



AGENDA

LINDSTROM CITY COUNCIL WORK SESSION

TUESDAY, MAY 2, 2023
5:00 P.M.

Lindstrom City Hall
13292 Sylvan Ave., Lindstrom, MN

CALL TO ORDER/PLEDGE:

GENERAL BUSINESS ITEMS:

1. Charitable Gambling (pgs. 2-8)
2. Pavement Management (pgs. 9-32)
 - a. Engineer's Report
 - b. Irene Avenue Pavement Improvements Bid Tabulation
 - c. Irene Avenue Typical Section
 - d. Geotechnical Report
3. South Lindstrom Lake Sanitary Sewer Lining (pgs. 33-35)


ADJOURNMENT:



20 Lake St. N. Suite 103
Forest Lake, MN 55025
Phone: (651) 464-3685 • Fax: (651) 464-3687
www.lc4yf.org

April 10, 2023

To: City of Lindstrom City Council

From: Linda M. Madsen 
Executive director

RE: Request for Approval to Conduct Lawful Gambling at the Chisago
Lakes Grill, Lindstrom, MN

Lakes Center for Youth and Families is requesting approval to conduct charitable gambling at the Chisago Lakes Grill in Lindstrom, MN. We currently conduct charitable gambling at Running Aces in Columbus, MN and have done so since 2012.

We have been working with the Chisago Lakes Grill Board of Directors to fill out the required paperwork (LG214 and LG215) which is attached. Since we are currently licensed, these are the two forms necessary to present to the City Council. Also included is the list from the Gambling Control website which indicates Lakes Center is licensed.

Thank you for considering this request.



24 April 2023

This letter is to affirm the decision of the Board of Directors of Chisago Lakes Golf Estates, Inc. dba Chisago Lakes Golf Course and Chisago Lakes Grill at 12975 292nd Street. This relates to the provision of charitable gambling materials.

In the past, this service has been provided by Lakes Area Recreation Association.

Our desire is to have these services now provided by the following:

Lakes Center for Youth & Families
20 Lake Street North, Suite 103
Forest Lake, MN 55025
Phone 651-464-3685, ext. 109
Fax 651-464-3687

Chief Executive Officer: Linda Madsen (651-464-3685)
Gambling Manager: Kathy Lillis (651-248-7757)
Gambling license: 34511

If any additional information is required, please request same.

A handwritten signature in black ink, appearing to read "Carlton R. Erickson".

Carlton R. Erickson
President, Board of Directors
Chisago Lakes Golf Estates, Inc.

LG214 Premises Permit Application

Annual Fee \$150 (NON-REFUNDABLE)

REQUIRED ATTACHMENTS TO LG214

- | | |
|--|--|
| <p>1. If the premises is leased, attach a copy of your lease. Use LG215 Lease for Lawful Gambling Activity.</p> <p>2. \$150 annual premises permit fee, for each permit (non-refundable). Make check payable to "State of Minnesota."</p> | <p>Mail the application and required attachments to:
 Minnesota Gambling Control Board
 1711 West County Road B, Suite 300 South
 Roseville, MN 55113</p> <p>Questions? Call 651-539-1900 and ask for Licensing.</p> |
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ORGANIZATION INFORMATION

Organization Name: Lakes Center for Youth and Families License Number: 34511

Chief Executive Officer (CEO) Linda Madsen Daytime Phone: 651-464-3685

Gambling Manager: Kathy Lillis Daytime Phone: 651-248-7757

GAMBLING PREMISES INFORMATION

Current name of site where gambling will be conducted: Chisago Lakes Grill

List any previous names for this location:
Also DBA Chisago Lakes Golf Course

Street address where premises is located: 12975 292nd Street
(Do not use a P.O. box number or mailing address.)

City: <u>Lindstrom</u>	OR	Township:	County: <u>Chisago</u>	Zip Code: <u>55045</u>
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Does your organization own the building where the gambling will be conducted?
 Yes No **If no, attach LG215 Lease for Lawful Gambling Activity.**

A lease is not required if only a raffle will be conducted.
 Is any other organization conducting gambling at this site? Yes No Don't know

Note: Bar bingo can only be conducted at a site where another form of lawful gambling is being conducted by the applying organization or another permitted organization. Electronic games can only be conducted at a site where paper pull-tabs are played.

Has your organization previously conducted gambling at this site? Yes No Don't know

GAMBLING BANK ACCOUNT INFORMATION; MUST BE IN MINNESOTA

Bank Name: First State Bank of Wyoming Bank Account Number: 1645951

Bank Street Address: 26741 Felton Ave PO Box 308 City: Wyoming State: **MN** Zip Code: 55092

ALL TEMPORARY AND PERMANENT OFF-SITE STORAGE SPACES

Address (Do not use a P.O. box number):	City:	State:	Zip Code:
<u>None</u>		MN	
		MN	
		MN	

ACKNOWLEDGMENT BY LOCAL UNIT OF GOVERNMENT: APPROVAL BY RESOLUTION

<p>CITY APPROVAL for a gambling premises located within city limits</p> <p>City Name: _____</p> <p>Date Approved by City Council: _____</p> <p>Resolution Number: _____ (If none, attach meeting minutes.)</p> <p>Signature of City Personnel: _____</p> <p>_____ Title: _____ Date Signed: _____</p> <div style="border: 1px solid black; padding: 10px; text-align: center; margin: 10px auto; width: 80%;"> <p>Local unit of government must sign.</p> </div>	<p>COUNTY APPROVAL for a gambling premises located in a township</p> <p>County Name: _____</p> <p>Date Approved by County Board: _____</p> <p>Resolution Number: _____ (If none, attach meeting minutes.)</p> <p>Signature of County Personnel: _____</p> <p>_____ Title: _____ Date Signed: _____</p> <p>TOWNSHIP NAME: _____</p> <p>Complete below only if required by the county. On behalf of the township, I acknowledge that the organization is applying to conduct gambling activity within the township limits. (A township has no statutory authority to approve or deny an application, per Minnesota Statutes 349.213, Subd. 2.)</p> <p>Print Township Name: _____</p> <p>Signature of Township Officer: _____</p> <p>_____ Title: _____ Date Signed: _____</p>
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ACKNOWLEDGMENT AND OATH

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. I hereby consent that local law enforcement officers, the Board or its agents, and the commissioners of revenue or public safety and their agents may enter and inspect the premises. 2. The Board and its agents, and the commissioners of revenue and public safety and their agents, are authorized to inspect the bank records of the gambling account whenever necessary to fulfill requirements of current gambling rules and law. 3. I have read this application and all information submitted to the Board is true, accurate, and complete. 4. All required information has been fully disclosed. 5. I am the chief executive officer of the organization. | <ol style="list-style-type: none"> 6. I assume full responsibility for the fair and lawful operation of all activities to be conducted. 7. I will familiarize myself with the laws of Minnesota governing lawful gambling and rules of the Board and agree, if licensed, to abide by those laws and rules, including amendments to them. 8. Any changes in application information will be submitted to the Board no later than ten days after the change has taken effect. 9. I understand that failure to provide required information or providing false or misleading information may result in the denial or revocation of the license. 10. I understand the fee is non-refundable regardless of license approval/denial. |
|--|---|

Signature of Chief Executive Officer (designee may not sign) _____
Date

<p>Data privacy notice: The information requested on this form (and any attachments) will be used by the Gambling Control Board (Board) to determine your organization's qualifications to be involved in lawful gambling activities in Minnesota. Your organization has the right to refuse to supply the information; however, if your organization refuses to supply this information, the Board may not be able to determine your organization's qualifications and, as a consequence, may refuse to issue a permit. If your organization supplies the information requested, the Board will be able to process your organization's application. Your organization's name and address will be public</p>	<p>information when received by the Board. All other information provided will be private data about your organization until the Board issues the permit. When the Board issues the permit, all information provided will become public. If the Board does not issue a permit, all information provided remains private, with the exception of your organization's name and address which will remain public. Private data about your organization are available to: Board members, Board staff whose work requires access to the information;</p>	<p>Minnesota's Department of Public Safety, Attorney General, Commissioners of Administration, Minnesota Management & Budget, and Revenue; Legislative Auditor, national and international gambling regulatory agencies; anyone pursuant to court order; other individuals and agencies specifically authorized by state or federal law to have access to the information; individuals and agencies for which law or legal order authorizes a new use or sharing of information after this notice was given; and anyone with your written consent.</p>
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This form will be made available in alternative format, i.e. large print, braille, upon request.

An equal opportunity employer

LG215 Lease for Lawful Gambling Activity

LEASE INFORMATION		
Organization:	License/Site Number:	Daytime Phone:
Lakes Center for Youth and Families	34511	651-464-3685
Address:	City:	State: Zip:
20 Lake Street N Suite 103	Forest Lake	MN 55025
Name of Leased Premises:	Street Address:	
Chisago Lakes Grill	12975 292nd Street	
City:	State: Zip:	Daytime Phone:
Lindstrom	MN 55045	651-257-0973
Name of Legal Owner:	Business/Street Address:	
Chisago Lakes Golf Estates, Inc	12975 292nd Street	
City:	State: Zip:	Daytime Phone:
Lindstrom	MN 55045	651-257-0973
Name of Lessor (If same as legal owner, write "SAME"):	Address:	
Same		
City:	State: Zip:	Daytime Phone:
Check applicable item:		
<input checked="" type="checkbox"/> New or amended lease. Effective date: <u>May 20, 2023</u> . Submit changes at least ten days before the effective date of the change.		
<input type="checkbox"/> New owner. Effective date: _____. Submit new lease within ten days after new lessor assumes ownership.		
CHECK ALL ACTIVITY THAT WILL BE CONDUCTED (no lease required for raffles)		
<input checked="" type="checkbox"/> Pull-Tabs (paper)	<input checked="" type="checkbox"/> Electronic Pull-Tabs	
<input checked="" type="checkbox"/> Pull-Tabs (paper) with dispensing device	<input checked="" type="checkbox"/> Electronic Linked Bingo	
<input checked="" type="checkbox"/> Bar Bingo <input type="checkbox"/> Bingo	Electronic games may only be conducted:	
<input checked="" type="checkbox"/> Tipboards	1. at a premises licensed for the on-sale of intoxicating liquor or the on-sale of 3.2% malt beverages; or	
<input checked="" type="checkbox"/> Paddlewheel <input type="checkbox"/> Paddlewheel with table	2. at a premises where bingo is conducted as the primary business and has a seating capacity of at least 100.	
PULL-TAB, TIPBOARD, AND PADDLEWHEEL RENT (separate rent for booth and bar ops)		
BOOTH OPERATION: Some or all sales of gambling equipment are conducted by an employee/volunteer of a licensed organization at the leased premises.		
ALL GAMES, including electronic games: Monthly rent to be paid: _____%, not to exceed 10% of gross profits for that month.		
• Total rent paid from all organizations for only booth operations at the leased premises may not exceed \$1,750 .		
• The rent cap does not include BAR OPERATION rent for electronic games conducted by the lessor.		
BAR OPERATION: All sales of gambling equipment conducted by the lessor or lessor's employee.		
ELECTRONIC GAMES: Monthly rent to be paid: <u>15</u> %, not to exceed 15% of the gross profits for that month from electronic pull-tab games and electronic linked bingo games.		
ALL OTHER GAMES: Monthly rent to be paid: <u>20</u> %, not to exceed 20% of gross profits from all other forms of lawful gambling.		
• If any booth sales conducted by a licensed organization at the premises, rent may not exceed 10% of gross profits for that month and is subject to booth operation \$1,750 cap.		
BINGO RENT (for leased premises where bingo is the primary business conducted, such as bingo hall)		
Bingo rent is limited to one of the following:		
• Rent to be paid: _____%, not to exceed 10% of the monthly gross profit from all lawful gambling activities held during bingo occasions, excluding bar bingo.		
- OR -		
• Rate to be paid: \$ _____ per square foot, not to exceed 110% of a comparable cost per square foot for leased space, as approved by the director of the Gambling Control Board. The lessor must attach documentation, verified by the organization, to confirm the comparable rate and all applicable costs to be paid by the organization to the lessor.		
⇒ Rent may not be paid for bar bingo.		
⇒ Bar bingo does not include bingo games linked to other permitted premises.		
LEASE TERMINATION CLAUSE (must be completed)		
The lease may be terminated by either party with a written <u>30</u> day notice. Other terms:		

LG215 Lease for Lawful Gambling Activity

Lease Term: The term of this agreement will be concurrent with the premises permit issued by the Gambling Control Board (Board).

Management: The owner of the premises or the lessor will not manage the conduct of lawful gambling at the premises. The organization may not conduct any activity on behalf of the lessor on the leased premises.

Participation as Players Prohibited: The lessor will not participate directly or indirectly as a player in any lawful gambling conducted on the premises. The lessor's immediate family and any agents or gambling employees of the lessor will not participate as players in the conduct of lawful gambling on the premises, except as authorized by Minnesota Statutes, Section 349.181.

Illegal Gambling: The lessor is aware of the prohibition against illegal gambling in Minnesota Statutes 609.75, and the penalties for illegal gambling violations in Minnesota Rules 7865.0220, Subpart 3. In addition, the Board may authorize the organization to withhold rent for a period of up to 90 days if the Board determines that illegal gambling occurred on the premises or that the lessor or its employees participated in the illegal gambling or knew of the gambling and did not take prompt action to stop the gambling. Continued tenancy of the organization is authorized without payment of rent during the time period determined by the Board for violations of this provision, as authorized by Minnesota Statutes, Section 349.18, Subd. 1(a).

To the best of the lessor's knowledge, the lessor affirms that any and all games or devices located on the premises are not being used, and are not capable of being used, in a manner that violates the prohibitions against illegal gambling in Minnesota Statutes, Section 609.75.

Notwithstanding Minnesota Rules 7865.0220, Subpart 3, an organization must continue making rent payments under the terms of this lease, if the organization or its agents are found to be solely responsible for any illegal gambling, conducted at this site, that is prohibited by Minnesota Rules 7861.0260, Subpart 1, item H, or Minnesota Statutes, Section 609.75, unless the organization's agents responsible for the illegal gambling activity are also agents or employees of the lessor.

The lessor must not modify or terminate the lease in whole or in part because the organization reported, to a state or local law enforcement authority or to the Board, the conduct of illegal gambling activity at this site in which the organization did not participate.

Other Prohibitions: The lessor will not impose restrictions on the organization with respect to providers (distributor or linked bingo game provider) of gambling-related equipment and services or in the use of net profits for lawful purposes.

The lessor, the lessor's immediate family, any person residing in the same residence as the lessor, and any agents or employees of the lessor will not require the organization to perform any action that would violate statute or rule. The lessor must not modify or terminate this lease in whole or in part due to the lessor's violation of this provision. If there is a dispute as to whether a violation occurred, the lease will remain in effect pending a final determination by the Compliance Review Group (CRG) of the Board. The lessor agrees to arbitration when a violation of this provision is alleged. The arbitrator shall be the CRG.

Access to Permitted Premises: Consent is given to the Board and its agents, the commissioners of revenue and public safety and their agents, and law enforcement personnel to enter and inspect the permitted premises at any reasonable time during the business hours of the lessor. The organization has access to the premises during any time reasonable and when necessary for the conduct of lawful gambling.

Lessor Records: The lessor must maintain a record of all money received from the organization, and make the record available to the Board and its agents, and the commissioners of revenue and public safety and their agents upon demand. The record must be maintained for 3-1/2 years.

Rent All-Inclusive: Amounts paid as rent by the organization to the lessor are all-inclusive. No other services or expenses provided or contracted by the lessor may be paid by the organization, including but not limited to:

- trash removal
- electricity, heat
- snow removal
- storage
- janitorial and cleaning services
- other utilities or services
- lawn services
- security, security monitoring
- cost of any communication network or service required to conduct electronic pull-tabs games or electronic bingo
- in the case of bar operations, cash shortages.

Any other expenditures made by an organization that is related to a leased premises must be approved by the director of the Board. Rent payments may not be made to an individual.

ACKNOWLEDGMENT OF LEASE TERMS

I affirm that this lease is the total and only agreement between the lessor and the organization, and that all obligations and agreements are contained in or attached to this lease and are subject to the approval of the director of the Gambling Control Board.

Other terms of the lease:
None

Signature of Lessor: _____	Date: _____	Signature of Organization Official (Lessee): <i>Linda M Madsen</i>	Date: <i>4/10/2023</i>
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Print Name and Title of Lessor: _____	Print Name and Title of Lessee: <i>Linda M Madsen Executive Director</i>
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<p>Questions? Contact the Licensing Section, Gambling Control Board, at 651-539-1900. This publication will be made available in alternative format (i.e. large print, braille) upon request. Data privacy notice: The information requested on this form and any attachments will become public information when received by the Board, and will be used to determine your compliance with Minnesota statutes and rules governing lawful gambling activities.</p>	<p>Mail or fax lease to: Minnesota Gambling Control Board 1711 W. County Road B, Suite 300 South Roseville, MN 55113 Fax: 651-639-4032</p>
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Minnesota Gambling Control Board
Active Lawful Gambling Organizations
 Alphabetical Order

License #	Organization Name	City:	License #	Organization Name	City:
01000	400 Wood Club Inc	Minneapolis	01937	American Legion Post 545 Housh Lake	Housh Lake
05298	International Falls Recreation Hockey Assoc	International Falls	01066	Lakes Area Senior Activity Center	Granero
05012	International Voyageurs Snowmobile Club	International Falls	34511	Lakes Center for Youth and Families, Inc.	Forest Lake
94654	Inver Grove Heights Baseball Association	Inver Grove Heights	35486	Lakeview Booster Club, Inc	Cottonwood
93224	Irish Football Boosters	Rosemount	02059	Lakeville Hockey Association	Lakeville
02305	Irving Community Association	Duluth	01947	Lakeville Lions Club	Lakeville
02612	Isabella Community Council	Isabella	93544	Lakeville South Clay Target Team	Lakeville
02581	Isanti County Sportsmens Club	Cambridge	94816	Lakeville South Football Assoc	Lakeville
01844	Isle Lions Club	Isle	05073	Lamberton Lions Club	Lamberton
00511	Italian American Club Foundation	Minneapolis	03796	Lancer Youth Hockey Association	La Crescent
93852	Ivanhoe Firemens Relief Assoc	Ivanhoe	03119	Lanesboro Fire Relief Assn	Lanesboro
02352	Izaak Walton League Chapter 79	New Ulm	02551	Le Center Firefighter's Relief Association	Le Center
36570	Jackson County Conservation League	Lakefield	02355	Leaf Valley Game and Fish Conservation Club	Milona
01717	Jasper Lions Club	Jasper	02685	Leavenworth Baseball Assoc	Sleepy Eye
94202	Jefferson Athletic Foundation	Bloomington	30852	Leech Lake Area Amateur Hockey Association	Walker
02662	Jordan Fire Department Relief Assoc	Jordan	35638	LeRoy Community Foundation	LeRoy
94120	Jordan Pride Booster Club	Jordan	02982	Lester Prairie Lions Club	Lester Prairie
95050	Kasson Mantorville Youth Basketball	Kasson	03750	Lewiston Volunteer Fire Co	Lewiston

Tuesday, April 4, 2023

Page 6 of 12

License #	Organization Name	City:	License #	Organization Name	City:
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Total Active Lawful Gambling Organization Licenses:	1146
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MSA Engineer's Report

To: Honorable Mayor and City Council Members
Ms. Melissa Glenna, Interim City Administrator

From: Matt Fraley, Director of Public Works
Jon Herdegen, P.E. – City Engineer

Subject: Pavement Management

Date: April 28, 2023 – For the May 2nd Council Work Session

Continuing our recent discussions of the City's pavement management plan, staff has prepared some additional information we are excited to present to the Council and solicit your feedback. We would like to review the following items during our May 2nd Work Session:

- Pavement Criticality Ratings
- Street Designation Groups
 - Maintenance
 - Reclamation
 - Street Reconstruction
 - Street & Utility Reconstruction
- Irene Avenue Pavement Improvements
 - Geotechnical Report
 - Improvement Options
- 2023 Budget & Future Projects
 - Neal Avenue Pavement Improvements

Pavement Criticality Ratings

The City of Lindstrom has incorporated a form of criticality weighting into their pavement management approach since 2018. The criticality score is based on a set of weighted factors – safety, street category, impact, traffic volume, and street age. The factors were largely determined by the City Staff and the former Public Works Committee, with input from MSA based on industry best practices. The list below describes each factor in more detail:

- **Safety:** Six variable analysis per road segment, created by John Olinger which incorporated considerations such as blind corners, steep ditch grades, accident history, etc.
- **Street Category:** Similar to functional classification but customized to accommodate a smaller city with more granular needs. Categories by decreasing priority are Downtown, Business, Collector, Neighborhood, Dead End, Cul-de-sac, Alley, Industrial and Gravel.
- **Impact** – A factor used to account for the types of activities, institutions, and access each road serves taking into account the City's non-grid layout. Categories by decreasing priority are Business, Schools, Churches, Public Facilities, Recreation, Industrial and Residential
- **Traffic Volume** – Industry standard metric of criticality. Lacking available traffic count data on every road segment, City Staff provided High, Medium, or Low assignments of traffic volume to each segment.

- Street Age – Used primarily as a tie breaker metric in the event new streets and old streets were to yield a similar criticality score. The street age score would promote an investment on the older street.

Each of these factors were weighted to form the basis for the Criticality score as follows:

- Traffic Volume – 112
- Street Category – 95
- Impact – 85
- Safety – 70
- Street Age – 5

Criticality scores were migrated to Cartegraph in 2021 and broadened to from a 1-10 scale to a 1-100 scale. Some adjustments were made to ensure balance and prevent overweighting of a single factor due to how Cartegraph handles the street category variability. The 2023 analysis within Cartegraph utilizes additional improved mechanisms to assist with expressing criticality beyond the score itself. MSA is utilizing the street category as the functional classification and is able to set minimum levels of service for each of these categories to promote proper balance of investment forecasting. Staff plans to share an itemized summary of the criticality score for each street segment in tabular form as well as on an interactive web map.

Street Designation Groups

Based on feedback received from Council at the April 4th work session, staff has worked to develop four (4) street designation groups to assist in prioritizing projects and appropriately allocating resources. The following is a high-level description of each designation group which staff plans to expand upon during the work session:

- Maintenance Group – This group includes streets that have an OCI (Overall Condition Rating) between ~70-100. These segments are our “good” streets. Using Cartegraph, we have applied our preferred maintenance schedule and associated costs to development proposed annual budgets based on an average and final OCI over a 20-year period.
- Reclamation Group – This group reflects streets that are deficient only from a pavement condition standpoint. The underlying utilities (water and sanitary sewer) are in good condition and the stormwater management in functional. From Staff’s perspective, applying the standard pavement maintenance practices to these streets are not cost effective because they are too far gone. The pavement surface must be replaced. We recommend implementing a full depth reclamation for these streets. Based on the bid prices recently submitted for the Irene Avenue Pavement Improvements project, we can estimate the total project costs for these qualifying segments.
- Street Reconstruction – This group shares the same characteristics as the reclamation group with a critical exception: the alignment and profile is not suitable to effectively manage stormwater. Estimating the replacement costs of this designation group is more difficult given the variable factors for each segment.
- Street and Utility Reconstruction – This group is a summary of our worst and most-expensive streets to reconstruct. The pavement management budget alone is unlikely to be able to support reconstructing these segments and additional funding sources will be needed to make meaningful improvements.

Staff has development an interactive web map to depict each designation group and the factors that contributed to our decision-making process. Applying unit costs to each designation group, will hopefully provide some perspective to assist advancing the City’s pavement management plan.

Irene Avenue Pavement Improvements

Staff presented bid results for the Irene Avenue Pavement Improvements project at the April 20th Council meeting. Council decided to table the consideration of award until further discussion could take place at this work session. For reference, here are a summary of the bid results:

Storm Sewer Improvements

- Status: Awarded, Not Constructed
- Contractor: Gustafson Excavating

- Construction Cost: \$37,349.40

Pavement Improvements

- Status: Not Awarded, Not Constructed
- Contractor: Bituminous Roadways
- Construction Cost – Reconstruction Alternative: \$344,379.80 (~\$48/SY)
- Construction Cost – Reclamation Alternative: \$254,606.20 (~\$35/SY)

Construction Administration & Observation (Engineering)

- \$30,000-\$38,000

Enclosed for your review is a copy of the Geotechnical Report prepared for the Irene Avenue Improvements project. Council expressed concern regarding some of the findings contained within the report. On page 6 of the report, the geotechnical engineer provided the following recommendation:

“We understand that the existing paving materials would ideally be milled to create a blended materials with a gradation comparable to class 5 aggregate base and used to support the new pavements. Whereas the materials below the bituminous appear to consist of materials which are dirtier and less gravelly than conventional aggregate base, we presently recommend limiting milling to the asphalt layers.”

The work described in the Reconstruction Alternative reflects the recommendations of the geotechnical report. The Reclamation Alternative proposes to mill the bituminous pavement and mix it with the underlying silty sand with gravel material. Since this alternative was contrary to the recommendations of the geotechnical engineer, staff reached out to a contractor that specializes in pavement reclamation. Upon review of the soils boring for the project, the contractor was confident that they would be able to effectively control the depth of the mill to prevent generating unsuitable material. To be clear, the full pavement reconstruction alternative will generate a more durable pavement section. However, staff recommended the Reclamation Alternative as is represented a 20% construction cost savings with a marginal reduction in overall durability.

2023 Budget & Future Projects

The remaining 2023 street improvements budget is approximately \$660,000. Staff is recommending that the City proceeds with the Storm Sewer and Pavement Improvements (Reclamation Alternative) on Irene Avenue. The total project cost (including construction cost and construction administration and observation) is \$322,000. Staff recommends that a portion of the remaining budget is allocated to another pavement reclamation project.

- Project Location: Neal Avenue between 295th Street & 297th Street
- Project Area: 5,681 SY
- Construction Cost: \$198,835 (\$35/SY)
- Contingencies: \$40,000 (~20%)
- Engineering: \$30,000(~15%)
- Total Project Cost: \$268,835
- Remaining 2023 Budget: \$69,165*

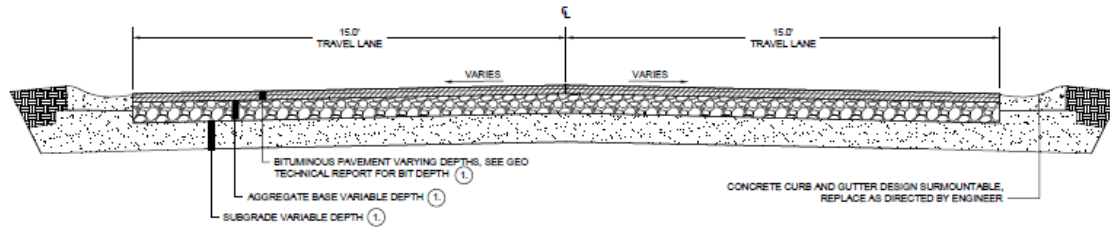
*Costs associated with Irene Ave Storm Sewer (~\$41,000 – construction costs + engineering) may be taken from the storm water budget rather than streets budget. This change would increase the remaining streets budget to ~\$110,000.

Attachments:

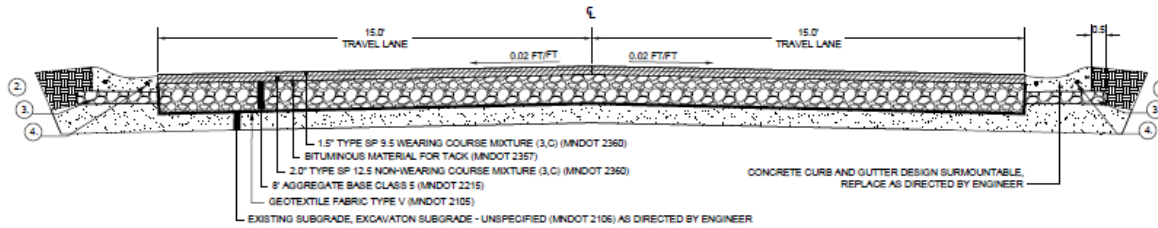
Irene Avenue Pavement Improvements Bid Tabulation
Irene Avenue Typical Section
Geotechnical Report

NOTES

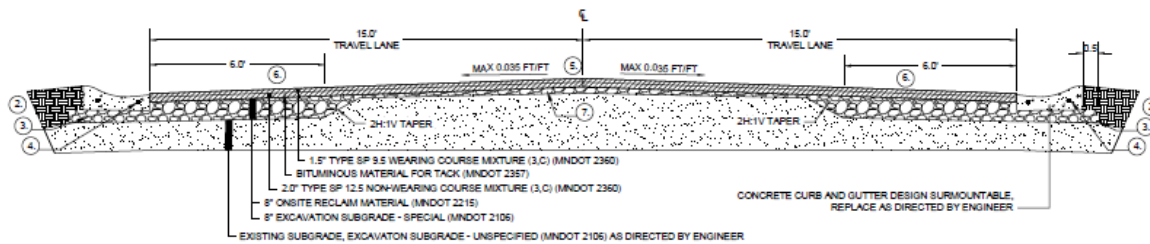
- ① SEE GEOTECHNICAL REPORT FOR MATERIAL DESCRIPTION AND APPROXIMATE DEPTH
- ② BACKFILL CURB WITH SUITABLE MATERIAL AS DIRECTED BY ENGINEER, INCIDENTAL TO CURB REPLACEMENT
- ③ ADD MINIMUM 4" AGGREGATE BASE CLASS 5 (MNDOT 2211) UNDER CURB REPLACEMENT
- ④ DRILL AND GROUT REINFORCEMENT BAR (EPOXY COATED) (MNDOT 2521) WHERE CURB AND GUTTER ARE REPLACED
- ⑤ FULL DEPTH RECLAMATION, 3'-4" INTO EXISTING AGGREGATE BASE
- ⑥ CONTRACTOR SHALL BLADE 8"-10" OF ONSITE RECLAMATION TO CENTER ROAD TO FACILITATE SUBGRADE EXCAVATION (2115.619) GRADE FULL DEPTH RECLAMATION BY ROAD STATION)
- ⑦ ADD ONSITE RECLAIM MATERIAL AS NEEDED TO CREATE UNIFORM CROWN (MAX 35%)



EXISTING TYPICAL SECTION



**PROPOSED TYPICAL SECTION - SCHEDULE 1.0
FULL PAVEMENT RECONSTRUCTION**



**PROPOSED TYPICAL SECTION - SCHEDULE 2.0
FULL DEPTH RECLAMATION**

PROJECT DATE	DATE	BY	DATE	BY
DESIGNED BY	JAS			
CHECKED BY	JAN			

STATE OF MINNESOTA
 PROFESSIONAL ENGINEER
 LICENSE NO. 4688
 DATE
 J. R. H. J.



IRENE AVENUE PAVEMENT IMPROVEMENTS
 CITY OF LINDSTROM
 CHISAGO COUNTY, MN

TYPICAL SECTIONS

Sheet
G3



Design Phase Geotechnical Evaluation:

Proposed Linstrom Street Improvements
Irene and Peninsula Avenues
Lindstrom, Minnesota

Prepared for:

Mr. Jon Herdegen, PE
City Engineer
MSA Professional Services, Inc.

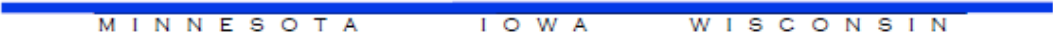
February 26, 2022
19585.21.MNT

I hereby certify that this report was prepared by me or under my direct supervision, and that I am a duly licensed engineer under the laws of the State of Minnesota.



A handwritten signature in black ink that reads 'Colby T. Verdegan'.

Colby T. Verdegan, PE
Geotechnical Engineer
Registration Number 18983
Date: February 26, 2022



Chosen Valley Testing, Inc.

Geotechnical Engineering and Testing, 246 E. Roselawn, St. Paul, Minnesota

Jon Herdegen, PE
City Engineer
MSA Professional Services, Inc.
+1 (612) 548-3138
jherdegen@msa-ps.com

January 31, 2022

**Re: Design Phase Geotechnical Evaluation
Proposed Lindstrom Street Improvements 2022
Irene Avenue
Lindstrom, Minnesota
CVT Project 19585.21.MNT**

Dear Mr. Herdegen,

As requested, we have prepared the design phase geotechnical evaluation for the proposed project in Lindstrom, Minnesota. This letter briefly summarizes the findings in the attached report.

Summary of Boring Results

At the surface, the borings encountered about 2 to 4 ½ inches of bituminous pavement. This was underlain by about ½ to 2 feet of fill consisting of silty sands with gravel, which did not appear to sufficiently coarse to meet requirements for aggregate base.

Beneath the silty sand with gravel fill, Boring B-9 encountered clayey sand which contained lenses and layers of organic soils. This boring is near a culvert connecting drainage of the mapped marshy area west of the roadway to the North Center Lake. The upper 9 feet of materials appeared to be fill materials while the deeper materials appeared to be more likely natural deposits.

The dominant soils at depth in the other borings consisted primarily of silty to clayey sands. The northernmost boring was the notable exception and met a layer of lean clay between the silty sand fill and the deeper natural silty to clayey sands.

Free groundwater was only observed in the boring with the deep fill and organic layers approximately 13 ½ feet below the surface. The moisture content data and soil colorations do not appear to suggest continuous exposure to water at the other locations and depths. Groundwater levels at the site are expected to fluctuate seasonally with local weather patterns and similar to levels in the nearby rivers, lakes, and creeks.

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Summary of Analysis and Recommendations

As mentioned earlier, the pavement subgrade soils are expected to primarily consist of silty clayey sands, silty sands, and clayey sands. If utilities are planned for this project, the dominant soils appear suitable for support of piping and for reused as backfill. Dewatering is not expected to be needed for shallow utility excavations.

Based on the data, milling of the existing paving materials is recommended to be limited to the surficial asphalt. The soils expected to be exposed after stripping to the bottom of the pavement subgrade are expected to be suitable for support of the replacement pavement. We recommend using an R-value of 20 for pavement design on the expected soils. The report includes a recommended pavement section based on assumed loading conditions. We understand that the typical pavement section for City of Lindstrom includes placement of a 1-foot layer of clean sand below the paving materials as well as edge drains. Our understanding is that this is not incorporated in the existing street section. Based on the data, the recommended pavement section described provides greater overall strength than the existing pavement and would not significantly benefit from either edge drains or an additional sand layer below the aggregate base. The pavement recommendations provided should be considered preliminary, subject to review by the civil engineering consultant, and their experience with pavement design and performance in the area of the project.

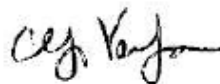
Remarks

We appreciate the opportunity to serve you. The attached report provides more details of our analysis. If you have any questions about our report, please feel free to contact us at (320) 774-3500.

Sincerely,
Chosen Valley Testing, Inc.



Hannah Fischer
Graduate Geological Engineer



Colby T. Verdegan, PE
Sr. Geotechnical/Materials Engineer

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Boring Location Sketch
Log of Boring # 6-10
Legend to Soil Description

**Design Phase Geotechnical Report
Proposed Lindstrom Street Improvements
Irene and Peninsula Avenues
Lindstrom, Minnesota**

CVT Project Number: 19585.21.MNT
Date: February 26, 2022

A. Introduction

The intent of this report is to present our results to the client in the same logical sequence that led us to arrive at the opinions and recommendations expressed. Since our services must often be completed before the design, assumptions are sometimes needed to prepare a proper evaluation and to analyze the data. A complete and thorough review of this entire document, including the assumptions and the appendices, should be undertaken immediately upon receipt.

A.1. Purpose

This report was prepared to assist planning for the proposed street improvements along Irene Avenue and Peninsula Avenue in Lindstrom, Minnesota. Our services were authorized by Mr. Jon Herdegen, P.E., City Engineer, of MSA Professional Services, Inc.

A.2. Scope

To obtain data for analysis, a five (5) borings were performed along Irene Avenue. The borings were drilled to depths of about 14.9 feet below the surface. Our engineering scope consisted of providing geotechnical recommendations for the proposed pavement improvements.

A.3. Boring Locations and Elevation

The boring locations were indicated to Chosen Valley Testing (CVT) on a site map provided and were offset as needed to avoid existing utilities marked by surveyors. The Boring Location Sketch in the Appendix shows the approximate locations as drilled which have been plotted onto aerial imagery using Google Earth Software.

The ground surface elevations at the borings were estimated to the nearest 1 foot from Minnesota Department of Natural Resources LiDAR topographic data using their online software “MnTOPO” and should be considered approximate.

A.4. Geologic Background

A geotechnical report is based on subsurface data collected for the specific structure or problem. Available geologic data from the region can help interpretation of the data and is briefly summarized in this section.

Geologic maps indicate that the soils on site consist of a low relief silty clayey sand till of unsorted pebbly sediment which border a mapped zone of peat and muck dominated by fine grained organic matter and calcareous clay at depth. Geologic maps indicate bedrock being on the order of 300 to 400 feet below the

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surface with bedrock expected to be yellow to gray very fine-grained feldspathic sandstone, siltstone, and shale of the Eau Claire Formation.

B. Subsurface Data

Methods: All of the borings were performed using penetration test procedures (Method of Test D1586 of the American Society for Testing and Materials). This procedure allows for the extraction of intact soil specimen from deep in the ground. With this method, a hollow-stem auger is drilled to the desired sampling depth. A 2-inch OD sampling tube is then screwed onto the end of a sampling rod, inserted through the hole in the auger's tip, and then driven into the soil with a 140-pound hammer dropped repeatedly from a height of 30 inches above the sampling rod. The sampler is driven 18-inches into the soil, unless the material is too hard. The samples are generally taken at 2½ to 5-foot intervals. The core of soil obtained is classified and logged by the driller and a representative portion is then sealed in a jar and delivered to the soils engineer for review.

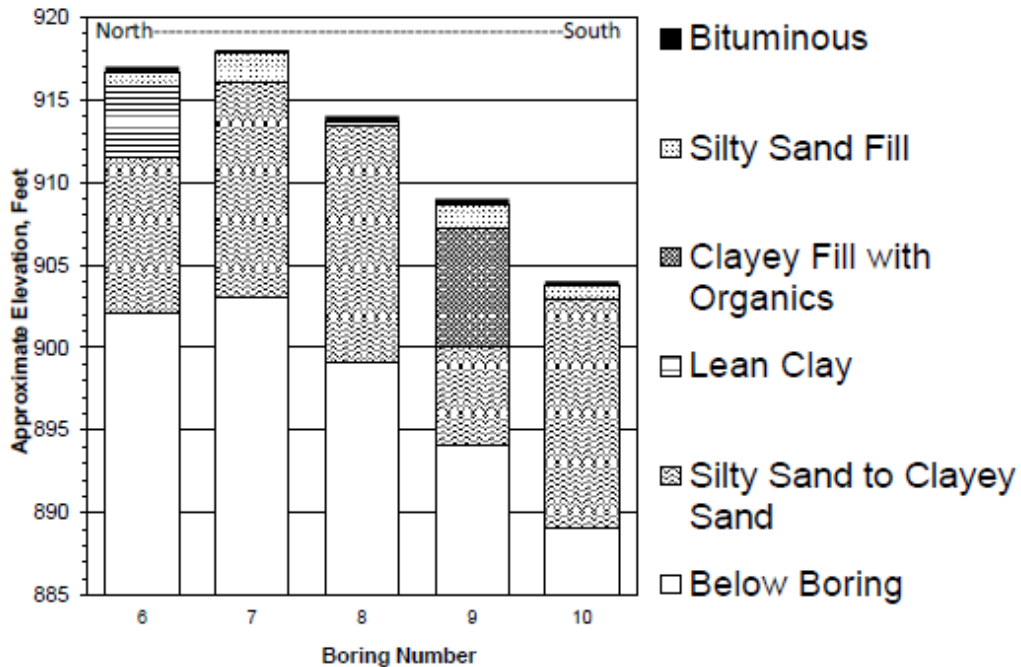
B.1. Stratification

At the surface, the borings encountered about 2 to 4 ½ inches of bituminous pavement. This was underlain by about ½ to 2 feet of fill consisting of silty sands with gravel, which did not appear to sufficiently coarse to meet requirements for aggregate base.

Beneath the silty sand with gravel fill, Boring B-9 encountered clayey sand which contained lenses and layers of organic soils. This boring is near a culvert connecting drainage of the mapped marshy area west of the roadway to the North Center Lake. The upper 9 feet of materials appeared to be fill materials while the deeper materials appeared to be more likely natural deposits.

The dominant soils at depth in the other borings consisted primarily of silty to clayey sands. The northernmost boring was the notable exception and met a layer of lean clay between the silty sand fill and the deeper natural silty to clayey sands.

The boring data has been summarized in the following cross-section. For more detailed information, please refer to the individual Log of Boring sheets in the Appendix.



B.2. Penetration Test Results

The number of blows needed for the hammer to advance the penetration test sampler is an indicator of soil characteristics. The number of blows to advance the sampler 1 foot is called the penetration resistance or “N”-value. The results tend to be more meaningful for natural mineral soils, than for fill soils. In fill soils, compaction tests are more meaningful.

The uppermost soils in the borings were frozen, and penetration test values in that zone were not meaningful. Penetration resistance values (N-values) of 7 and 8 Blows per Foot (BPF) were recorded in the un-frozen fill soils. Values in the un-frozen natural soils ranged from 6 to 25 BPF, indicating they were loose to medium dense. The higher values tended to be recorded at depth.

A key to the descriptors used to qualify the relative density of soil (such as *soft, stiff, loose, and dense*) can be found on the Legend to Soil Description in the Appendix.

B.3. Groundwater Data

During the drilling operation, the drillers may note the presence of moisture on the sampling instrument, in the cuttings, or within the borehole. These observations are recorded on the boring logs. The water level may vary with weather; time of year and other factors and the presence or absence of water during the drilling is subject to interpretation and is not always conclusive.

Free groundwater was only observed in Boring B-9, the borings with the deep fill and organic layers, and was noted approximately 13 ½ feet below the surface. The soils in all of the borings were not very permeable and would tend to inhibit flow of water into the bore holes. That said, the moisture content data and soil

colorations do not appear to suggest continuous exposure to water the other locations and depths. Groundwater levels at the site are expected to fluctuate seasonally with local weather patterns and similar to levels in the nearby rivers, lakes, and creeks.

C. Project Design Data

Each structure has a different loading configuration and intensity, different grades, and different structural and performance tolerances. Therefore, the geotechnical exploration will be construed differently from one structure to another. If the initial structure should change design, we should be engaged to review these conditions with respect to the prevailing soil conditions. Without the opportunity to review any such changes, the recommendations may no longer be valid or appropriate.

Grading and utility plans were not provided. The proposed project is understood to consist primarily of replacing the pavements along Irene Avenue and Peninsula Avenue between Olinda Trail N and Irene Street in Lindstrom, Minnesota. Grades are to remain near existing grades, to preserve existing curbs. We assumed that any utilities that might be placed or upgraded will be installed around 5 to 7 feet below the surface using open cut excavation.

Traffic information was not provided. For purposes of analysis, we assumed a daily ADT of less than 300 vehicles per day.

D. Utility Recommendations

D.1. Groundwater/Dewatering

As mentioned earlier, water was observed in Borings B-9 around 13 ½ feet below the surface during our exploration but was not noted on the other borings and the overall soils encountered were not highly permeable. On this basis, sump pumps should be capable of removing any precipitation or seepage that may pond in excavations. Excavations that extend into water bearing sands or gravels, if met, would likely require aggressive water removal techniques, such as well points or monitoring wells, in order to keep excavations dry.

D.2. Trench Sidewalls

The contractor will be required to slope or shore the excavations as needed to meet OSHA requirements for safety. The on-site clayey sands and silty clayey sands are expected to classify as Type C or B soils. Depending on the depth of the trenches and proximity to structures or other property constraints, trench boxes or other stabilization methods may be required.

D.3. Trench Bottom Stability

Utilities are expected to bear on materials consisting primarily of clayey sands and silty clayey sands, though some softer or weaker zones (organic layers) were noted at one location. The dominant materials are expected to be generally suitable for support of utilities. If unstable materials are present at invert elevations,

they should be replaced as needed with clean sand or gravel having less than 12% particles passing a number 200 sieve as engineered fill, subject to the conditions observed. Neither extensive nor deep replacements are expected to be necessary.

Cobbles, boulders, and bedrock should be removed from at least ½ to 1-foot away from utilities and replaced with clean sands or gravels that can more readily conform to the pipe to prevent point loads and possible rupturing.

D.4. Fill Placement and Compaction

The soils available for use as fill above pipes are also expected to consist primarily of silty to clayey sands and less amounts of clay and even lesser amounts of organic soils. Most of the excavated materials are expected to be suitable for reuse as backfill above the pipes, provided they can be adequately compacted. Again, any cobbles or boulders should be kept at least ½ to 1-foot away from pipes, to limit potential for point loads.

In areas that will receive pavements, we recommend backfilling the upper portion of trenches with soils similar to the surrounding subgrade. This is in an attempt to provide a uniform supporting pavement subgrade. The upper most soils encountered within the borings consisted primarily of silty sands with gravel. Soils placed as backfill below paved areas should ideally be compacted to 100% of their standard Proctor density (ASTM D 698) in the upper 3 feet and to at least 95% below. In green areas, 90% compaction is normally adequate.

E. Paved Area Recommendations

E.1. Stripping and Grading

We understand that the existing paving materials would ideally be milled to create a blended materials with a gradation comparable to class 5 aggregate base and used to support the new pavements. Whereas the materials below the bituminous appear to consist of materials which are dirtier and less gravelly than conventional aggregate base, we presently recommend limiting milling to the asphalt layers.

After milling, the milled materials would presumably be graded to the site and the existing subgrade soils would then be excavated as needed to attain bottom of pavement elevation. The exposed soils are expected to consist of silty to clayey sands with varying amounts of gravel. We recommend scarifying and compacting the exposed soils to even out any localized discontinuities in the subgrade soils and provide a more gradational transition between differing materials. This action is intended to limit differential frost heave and provide more uniform pavement support.

Subgrade soils should ideally be compacted to 100% of the material's maximum standard Proctor density in the upper 3 feet and to at least 95% below that depth. Regardless of densities, completed subgrades should be able to pass a test roll prior to paving. If subgrades are unstable and time constraints do not allow for drying, soil corrections, breaker run, sand subbase, extra aggregate base, and/or geotextiles may be necessary to produce stable subgrades.

E.2. Pavement Design

As mentioned earlier, the pavement subgrade soils are expected to primarily consist of silty to clayey sands. The effective Hveem-stabilometer R-values typically range from about 20 to 40 for these soil types. We recommend using an R-value of 20 for pavement design.

Based on an assumed traffic volume of 300 AADT, an Equivalent 18-kip Single Axle Load (ESAL) of about 35,000 was estimated over a 20-year pavement design life – which is very close to the minimum equivalent traffic value included in MnDOT 7-ton pavement designs.

Further based on an R-value of 20, the assumed ESAL, and MnDOT's Flexible Pavement Design Spreadsheet calculator entitled (Typical) MnDOT Flexible Pavement Design R-value Method, we suggest a flexible pavement section consisting of at least 3.5 inches of asphalt over at least 8 inches of MnDOT Class 5 aggregate base.

We understand that the typical City of Lindstrom street section includes placement of a 1-foot layer of clean sand below the paving materials as well as edge drains. Our understanding is that this is not incorporated in the existing street section. Based on the data, the recommended pavement section described provides greater overall strength than the existing pavement and would not significantly benefit from either edge drains or an additional sand layer below the aggregate base.

The pavement recommendations provided should be considered preliminary, subject to review by the civil engineering consultant, and their experience with pavement design and performance in the area of the project. Adjustments may be deemed warranted during construction to address conditions exposed during constructed or affected by weather or other factors.

F. Construction Testing and Documentation

F.1. Earthwork

Earthwork can likely be accomplished with a variety of equipment, provided subgrades are not overly wet and soft at the time of construction. Standard vehicles with tires will likely have difficulty traversing the site under such conditions.

A backhoe or excavator with a smooth-lipped bucket is recommended for completing excavations within soil. This is intended to limit disturbance to the supporting soils being left in place, while also providing a smooth working surface.

F.2. Compaction

Fill should be placed in lifts adjusted to the compactor being used and the material being compacted. We recommend limiting lifts to no more than 1-foot – assuming large, self-propelled or tow-behind compactors are used. Thinner lifts should be used for lighter compaction equipment.

F.3. Cold Weather

If the earthwork occurs during freezing temperatures, good winter construction practices should be used. No frozen fill should be used nor should structural filling take place on frozen ground.

F.4. Construction Phase Testing and Documentation

Excavations, grading, and roadway subgrades should be evaluated and documented by geotechnical personnel after the unsuitable materials are removed and before the placement of any new fill or pavements. Samples of any materials proposed for use as fill should be submitted for approval prior to its use during construction. The City may wish to have, or may be obligated to have, tests performed regarding the other various paving components. Specification of such requirements is normally the responsibility of the City and their design consultant.

G. Level of Care

The services provided for this project have been conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in this area, under similar budget and time constraints. This is our professional responsibility. No other warranty, expressed or implied, is made.

Appendix

Boring Location Sketch

Log of Boring # 6-10

Legend to Soil Description

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Legend
⊙ Boring Locations

Boring Location Sketch

Proposed Lindstrom Street Improvements
Irene Ave
Lindstrom, Minnesota
19585.21.MNT



LOG OF BORING

CHOSEN VALLEY TESTING

PROJECT: 19585.21.MNT Design Phase Geotechnical Evaluation Proposed Newlander-Elm Street Improvements 2022 Newlander-Elm Street Lindstrom, Minnesota				BORING: B-06		
				LOCATION: See attached sketch.		
				DATE: 1/27/22	SCALE: 1" = 3'	
Elev.	Depth	ASTM D2487 Symbol	Description of Materials (ASTM D2488)	BPF	WL	Tests or Notes
917.0	0.0					
916.7	0.3		4 INCH BITUMINOUS			
915.8	1.2	SM	FILL , Silty Sand with Gravel, fine grained, brown, moist.			Elevation estimated based on MnTOPO to nearest 1 foot.
		CL	LEAN CLAY with SAND , trace Gravel, brown, wet, medium to very stiff. (Glacial Till)	Frozen		MC=21.4%
					6	Frost Depth = 3 1/2 feet
911.5	5.5	SC	CLAYEY SAND , fine grained, trace Gravel, brown to gray with iron staining, wet, loose to medium dense. (Glacial Till)			PP=0.5 tsf MC=32.4%
					7	PP=0.5 tsf
					16	PP=0.5 tsf
					18	PP=3.5 tsf
					19	
902.1	14.9		End of Boring. Water was not encountered. Boring caved in at 9 feet after auger removal. Boring sealed upon completion.			PP=3.25 tsf MC=17.5%

LOG 19585.21.MNT (LINDSTROM STREET IMPROVEMENTS) REFERENCE TO STANDARD PLATES FOR EVALUATION AND DESCRIPTIVE TERMINOLOGY.

LOG OF BORING

CHOSEN VALLEY TESTING

PROJECT: 19585.21.MNT Design Phase Geotechnical Evaluation Proposed Newlander-Elm Street Improvements 2022 Newlander-Elm Street Lindstrom, Minnesota				BORING: B-07	
				LOCATION: See attached sketch.	
				DATE: 1/27/22	SCALE: 1" = 3'
Elev.	Depth	ASTM D2487 Symbol	Description of Materials (ASTM D2488)	BPF	WL Tests or Notes
918.0	0.0	SM	<u>2 INCH BITUMINOUS FILL</u> , Silty Sand with Gravel, fine grained, brown, moist.		
917.8	0.2				
916.0	2.0	SC	<u>SILTY CLAYEY SAND</u> , fine grained, trace Gravel, brown to gray with iron staining, moist, loose to medium dense. (Glacial Till)	Frozen	Frost Depth = 3 feet
				20	MC=16.0%
911.5	6.5	SC	<u>CLAYEY SAND</u> , fine grained, trace Gravel, seams of Silty Sand, brown with iron staining, wet, medium dense. (Glacial Till)	13	PP=2.25 tsf MC=19.1%
				22	MC=16.4%
				22	PP=3.75 tsf
				19	
903.1	14.9		End of Boring. Water was not encountered. Boring caved in at 9 feet after auger removal. Boring sealed upon completion.		PP=4.25 tsf

LOG 19585.21.MNT (LINDSTROM STREET IMPROVEMENTS) REFERENCE TO STANDARD PLATES FOR EVALUATION AND DESCRIPTIVE TERMINOLOGY.

19585.21.MNT

B-07 page 1 of 1

LOG OF BORING

CHOSEN VALLEY TESTING

PROJECT: 19585.21.MNT Design Phase Geotechnical Evaluation Proposed Newlander-Elm Street Improvements 2022 Newlander-Elm Street Lindstrom, Minnesota		BORING: B-08				
		LOCATION: See attached sketch.				
		DATE: 1/27/22	SCALE: 1" = 3'			
Elev.	Depth	ASTM D2487 Symbol	Description of Materials (ASTM D2488)	BPF	WL	Tests or Notes
914.0	0.0					
913.7	0.3		3 INCH BITUMINOUS			
913.4	0.6	SM	FILL , Silty Sand with Gravel, fine grained, brown, moist.			
		SM	SILTY SAND , fine grained, trace Gravel, brown, moist, loose to medium dense. (Glacial Till)			
				Frozen		PP=1.25 tsf MC=14.1% Frost Depth = 3 feet
				8		
907.5	6.5	SC	SILTY CLAYEY SAND , fine grained, trace Gravel, brown, moist, loose to medium dense. (Glacial Till)			
		SM		8		PP=3.25 tsf MC=12.8%
				8		
				12		PP=3.75 tsf
				21		
899.1	14.9		End of Boring. Water was not encountered. Boring caved in at 9 feet after auger removal. Boring sealed upon completion.			PP=3.0 tsf MC=13.3%

LOG: 19585.21.MNT (LINDSTROM STREET IMPROVEMENTS REPORT) AND STANDARD PLATES FOR EVALUATION AND DESCRIPTIVE TERMINOLOGY.

19585.21.MNT

B-08 page 1 of 1

LOG OF BORING

CHOSEN VALLEY TESTING

PROJECT: 19585.21.MNT Design Phase Geotechnical Evaluation Proposed Newlander-Elm Street Improvements 2022 Newlander-Elm Street Lindstrom, Minnesota				BORING: B-09		
				LOCATION: See attached sketch.		
				DATE: 1/27/22	SCALE: 1" = 3'	
Elev.	Depth	ASTM D2487 Symbol	Description of Materials (ASTM D2488)	BPF	WL	Tests or Notes
909.0	0.0					
908.6	0.4		4 1/2 INCH BITUMINOUS			
		SM	FILL , Silty Sand with Gravel, fine grained, brown, moist.			
907.0	2.0	SC	FILL , Clayey Sand, fine grained, trace Gravel, with seams of Organics, Gray with iron staining, wet, loose to medium dense. 6 Inch Muck inclusion at 2 feet.	Frozen		Organic Inclusion MC=87.3% Organic Inclusion OC=32.7% Frost Depth = 3 1/2 feet
			4-Inch seam of Organic at 5 feet.	8		PP=1.0 tsf
			1/2-Inch seam of Organic Silt at 7 feet.	7		MC=21.9%
900.0	9.0	SC SM	CLAYEY SAND , fine grained, with lenses of Organic Silt and Silty Sand, trace Gravel, gray, moist to water bearing. (Glacial Till)	10		PP=2.25 tsf MC=21.3%
				11		PP=1.0 tsf MC=14.0%
				6	▽	
894.1	14.9		End of Boring. Water was not encountered. Boring caved in at 9 feet after auger removal. Boring sealed upon completion.			PP=0.75 tsf

LOG, 19585.21.MNT (LINDSTROM STREET IMPROVEMENTS REPORT) AND STANDARD PLATES FOR EVALUATION AND DESCRIPTIVE TERMINOLOGY.

LOG OF BORING

CHOSEN VALLEY TESTING

PROJECT: 19585.21.MNT Design Phase Geotechnical Evaluation Proposed Newlander-Elm Street Improvements 2022 Newlander-Elm Street Lindstrom, Minnesota				BORING: B-10	
				LOCATION: See attached sketch.	
				DATE: 1/27/22	SCALE: 1" = 3'
Elev.	Depth	ASTM D2487 Symbol	Description of Materials (ASTM D2488)	BPF	WL Tests or Notes
904.0	0.0				
903.7	0.3		3 INCH BITUMINOUS		
902.9	1.1	SM	FILL , Silty Sand with Gravel, fine grained, brown, moist.		
902.1	1.9	SM	SILTY SAND , fine grained, trace Gravel, gray, moist.		
		SC	(Glacial Till)	Frozen	PP=0.5 tsf MC=18.4%
		SM	SILTY CLAYEY SAND , fine grained, trace Gravel, brown to gray, moist, loose to dense. (Glacial Till)		Frost Depth = 3 1/2 feet
				10	PP=1.25 tsf
				8	PP=0.75 tsf MC=17.9%
				19	PP=3.25 tsf
				25	PP=3.25 tsf
890.0	14.0			17	
889.1	14.9	SC	SILTY CLAYEY SAND to CLAYEY SAND , fine grained, trace Gravel, brown to gray, moist, medium dense. (Glacial Till)		PP=1.5 tsf MC=15.9%
			End of Boring. Water was not encountered. Boring caved in at 9 feet after auger removal. Boring sealed upon completion.		

LOG 19585.21.MNT (LINDSTROM STREET IMPROVEMENTS REPORT) AND STANDARD PLATES FOR EVALUATION AND DESCRIPTIVE TERMINOLOGY.



MSA Engineer's Report

To: Honorable Mayor and City Council Members
Ms. Melissa Glenna, Interim City Administrator

From: Jon Herdegen, P.E. – City Engineer

Subject: South Lindstrom Lake Sanitary Sewer Lining

Date: April 12, 2023 – For the April 20th City Council Meeting

South Lindstrom Lake Sanitary Sewer Lining

Staff has been working on developing conceptual plans to conduct a lining project on a portion of the City's sanitary sewer collection system along South Lindstrom Lake. This section of the collection system is constructed mostly outside the public right-of-way and is difficult to access/maintain. Given the close proximity to the lake, it is also highly susceptible to ground water infiltration. Attached is a site plan of the areas that is currently being studied. The Project is currently divided up into three (3) phases:

Phase One: Install approximately 1,700 feet of cast in place pipe (CIPP) liners from Park Street to Newell Avenue (through Beach Park). The total project costs for this phase is estimated at \$275,000.

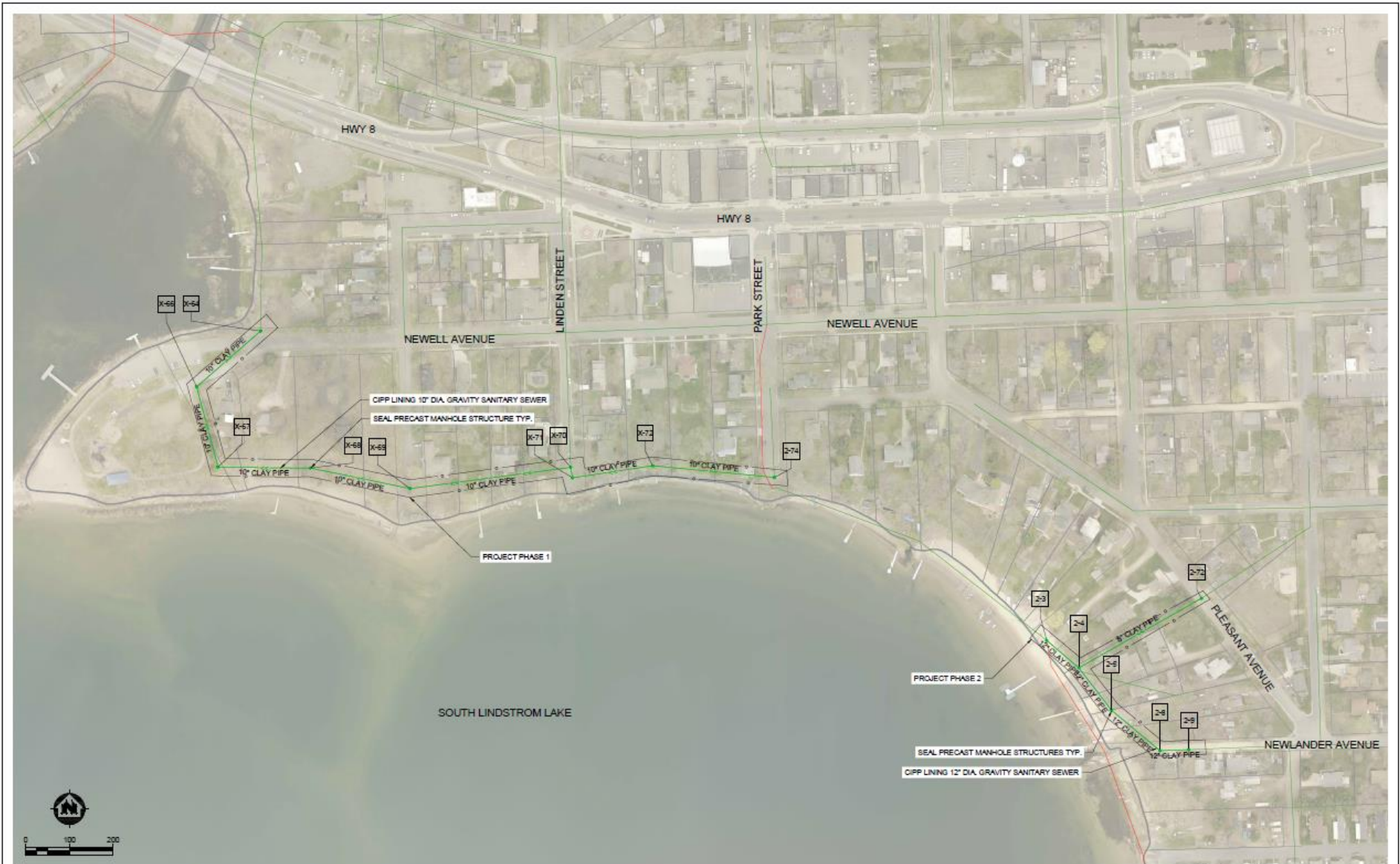
Phase Two: Install approximately 780 feet of cast in place pipe (CIPP) liners from the end of Newlander Avenue northwest round Lindstrom Lake. The total project costs for this phase is estimated at \$115,000.

Phase Three: Install approximately 22 cast in place pipe (CIPP) short liners up the first 10 feet of each lateral line connected to the sewer main lined during phases 1 & 2. The total project costs for this phase is estimated at \$160,000.

Staff considers these improvements to be the highest priority sanitary sewer project and propose to fund the project through the City's sewer enterprise fund (SAC). Before proceeding with this project, we would like to pause and solicit Council feedback before presenting a formal design/construction proposal.

Action Requested: Staff is soliciting Council feedback if this project should be discussed at an upcoming work session or if staff should bring a formal design scope and proposal to our next Council meeting for review and consideration.

Attachments:
Conceptual Site Plan
Sanitary Modeling Areas



PROJECT DATE: #	DESIGNED BY:	NO.	DATE	REVISION	BY
		001			
		002			
		003			
		004			
		005			

Preliminary

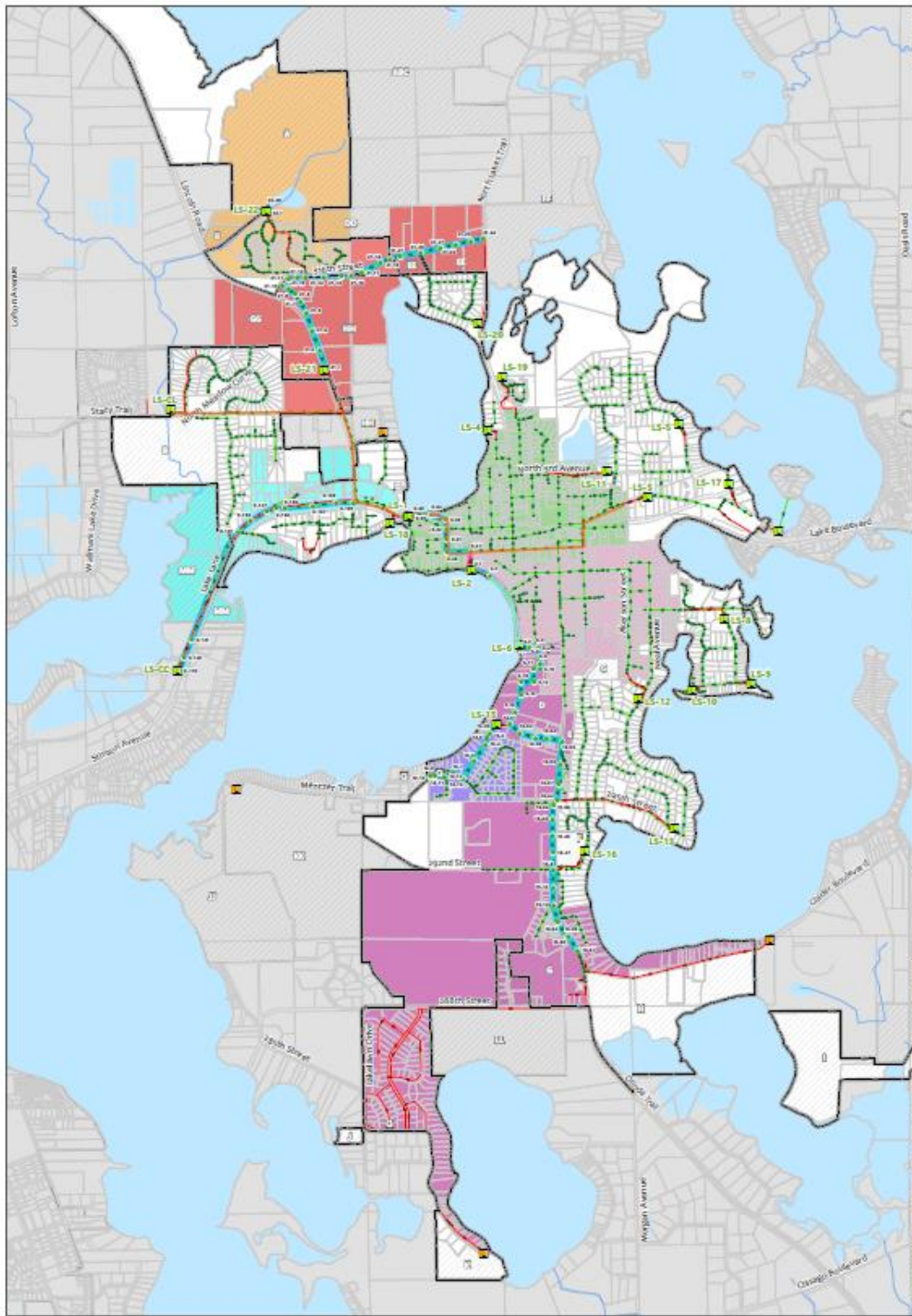


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 PLANNING | ENVIRONMENTAL
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 (612) 568-3132 www.msa-pj.com

SOUTH LINDSTROM LAKE SANITARY SEWER LINING
 CITY OF LINDSTROM
 CHISAGO COUNTY

SITE PLAN

PROJECT # 09992111
 SHEET G-1



MSA
 Date Source:
 Chicago County GIS
 City of Lindstrom Sanitary Sewer

• Sanitary Manhole
 □ Grinder Station
 ■ Lift Station
 ■ Proposed Grinder Station
 ■ Proposed Lift Station

— Pressurized Sewer Main
 — Sewer Gravity Main
 — Pressurized Sewer Main
 — Main Trunk Line
 — Rivers

Lakes
 Parcel Boundary
 City of Lindstrom
 Surrounding Municipality
 Growth Areas

Sanitary Modeling Areas
 Lindstrom System Analysis

City of Lindstrom
 Chisago County, MN

0 500 1,000 Feet