guided Operations (Surfaces include the VGRPS, VGPCS, VGAS, VGPS, VGATS, VGHS and VGCS)

The specific types and quantities of obstructions for each surface are outlined and clearly defined for the particular surface in each circular section. Any obstructions that meet the requirement of the circular, but are of a nature that elevations at the highest point of the obstruction are virtually impossible to read through photogrammetric methods (cell tower, electrical tower, etc.), will be identified and relayed to the surveyor to initiate field surveyed elevations for the obstruction,

The obstruction delivery will include the limited landmark planimetric feature collection.

The final data will be uploaded to ADIP in ESRI Shapefile format.



# Production Schedule

We will work with you to finalize a mutually agreeable schedule for the project. We will make a reasonable effort to maintain the agreed-upon schedule. However, should the project be interrupted by technical problems beyond our control, including control deficiencies or map file re-deliveries rescheduling may become necessary.

# Deliverables

NV5 Geospatial will submit all data collected and associated required deliverable in the formats specified in the appropriate advisory circulars to the FAA Office of Airports, Airports Surveying-GIS Program. All data submissions to the FAA will be through the program's web site at https://adip.faa.gov/agis/public/.

The AC 150/5300-17C project data deliveries that will not be submitted through the web site will be delivered on external hard drives or DVDs.

The 18B deliverables that will be uploaded to ADIP include:

- Imagery Plan and Survey and Quality Control Plan
- Image Delivery (sent to FAA)
- Color digital orthophotos (sent to FAA)
- Digital limited landmark detail outside the airport
- Obstruction survey data for Existing Runway 13/31
- Photogrammetrically derived and surveyed attributes in defined format
- Surveyed ends and profile for runway
- NAVAID data
- FGDC compliant metadata
- Final Report

We will deliver the following items to Bolton & Menk:

- Color digital orthophotos with a 1.0' pixel resolution in GeoTIFF (project area)
- 2 color enlargements (30"x40") covering the airport and surrounding area (mounted/laminated/framed)

All digital files will be delivered on external hard drive, FTP or email.

# Cost and Payment Terms

Compensation for the above services will be provided as a lump sum cost of U.S. \$48,329.00.

# Client Responsibilities

The successful and timely completion of this project is dependent upon a number of elements and work tasks, some of which involve participation by Bolton & Menk. You will be responsible for designating a representative for the project who will have the authority to transmit instructions, receive information, and make timely decisions with respect to the services provided by NV5 Geospatial.

# **NV5** Geospatial Representative

Jill Mahoney, Project Manager and Marlin Zook, Technical Manager, will represent us during the performance of the services to be provided under this agreement. Each has the authority to transmit and receive instructions and make decisions with respect to the services. Each is authorized to commit the necessary resources towards completing the services described herein.



We look forward to working with you and your staff to complete this project in a timely and cost effective manner. Should you have any questions, please call our office at 803-351-3136 or email me at the address shown below.

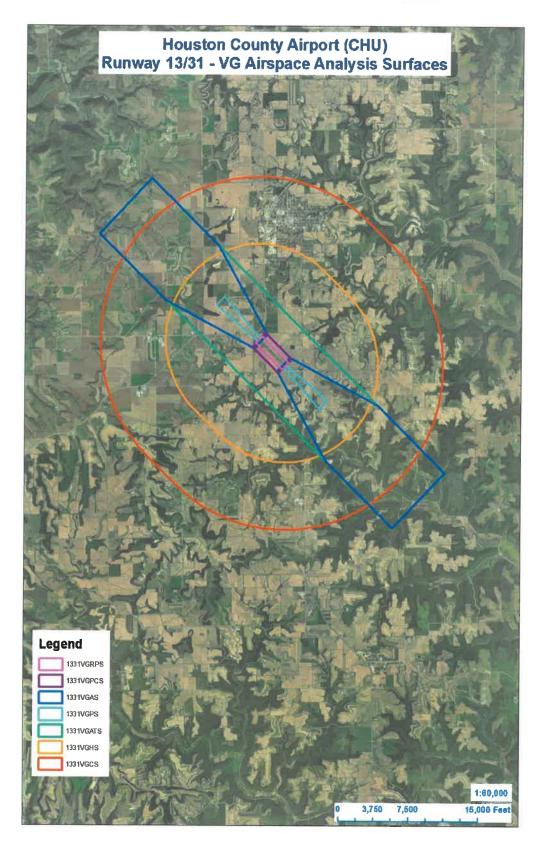
Sincerely,

NV5 Geospatial, Inc

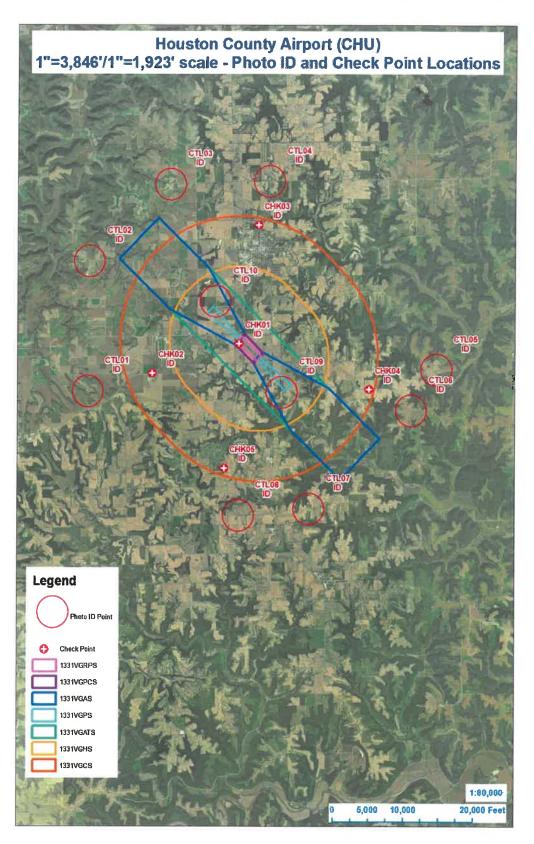
David Grigg

Aviation Program Director David.Grigg@nv5.com

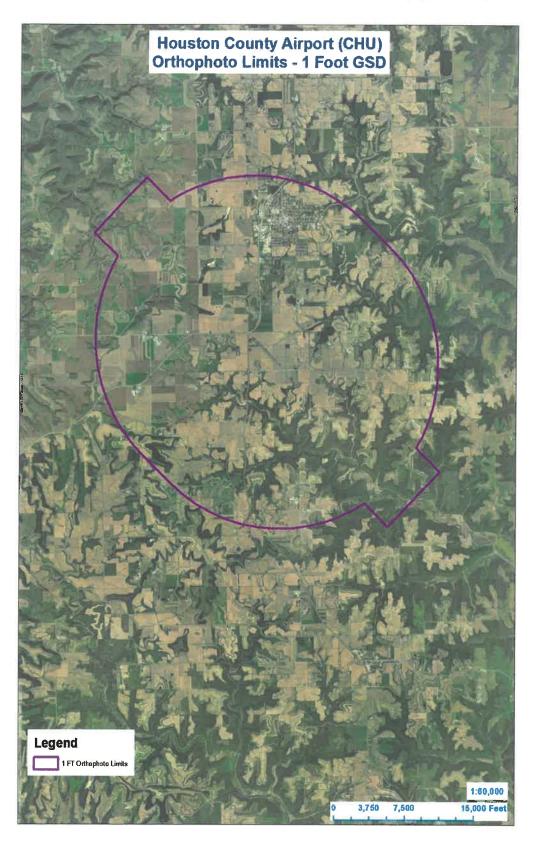














# PROJECT FEE ESTIMATE

CLIEN						DATE:		4/30/2024
PROJ	ECT: Houston County Airport (CHU): AGIS Airport	Airspace Analysis				PREPARED BY:		SP
		Estimated Person Hours Required						
Task	Task Description	Sr. Eng.	Sr. Planner	Planner	GIS Tech.	Surveyor	Admin.	Totals
1	Project Initiation and Coordination				Tarly N			
1.1	Project Scoping and Contract Development	2	2	0	0	0	1	5
1.2	Client and Agency Meetings	8	16	4	0	0	0	28
1.3	Grant Application	2	4	0	0	0	1	7
1.4	Grant Closeout	2	8	0	0	0	8	18
2	AGIS Airport Airspace Analysis (AAA)							
2.1	FAA AGIS Project Initiation	1	4	0	0	0	0	5
2.2	Project Geodetic Control	1	4	0	0	40	0	45
2.3	Planimetric and Topographic Basemaps	1	8	0	0	0	0	9
2.4	Runway and Navigational Aides Survey	1	8	0	0	40	0	49
2.5	Airport Airspace Analysis	1	8	0	0	0	0	9
2.6	FAR Part 77 Obstruction Analysis	1	4	12	0	0	0	17
2.7	Update Safety Critical Data	1	4	4	0	4	0	13
2.8	Non-Safety Critical Data Submission	1	4	4	0	4	0	13
2.9	FAA AGIS Data Processing and Submission	1	4	0	0	4	0	9
3	Airport Layout Plan (ALP) Sheet Update			100				
3.1	ALP Sheet Update	4	20	40	0	0	0	64
	Total Person Hours	27	98	64	0	92	10	291
	Direct Labor Rate	\$57.00	\$40.00	\$30.00	\$30.00	\$40.00	\$27.00	
	Total Direct Labor Cost	\$1,539.00	\$3,920.00	\$1,920.00	\$0.00	\$3,680.00	\$270.00	\$11,329.00
Overhead Rate 2.1373		\$3,289.30	\$8,378.22	\$4,103.62	\$0.00	\$7,865.26	\$577.07	\$24,213.47
	Subtotal Labor Cost							\$35,542.47
	Direct Expenses (10% Markup)							
		AGIS Survey	- NV5					\$53,162.00
	Total Expenses							\$53,162.00
	Fixed Fee 15% x Subtotal Labor Cost							\$5,331.37
	Total Project Fee							\$94,036.00

Date Submitted:	May 1, 2024	Board Date:	May 7, 2024
Daman namatina ana	interpretation in the Country Department		
Person requesting appoi	intment with County Board:	Brian Pogodzinski	
Issue:			
The County constructed	taxilanes for hangers at the ai	rport. The airport	commission is recommending the
county construct a t-han	gar on the first row and lease	land for private b	ox hangars on the second row.
Attachments/Document	ation for the Board's Review		
Hanger payback cost esti	mates		
Justification:			
	hangar space at the airport.		
Action Requested: Discuss and approve futu	re hangar construction and la		
	For Cour	ity Use Only	TO THE PART OF THE PARTY OF
Reviewed by:	County Auditor	County Attorney	Zoning Administrator
	Finance Director	County Engineer	Environmental Services
	IS Director	Other (indicate de	ot)
Recommendation:			
Decision:			

All agenda request forms must be submitted to Allison Wagner at BOC@co.houston.mn.us by 12:00 p.m. on Thursday in order to be considered for inclusion on the following week's agenda. The Board will review all requests and determine if the request will be heard at a County Board meeting.

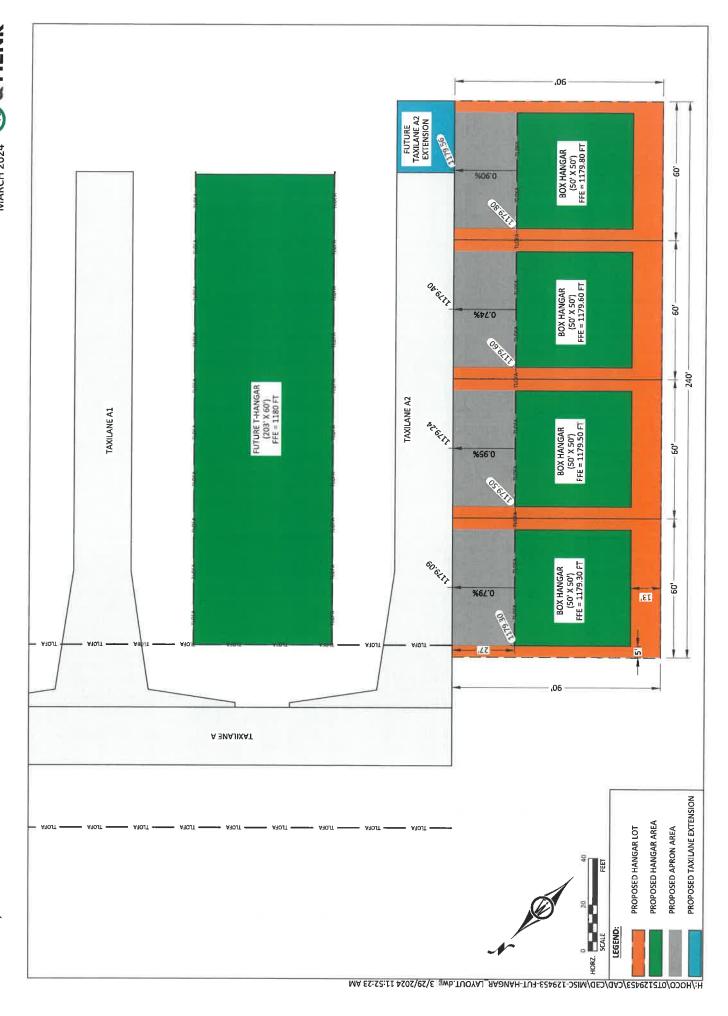
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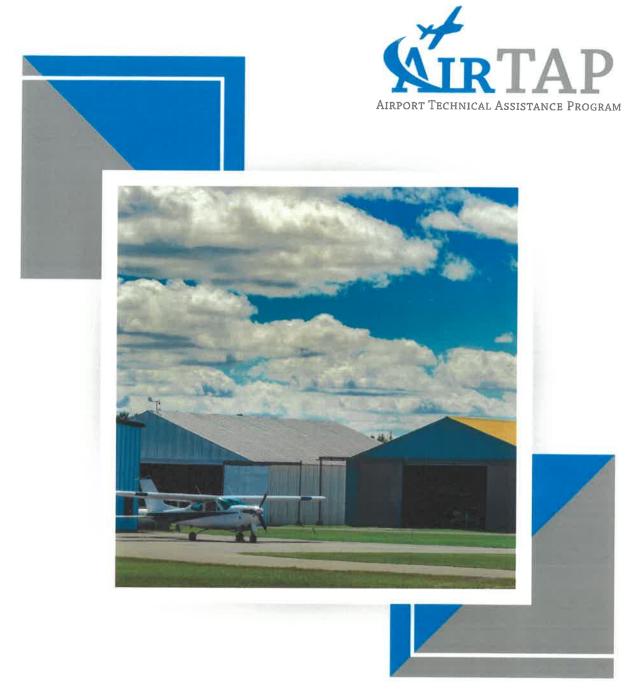
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# Calculation of 2023 Airport Billings - Recalculated (Annual Rates)

		2022	3.21%	2023
		<u>Rent</u>	<u>Increase</u>	Rent
Front Row	Lot 1,2,3	\$976.26	\$31.34	\$1,007.59
Front Row	Lot 4	\$325.42	\$10.45	\$335.87
Front Row	Lot 5	\$325.42	\$10.45	\$335.87
Front Row	Lot 6	\$325.42	\$10.45	\$335.87
Front Row	Lot 6a	\$908.92	\$29.18	\$938.09
Second Row	Lot 7	\$232.83	\$7.47	\$240.31
Second Row	Lot 8	\$232.83	\$7.47	\$240.31
Second Row	Lot 9	\$232.83	\$7.47	\$240.31
Second Row	Lot 10	\$232.83	\$7.47	\$240.31
Second Row	Lot 11	\$232.83	\$7.47	\$240.31
Third Row	Lot 12	\$232.83	\$7.47	\$240.31
Third Row	Lot 13	\$232.83	\$7.47	\$240.31
Third Row	Lot 14	\$232.83	\$7.47	\$240.31
		\$4,724.11	\$151.64	\$4,875.76
CPI for current period	k		299.17	
Less CPI for previous	period		281.148	
Equals index point of	change	-	18.022	

ci i ioi carrent perioa		233.17
Less CPI for previous period		281.148
Equals index point change		18.022
Divided by previous period CPI	_	281.148
Equals	-	0.0641
Resultant multiplied by	100	
Equals percent change		6.41
Divided by 2	2	
Equals percent increase		3.2050735
round to		3.21





Rates and Charges Study

# 2023 Minnesota Airports Survey Results





	Multiple	Plane or Large Storage Hang	jars		T-Hangars	
	Size (sq ft)	Rental Fees	Age	Size (sq ft)	Rental Fees	Age
	≤2,500	\$190/month	10–20	≤2,500	\$85/month	20–30
Luverne Municipal	2,500–5,000	\$500/month	20–30	≤2,500	\$115/month	10–20
	2,000 0,000	φοονποπατ	20-30	≤2,500	\$190/month	10–20
Minneapolis Airlake	N/A	N/A	N/A	N/A	N/A	N/A
Montevideo-	5,000–10,000	\$80/month	>20	5,000 <u>–</u> 10,000	N/A	≥30
Chippewa	per aircraft collected by FBO	≥30	2,500– 5,000	\$150/month	≤10	
	N/A	N/A	N/A	≤2,500	\$145/month	20-30
Moorhead Municipal				≤2,500	\$155/month	20-30
				≤2,500	\$155/month	20-30
Mora Municipal	N/A	N/A	N/A	N/A	N/A	N/A
Manuta Municipal	5,000–10,000	\$1,800/month (single tenant)	≤10	N/A	\$60-\$65/month	≥30
Morris Municipal	5,000-10,000	\$150/month	20-30		\$75-	
	5,000–10,000	\$150/month	20–30	N/A	\$100/month	10–20
Orr Regional	5,000-10,000	\$300/month	10–20	5,000— 10,000	\$110.00/month	≥30
Perham Municipal	N/A	N/A	N/A	≤2,500	\$137.50/month (based on size)	≥30
			≤2,500	\$155/month	≤10	
Pipestone Municipal	≤2,500	\$175/month	≥30	≤2,500	\$110/month	20–30
i ipostorie muriicipal	≥2,000	\$175/HORUT	≥30	≤2,500	\$250/month	≤10

# 6.4 Intermediate Small

# 6.4.1 Box Hangars

The most common size of box hangars at Intermediate Small Airports is between 2,500 and 5,000 square feet. The most common age of box hangars is more than 30 years old. The average hangar fee was \$315 per month.

# 6.4.2 T-Hangars

The most common age of T-hangars at Intermediate Small Airports is more than 30 years old. The average rental fee of a T-hangar space was \$107 per month and varied based on aircraft size.

Table 6-4 - Intermediate Small Hangar Fees

	Multiple	Plane or Large Storage Han	gars	T-Hangars		
	Size (sq ft)	Rental Fees	Age	Size (sq ft)	Rental Fees	Age
Ada-Norman County/Twin Valley	N/A	N/A	≥30	≤2,500	\$50.00/month	≥30
Appleton Municipal	≤2,500	\$60/month	20-30	N/A	N/A	N/A
Bagley Municipal	N/A	N/A	N/A	N/A	N/A	N/A
	5,000-10,000	\$600/month	2030			
Blue Earth Municipal	2,500-5,000	\$350/month	≥30	≤2,500	\$90- \$110/month	≥30
	2,500-5,000	\$250/month	≥30	No. of the	ΦΙΙΟ/ΙΠΟΠΙΙΙ	
Brooten Municipal	N/A	N/A	N/A	N/A	N/A	N/A
Puffalo Municipal	N/A	N/A	NIA	≤2,500	\$140 \$190/month	≥30
Buffalo Municipal	N/A	IN/A	N/A	≤2,500	\$165/month	2030
				≤2,500	\$210/month	10-20
Caledonia-Houston County	N/A	N/A	N/A	N/A	N/A	N/A
Duluth-Sky Harbor	2,500–5,000	\$2580/month (dependent on percent of hangar leased)	≥30	N/A	N/A	N/A
	N/A	N/A	≥30			
Elbow Lake Municipal		\$200/month: Regular	≤10	≤2,500	\$65-75\$/month	≥30
	≥10,000	summer space \$250/month: Regular winter space \$250–\$400: Extra-large space \$25–\$75: Overnight storage	≤10	≥10,000	\$115/month	≤10
Fertile Municipal	N/A	N/A	N/A	N/A	N/A	N/A
Forest Lake	5,000–10,000	N/A	≥30	5,000– 10,000	\$125/month	≥30
Fosston Municipal	N/A	N/A	N/A	N/A	N/A	N/A
				≤2,500	\$100/month	20–30
Clanaca Municipal	N/A	N//A	N// 0	≤2,500	\$80/month	≥30
Glencoe Municipal	IN/A	N/A	N/A	≤2,500	\$65/month	≥30
				≤2,500	\$90/month	20–30
				5,000– 10,000	\$110– \$115/month	≥30
Hawley Municipal	40 500	\$65/month	>20	5,000– 10,000	\$110- \$115/month	20–30
nawicy wunicipal	≤2,500	φυσλιπομιπ	≥30	5,000 <u>–</u> 10,000	\$110- \$115/month	1020
				5,000 <u></u> 10,000	NP/ based on sq ft	≤10

	Multiple	Plane or Large Storage Har	ngars	T-Hangars			
	Size (sq ft)	Rental Fees	Age	Size (sq ft)	Rental Fees	Age	
Hector Municipal	≤2,500	N/A	≤10	≤2,500	\$100/month	10–20	
nector wunicipal	2,500-5,000	N/A	≤10	≤2,500	N/A	20-30	
Herman Municipal	5,000–10,000	\$480/year	≥30	N/A	N/A	N/A	
Jackson Municipal	5,000–10,000	\$400/month	10–20	≤2,500	\$80/month	≥30	
oacksoff Mariicipal	3,000-10,000	(per aircraft)	10-20	≤2,500	\$90/month	20–30	
Le Sueur Municipal	N/A	N/A	N/A	N/A	N/A	N/A	
Longville Municipal	N/A	N/A	N/A	N/A	N/A	N/A	
Madison-Lac Qui Parle	2,500-5,000	\$100/month	≥30	N/A	\$100/month	≥30	
				≤2,500	\$50/month	≥30	
Mahnomen County	N/A	N/A	N/A	≤2,500	\$0.086/sq ft	10-20	
				≤2,500	\$0.086/sq ft	≤10	
Maple Lake Municipal	N/A	N/A	N/A	N/A	N/A	N/A	
McGregor-Isedor lverson	N/A	N/A	N/A	N/A	N/A	N/A	
Minneapolis Crystal	N/A	N/A	N/A	≤2,500	\$185/month	≥30	
Managal also Castless	≤2,500	\$91/month	20-30	≤2,500	\$139/month		
Moose Lake-Cariton County	2,500–5,000	\$464/month (entire hangar)	10–20			20–30	
Olivia Regional	2,500-5,000	\$400/month	≥30		0.170.07		
	2,500–5,000	\$100/month	≥30	≤2,500	\$150,37/month	≤10	
Ortonville Municipal	NP	\$80/month cold \$200/month heated	≥30	N/A	N/A	N/A	
Paynesville Municipal	N/A	N/A	N/A	≤2,500	\$100– \$120/month (based on size)	10–20	
Pine River Regional	N/A	N/A	N/A	N/A	N/A	N/A	
Piney-Pinecreek Border	N/A	N/A	N/A	N/A	N/A	N/A	
Red Lake Falls	N/A	N/A	N/A	5,000– 10,000	\$100/month	≥30	
Rushford Municipal	≤2,500	N/A	10–20	5,000– 10,000	\$125/month	10–20	
Saint Paul-Lake Elmo	N/A	(All hangars are private)	N/A	N/A	N/A	N/A	
Sauk Centre Municipal	2,500–5,000	\$500/month	20–30	≥10,000	\$120/month	1020	
Slauton Municipal	NI/0	N1/A	>00	≤2,500	\$75/month	≥30	
Slayton Municipal	N/A	N/A	≥30	≤2,500	\$65/month	≥30	
Springfield Municipal	N/A	\$65/month (per space)	20–30	≤2,500	\$65/month	20–30	
Stanles Municipal	5 000 40 000	\$200/month single-engine	-40	≤2,500	\$85/month	20–30	
Staples Municipal	5,000–10,000	\$250/month multi-engine	≤10	≤2,500	\$95/month	20–30	

	Multiple	Plane or Large Storage Har	igars		T-Hangars	
	Size (sq ft)	Rental Fees	Age	Size (sq ft)	Rental Fees	Age
		\$500/month multi-engine				
Stephen Municipal	N/A	N/A	N/A	5,000 10,000	\$70/month	≥30
Todd Field (Long Prairie)	N/A	N/A	N/A	≤2,500	\$80/month	10–20
Tower Municipal	N/A	N/A	N/A	N/A	N/A	N/A
Tracy Municipal	2,500–5,000	\$145/month (entire building)	≥30	5,000– 10,000	\$185/quarter	≥30
	N/A	N/A	N/A	≤2,500	\$175/month	10-20
Walker Municipal				≤2,500	\$125/month	≥30
				≤2,500	\$175/month	≥30
Warren Municipal	≤2,500	\$125/month (per space)	20–30	≤2,500	\$125/month	10–20
Waseca Municipal	N/A	N/A	N/A	2,500 5,000	\$120/month	≥30
Wheaton Municipal	N/A	N/A	N/A	N/A	N/A	N/A
Windom Municipal	≤2,500	\$90/month (per space)	≤10	≤2,500	\$75/month	≥30
	5,000-10,000	\$475/month	≤10			

# 6.5 Landing Strip Turf

# 6.5.1 Box Hangars

The most common size of box hangars at Landing Strip Turf Airports is less than 2,500 square feet. The most common age of box hangars is more than 30 years old. Airports in this category reported charging between \$100 to \$200 per month per hangar, while one airport in this category charged between \$75 to \$85 per space.

# 6.5.2 T-Hangars

Only one airport reported a T-hangar rate, which was \$50 per month. The age of the hangar was more than 30 years old.

Date Submitted:	April 30, 2024	Board Date:	May 7, 2024
Person requesting app	ointment with County Board:	Brian Pogodzinsk	i
Issue:			
Board appproval needs	ed to accept the low quote for CP	2024-08 for cra	ackfilling at the airport from
Fahrner Asphalt Sealer	s, LLC in the amount of \$40,500.0	0.	
	ntation for the Board's Review:		
Abstract for CP 2024-0	8 Crack Filling is attached. Only 1	L bid was receiv	red.
Reminder: Unit prices	are not public until after the awa	rd.	
	t provides crack fill repair under our	normal maintena	ance for the County Airport.
Action Requested:			
board approval needed	I to accept the low quote from Fa	nrner Asphalt S	ealers, LLC.
	For County U	se Only	
Reviewed by:	County Auditor	County Attorney	Zoning Administrator

**County Engineer** 

Other (indicate dept)

**Environmental Services** 

All agenda request forms must be submitted to Allison Wagner at BOC@co.houston.mn.us by 12:00 p.m. on Thursday in order to be considered for inclusion on the following week's agenda. The Board will review all requests and determine if the request will be heard at a County Board meeting.

**Finance Director** 

IS Director

**Recommendation:** 

**Decision:** 

Date Submitted:	April 30, 2024	Board Date:	May 7, 2024
Person requesting app	pointment with County Board:	Brian Pogodzinski	i
<u>Issue:</u>			
	roving the work order under the M ne costs include \$.079/ft for 4" late		nip agreement to have MnDot stripe for 6" latex for a total estimated
Attachments/Docume	entation for the Board's Review:		
	formed under CP 2024-05.		
required prior to them po	usly approved using MnDot for stripin erforming the work. d to accept the workorder under tl		
	For County U	se Only	
Reviewed by:	County Auditor	County Attorney	Zoning Administrator
	Finance Director	County Engineer	Environmental Services
-	IS Director	Other (indicate de	ept)
Recommendation:			
Decision:			

All agenda request forms must be submitted to Allison Wagner at BOC@co.houston.mn.us by 12:00 p.m. on Thursday in order to be considered for inclusion on the following week's agenda. The Board will review all requests and determine if the request will be heard at a County Board meeting.



# STATE OF MINNESOTA WORK ORDER UNDER MASTER PARTNERSHIP CONTRACT

Project Description: Stripe multiple County roads

This Work Order Contract is issued under the authority of the State of Minnesota, Department of Transportation (MnDOT) Master Partnership Contract No. 1050106 between the state of Minnesota acting through its Commissioner of Transportation ("MnDOT") and Houston County, a political subdivision of the State of Minnesota ("Local Government") and is subject to all applicable provisions and covenants of that Contract which are incorporated herein by reference.

### **Work Order Contract**

# 1. Term of Work Order Contract; Incorporation of Exhibits

- 1.1. Effective date: This Work Order Contract will be effective on the date that all required signatures are obtained by MnDOT, pursuant to Minnesota Statutes Section 16C.05, subdivision 2. The Local Government must not begin work under this Contract until ALL required signatures have been obtained and the Local Government has been notified in writing to begin such work by MnDOT's Authorized Representative.
- 1.2. **Expiration date**: This Work Order Contract will expire on 12/31/2024, or when all obligations have been satisfactorily fulfilled, whichever occurs first.
- 1.3. **Exhibits**: Exhibit A is attached and incorporated into this Work Order Contract.

### 2. Nature of Work

2.1.	X the blanks below to indicate the nature of the work to be performed. See Article 3. Services Requiring
	a Work Order Contract, of the Master Partnership Contract for applicable definitions.
	Contract Administration
	Emergency Services
	Professional/Technical Services
	X Roadway Maintenance

# 3. Scope of Work

3.1. MnDOT will perform services under this Work Order summarized generally as follows: MnDOT will provide refresh of existing lines or new longitudinal striping according to Exhibit A work plan. Timing will be at the discretion of Mn/DOT in coordination with the county.

# 4. Items provided or completed by the Parties

- 4.1. The following will be provided or completed by the Local Government: The county will provide a detailed striping work plan. Work plan will consist of the route number, beginning and end points, width of line, color of line, type of material, solid or broken line, Edge line, Center line, lane line, etc. County will also provide any timing considerations at the beginning and any point during the season. If new lines are requested the county will provide markings for guidance to the striper.
- 4.2. The following will be provided or completed by MnDOT: MnDOT will provide longitudinal Striping at 12mil thickness, using MnDOT approved products, in widths and pattern as provided in Exhibit A workplan. MnDOT will provide all labor, equipment, and material to conduct the striping operation including providing traffic control in accordance with the MMUTCD, but may ask for assistance from county for traffic control in special circumstances. MnDOT will provide a striper log for review and invoice with final quantities at the close of the season in the fall.

# 5. Consideration of Payment

- 5.1. The Local Government will pay for all services performed by MnDOT on a unit price basis. The unit prices for the 2024 season are \$.079/ft for 4" latex width and \$.103/ft for 6" latex width.
- 5.2. The Local Government's obligation for all compensation and reimbursements to MnDOT is estimated to be \$124,094.94. The final amount will be determined at the end of the season upon review of the striper log with the county.

# 6. Terms of Payment

- 6.1. The Local Government will pay MnDOT after execution of this work order and review of the striper log and receipt of the invoice.
- 6.2. After the work has been completed MnDOT will submit a striper log and invoice for the work completed.
- 6.3. Per Section 7.4 of the Master Partnership Contract;
  - 6.3.1. The Local Government will pay MnDOT as specified in this work order, and will make prompt payment in accordance with Minnesota law.
  - 6.3.2. Payment by the Local Government.
    - i. The Local Government will make payment to the order of the Commissioner of Transportation.
    - ii. IMPORTANT NOTE: Payment must reference the MnDOT Contract and Work Order Number shown on the face page of this contract and the MnDOT Invoice Number shown on the invoice.
    - iii. Remit payment to the address below:

**MnDOT** 

Attn: Cash Accounting

RE: MnDOT Contract Number 1050106W02 and Invoice Number: 00000#####

(see note above)
Mail Stop 215

395 John Ireland Blvd

St. Paul, MN 55155

# 7. Authorized Representatives

7.1. MnDOT's Project Manager, for this Work Order is:

Name/Title: Mike Ehlert, or successor

MnDOT - Operations/Office of Maintenance

Street Address: 3485 Hadley Ave N City State Zip: Oakdale MN 55128

Telephone: Office:651-366-4419 Cell:651-238-0001

Email: michael.ehlert@state.mn.us

- 7.2. MnDOT's Project Manager is responsible for overseeing MnDOT's fulfillment of its obligations under this Work Order, reviewing, providing and approving invoices, resolving disputes related to this Work Order, and for giving or receiving any notices required or permitted by this Work Order.
- 7.3. The Local Government's Project Manager for this Work Order is:

Name/Title: Brian Pogodzinski/Houston County Engineer

Street Address: 1124 E. Washington St. City State Zip: Caledonia, MN 55921

Telephone: 507-725-3925

Email: Brian. Pogodzinski@co.houston.mn.us

7.4. The Local Government's Project Manager for this Work Order is responsible for overseeing the Local Government's fulfillment of its obligations under this Work Order, reviewing and approving invoices,

resolving disputes related to this Work Order, and for giving or receiving any notices required or permitted by this Work Order.

### 8. Termination

- 8.1. **Termination by** MnDOT **or Local Government**. The Local Government, MnDOT or the Commissioner of Administration may cancel this Work Order at any time, with or without cause, upon 30 days' written notice to the other Party. Upon termination, MnDOT will be entitled to payment, determined on a pro rata basis, for services satisfactorily performed.
- 8.2. **Termination for Insufficient Funding**. MnDOT may immediately terminate this Work Order if it does not obtain funding from the Minnesota Legislature, or other funding source; or if funding cannot be continued at a level sufficient to allow for the payment of the services covered here. Termination must be by written or fax notice to the Local Government. MnDOT is not obligated to pay for any services that are provided after notice and effective date of termination. However, the Local Government will be entitled to payment, determined on a pro rata basis, for services satisfactorily performed to the extent that funds are available. MnDOT will not be assessed any penalty if the Work Order is terminated because of the decision of the Minnesota Legislature, or other funding source, not to appropriate funds. MnDOT must provide the Local Government notice of the lack of funding within a reasonable time of MnDOT's receiving that notice.

### 9. Additional Provisions

9.1. NONE

[THE REMAINDER OF THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK.]

# **LOCAL GOVERNMENT**

The Local Government certifies that the appropriate person(s) have executed the contract on behalf of the Local Government as required by applicable articles, bylaws, resolutions or ordinances.

By:		
Title:		
Date:		
Ву:		16
Title:		16
Date:		

# **COMMISSIONER OF TRANSPORTATION**, as delegated

Ву:
Date:
COMMISSIONER OF ADMINISTRATION, as delegated
•
By:
Date:

# Request for Year 2024 Latex Striping

1= Left edge line

Line(s):

2 = Centerline

3 = Lane line

4 = Right Edge

								ō	กี		T	I	T	T	I							T		T	Τ		Ī					
Comments		Go thriough the park to the end of payament	City of Brownsville 9th St to TH 28	City of Caledonia 6" WH I and lines & Rike I and	colored and a second of the co		6" WH Turn Lanes & Foo lines	6" WH I and Bike & Skin Add 6" WH I are from CSAH 25 to S Elm St	S THE TOTAL CONTROL OF THE HOLL CONTROL OF THE				6" WH For Line					6" WH Lane lines in Brownsville and Hokah City limits only					Skip the center portion that is sealchated and not currently nainted		6" WH Lane lines in LaCrescent city limits only		Winona Cty Line is where the pavement ends		6" WH lane, Bike & Skip		End of pavement is in the village of Freeburg	
Time	Mo																															
Total Line Miles	Y 4"	6.72	0.66	1.99	27.18	7.27	6.65	12.20	3.53	2.80	8.13	15.03	4.40	6.18	19.25	5.57	9.35	9.84	2.01	3,33	15.60	3.00	2.16	3.04	18.92	13.38	4.76	15.50	2.67	4.19	15.47	250.75
Total Li	9 M			0.196			7.31	16.65					5.35					2.17							1.34				2.84			35.86
Line(s) (1,2,3,4)		2	2	2,3,4	7	2	2,3,4	2,3,4	2	2	7	2	2.4	2	2	2	2	2,4	2	2	2	2	2	2	2,4	2	2	2	2,3,4	2	2	
Line				13.0			12.0	12.0					12.0					11.0							12.0				12.0			
True	line Miles	3.84	0.475	1.169	19.49	4.21	4.025	8.62	2.72	1.9	7.128	9.85	2.059	4.215	11.817	3.26	6.664	7.327	1.02	3.043	11.304	2.683	1.298	1.54	10.64	6.85	3.16	9.483	1.543	2.67	8.466	162.469
End		Beaver Park	TH 26	East City Limits	TH 76	lowa State Line	0.75 Mi S JCT 14	Winona Cty Line	TH 26	Fillmore Cty Line	Winona Cty Line	TH 76 S	End of Pavement	End of Pavement	TH 26	Fillmore Cty Line	TH 44	CSAH 3	TH 44	End of Pavement	TH 16	End of Pavement	CR 249	CSAH 21	CSAH 6	Fillmore Cty Line	Winona Cty Line	TH 44	Winona Cty Line	CSAH 8	End of Pavement	TOTALS
Begin		TH 76	9th St.	TH 44	TH 44	TH 44				CSAH 33	П	TH 76 N	CSAH 4	Г	CSAH 5	CSAH 4	TH 76	TH 44	TH 76	TH 44	CSAH 9		3	-	21				9		CSAH 5	
Route		CR 1	CR3	CR 3	CR 4N	CR 4S	CR 5	CR 6	CR7	CR 8N	CR 9	CR 10	CR 11	CR 12	CR 14	CR 15	CR 17	CR 18	CR 20W	CR 20E	CR 21	CR 22	CR 24	CR 25S	CR 25N CSAH 21		ы			$\neg$	CR 249	
County		Houston	Houston	Houston	Houston	Houston	Houston	Houston	Houston	Houston	Houston	Houston	Houston	Houston	Houston	Houston	Honston	Houston	Houston	Houston	Houston	Houston	Honston	Houston	Honston	Honston	Honston	Honston	Honston	Honston	Houston	

Note: All of the above listed roads will get 4" yellow centerline markings. CSAH's 3, 18, & 25N will get 6" White in the City limits only. CSAH's 5, 6, 11, & 29 will get 6" White on everything that is currently painted. We will add 6" White on CSAH 6 in the City of LaCrescent from CSAH 25 to S. Elm St.

# District Request for Year 2024 Epoxy Striping

Statewide Pavement Marking Committee

Line(s):

1= Left edge line

2 = Centerline

3 = Lane line

4 = Right Edge

DIST.	GIS Route	Beg. Ref.	End Ref.	True Center	Line(s) (1,2,3,4)	Total Li	ne Miles	Time Requested	Comment
		Point	Point	line Miles		W	Y	Мо	Comment
			TOTALS			0.00	0.00	0.00	

Date Submitted:	April 30, 2024	Board Date:	May 7, 2024
Person requesting appo	pintment with County Board:	Brian Pogodzinski	
Issue:			
Board to consider pave	ment marking quotes to paint roa	d symbols on v	arious Houston County Roads.
Attachments/Documer	ntation for the Board's Review:		
Abstract for CP 2024-09	3		
This will be available on	Monday afternoon, May 6, 2024	•	
Reminder: Unit prices of	are not public until after the awa	rd.	
Justification:	-		
This is a budgeted item an	d part of our regular maintenance pr	ogram.	
Action Requested:			
Board approval needed	to accept hid		

	For County Use Only					
Reviewed by:	County Auditor Finance Director IS Director	County Attorney County Engineer Other (indicate dept)	Zoning Administrator  Environmental Services			
Recommendation:						
<u>Decision:</u>						

All agenda request forms must be submitted to Allison Wagner at BOC@co.houston.mn.us by 12:00 p.m. on Thursday in order to be considered for inclusion on the following week's agenda. The Board will review all requests and determine if the request will be heard at a County Board meeting.

Date Submitted:	April 30, 2024	Board Date:	May 7, 2024
Issue: The Highway departme	pointment with County Board: ent solicited quotes for CP 2024-1 vays in Houston County.	Brian Pogodzinski  10, for Stockpile	i Aggregate, Class 5 Delivered (maintenance
Abstract for CP 2024-10 This will be available or	entation for the Board's Review: O Stockpile Aggregate, Class 5 Deli on Monday afternoon, May 6, 2024 or are not public until after the awa	4.	ance rock)
Action Requested: Board approval needed			l. This may result in multiple contracts.
Mary State of the	For Count	ty Use Only	
Reviewed by:	County Auditor Finance Director IS Director	County Attorney County Engineer Other (indicate de	Zoning Administrator Environmental Services
Recommendation:			
Decision:			

All agenda request forms must be submitted to Allison Wagner at BOC@co.houston.mn.us by 12:00 p.m. on Thursday in order to be considered for inclusion on the following week's agenda. The Board will review all requests and determine if the request will be heard at a County Board meeting.

This form is not intended for the general public. It is intended for use by county department heads, representatives of other governmental units or vendors/agencies who contract with Houston County. Members of the public may address the Board during the Public Comment Period. (See Policy for Public Comment Period).

	nnointment with County Poor		
Issue:	anaintment with County Book		
	ppointment with county board	d: DeeDee Vick for	Martin Herrick
Rezone Approval/De	nial:1) Jason and Amber Wiese	er - Rezone an area from the	e Agricultural Protection
	l District in La Crescent Townsl		J
Justification:	County Board (Agenda Hoari	ing Notices Findings and De	and Dankston and other day
rillai Appiovai by the	County Board. (Agenda, Heari	ng Notices, Findings and Bo	ard Packets are attached.)
Action Requested:			
	For Cou	nty Use Only	
Reviewed by:	County Auditor	County Attorney	7 - dia adapta
REVIEWEU DY.	County Auditor Finance Director	County Attorney County Engineer	Zoning Administrator Environmental Services
	IS Director	Other (indicate dept)	CHANGE MICHAEL SCHOOL
Documendation.			
Recommendation:			
Recommendation:			
Recommendation:  Decision:			
		County Engineer Other (indicate dept)	Environmental Services

All agenda request forms must be submitted to the County Auditor by 4:00 p.m. on Monday in order to be considered for inclusion on the following week's agenda. The Board will review all requests and determine if the request will be heard at a County Board meeting.

# HOUSTON COUNTY BOARD OF ADJUSTMENT AND PLANNING COMMISSION Thursday, April 25, 2024

# Hearings are in the Houston County Commissioner's Room.

Please enter through the west entrance. Doors will open at 4:45 pm.

# **PLANNING COMMISSION**

Approve Minutes for January 25, 2024.

# **REZONE HEARING**

5:00 pm Jason & Amber Wieser – La Crescent Township

Rezone an area from Agricultural Protection District to Residential District. (Section 8 Subdivision 2).

# **BOARD OF ADJUSTMENT**

Approve Minutes for February 22, 2024.

# **VARIANCE HEARING:**

- 5:30 pm Benjamin & Emily Wieser La Crescent Township
  - 1. Variance to reduce setback from top of bluff for a proposed dwelling (Section 29.17 Subdivision 2).
- 5:50 pm Kevin & Katherine Jumbeck Money Creek Township
  - 1. Variance to reduce front yard setback requirements for proposed accessory structure addition (Section 14 14.8 Subdivision 3).
  - 2. Variance to place an accessory structure ahead of principle building (Section 29.14 Subdivision 1(2)).
- 6:10 pm Peter Shufflebotham & Kate Woodward Hokah Township
  - 1. Variance to reduce front yard setback requirements for proposed dwelling (Section 14.7 Subdivision 3).
  - 2. Variance to reduce setback from toe of bluff for a proposed dwelling (Section 29.17 Subdivision 2).
  - 3. Variance to reduce rear yard setback standards (Section 14.9 Subdivision 1).

NOTICE OF PUBLIC HEARING

PLEASE TAKE NOTICE:

That an application has been made by Jason Wieser, 4017 County 6, La Crescent

MN 55947, to Rezone (Section 8.2, Subdivision 2) an area from Agricultural Protection District

to Residential in La Crescent Township on following premises, to-wit:

PT NW1/4 NW1/4, Section 7, Township 104, Range 4, Houston County, Minnesota. (Parcel

08.0089.001)

Said applicants standing and making application are as fee owner of said described lands.

A hearing on this application will be held at the Houston County Commissioner's Room, City of

Caledonia, Minnesota at 5:00 p.m. on Thursday, April 25, 2024.

All persons having an interest in the matter will be given the opportunity to submit comments

relative to the granting or denying of said application. Comments should be mailed to the Environmental

Services Dept., 304 South Marshall Street, Caledonia, MN 55921, or emailed to

martin.herrick@co.houston.mn.us, and must be received by Tuesday, April 16, 2024. Comments in regard

to the petition received by this date will be part of the public record and will be made available for review

by the Planning Commission prior to the meeting.

HOUSTON COUNTY PLANNING COMMISSION

By Martin Herrick

**Zoning Administration** 

ADV: April 10, 2024

# CRITERIA FOR GRANTING ZONING AMENDMENTS (0110.0801)

# HOUSTON COUNTY PLANNING COMMISSION

### **RELATIVE TO APPLICATION BY**

# Jason Wieser and Amber Wieser 4/25/24

The County Board may adopt amendments to the Zoning Ordinance and Zoning Map in relation both to land uses within a particular district or to the location of the district lines. Such amendments shall not be issued indiscriminately, but shall only be used as a means to reflect changes in the goals and policies of the community as reflected in the Policies Plan or changes in conditions in the County.

Subdivision 2. Applications to Change District Boundaries or Land Use.

1. The property at 4017 County 6, La Crescent, Mn is zoned Agricultural Protection District and is approximately 1.89 miles from the City of La Crescent.

Board agreed to the finding by a unanimous vote.

2. The City of La Crescent Comprehensive Land Use Plan for future land use identifies La Crescent Township within two miles of the current city limits.

Board agreed to the finding by a unanimous vote.

3. The Houston County Comprehensive Land Use Plan in Chapter 2, Policy 1. Identifies limiting development in agricultural areas unless identified for development under city capital improvement plans or city comprehensive plans.

Board agreed to the finding by a unanimous vote.

4. Parcel 08.0089.001 meets the requirements for lot setbacks and septic systems in the residential district.

Board agreed to the finding by a unanimous vote.

5. The soils on parcels PID 08.0089.001 & PID 08.0077.001 are not prime agricultural soils ranging from a land capability classification of 6e to 7e.

Board agreed to the finding by a unanimous vote.

6. The rezoning will remove this dwelling from the one dwelling per quarter-quarter density standard for the Agricultural Protection District in the NW ¼-NW ¼. And allow the proposed dwelling for PID 08.0089.000 to be located on non-prime ag land in this quarter-quarter.

Board agreed to the finding by a unanimous vote.

Chairwoman Wright asked members if they had any findings to add.

Chairwoman Wright asked that the Findings be adopted if there were no additional questions or concerns.

Greg Myhre made a motion to accept the findings as presented. James Wieser seconded. Roll call vote was taken.

	Yes	No	SA	Comment
Jim Wieser	X			
Johnathon Glasspoole	X			
Larry Gaustad	X			
Josh Gran				
Wayne Feldmeier	X			
Cindy Wright	X			
Greg Myhre	X			

All were in favor. Motion carried. The Findings and application will be presented to the Houston County Board of Commissioners for final action on May  $7^{th}$ , 2024.



# **HOUSTON COUNTY**

# **ENVIRONMENTAL SERVICES**

Solid Waste ● Recycling ● Zoning 304 South Marshall Street – Room 209, Caledonia, MN 55921 Phone: (507) 725-5800 ● Fax: (507) 725-5590



#### STAFF REPORT

Application Date: 3/21/24 Hearing Date: 4/25/24

Petitioner: Jason & Amber Wieser

Reviewer: Martin Herrick Zoning: Ag Protection Address: 4017 County 6 Township: La Crescent

Parcel Numbers: 08.0089.001 & 08.0077.001

Submitted Materials Zoning Amendment Application

#### **OVERVIEW**

#### REQUEST

The applicants request to amend the zoning map to change parcels PID 08.0089.001 & PID 08.0077.001 from Agricultural Protection District to Residential District.

## SUMMARY OF NOTEWORTHY TOPICS

The applicants are proposing to rezone in order to open the quarter-quarter section in the Agriculture Protection District for a proposed single-family dwelling on parcel PID 08.00890.000.

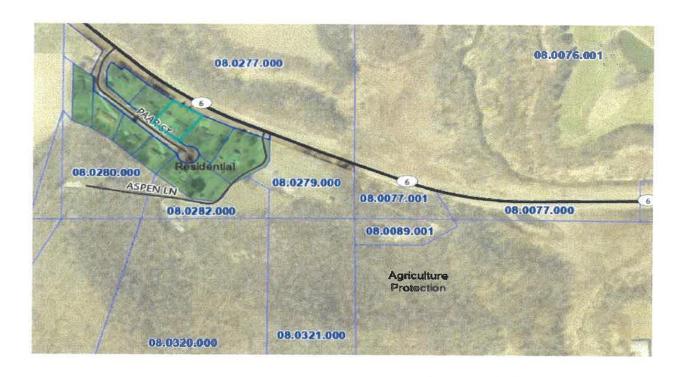
An application for rezoning the parcel to Residential from the Agriculture Protection District was submitted on March 21, 2024. Additionally, the neighboring parcel PID 08.0089.000 has a variance request being reviewed that is linked to this and is predicated on the rezoning being approved.

#### TOWNSHIP AND NEIGHBORHOOD COMMENTS

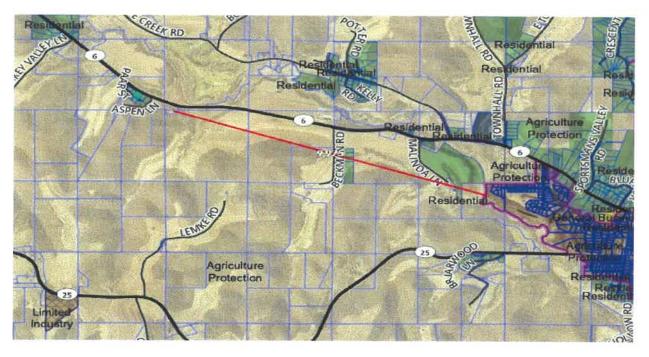
No comments have been received to date.

## SITE CHARACTERISTICS

No activities are proposed for parcels PID 08.0089.001 & PID 08.0077.001 associated with this rezone request. On 9/28/2004 La Crescent Township granted a permit for a single-family dwelling with an attached garage. The parcel is approximately 1.9 miles from the City of La Crescent and is between the Golf View Addition Subdevelopment and the city of La Crescent.



Parcels 08.0089.001 & 08.0077.001 proximity to Residential District Figure 1.



Parcel 08.0089.001 & 08.0077.001 proximity to the City of La Crescent Figure 2.

### **EVALUATION**

Section 8.6 of the Houston County Zoning Ordinance requires that the Board make findings in support of a decision but does not prescribe specific criteria. The following findings are proposed by staff for your consideration. Please consider formulating additional findings as you see fit.

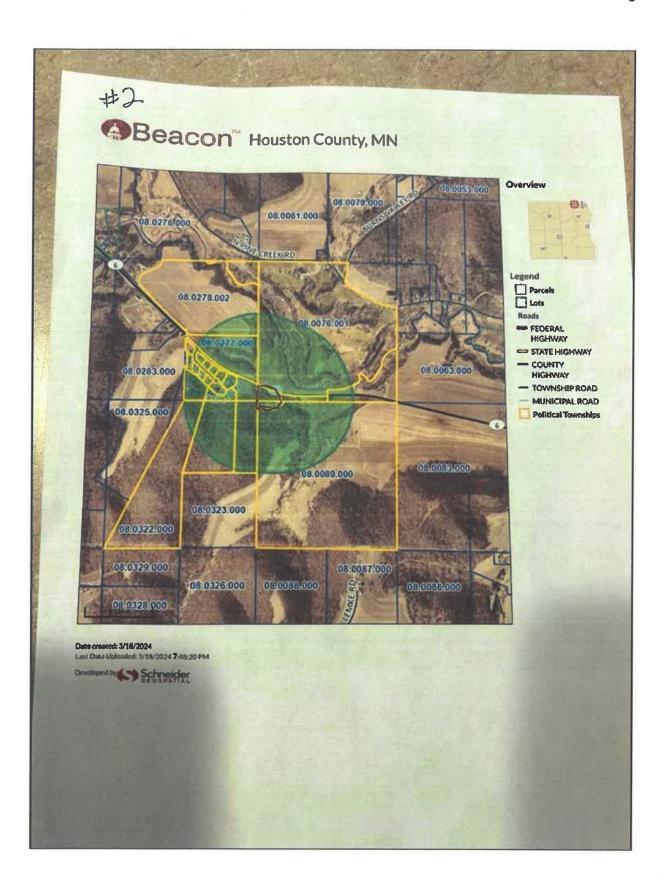
- 1. The property at 4017 County 6, La Crescent, Mn is zoned Agricultural Protection District and is approximately 1.89 miles from the City of La Crescent.
- 2. The City of La Crescent Comprehensive Land Use Plan for future land use identifies La Crescent Township within two miles of the current city limits.
- 3. The Houston County Comprehensive Land Use Plan in Chapter 2, Policy 1. identifies limiting development in agricultural areas unless identified for development under city capital improvement plans or city comprehensive plans.
- 4. Parcel 08.0089.001 meets the requirements for lot setbacks and septic systems in the residential district.
- 5. The soils on parcels PID 08.0089.001 & PID 08.0077.001 are not prime agricultural soils ranging from a land capability classification of 6e to 7e.
- 6. The rezoning will remove this dwelling from the one dwelling per quarter-quarter density standard for the Agricultural Protection District in the NW ¼-NW ¼. And allow the proposed dwelling for PID 08.0089.000 to be located on non-prime ag land in this quarter-quarter.

#### RECOMMENDATION

Should the permit be granted, staff recommend requiring the following conditions:

- 1. The permittee shall comply with all federal, state, and local laws and regulations
- 2. The county may enter onto the premises at reasonable times and in a reasonable manner to ensure the permit holder is in compliance with the conditions and all other appliable statues, rules and ordinances.

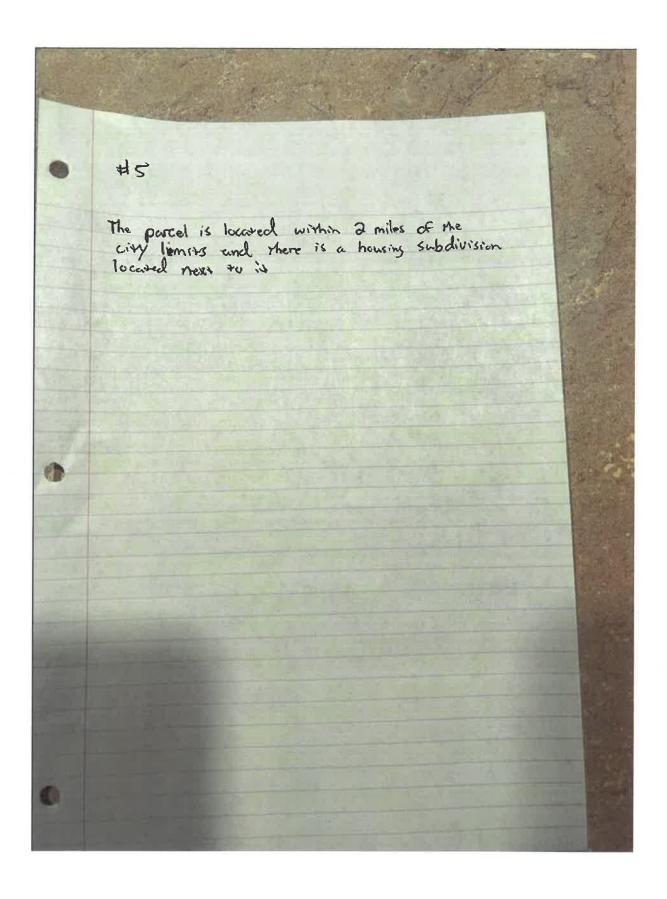
赵 This petition is to rezone Juston and Amber Wieser property from the Ag Zone to Residentil located at 4017 County road 6 in La Crescent township Jason Wieser - Japon Win 4017 County 6 La Crescent, MN SS947 Ben Wreser Ban Was La Creskent, MN 55947

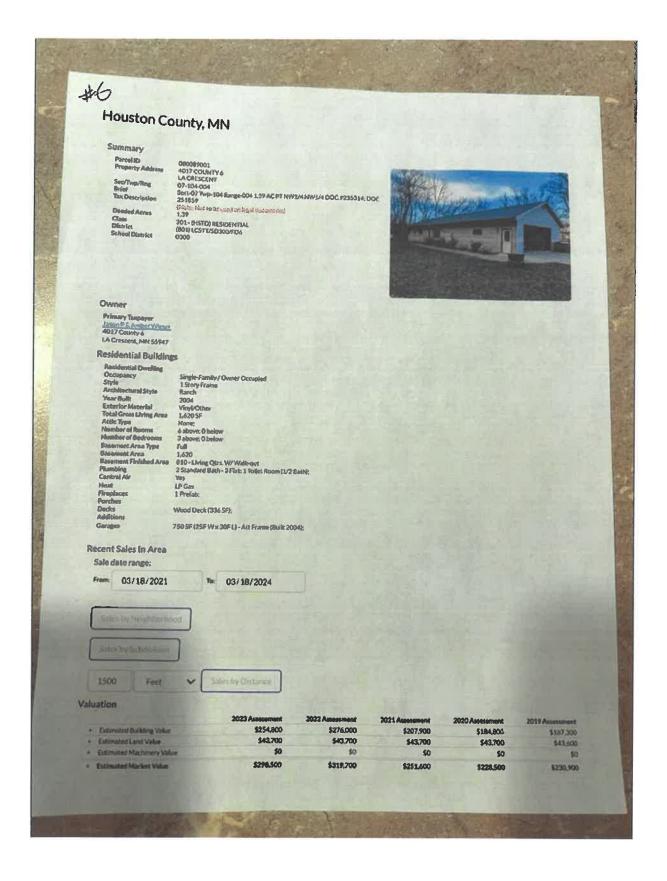


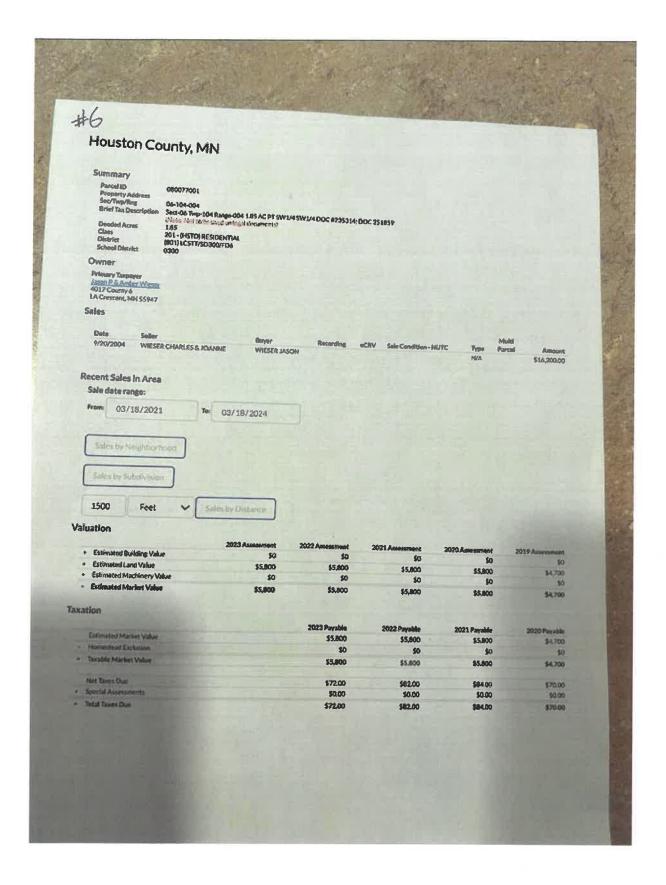
	#2	
	Jasan & Amber Wieser Parcel ID 080089001 and 080077001 to be rezamed Residential	
	neighbors within 4 mile	
	Bond Emily Wieser 3755 Cay Rd 6 Ca Crescont (Histel Agricultural)	
	Alan & Diane Engstler 4097 Aspen In. La Crescent James & Kashleen Kluck 4191 Aspen In. Ca Crescent	
	Jumes & Ja Humfeld 4249 Page St La Crescent	all of
10	Damel o Renee Scoter 4201 Pour St La Crescent Joe: 1 yun Baner 4181 Pour St. Ca Crescent Thomas & Kuthryn Ready 4145 Rear St. Ca Crescent	- these
	Themas & Kuthryn Redy 4145 Rear ST La Crescent  Advert & Benyl Wittbrech 4082 Aspen In. La Crescent  Terms & Jecume Occusen 4077 Cry Rel 6 La Crescent	2
	Allen & Lisa Wiebke 4160 Pear St. Ca Crescent Jonathan & Ashley Edwards 4190 Pear St. Ca Creccent	resident in
	Adrian Sholes 4200 Paur St La Crescert	450
		Divis
		5

#3 currently it's in the its district and want it to be in residential

#4 The use will be the same as before just want it Residential like the majority of the houses are next to it now









# Commissioner Warrants 2024/05/07

# Lynn Colsch

Thu 5/2/2024 12:29 PM

To:Houston County BOC <BOC@co.houston.mn.us>;

Cc:Carol Lapham <Carol.Lapham@co.houston.mn.us>; Susan Tostenson <Susan.Tostenson@co.houston.mn.us>;

# **REQUEST APPROVAL FOR PAYMENT**

# 2024/05/07 COMMISSIONER'S WARRANTS:

VENDOR NAME	AMOUNT
CALEDONIA OIL CO INC	4,470.00
CEDA	7,107.69
CITY OF CALEDONIA	13,063.62
CITY OF LA CRESCENT TREASURER	5,000.00
EHLERS	3,750.00
GOVERNMENTJOBS.COM INC	8,277.31
HOUSTON COUNTY TREASURER	209,241.94
IUOE LOCAL 49 FRINGE BENEFIT FUNDS	25,075.00
KRAUS OIL CO	4,500.00
LIBERTY TIRE RECYCLING LLC	6,861.10
MASTERS TOUCH INC	4,834.47
MINNESOTA ENERGY RESOURCES	108,362.40
MN LIFE INSURANCE COMPANY	2,428.80
MN UI FUND	2,364.77
VERIZON WIRELESS	3,393.68
VISA	9,205.71
WILDCAT CREEK MANAGEMENT	13,000.00
WINONA CONTROLS INC	6,139.35
WS TRUCKING & CONSTRUCTION	2,137.50
	439,213.34
41 VENDORS PAID LESS THAN \$2000.00	24,818.59
	464,031.93
PUBLIC HEALTH & HUMAN SERVICES	10,084.30
	474,116.23

Lynn Colsch Finance Clerk Houston County 304 South Marshall Street Caledonia MN 55921